TEACHERS' PERCEPTIONS OF THEIR PRESERVICE PREPARATION TO SUPPORT STUDENTS WHO HAVE EXPERIENCED TRAUMA

By

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Heather Noelle Cannon November 1, 2021

This study is dedicated to Liz and to Caleb.

Liz, you were there from day one, celebrating my milestones. I know you are with me now, raising a glass with a smile on your face – I sure wish we could celebrate this one together. Caleb, you have no idea. You inspire me, every day, to do more and to be more. You have shown me that it is okay to make mistakes and start again, even when it is painful, a lesson that has been invaluable to me throughout this process. Love you.

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Abstract

This study explored (a) how teachers describe trauma and adverse childhood experiences and the impact of trauma and adverse childhood experiences on students, based on their preservice experiences, and (b) how teachers perceive their preservice experiences informed how they support students who display trauma-related indicators. Participants for both phases of the study were graduates from a state university's college of education located in Middle Tennessee and had at least 1 year of teaching experience. Of the 52 survey participants, 39 earned a bachelor's degree and 13 had earned their master's degree; most had less than 5 years of experience. The six semistructured interview participants were White female elementary school teachers with 1–8 years of teaching experience. This mixed methods study utilized an explanatory sequential design. Surveys were completed online and analyzed using descriptive analysis. Interviews were conducted using videoconferencing technology and analyzed using in vivo coding. Findings indicated that teachers had received little to no exposure to trauma or adverse childhood experiences in their preservice programs and had difficulty defining trauma, but could identify some indicators of trauma. Participants indicated that they felt underprepared for meeting the needs of students who had experienced trauma and would have liked more training on trauma, trauma-informed care, and adverse childhood experiences during their preservice experience. Implications for practice include embedding a comprehensive trauma-informed care approach into all components of the preservice experience (e.g., coursework, field experience). Implications for research include evaluating preservice education courses to determine inclusion of trauma-informed practices and replicating the current study in other universities, both locally and nationally.

Keywords: trauma, trauma-informed care, K–12 students and trauma, inservice teachers, teachers' preservice experience, adverse childhood experiences

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Introduction

The occurrence of trauma in childhood is prevalent (Dotson Davis, 2019) and its impact includes academic and behavioral challenges that surface in the classroom on a daily basis (Larson et al., 2017). When teachers do not have the proper tools to manage these behavioral challenges, they are more likely to manage their classrooms using a punitive approach, shown to be ineffective in improving outcomes for children who have experienced trauma (Essary et al., 2020). Unfortunately, preservice teacher preparation programs often lack a trauma-informed care component (Brown et al., 2019; Darling-Hammond & DePaoli, 2020) that would provide a framework and practical approach that new teachers could employ when working with children who have experienced trauma. Additionally, the incorporation of a trauma-informed care framework into preservice programs would likely be both welcome and effective given the evidence that suggests new teachers feel their preservice programs did not prepare them to understand or manage children's responses to trauma (Alisic, 2012).

The exact prevalence of childhood trauma is difficult to determine and estimates vary widely due to underreporting, variance in the definitions of trauma, and differences in data collection methods (Norman et al., 2012). While researchers agree that the occurrence of trauma in childhood is pervasive (MacDonald et al., 2016; Norman et al., 2012; Rossiter et al., 2015), reported occurrences range from 2% to 62% (Norman et al., 2012). One estimate speculates that as many as 46% of children in the United States have experienced at least one traumatic event (Dotson Davis, 2019) while data from the Substance Abuse and Mental Health Services Administration (SAMHSA; 2020) suggest that over 33% of children report experiencing at least

one traumatic event before the age of 16. It is likely that these numbers are even higher due to lack of reporting of traumatic incidents.

Given the complexity of trauma, it is understandable that there is a wide range of explanations regarding its meaning and significance. A broad definition provided by SAMHSA (2014) describes trauma as an "event, series of events, or set of circumstances experienced by an individual as physically or emotionally harmful or life-threatening with lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being" (p. 7). The American Psychological Association describes general trauma as simply "an emotional response to a traumatic event" (2021, para. 1).

Childhood trauma has been defined as trauma that occurs between birth and age 6 (Rowell & Thomley, 2013). An all-encompassing definition of trauma as related to its impact is "events or circumstances that overwhelm the child's ability to cope and . . . no supportive network of adults to help the child make sense of the adversity" (Shonkoff et al., 2012, p. 237), which is how trauma will be operationalized in this study. Additionally, "trauma" and "childhood trauma" will be used interchangeably, as is common in the literature.

The absence of a single definition for trauma may be due, in part, to the philosophy that trauma is a very personal experience in which one event may affect multiple individuals in vastly different ways (Katz, 2019; Knight, 2018). This individualized experience is influenced by factors such as a child's age, developmental stage, environmental setting, and family dynamics (National Center for Mental Health Promotion and Youth Violence Prevention, 2012). Other factors that affect the impact of trauma on children are:

- temperament;
- prior history of trauma;

- child's psychological strengths;
- separation of child from the parents during or after trauma;
- parents' level of stress and ability to respond to their children's needs;
- how quickly the child was brought to a safe place;
- parents' ability to maintain normal rules and routines;
- prior history of threats to parent-child attachment such as prior parental separation or illness;
- what the child saw (death or grotesque images);
- whether the disaster was an act of nature or caused by a person;
- if the child heard unanswered screams for help;
- whether the child felt his or her life, or that of a loved one, was in danger;
- unexpectedness and duration of the disaster; and
- if the child feels guilty over acts of omission or commission. (Lubit et al., 2003, p. 129)

In some students, trauma may manifest as learning disabilities, poor academic performance, or an increase in school discipline activity while others may develop risky or self-harming behaviors such as drug and alcohol abuse, risky sexual behaviors, or eating disorders (SAMHSA, 2020). Trauma—even with its varying definitions, manifestations, and rates of prevalence—is now considered a public health concern due to its poor outcomes in terms of physical and mental health (Hales et al., 2017). Trauma-related outcomes are often identical to outcomes observed in individuals experiencing high numbers of adverse childhood experiences (ACEs), which are specific traumatic events that occur in childhood and impact the behavioral as well as physical health of individuals throughout one's life (Felitti et al., 1998). The Centers for

Disease Control and Prevention consider the effects of ACEs to be a public health problem (Centers for Disease Control and Prevention, 2019).

Problem of Practice

Rates of reported trauma and mental health disorders in children and adolescents are higher than ever before (Annie E. Casey Foundation, 2019; Child Mind Institute, 2018) and frequently leads to behavioral challenges in the classroom (Berardi & Morton, 2017; Child Mind Institute, 2018; Dotson Davis, 2019) and academic underachievement (Berardi & Morton, 2017; Dotson Davis, 2019). Exposure to trauma in childhood has also been linked to anxiety and depression, which also make classroom management difficult for teachers (Overstreet & Mathews, 2011; Weist-Stevenson & Lee, 2016). During the 2015-16 school year, more than 40% of public school teachers indicated that student misbehavior was a barrier to teaching (National Center for Education Statistics, 2017) and teachers are increasingly concerned that behavior problems and academic challenges prevent students from being college ready upon high school graduation (Bill & Melinda Gates Foundation, 2012). Teacher preparation programs, however, may not include pedagogical strategies to support the social, behavioral, and academic needs of children who have experienced trauma (Cummings et al., 2017; Wiest-Stevenson & Lee, 2016), leaving teachers underprepared to meet students' needs. Similar to nationwide trends, graduates of a Middle Tennessee teacher preparation program are given minimal instruction regarding how to meet the needs of children who have been exposed to trauma and likely experience challenges in meeting the social, emotional, academic, and behavioral needs of their students.

Statement of Purpose

The purposes of this study are to (1) explore how teachers describe trauma and ACEs and the impact of trauma and ACEs on students, based on their preservice experiences and (2)

how teachers perceive their preservice experiences informed how they support students who display trauma-related indicators. The following research questions guide this study:

1. Based on their preservice experience, how do teachers describe trauma, ACEs, and the influence of trauma and ACEs on students?
2. How do teachers perceive their preservice preparation for supporting students who display trauma-related indicators?

Overview of Methodology

A mixed methods research study was conducted using an explanatory sequential design (Creswell et al., 2011). Quantitative data were collected and analyzed first. Then qualitative data were collected and analyzed based on the findings of the quantitative analysis. Data were collected during the summer of 2021 through surveys and semistructured interviews with elementary school teachers. Quantitative data were Likert-type survey items, which were analyzed using descriptive statistics. Qualitative data were open-ended survey items and semistructured interviews, which were analyzed using theoretical thematic analysis (Clarke & Braun, 2017). The qualitative data expound upon and clarify findings from the quantitative data, providing a comprehensive analysis.

Significance of the Study

While the adverse impact that traumatic experiences have on academic achievement and classroom behaviors is well documented (Berardi & Morton, 2017; Dotson Davis, 2019), preservice preparation programs may not incorporate the pedagogical strategies teachers need to manage this impact (Cummings et al., 2017; Wiest-Stevenson & Lee, 2016). Classroom teachers are under significant pressure to create and maintain a safe and productive environment for students (Berardi & Morton, 2019) often without the proper tools (e.g., instructional strategies,

trauma-informed education) to do so (Cummings et al., 2017). Due to lack of training in trauma-informed practices, teachers often attribute negative classroom behaviors or poor academic performance to student choice rather than as a result of trauma (Berardi & Morton, 2019). This misattribution can often result in punitive approaches to address classroom difficulties instead of more effective trauma-informed care approaches (Larson et al., 2017).

This study contributes to the small body of research that examines the level of trauma education that preservice teachers report experiencing in their preparation programs. This understanding of teachers' perceptions of their preservice preparation for understanding and supporting students who may have experienced trauma can guide future incorporation of trauma-informed principles into preservice curriculum. Incorporation of trauma-informed principles in preservice preparation could result in noteworthy gains in knowledge and understanding of trauma and increased empathy for children who have experienced trauma, not only for new classroom teachers, but for colleges, school districts, students, and even parents. A framework could provide guidance towards policy decision making and funding provisions for trauma-informed learning at and beyond the preservice level. Finally, as more teachers understand the implications of trauma, classroom management will become less difficult and students will benefit from more attention to behavioral health awareness (Chafouleas et al., 2016).

Definitions of Key Terms

1. **Adverse Childhood Experiences (**ACEs**)**: specific traumatic events that occur in childhood and impact the behavioral as well as physical health of individuals through the lifespan (Felitti et al., 1998).
2. **Childhood Trauma**: an event experienced by a child, aged 0 to 6 years (Rowell & Thomley, 2013) that is emotionally painful or distressful and often results in lasting

mental and physical effects (National Child Traumatic Stress Network, 2003).

3. **Professional Learning**: "learning that results in changes in teacher practices and improvements in student learning outcomes" (Darling-Hammond et al., 2017, p. 2); sometimes referred to as "professional development" or "teacher training."
4. **Preservice Preparation Programs**: the traditional form of study for individuals seeking a teaching license, typically consisting of a combination of coursework and internship (United States Agency for International Development, 2011)
5. **Race-Based Trauma**: the negative experiences (e.g., threats to well-being) due to a person's racial, cultural, or ethnic background (Helms et al., 2012).
6. **Secondary Trauma**: trauma that occurs when individuals are exposed to the trauma of others (Miller & Flint-Stipp, 2019) and leads to stress symptoms that mimic post-traumatic stress disorder such as anxiety and depression (Christian-Brandt et al., 2020).
7. **Trauma**: "an event, series of events, or set of circumstances experienced by an individual as physically or emotionally harmful or life-threatening with lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being" (SAMHSA, 2014, p. 7).
8. **Trauma-Related Indicators**: the physical (e.g., compromised immune system, interruptions in physical development,), cognitive (e.g., low IQ score, reduced academic achievement), emotional (e.g., anxiety, depression), and behavioral (e.g., aggression, bullying) manifestations of childhood trauma as described by Oehlberg (2008).

Chapter II

Synthesis of the Research Literature

A synthesis of the research literature guided the development of this study. This chapter begins with an overview of the trauma-informed care framework as well as a means to support use of the trauma-informed care framework. Following is a discussion of ACEs and race-based trauma. The section on the long-term impact of trauma explains how victims of trauma experience physical, cognitive, emotional, and behavioral difficulties, which is followed by a discussion of trauma within the context of schools and schooling and shares the academic and behavioral challenges faced by children who have experienced trauma. The review of the literature then considers the preservice and inservice teachers' professional learning that prepares them to work with students who have experienced trauma. The final section discusses the primary ways teachers manage trauma in the classroom and concludes with an examination of the benefits of using trauma-informed care in the classroom.

Theoretical Framework

The trauma-informed care framework provides a theoretical underpinning for this literature review because the model encompasses an approach that increases the potential for individuals, such as teachers, to manage traumatic experiences while creating an overall cultural shift throughout an entire organization (SAMHSA, 2014), or in this case, a school or district. A review of the literature provides substantial evidence that this model is effective in understanding how to manage trauma within the school setting (Frydman & Mayor, 2017; Herrrenkohl et al., 2019; Jennings, 2019).

The trauma-informed care framework was developed by SAMHSA (2014) and relies heavily on (a) the seminal study by Felitti et al. (1998) that is often referred to as "The Adverse

Childhood Experiences (ACE) Study" and (b) Harris and Fallot's (2001) approach to trauma-informed care, which included five guiding principles found to be lacking in individuals who had experienced trauma: safety, trustworthiness, choice, collaboration, and empowerment. The SAMHSA framework consists of conceptualizing trauma, four key assumptions, six guiding principles, and 10 domains for implementation, each of which is described in the sections below (see Figure 1).

Figure 1

Trauma-Informed Care Framework

Concept of Trauma • Event • Experience • Effect	**Key Assumptions** • Recognize • Realize • Respond • Resist
Key Principles • Safety • Trustworthiness & Transparency • Peer Support • Collaboration & Mutuality • Empowerment, Voice, & Choice • Cultural, Historical, and Gender Issues	**Implementation Domains** • Governance & Leadership • Policy • Physical Environment • Engagement & Involvement • Cross Sector Collaboration • Screening, Assessment, Treatment Services • Training & Workforce Development • Progress Monitoring & Quality Assurance • Financing • Evaluation

Concept of Trauma

The concept of trauma recognizes that multiple definitions of trauma exist, each with its own subtle differences. A comprehensive concept of trauma includes what are referred to as the three Es: events, experience, and effects (SAMHSA, 2014). "Events" refer to the circumstances that surround a trauma and may include the type of trauma, intensity of the trauma, and whether the trauma is isolated or recurring (SAMHSA, 2014). "Experience" refers to the individuality of

trauma and may include race, gender, cultural beliefs, age, and family structure. What may be intensely traumatic for one person may be a much different experience altogether for another individual under different circumstances. The "effects" of trauma are another critical component to the concept of trauma. Some detrimental effects are experienced immediately, some suppressed, and some simply delayed (SAMHSA, 2014). Additionally, effects may occur in the short term or be long-lasting.

Key Assumptions

The key assumptions of the trauma-informed care framework refer to the four Rs: realize, recognize, respond, and resist. SAMHSA (2014) puts these into perspective:

> A program, organization, or system that is trauma-informed realizes the widespread impact of trauma and understands the potential paths for recovery; recognizes the signs and symptoms of trauma in clients, families, staff, and others involved with the system; and responds by fully integrating knowledge about trauma into policies, procedures, and practices, and seeks to actively resist re-traumatization. (p. 9)

Realization of the trauma and its potential for impact at both micro- and macro-levels is assumed present throughout the system, or organization, that is adopting the trauma-informed framework (SAMHSA, 2014). There is also a presumption that system members accept that trauma is a contextual experience and can be impactful even when experienced secondhand (SAMHSA, 2014). Recognition is also assumed to be present within the organization, with members understanding the nuances of trauma including signs, symptoms, gender-specific impact, and use of assessment tools as screening measures. Response by the organization means that members use trauma-informed language, understand the individuality of the traumatic experience, and that policies and procedures clearly incorporate a trauma-informed framework. Finally, resisting re-

traumatization means that the environment is designed in a way that meets the needs of individuals who have been exposed to trauma, rather than putting them in places or situations that may be potentially triggering (SAMHSA, 2014).

Key Principles

The six key principles of trauma-informed care framework are safety, trustworthiness and transparency, peer support, collaboration and mutuality, empowerment, voice, and choice, and cultural, historical, and gender issues (SAMHSA, 2014). These are based on the work of Harris and Fallot (2001) and designed to be generalizable to multiple sectors, including education. The safety principle requires that every part of an organization ensures a sense of security, both physically and psychologically, for members (SAMHSA, 2014). Similarly, all sectors ensure transparency to build and maintain trust within and among members. The key principle of "collaboration and mutuality," defined as shared decision-making among students, parents, and professionals, places a high value on working together to ensure all voices are heard and considered and that no one is silenced. Building on this, the key principle of "empowerment, voice, and choice" denotes the power of meaningful decision-making and seeks to legitimize and build the personal and professional capacity of all members. Finally, a trauma-informed care framework requires that organizations ensure that policies and procedures are developed in a way that promotes an equitable workplace for all through recognition of the racial, ethnic, and cultural needs of all members. Where there are gaps, the organization actively seeks to address, respond, and educate its members.

Implementation Domains

When implementing a trauma-informed care framework in any sector, including education, the framework calls for the presence of 10 implementation domains that occur in

conjunction with the concept of trauma, key assumptions, and key principles: governance and leadership, policy, physical environment, engagement and involvement, cross sector collaboration, screening, assessment, and treatment services, training and workforce development, progress monitoring and quality assurance, financing, and evaluation (SAMHSA, 2014). The "governance and leadership" implementation domain assumes that the organization is committed to creating and maintaining a trauma-informed care framework that will provide opportunities for individuals at all levels to have a voice. There are written policies and procedures that include provisions for working fluidly with other systems to ensure a comprehensive approach to implementing a trauma-informed care framework. The physical environment is supportive, safe, and ensures collaboration among members. Trauma survivors, family members, and people in recovery are engaged and involved in the processes. Collaboration is present among other stakeholders who understand and value the principles of a trauma-informed care framework. Screening for and assessment of trauma is based on research that accounts for cultural needs and reflects trauma-informed practices. Solutions are based on individual needs, not overarching solutions. Members have ongoing professional learning opportunities that include a peer learning component. This ensures that procedures such as hiring, evaluating, and overseeing staff are done so with regards to a trauma-informed care framework. There are procedures in place to monitor the practice of trauma-informed care protocol in an ongoing manner. Fiscal planning incorporates provisions for maintaining a trauma-informed care environment, which includes screening, assessment, and professional learning opportunities. Finally, evaluation monitors the effectiveness of implementing a trauma-informed care framework.

Review of the Literature

Types of Trauma

ACEs

Much research in the area of trauma focuses on ACEs, which are specific traumatic events that occur in childhood and impact the behavioral as well as physical health of individuals throughout one's life (Felitti et al., 1998). Similar to trauma, ACEs are known contributors to poor academic performance, behavioral challenges, and difficulty in regulating behaviors (Katz, 2019; Overstreet & Matthews, 2011; Post et al., 2020). Though ACEs are not the same as trauma, the two are highly correlated and the terms are often used interchangeably (Blodgett & Lanigan, 2018; Eklund et al., 2018). Therefore, it is imperative that ACEs be reviewed in conjunction with trauma.

From 1995 to 1997, a group of researchers from Kaiser Permanente Healthcare Organization collected data that linked poor health outcomes in adulthood to the following ACEs: psychological, physical, or sexual abuse; violence against the mother; household members who were suicidal, mentally ill, substance abusers, or who became imprisoned (Felitti et al., 1998). Questionnaires were collected from 9,508 patients at a Kaiser primary healthcare clinic in San Diego, California, and included items related to participants' personal experience with ACEs. Respondents were 54% female, 83.9% White, and with an average age of 56. The responses were then compared to 10 common risk factors contributing to the mortality rate in the United States: smoking, severe obesity, physical inactivity, depressed mood, suicide attempts, alcoholism, drug abuse, a large number of sexual partners, and a history of sexually transmitted diseases. Findings showed that patients who had experienced four or more ACEs were at a significantly higher ($p < .001$) risk of experiencing the risk factors for early death (Felitti et al.,

1998). The 1998 study by Felitti et al. is a seminal work and is referred to in the field of trauma as the original ACEs study (Von Dohlen et al., 2019).

Although the impact of ACEs on adults has been extensively researched, a gap exists in exploring ACEs and their impact on children. Blodgett and Lanigan (2018) attempted to bridge this gap by studying the relationship among ACEs and school absences, negative behaviors, and poor academics in elementary school children. The researchers randomly selected 2,101 elementary school students from de-identified school rosters in urban school districts in the northwestern United States. The selected students were considered to be representative of the population. Classroom teachers completed the ACEs questionnaire about their students based solely on their existing knowledge about the students.

There were approximately equal numbers of male and female students and 78% identified as White. The remainder of the students were Native American (4%), Hispanic (3%), African American (2%), Asian (2%), Pacific Islander (1%), more than one race (6%), not reported or other (2%). Half of the selected schools received Title I funding and 55% of the students qualified for the free and reduced meal programs. Thirteen percent of the students were receiving special education services. Results indicated that students with more ACEs experienced greater rates of academic failures, school absences, and behavioral problems in school; the majority of students with more ACEs (a) were of color, (b) had disabilities, and (c) qualified for free and reduced meals. The researchers noted that the ACEs scores were likely underreported by teachers, given their limited knowledge of student histories (Blodgett & Lanigan, 2018), which leads one to presume that the increased rates would have been even higher than what was found.

As previously noted, ACEs and trauma have very similar characteristics as well as outcomes (Blodgett & Lanigan, 2018; Eklund et al., 2018). Therefore, for the purposes of this

research, discussions about the impact of childhood trauma also include the impact of the ACEs discussed above. One example of trauma is race-based trauma.

Race-Based Trauma

Approximately 4% of traumas reported by children under the age of 18 are related to discrimination based on unfair treatment due to racial or ethnic identity (Sacks & Murphey, 2018). As with other types of trauma, race-based trauma has no single, cohesive definition, but is understood as being rooted in the negative experiences (e.g., threats to well-being) due to a person's racial, cultural, or ethnic background (Helms et al., 2012). Race-based trauma is often a result of ethnoviolence, which is defined as intimidation and violence against a person due to their racial, cultural, or ethnic background (Helms et al., 2012). Racial discrimination is defined as a "system of oppression that is based on racial categories and domination that designate one group as superior" (Helms et al., 2012, p. 67). For example, even the perception of racial discrimination by Black Americans is often linked to psychological distress such as anxiety or depression (Pieterse et al., 2012). For over 10 years, researchers have attempted to explain the link between race-based trauma and overall well-being/mental health.

In 2007, Carter's seminal work laid a foundation for studying race-based trauma that included an overview of systemic racism and its impact on mental health. Carter argues that discrimination against people of color often leads to physical and psychological damage that could be avoided if behavioral health professionals were properly trained to be more aware of their own biases. Furthermore, Carter (2007) posits that race-based trauma often poses threats to an individual's sense of self, leading to race-based traumatic stress. Posttraumatic stress disorder, which occurs after the experience of major trauma such as near-death experience (Helms et al., 2012), has been widely linked with the experience of race-based trauma (Helms et al., 2012;

Kang & Burton, 2014; Pieterse et al., 2012), indicating the seriousness of this type of trauma. Independent of other types of trauma, there is evidence that the intensity of individual outcomes related to race-based trauma is more dependent upon the reactions of others (e.g., news reporters, policy makers, clinicians) than on the individual (Helms et al., 2012). For example, when race-based trauma assertions by persons of color are challenged, minimized, or ridiculed, victims may be re-traumatized, exacerbating the original impacts of the trauma (Helms et al., 2012).

Individual outcomes related to race-based trauma manifest similarly to other types of trauma. Symptoms range from mild to severe and include thoughts of anger, hopelessness, suicidality, shame, or fear (Helms et al., 2012). Additionally, cognitive impairments such as memory loss as well as physical symptoms, such as headaches and body aches, have been cited in relation to race-based trauma (Helms et al., 2012; Kang & Burton, 2014). Although there has not been an established correlation between childhood trauma and the experiences of race-based trauma, there is evidence that juvenile delinquency and educational outcomes are linked to race-based trauma (Kang & Burton, 2014). For example, there are many cases in which an individual may show indicators of trauma, race-based trauma, and juvenile delinquency, but these variables overlap in a way that makes it difficult to separate them from one another (Kang & Burton, 2014). Teachers who adopt a trauma-informed framework to address race-based trauma and ACEs may be better prepared to help mitigate the long-term impact that childhood trauma may have on their students (Miller & Flint-Stipp, 2019).

Long-Term Impact of Childhood Trauma

When children's trust is violated by their caregivers, the impact is often long-lasting and has social, emotional, and educational impacts (Dombo & Sabatino, 2019). The impact that

trauma has on children is not limited to a single symptom or diagnosis and can become a long-term issue for the individual. Dombo and Sabatino (2019) note that:

> People and places that are supposed to be attuned to the needs of children are often the ones that violate trust through abuse, neglect, and violence. Given that the caregiver-child relationship is the foundation on which the child's sense of safety, competence, and self-containment are built, when this relationship is strife with traumatic events, those capacities are severely compromised. (p. 18)

Within a short period of time following exposure to trauma, children often experience serious difficulties, such as avoidance and isolation that may impact their learning abilities (Alisic, 2012). Cognitive and developmental delays then appear in the classroom as children struggle academically (Eklund et al., 2018; Olofson, 2017) and behaviorally (Overstreet & Chafouleas, 2016). There is also a noticeable gap between the academic performance of students who have experienced trauma and students who have not, which is often related to increased absences and missed instruction time with students who have experienced trauma (Perry & Daniels, 2016). Long-term trauma manifestations can be physical, cognitive, emotional, or behavioral.

Physical and Cognitive Manifestations

Children who have experienced trauma often experience physical interruptions in development, particularly neurologically (Oehlberg, 2008). When the brain is underdeveloped, children may be unable to manage stress and behaviors the way a typical brain might allow (Oehlberg, 2008). Another physical trauma-related indicator is a compromised immune system, which leads to frequent, often chronic, physical illnesses in children who have experienced trauma (Berardi & Morton, 2017), and may impact cognitive functioning

Reduced cognitive functioning is another indicator linked to childhood trauma, those who have experienced multiple ACEs (Eklund et al., 2018; Olofson, 2017), and abuse or neglect (Mills et al., 2013). Children with histories of trauma experience the potential for delays and are shown to have lower IQ scores than other children (Berardi & Morton, 2017). Olofson (2017) linked trauma to poor cognitive functioning in a study of 3,653 children from 2,705 families that were representative of the United States. Olofson analyzed data from the Panel Study of Income Dynamics Child Development Supplement, which collects information about life indicators (e.g., socioeconomic status, ACEs, family dysfunction) and is used to study childhood adversity and development in the United States. Olofson examined independent variables that were derived from the ACEs framework (e.g., parental incarceration, family conflict, neighborhood quality). The dependent variable, cognitive functioning, was measured through standardized tests administered directly to the children. An analysis of covariance found a statistically significant correlation ($p < .05$) between each of the three independent variables and poor cognitive functioning (Olofson, 2017). A structural equation analysis was then used to analyze the independent variables as predictors of cognitive functioning and discovered that as each independent variable increased, cognitive outcomes decreased (Olofson, 2017). This research is similar to the ACEs research findings by Bethell et al. (2014) and Jaffee and Fong (2011).

Further examination of reduced cognitive functioning in children who had experienced trauma is found in a longitudinal study by Mills and colleagues (2013). Participants were a birth cohort studied for 14 years ($N = 7,223$). Researchers worked with the local Department of Children and Families and were given access to suspected abuse and neglect cases opened on the participating families. The participating mothers completed questionnaires at regular intervals until their children turned 14. At age 14, the children completed the Child Behavior Checklist

(Achenbach & Rescorla, 2001) regarding abuse and neglect and also completed standardized reading and mathematics testing. Findings showed that children who had experienced contact with Department of Children and Families, had other indicators of abuse neglect, or who had self-reported indicators of abuse and neglect scored one third of a standard deviation lower on their achievement scores than students who had not been maltreated (Mills et al., 2013). These findings add evidence to the need for trauma-informed schools in order to combat the effects of trauma, whether cognitive or emotional and behavioral.

Emotional and Behavioral Manifestations

Chronic childhood trauma and exposure to ACEs have been linked to a wide range of emotional and behavioral health disorders (Overstreet & Matthews, 2011). The effects of trauma are so pervasive that trauma itself is considered a mental health disorder, which has been linked with attachment disorder, social engagement disorder, acute distress disorder, and adjustment disorders (Zyromski et al., 2018). Children who are exposed to trauma are more likely to develop emotional disorders such as anxiety and depression than their peers who have not been exposed to trauma (Larson et al., 2017; Zyromski et al., 2018). These emotional disorders often manifest in the classroom as aggressive behaviors, poor relationships with teachers, and, as previously discussed, poor academic performance (Larson et al., 2017).

Children who have experienced trauma often cope through the use of negative behaviors, such as aggression or bullying, which can make it more difficult for children to learn academic or social emotional skills taught in the classroom (National Center for Mental Health Promotion and Youth Violence Prevention, 2012). These behaviors, often referred to as “survival behaviors,” may manifest as behavioral outbursts and classroom disruptions that can impact the learning of all students in the classroom (Oehlberg, 2008). Access to mental health services,

which might diminish survival behaviors, is often lacking for children due to both availability and awareness of need, particularly in children who have experienced trauma, due to poor support systems (Larson et al., 2017).

In addition to what can be observed in the classroom, children who have experienced trauma are more likely to engage in risky behaviors (Larson et al., 2017). This includes illicit drug use, alcohol abuse (Larson et al., 2017; Zyromski et al., 2018), and tobacco use (Zyromski et al, 2018). Children who have experienced multiple ACEs are also more likely to become sexually active before the age of 15, engage in sexual activity with multiple partners, have unplanned pregnancies, and obtain sexually transmitted diseases (Zyromski et al., 2018). Each of these risky behaviors has the potential to influence what happens in all aspects of a student's life, including in the classroom (Nealy-Oparah & Scruggs-Hussein, 2018).

Trauma and Schooling

Academic Challenges

Academic achievement is among the challenges experienced by children with traumatic backgrounds (Larson et al., 2017). Children who experience more ACEs or more intense forms of childhood trauma are less engaged in school, have higher rates of absenteeism, and are more likely to be held back a grade level (Crouch et al., 2019). In addition to underachievement in school, children who have experienced trauma have shown to have lower IQ scores along with difficulty reading and writing (Berardi & Morton, 2017). The impact that trauma has on students clearly presents difficulty for classroom teachers as children may be more likely to fail tests, be retained, have poor attendance, or experience developmental delays (Dotson Davis, 2019).

An exploratory study by Goodman et al. (2012) provides a frame of reference in understanding the relationship between academic achievement and trauma. The researchers used

archival data from a longitudinal study collected by the National Center for Education Statistics on students (N = 3,387,565) who began Kindergarten in 1998-1999 and completed eighth grade in the spring of 2007. More than half of the students were White (58.9%); remaining students were Latino (19.3%), African American (14.4%), Asian (2.9%), and Native American, Pacific Islander, or multicultural (4.5%). Boys and girls each represented approximately half of the sample but gender differences were not analyzed. The mean reading scores for students who had experienced traumatic stress were 11.932 points lower than those who had not experienced traumatic stress ($p < .001$). Likewise, mean mathematics scores were 10.883 points lower ($p < .001$) and mean science scores were 5.689 points lower ($p < .001$). Goodman et al. concluded that in order to meet the needs of students who have experienced traumatic stress, it is imperative that school staff be educated about the impact of trauma.

In a similar study, Fantuzzo et al. (2014) used census data to determine correlations among abuse or neglect along with risk factors (e.g., inadequate prenatal care, homelessness) and performance in reading and mathematics. The 1,039 students resided in Philadelphia, Pennsylvania and 10.9% had verified incidents of abuse or neglect. The majority of the students were African American (67%) followed by White (14%), Hispanic (14%), and Asian or other (5%) with approximately equal numbers of males (51%) and females (51%). Academic achievement rates in reading (SD = 0.15, $p < .001$) and mathematics (SD = 0.13, $p < .001$), along with school attendance rates (SD = 0.25, $p < .001$), were significantly lower for the students who had experienced abuse and neglect. Researchers recommended that schools increase their knowledge of risk factors, including abuse and neglect, to improve educational outcomes for students (Fantuzzo et al., 2014).

Behavioral Challenges

In conjunction with academic challenges, behavioral challenges often arise in the classroom as a result of childhood trauma (Oehlberg, 2008). Behavioral disruptions in the classroom as a result of trauma often surface as aggression or lack of cooperation (Lubit et al., 2003) that can impact the overall learning process for each child in the classroom. In children who have witnessed domestic violence, the self-regulation of behaviors is often diminished, which can lead to increased impulsivity and aggressive behaviors (Lubit et al., 2003). Aggression appears because trauma often triggers physiological alerts in the body and can cause the body to go into survival mode and present as irrational, inappropriate, and disruptive behaviors in the classroom (Dotson Davis, 2019). Neurologically, children who have experienced trauma may be at risk for reduced brain development, which can also lead to difficulties in self-regulating attention, behaviors, and emotions (Goodman et al., 2012).

Teachers must manage negative behaviors in the classroom. However, this management often results in discipline referrals to the principal, rather than determining the unmet needs of the child that may be presenting in a negative or maladaptive way (Larson et al., 2017). Teachers who do not know how to respond to students' unmet needs are more likely to react impulsively rather than appropriately when behavioral challenges appear in the classroom (Larson et al., 2017). When teachers act impulsively, they may use stricter punishments that do not meet students' needs in an appropriate manner (Larson et al., 2017). One way to assist teachers in understanding appropriate reactions towards challenges that may be related to trauma is to ensure teachers are knowledgeable about trauma (Skiba, 2010).

Teacher Management of Trauma

Academic Interventions

Students who have experienced trauma are at greater risk for school challenges (Overstreet & Chafouleas, 2016; Perry & Daniels, 2016) such as classroom engagement and academic achievement (Overstreet & Chafouleas, 2016). Traditionally, teachers referred failing students for testing and placement in remedial or special education classes (Chafouleas et al., 2016). Many schools have become more proactive by monitoring students from the beginning of terms and incorporating social and emotional interventions along with academic interventions in their efforts (Chafouleas et al., 2016).

Behavioral Interventions

Trauma's effect on children can lead to negative behaviors, such as aggression and non-compliance, that are often perceived as antagonistic, rather than a result of trauma (Herrenkohl et al., 2019). Teachers who are unaware of the impact that trauma has on children are often underprepared for handling these survival behaviors, do not understand the reasoning behind challenging behaviors, and often react in a punitive nature that may actually exacerbate the problem (Minahan, 2019; Oehlberg, 2008).

A poor understanding of trauma's impact frequently leads to punitive discipline tactics that are typically carried out through office referrals, suspensions, and expulsions (Skiba, 2010), though 19 states still also permit corporal punishment in schools (Gershoff & Font, 2018). Severe punitive discipline approaches, such as suspensions and expulsions, are used for a wide range of behaviors, many of which are considered minor such as disrespect or non-compliance (Skiba, 2010). Zero tolerance practices, designed as a result of increased concerns about violence in schools (Robers et al., 2013), intensify the overuse of punitive discipline by assuming that the

removal of disruptive students from the classroom will improve education for other students, though there is evidence that this is not true (American Psychological Association Zero Tolerance Task Force, 2008). There is evidence, however, that students who are suspended or expelled due to zero tolerance policies are at great risk of failing courses or dropping out of school entirely (Kyere et al., 2020). Furthermore, the child who has been removed from the classroom may be in dire need of trauma intervention (Skiba, 2010) and zero tolerance policies have been shown to increase future rates of misbehavior by students identified as at-risk for school failure (American Psychological Association Zero Tolerance Task Force, 2008). This is due, in part, to the lack of attention to the underlying needs of the suspended or expelled child (Berardi & Morton, 2017).

Trauma-Informed Practices

While many teachers use punitive approaches, the use of trauma-informed framework in the classroom is growing and many teachers provide safe and nurturing environments that foster academic success (Cummings & Swindell, 2019). The Every Student Succeeds Act (2015) notes that schools should use "trauma-informed practices that are evidence-based" (Section 4108). This wording, however, is vague, leaving the provision up to interpretation by school leaders. There is no one prescription for the implementation of trauma-informed care and what works in one school may not effectively translate to other schools and communities (Berardi & Morton, 2017). More specific suggestions include incorporating behavioral and academic modifications for students who have experienced trauma (Dotson Davis, 2019). SAMHSA (2014) provides some guidance in identifying the following elements as necessary for trauma-informed care programs to address: safety, trust, peer support, collaboration, empowerment, and cultural issues, including gender.

A shift in the way teachers view their role related to trauma has led to a greater focus on nurturing classrooms (Berardi & Morton, 2017). Throughout the United States, there has been a shift to adopt a trauma-informed approach, which acknowledges and respects the culture of each individual student by getting to know students' life circumstances and using this knowledge to better understand why behavior problems may occur in the classrooms (Berardi & Morton, 2017). Trauma-informed education has led many teachers to realize that students should not be judged based on their academic success or failures and to treat all students equitably (Berardi & Morton, 2017). When teachers undergo training in trauma and have learned to use structure and safety as alternatives to discipline, students who have experienced trauma are more successful because teachers understand the need to provide clear rules, routines, and a safe classroom environment (Berardi & Morton, 2017).

Teacher Training Regarding Trauma

Though there is evidence to show that teachers who understand trauma are more likely to apply the key principles of trauma-informed care in the classroom, teacher preparation programs have historically focused primarily on academic approaches to teaching, neglecting the incorporation of trauma-informed care approaches (Brown et al., 2019; Darling-Hammond & DePaoli, 2020). In a look at standards in all 50 states, U.S. teacher preparation programs did not emphasize the need for incorporation of mental health related standards (Brown et al., 2020). While some states mentioned the need for teachers to understand substance abuse, suicide prevention, and conflict prevention, the reference to these was general with no direct mention of preparation in mental health intervention (Brown et al., 2019). Adding further evidence, a look at teachers' confidence levels when supporting children who had experienced trauma revealed that

teachers felt underprepared by their preservice programs and wished there had been more of an emphasis on trauma (Alisic, 2012).

Teacher Preparation Programs

In the United States, the majority of teachers attend traditional four-year colleges that prepare them for licensure within their state (Boyd et al., 2007). There is little research that shows how much trauma preparation is provided in these colleges, though it is clear that educators cannot meet the needs of children who have experienced trauma until they first understand the impact that trauma has on physical and emotional development (National Center for Mental Health Promotion & Youth Violence Prevention, 2012).

There is a small body of research regarding teachers' attitudes towards their preservice preparation. Alisic (2012), for example, investigated 21 teachers' attitudes about supporting children who had experienced trauma using semistructured interviews. Teachers were selected using purposeful sampling to maximize the diversity of perspectives. The participants ranged in age from 22 to 55 (M = 35.5, SD = 11.69) with six months to 30 years of teaching experience (M = 9.9, SD = 9.76) and all stated they had worked with at least one child who had experienced trauma. Using summative analysis procedures, the researcher found that the children had experienced many different types of trauma (e.g., maltreatment, domestic violence), resulting in a number of classroom behaviors such as acting out, withdrawal, and aggression. Data analysis revealed that teachers lacked an understanding of how to assist children who have experienced trauma and the researcher called for more trauma training in teacher preparation coursework (Alisic, 2012).

More recent studies have had similar findings. Chen and Phillips (2018) used semistructured interviews with three African American, female, early childhood teachers.

Though the purpose of their study was to examine the teacher–child relationship, findings revealed that participants felt they were not sufficiently prepared in working with children exhibiting challenging behaviors who had histories of trauma (Chen & Phillips, 2018). As such, Chen and Phillips recommend that preservice preparation programs be more proactive in helping teachers understand how to meet the needs of children who have experienced trauma. Miller and Flint-Stipp (2019), however, found that even when trauma-informed care was included in preservice teacher coursework, it was insufficient in providing more than a general understanding of trauma and its impact on children who have experienced trauma. Miller and Flint-Stipp interviewed 25 preservice teachers at a large teacher education program in the Midwest. Trauma-informed coursework was embedded within the preservice education program and was followed by a student teaching field experience. During their student teaching, the participants kept written reflection logs about what they experienced in the classroom and participated in semistructured interviews that focused on classroom dynamics, student trauma, and self-care. Using thematic analysis (Corbin & Strauss, 2015), the researchers discovered that teachers were uncomfortable working with children who disclosed experiences of trauma and, despite having coursework on the topic, did not fully understand how to identify what experiences should be considered indicative of trauma (Miller & Flint-Stipp, 2019). Miller and Flint-Stipp (2019) recommended that preservice preparation programs provide mentorships and interdisciplinary support from psychology and social work departments to better prepare teachers for the impact of working with children who have experienced trauma.

Another recommendation for improvement of trauma preparation during preservice was made by Reker (2016) following a mixed methods dissertation study. Reker surveyed 327 public school teachers in Omaha, Nebraska to understand the teachers' needs in working with children

who had experienced trauma. Findings revealed that approximately 45% of the participants (*n* = 147) had not received trauma training during their preservice preparation programs. Furthermore, open-ended responses indicated that teachers were disappointed in the lack of trauma preparation they received in their preservice programs. Among her conclusions, Reker (2016) recommended that teachers receive comprehensive trauma-informed training during their preservice training. Comprehensive training would highlight the symptoms of trauma and how it impacts students emotionally, behaviorally, and academically (Reker, 2016). Training should also include awareness on how to provide an appropriate combination of both emotional and behavioral support to students who have experienced trauma along with awareness of when it is appropriate to refer students for services provided by behavioral health professionals (Reker, 2016). Though not a peer-reviewed study, Reker's dissertation aligns with the current study and provides further support for need to incorporate trauma-informed practice into preservice preparation.

While the above studies refer to traditional preservice programs at a four-year institution, there are other ways to obtain a teaching license in the United States. Alternative certification programs typically require a bachelor's degree and demonstration of competency, but do not require a traditional preservice experience (Boyd et al., 2007), such as internships and field-based assignments. There is scant research that examines the requirements of certificate programs in the United States, and none that specifically addresses trauma preparation. In one examination of alternative certification requirements, classroom management pedagogy was found to be a requirement in 25 states (Boyd et al., 2007), which could include topics related to working with traumatized students, but that presence was not explicit. Another study surveyed program coordinators for 74 alternative teacher education programs in a large southwestern state.

Results indicated that teachers obtaining alternative certificates report getting very little instruction on how to increase appropriate classroom behaviors or reduce inappropriate classroom behaviors (Flower et al., 2017).

Inservice Professional Learning

Professional learning, formerly called "professional development" or "training," for teachers is defined as "learning that results in changes in teacher practices and improvements in student learning outcomes" (Darling-Hammond et al., 2017, p. 2). Current principles of effective professional learning provide a model for developing preservice and inservice programs and are aligned with many of the implementation domains of trauma-informed care, which supports the choice of trauma-informed care as an appropriate framework for the topic under study. This section presents the principles of effective professional learning and the conditions required for effective professional learning.

Wei et al. (2009) extensively reviewed various professional learning models and identified recurring elements that proved effective in showing a link between teachers' professional learning and student outcomes. This research, combined with newer theories about professional learning, led Darling-Hammond et al. (2017) to identify effective professional learning as:

- content focused,
- incorporating active learning strategies,
- collaborative,
- using models and/or modeling,
- providing coaching and expert support,
- including time for feedback and reflection, and

- of sustained duration.

Darling-Hammond et al. note that many of these principles overlap but, when used in combination, create a collaborative professional learning environment that leads to change that does not occur when teachers undergo learning individually.

Seminal researchers in the area of professional learning, Newman and Wehlage (1997) conducted a longitudinal study of professional learning and analyzed school data to explore which strategies worked best in facilitating positive student outcomes. The researchers identified a link between professional learning and lower dropout rates, fewer absences, and greater academic achievement in students (Newman & Wehlage, 1997). If students are to benefit, however, care must be taken to deliver effective professional learning to teachers. More recent research continues to show a relationship between effective professional learning and student outcomes (Avalos, 2011; Darling-Hammond et al., 2017, Desimone et al., 2015). For example, effective professional learning requires respectful relationships between teacher and student, content that is culturally relevant, and a learning environment in which both teachers and students feel safe and secure (Darling-Hammond et al., 2017), which coincides with traditional student teaching experiences of preservice preparation programs. After conducting a thematic analysis of 10 years of professional learning studies, Avalos (2011) determined that professional learning for teachers is a complex process whose success is dependent upon conditions such as the learning setting and teacher motivation. Despite the complexities of professional learning, a positive relationship exists between teacher professional learning and student success (Avalos, 2011; Vescio et al., 2008).

Effective professional learning starts with system-level change, just as governance and leadership are called upon to implement effective trauma-informed care framework. Professional

learning topics are historically determined by leadership and do not always address the true needs of the classroom teacher (Tooley & Connally, 2016). Teachers' needs should be explored and addressed before professional learning is implemented (Tooley & Connally, 2016), an approach that requires ongoing engagement, involvement, and collaboration. Even when professional learning addresses topics relevant to teachers, it may not be effective if not implemented to fidelity, meaning that planning and budgeting should take into consideration requirements unique to each professional learning experience (Tooley & Connally, 2016). Finally, assessment of professional learning outcomes is needed to discover if learning is effective and teachers' learning results in increased student success (Tooley & Connally, 2016).

There is no universal professional learning standard for working with children who have experienced trauma, though researchers assert that the first step towards change begins with a commitment to staff learning (Bartlett & Smith, 2019; Dorado et al., 2016; Phifer & Hull, 2016). Unfortunately, schools that are not deliberate in the implementation of the trauma-informed care framework have teachers who are uniformed and underprepared for meeting the needs of students who have experienced trauma (Blitz et al., 2020). Professional learning for school staff is an important foundational step to the implementation of trauma-informed care, which creates a standard by which staff can realize the fundamentals of trauma and effectively respond to their students' needs (Chafouleas et al., 2016).

In a 2010 study conducted in the Netherlands by Alisic et al. (2012), a random sample of 765 elementary school teachers completed anonymous surveys regarding their difficulties in working with children who had experienced trauma. Responses to Likert scale questions showed that teachers had difficulty balancing academic needs with the need to provide mental health support to their students. Additionally, teachers reported the need to know when and how to

provide behavioral health supports for their students. Following the study, researchers concluded that trauma-informed practices in schools begin by disseminating information and materials about trauma-informed care to teachers (Alisic et al., 2012).

In another study regarding the importance of professional learning in trauma-informed care framework for teachers, a Connecticut school district provided a step-by-step approach to trauma-informed care implementation (Perry & Daniels, 2016). The pilot study was conducted at a Title I school that included 410 preK-8 students, 82% of which were identified as African American. There were 32 teachers at the school who first participated in professional learning about trauma-informed care. The professional learning was provided in an effort to encourage teachers to begin seeing their students through a strengths-based perspective, a common effort for professional learning in trauma-informed care (Barnett et al., 2018) that considers why students may exhibit negative behaviors rather than focusing on the behavior itself (Perry & Daniels, 2016). For example, if a student is easily distracted during class, the teacher might consider that the student could be hungry, tired, or unable to concentrate due to home circumstances rather than lack of interest in their schoolwork. The professional learning was two intense days tailored specifically to the needs identified by the school; the professional learning and support continued throughout the year. Analysis of teacher surveys indicated that they had increased their knowledge about trauma and were implementing new techniques into their classrooms to better serve the needs of children who had experienced trauma (Perry & Daniels, 2016). While this longitudinal program is still in progress, the findings from the pilot study add to the body of research showing just how important professional learning is deemed by experts in the field of trauma-informed care. Professional learning affords both teachers and students the benefits of trauma-informed care.

Benefits of Trauma-Informed Care

When trauma-informed care education is available to inservice teachers, Post et al. (2020) found that those teachers are able to apply a trauma-informed lens in the classroom. Post et al. studied one trauma-informed care initiative by monitoring four White female kindergarten teachers working in a rural Southeastern county. The teachers' perceptions of student behaviors and academic performance begin to shift to a strengths-based outlook, such as being more likely to notice and encourage positive behaviors when previously they had focused solely on negative behaviors (Post et al., 2020). The students were identified as African American (52%), Hispanic (20%), White (19%), and other (8%) and had ACEs scores that were higher than average for the county or the nation. Teachers were provided professional learning in a trauma-informed care curriculum, which would later be used in the classroom. Researchers conducted semistructured interviews with the teachers and identified themes related to experiences during the professional learning. For example, when teachers learned more about the trauma students had experienced, they began to discuss student behaviors in a way that was more understanding and were more supportive to the students who had experienced trauma (Post et al., 2020). Teachers also identified specific techniques as being helpful in the classroom, such as giving students choices, setting limits, and building peer relationships (Post et al., 2020). The researchers concluded that teachers who participate in trauma-informed professional learning learn skills, such as viewing negative classroom behaviors through a trauma-informed lens, that are key to creating systemic change in schools with high populations of children who have experienced trauma (Post et al., 2020).

A strengths-based perspective leads to a greater investment in students and increased academic performance along with improvements in classroom management, behaviors, and

general learning (Post et al., 2020). One longitudinal study of five schools within the San Francisco Unified School district found a 43% decrease in discipline referrals by teachers after using a trauma-informed framework for just one year (Dorado et al., 2016). After five years, discipline referrals were down by 87% (Dorado et al., 2016). Along with reductions in discipline referrals, teachers who apply trauma-informed care principles report better rates of school attendance and increased performance in English language arts and mathematics (Giboney Wall, 2020).

Giboney Wall (2020) explored educators' perspectives towards changes in children who had experienced trauma, after implementing a trauma-informed care approach in the classroom. Data were collected over 3 years from a Southern California elementary school whose student body was made up of approximately 400 students that were Hispanic (77%), White (18%), Asian (2%), and African American (1%). Researchers analyzed school attendance records, publicly available school tests scores, as well as questionnaires and semistructured interviews of 13 teachers related to the implementation of a trauma-informed care program. When interviewed about the impact of the trauma-informed care program as related to students' behavior and learning outcomes, teachers noted that students were more successful academically and attendance rates had improved (Giboney Wall, 2020). Teacher perceptions of program benefits were confirmed through analysis of attendance records and standardized test scores.

There is also evidence that school-based trauma-informed care interventions lead to overall reduced traumatic stress reactions in students who have experienced trauma (Alisic, 2012; Overstreet & Chafouleas, 2016). This reduction is present, for example, when teachers know how to provide structure, consistency, and an outlet for emotional processing (Alisic, 2012). Hoover et al. (2018) studied five public middle schools throughout Connecticut where

trauma-informed approaches were implemented and found statistically significant ($d = 0.88$) reductions in trauma symptoms after 10 months of using trauma-informed approaches. Even small efforts to incorporate trauma-informed care into the classroom have been shown to increase perceptions of safety in children who have experienced trauma, increasing their ability to learn (Minahan, 2019), which underscores the importance of increasing preservice and inservice teachers' knowledge of trauma-informed care.

Summary

The review of literature provided an overview of the trauma-informed care framework (SAMHSA, 2014) to effectively manage trauma in the school setting (Frydman & Mayor, 2017, Herrenkohl et al., 2019; Jennings, 2019). As noted in the framework, multiple types and definitions of trauma exist and trauma varies in impact based on the duration and intensity of the trauma and the individual's race, gender, cultural beliefs, age, and family structure (SAMHSA, 2014).

In this literature review, ACEs and race-based trauma were discussed. Particularly relevant to this problem of practice is the negative impact that ACEs have on academic performance, student behavior, and self-regulation of behaviors (Katz, 2019; Overstreet & Matthews, 2011; Post et al., 2020). Race-based trauma presents similarly to other types of trauma (Helms et al., 2012) and has comparable outcomes (Helms et al., 2012; Kang & Burton, 2014).

Regardless of the type of trauma a child may experience, the impact of trauma is often long lasting and can lead to a variety of problems. Children who have experienced trauma may have lower IQ scores (Berardi & Morton, 2017), poor cognitive functioning (Olofson, 2017), and poor academic performance, particularly in reading and mathematics (Mills et al., 2013). In addition to reduced physical and cognitive functioning, children who have experienced trauma

also experience emotional and behavioral difficulties (Overstreet & Matthews, 2011). Trauma can lead to a multitude of behavioral health disorders including anxiety and depression (Zyromski et al., 2018) and can lead to the adoption of survival behaviors that result in behavioral outbursts and classroom disruptions (Oehlberg, 2008).

When trauma impacts children physically, cognitively, behaviorally, and emotionally, it also has an effect on academic achievement (Larson et al., 2017). The literature review showed strong evidence that students who have experienced trauma may perform poorly on assessments, be held back, and be absent from school (Crouch et al., 2019; Dotson Davis, 2019). Additionally, when teachers do not understand trauma, they are more likely to use negative measures, such as failing students and placing them in remedial courses, to address poor academic performance (Chafouleas et al., 2016). Likewise, teachers without an understanding of trauma are more likely to use punitive approaches, such as suspensions and expulsions, to manage negative behaviors in the classroom despite research that shows these measures are ineffective (Skiba, 2010) because they do not address the true needs of the student (Berardi & Morton, 2017).

Overall, researchers recommended that school staff understand trauma and its impact in order to improve educational outcomes (Fantuzzo et al., 2014; Goodman et al., 2012) and appropriately manage classroom behaviors (Skiba, 2010) of children who have experienced trauma. Teachers feel, however, that their preservice programs did not prepare them for working with children who had experienced trauma (Alisic, 2012; Chen & Phillips, 2018) but when provided with professional learning programs were likely to initiate change in the classroom to meet the needs of students who had experienced trauma (Chafouleas et al., 2016; Perry & Daniels, 2016). Trauma-informed care is beneficial to teachers and students when teachers begin

to understand trauma and apply concrete techniques, such as giving students choices and setting boundaries, in the classroom (Post et al., 2020).

Although the use of trauma-informed practice is growing (Cummings & Swindell, 2019), there is no set standard for implementation so this varies greatly among schools (Berardi & Morton, 2017). Shonkoff and colleagues (2012) describe a trauma-informed school as one "where school personnel recognize the prevalence of trauma in children, knowing that this can lead to on-going emotional, cognitive, social, and behavioral school challenges" (p. 113). While many programs attempt to include these recommendations, few have been evaluated for effectiveness and even teachers with a working knowledge of childhood trauma are left with little understanding of how to apply their knowledge (Bartlett & Smith, 2019). Additionally, there is scant literature regarding a comprehensive understanding of teachers' perceptions of how well their preservice preparation programs prepared them for working with students who had experienced trauma.

CHAPTER III

Method

The purposes of this study are to (1) explore how teachers describe trauma and ACEs and the impact of trauma and ACEs on students, based on their preservice experiences and (2) how teachers perceive their preservice experiences informed how they support students who display trauma-related indicators. This chapter discusses the context of the study, research design, participants, participant recruitment procedures, data collection, and data analysis. It concludes with a discussion of the trustworthiness and credibility of the researcher and a positionality statement. The constructs, instrumentation, data collection, and data analysis measures align with the research questions as noted in the research matrix (see Table 3.1).

Table 3.1

Research Matrix

Research Question	Constructs or Variables	Instrument	Data Collection	Data Analysis
1. Based on their preservice experience, how do teachers describe trauma, ACEs, and the influence of trauma and ACEs on students?	Trauma, ACES, Trauma-related indicators (i.e., emotional and behavioral, physical and cognitive)	Survey Semistructured interview	Google Forms (once) Zoom (once)	descriptive analysis in vivo coding (Saldaña, 2016)
2. How do teachers perceive their preservice preparation for supporting students who display trauma-related indicators?	Preservice preparation (e.g., coursework, student teaching, mentor teacher); Trauma-related indicators (i.e., emotional and behavioral, physical and cognitive)	Semistructured interview	Zoom (once)	in vivo coding (Saldaña, 2016)

Context of the Study

Data were collected from public school teachers who had graduated from a southeastern state university's College of Education program. Teachers had completed their coursework at the university and their student teaching experience at one of six districts that have formal agreements to place the university's preservice teachers in student teaching positions. Graduates are often employed by these districts as well. Elementary classrooms have between 15 and 25 students, depending on the grade level.

District A is a predominately rural county with a median household income of $65,903 and a poverty level of 11.1%. The district has six elementary schools with approximately 148 teachers serving 2,213 elementary students. The majority of students are White (93%) followed by Hispanic or Latino (3%), two or more races (2%), Black (1%), and Asian (1%).

District B is also predominately rural with a median household income of $68,027 and a poverty level of 13%. There are 12 elementary schools with approximately 384 teachers serving 2,991 elementary school students. The majority of students are White (90%) followed by Black (4%), Hispanic or Latino (3%), two or more races (2%), and Asian (1%).

District C is located in a midsize city with a median household income of $63,186 and a poverty level of 16.6%. There are 31 elementary schools with approximately 943 teachers serving 16,980 elementary school children. Students are primarily White (64%), African American (20%), Hispanic or Latino (10%), two or more races (4%), Asian (1%), and American Indian or Alaskan Native (1%).

District D is a small, rural county with a median household income of $42,269 and a poverty level of 20.7%. There are three elementary schools with approximately 70 teachers

serving 1,390 elementary students. The district is predominately White (92%), followed by Hispanic or Latino (3%), two or more races (3%), and Black (1%).

District E is made up of both rural and urban areas with a median household income of $61,774 and a poverty level of 14%. There are 16 elementary schools with approximately 445 teachers serving 8,241 elementary students. The district is largely White (84%), followed by Black (7%), Hispanic or Latino (7%), two or more races (2%), and Asian (1%).

District F is a large urban area with a median household income of $48,150 and a poverty level of 26.3%. There are 133 elementary schools with approximately 5,101 teachers serving 63,281elementary students. Students are mostly White (56%), followed by Black (27%), Hispanic or Latino (10%), Asian (4%), and two or more races (2%).

In March 2020, the coronavirus disease 2019 (COVID-19) led to a statewide shutdown of in-person learning at schools for the remainder of the year. The 2020-2021 school year differed across counties with a variety of delivery experiences. Some counties held face-to-face classes, some met virtually, and some used a combination of both modalities. Furthermore, individual schools within counties were intermittently closed when students or staff tested positive for the virus or when contact tracing revealed they may have been exposed to the virus.

The regional southeastern state university's College of Education program affiliated with these districts does not require any direct coursework in working with students who have experienced trauma. Their preservice teachers are required to take a course to prepare them for working with diverse students as well as courses on classroom management and educational psychology. However, none of the course syllabi mention trauma or trauma-informed care. While there may be trauma-informed topics embedded in other courses, this is not clear from a

review of the course catalog. The Tennessee Educator Preparation Policy, which informs colleges on the standards for teacher preparation and licensure, makes no mention of trauma, mental health, or requirements for preparation in trauma-informed care (Tennessee State Board of Education, 2017). The Supporting Trauma-Informed Education Practices Act of 2019 allows some federal funding to be used by states to train teachers in the use of trauma-informed practices, though use of these funds is at the discretion of individual states. In response to this act, the Tennessee Department of Education selected a total of 73 schools to undergo a 2-year commitment that will lead to a designation as a trauma-informed school. This number increased to 176 in March of 2021. This new endeavor, for many schools, did not begin until the 2021-2022 school year. Of the districts described in this study, districts A, B, C, and E have elementary schools identified as trauma-informed, though it is important to note that this is not a county-wide designation. Districts D and F do not have any elementary schools identified as trauma-informed. At this time, the trauma-informed designation funding for Tennessee does not include provisions for preservice preparation, though it may impact student teachers whose student teaching experience is completed at schools participating in the trauma-informed school designation process.

Research Design

A review of literature revealed no established methods of measuring teachers' attitudes towards their preservice preparation for learning about trauma-informed care. Therefore, multiple studies were used to inform the current research design. King et al. (2019), for example, validated a tool to assess health care professionals' knowledge, attitudes, and practices towards trauma and trauma-informed care. The current study used this validated tool for the questionnaire part of the study. In a qualitative study, Alisic (2012) used semi structured

interviews to explore elementary teachers' experiences and needs in working with children who had experienced trauma. The interview questions used in Alisic's (2012) study guided the interview questions used in the current study. Both the questionnaire and interview questions required minor modifications to answer the research questions in the current study; these modifications are addressed in the instrumentation section.

This study uses a mixed methods research design, defined as the "class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study" (Johnson & Onwuegbuzie, 2004, p. 17). The use of both qualitative and quantitative data is beneficial because it uses both objective and subjective understanding to explore the research problem and leads to more thorough investigation with multiple perspectives that might not be obtained using a single method of exploration (Creswell et al., 2011). A mixed methods approach compensates for the limitations of each of the approaches when used alone. For example, it is difficult to understand the beliefs and attitudes held by participants when using quantitative research, while qualitative research allows for in-depth explorations of topics to produce a thorough and descriptive body of evidence (Quierós et al., 2017).

After a researcher decides to use mixed methods, they then narrow down the study to a specific design (Creswell et al., 2011). This study employs an explanatory sequential design, which means that quantitative data were collected and analyzed first, followed by collection and analysis of qualitative data (Creswell et al., 2011). This approach was chosen because the quantitative data were analyzed before selecting a sample of participants for the qualitative portion of the study. Additionally, qualitative data were used to further explore the quantitative data that were collected in order to provide a more comprehensive analysis.

Although this study utilizes a small sample size, the quantitative data informs only a portion of the study, which relies heavily on qualitative data. Lincoln and Guba (1985) assert that qualitative sampling does not rely on a predetermined sample size, but uses redundancy of data as the primary determination for an adequate sample size. Patton (1990) builds on this assertion:

> There are no rules for sample size in qualitative inquiry. Sample size depends on what you want to know, the purpose of the inquiry, what's at stake, what will be useful, what will have credibility, and what can be done with available time and resources. (p. 184)

Patton (2002) notes that purposeful sampling "typically focuses in depth on relatively small sample sizes, even single cases (n = 1), selected purposefully" (p. 273). Patton goes on to state that small sample sizes may be a strength to qualitative research, where the focus is on information-rich cases, unlike quantitative sampling where the goal is generalization. Finally, although this is a mixed-methods study, its qualitative piece aligns closely with phenomenological studies for which Moser and Korstjens (2018) assert a sample size under 10 is appropriate.

Participants

The population is individuals who graduated between May 2015 and May 2021 from the College of Education at the southeastern university affiliated with this study. The sample is graduates with either a bachelor's or both a bachelor's and master's degree who had completed their initial preservice teaching through the college of education and had at least one full year of teaching experience. Fifty-two teachers participated in the questionnaire portion of the study and six of those participated in the follow-up interviews. Demographic information for questionnaire and interview participants is discussed separately below.

Questionnaire Participants

The majority of the questionnaire participants had received Bachelor of Science degrees in Education (75%), with concentrations in various licensure programs (see Table 3.2). Approximately 12% had received a Master of Arts in Teaching (MAT) and 13% had received a Master of Arts in Education (MAEd). Participants' amount of experience in teaching ranged from one to eight years, with a mean of 3.06 years of teaching experience (see Table 3.3). During their preservice experience, participants completed their student teaching in various districts, including districts not identified by their affiliation with the College of Education referred to in this study (see Table 3.4). Of the 52 questionnaire participants, 3 currently or previously worked in a Tennessee trauma-designated school, while 14 did not and 35 were not sure if they did or had worked in a trauma-designated school.

Table 3.2

*Degree Type and Concentration for Questionnaire Participants (*N = *52)*

Degree and Concentration	*n*	%
Bachelor of Science		
PreK-3	14	26.93
K-5	16	30.77
6-12	4	7.69
K-8 Special Education	3	5.77
K-12 Special Education	1	1.92
Music Education	1	1.92
Master of Arts in Teaching		
K-5	4	7.69
K-8 Special Education	2	3.85
Master of Arts in Education		
Curriculum and Instruction	7	13.46

Table 3.3

*Number of Full Years of Teaching Experience for Questionnaire Participants (*N = *52)*

Years of Experience	*n*	%
1-2	21	40.38
3-4	22	42.31
5-6	7	13.46
7-8	2	3.85

Table 3.4

*Location of Student Teaching Experience for Questionnaire Participants (*N = *52)*

District	*n*	%
A	3	5.77
B	0	0
C	37	71.15
D	3	5.77
E	2	3.85
F	3	5.77
Other	4	7.69

Interview Participants

The six individuals who took part in the interview portion of the study are identified using the following pseudonyms: Allison, Elizabeth, Jennifer, Kristie, Louisa, and Sheila. Similar to the questionnaire participants, the interview participants graduated with varying degrees and degree concentrations (see Table 3.5).

Four interview participants obtained bachelor's degrees (67%) and two obtained master's degrees (33%). Elizabeth held a master's degree and her student teaching experience occurred while obtaining this degree. Louisa also held a master's degree, but her preservice experience occurred while obtaining her bachelor's degree. Years of experience ranged from 1 year to 8 years, with a mean of 3.7 years. Three interview participants completed their student teaching in district C, one in district D, one in district F, and one in a district not formally affiliated with the

College of Education. All of the participants completed their student teaching in elementary schools and had placements in kindergarten through third-grade classrooms. Participants stated that they either had not and did not work for a designated trauma-informed school or that they were unsure if their current or previous schools were designated as trauma-informed.

Table 3.5

*Demographic Information for Interview Participants (*N = *6)*

Participant	Degree & Concentration	Years of Experience	Student Teaching Grade Level	Student Teaching District	Trauma-designated school
Allison	BS, PreK-3	1	1st Grade, 2nd Grade	C	Unsure
Elizabeth	MAT, K-5	3	2nd grade	Other	Unsure
Jennifer	BS, PreK-3	6	2nd Grade	F	No
Kristie	BS, PreK-3	1	3rd Grade	C	No
Louisa	B. S., K-5; MAEd	8	2nd Grade	D	Unsure
Sheila	BS, PreK-3	3	Kindergarten, 1st Grade	C	No

Instrumentation

This section describes the questionnaires and semistructured interviews and provides sample questions for both instruments.

Questionnaire

The questionnaire had two distinct parts and concluded with one item that addressed participants' willingness to participate in a follow-up interview (see Appendix A).

Knowledge, Attitudes, and Practices of Trauma-Informed Practice. The Knowledge, Attitudes, and Practices of Trauma-Informed Practice (KAP; King et al., 2019) questionnaire was selected to answer Research Question 1, which is related to descriptions of trauma and its influence on students. The KAP contains 21 Likert scale questions that ask participants for responses ranging from *strongly agree* to *strongly disagree*. King et al. (2019) validated the KAP

using confirmatory factory analysis to determine goodness of fit (*RMSEA* = 0.077, $\chi^2 = 748.05$, $p < 0.001$), using a sample size of 592, which exceeded the suggested 300.

The survey was developed for use with pediatric healthcare staff and required minor modifications for use with the current study. First, due to the target population of the current study, the word "patients" was replaced with the word "students" in one item. Secondly, the six items related to practice and two items related to attitude were deleted because they are not relevant to the current study. Finally, the phrase "because of my preservice experiences" was added to the beginning of each question to remind participants to respond based on their preservice experiences. To ensure that the questionnaire maintained integrity after modifications, face validity was sought. Face validity seeks the opinions of content experts to assert that a questionnaire maintains its effectiveness following modifications (Gall et al., 2007). Three experts in the field of psychology were consulted and endorsed the use of the modified questionnaire for the current study.

Within the questionnaire, "knowledge" refers to teachers' level of agreement or disagreement with trauma-informed care practice. Sample knowledge items are "trauma affects physical, emotional, and mental well-being" and "there is a connection between mental health issues and past traumatic experience of ACEs." "Attitude" refers to whether the teacher believes in the principles of trauma-informed practice. Sample attitude items include "recovery from trauma is possible" and "I believe in and support the principles of trauma-informed practice."

Background Information. Additional questionnaire items included demographic information or relate to teachers' years in the classroom and experience working with children who have experienced trauma. There were four items related to their preservice preparation as related to trauma. Sample items about preservice preparation included: "Please indicate the

Tennessee county or district where you did your student teaching" and "How many full years of teaching experience did you have at the end of the 2020-2021 school year?"

Interview

The purpose of the interviews was to enhance the quantitative data, increasing the depth and breadth of the study. The semistructured interviews were used to answer both research questions and are related to teachers' understanding of trauma and its influence on students and how they perceive their preservice experiences prepared them for supporting students who display trauma-related indicators (see Appendix B). Due to a lack of studies about preparing teachers to work with children who have experienced trauma, interview questions were modified based on Alisic's (2012) study. The semistructured interview contains 16 questions that were asked of each participant. Sample interview questions include "How prevalent is trauma, in your current or former students?" and "During your preservice experience, what did you learn about trauma and its influence on students?" There was also one question to address teachers' perceptions of students' experiences with race-based trauma. At the conclusion of the interview, participants were given the opportunity to share any additional information related to their preservice preparation program that they wish to share.

Procedure

This section includes participant recruitment and data collection and analysis procedures.

Participant Recruitment

Participants for the quantitative portion of the study were recruited using a database of bachelor's degree graduates maintained by the College of Education at the university affiliated with this study. Potential participants received the recruitment email and consent form through their email address on file with the university.

The questionnaire was initially sent to 228 individuals who obtained bachelor's degrees from the College of Education between May 2015 and May 2018. The questionnaire was originally designed to exclude anyone who was not a full-time elementary school classroom teacher with a current Tennessee educator licensure. Due to low response rates, an IRB amendment was submitted and approved, allowing the questionnaire to be extended to all 785 bachelor's (n = 568) and master's (n = 217) level students with graduation dates between May 2015 and 2021 (see Appendix C). The IRB amendment also removed the previous exclusion criteria of being an elementary teacher with Tennessee licensure.

The first page of the online survey asked participants to read and agree or disagree with the informed consent statement (see Appendix D). If they chose "yes" they were able to continue with the questionnaire.

Interview participants were expected to be chosen using purposeful sampling for typical cases (Patton, 1990). Purposeful sampling for typical cases involves specifically selecting participants for interviews based on their classification as normal or average for the sample of participants (Patton, 1990) and was expected to be determined by reviewing the descriptive statistics of potential interview participants. Eight individuals volunteered for the interview portion of the study. Six potential participants who met the criteria for typical cases were contacted to schedule interviews. Of the six who were contacted, four agreed to be interviewed, one stated that she was no longer able to interview and another was not responsive to multiple contact attempts. The remaining two individuals, who did not initially meet the criteria for typical cases, were then contacted and agreed to be interviewed. An email that included the interview informed consent form was sent to all potential interview participants who reviewed, signed, and returned it prior to their scheduled interview (see Appendix E).

Data Collection

Questionnaire. A recruitment email containing the hyperlink for the questionnaire was emailed to all teachers who had graduated between May 2016 and May 2021. The questionnaire remained open for 14 business days after the initial email was sent. A reminder email was sent again after Day 5 and Day 10. The questionnaire was expected to take approximately 10-15 minutes to complete. Responses were downloaded from Google Forms after 14 business days.

Interviews. Interview participants were contacted using the information they provided in the questionnaire. Semistructured interviews were scheduled at times convenient to each participant and lasted approximately one hour. Interviews were conducted, recorded, and transcribed using Zoom videoconferencing technology. Interview transcripts were verified and the manually corrected transcripts were emailed to the participants who were given three business days to review and provide any corrections.

Data Analysis

Quantitative Analysis. Participant's responses to Likert items were analyzed using descriptive analysis.

Qualitative Analysis. The open-ended questions and interview responses were coded using Saldaña's (2016) in vivo coding. In vivo coding was selected because it is a recommended method for coding interview transcripts, is widely used, and is appropriate for new researchers (Saldaña, 2016). Also referred to as "literal" or "verbatim" coding, in vivo coding uses the participants' words, allowing the researcher to "prioritize and honor the participant's voice" (Saldaña, 2016, p. 106).

When using in vivo coding, Saldaña (2016) recommends that pre-coding take place prior to the first cycle of analysis. Pre-coding provides an opportunity to become familiar with the data

both during and after it has all been collected (Saldaña, 2016). Preliminary ideas were reflected through the use of analytic memos that were kept for the purpose of reflection and refinement of analysis while the in vivo coding was performed (Braun & Clarke, 2013).

During the first cycle of in vivo coding, transcripts were coded and recoded for variations of prominent words, phrases, or themes that stand out and warrant being coded (Saldaña, 2009). According to Saldaña (2009), there is no qualifying number of codes to be applied to each page of data; codes may be applied at a frequency appropriate to the researcher's goals and discretion. Upon completion of the initial coding and recoding, second cycle coding was used to provide more structure and organization to the first round of coding by narrowing the codes down into smaller categories or themes (Saldaña, 2016). During this cycle, clustering was used to discover themes among the codes. Clustering, sometimes called mapping, involved using diagrams to form visual outlines of important, overarching themes (Marshall & Rossman, 2016). As with the first cycle of coding, the second cycle also involved coding and recoding the data multiple times to ensure that the final themes are accurate and focused (Saldaña, 2016). The coding process was completed for all six interview transcripts. However, no new coding categories were discovered after the fourth interview, indicating that a saturation of data, or redundancy of data, occurred; saturation is key to providing extensive understanding in qualitative research (Lincoln & Guba, 1985; Palinkas et al., 2015).

Trustworthiness and Credibility

In qualitative research, the researcher is often the instrument of inquiry and cannot be tested for reliability but must prove herself credible and her data interpretations as trustworthy (Brantlinger et al., 2005; Marshall & Rossman, 2016). Establishing credibility is a way of proving that "the audience can trust the research" (Brantlinger et al., 2005, p. 200).

This provides integrity and value to both the researcher and the research study (Brantlinger et al., 2005). While there is no prescription for establishing reliability in the researcher (Patton, 1999), Creswell (2007) recommends selecting at least two validation strategies to establish trustworthiness and credibility.

The current study will use methodological triangulation; member checks; peer debriefing; an audit trail; and thick, detailed descriptions to ensure particularizability; and researcher reflexivity. Methodological triangulation is combining two methods to corroborate findings (Brantlinger et al., 2015; Patton, 1999; Shenton, 2004); this study uses both qualitative and quantitative methods. Member checking is when participants have the opportunity to review interview transcripts and provide feedback as to their accuracy (Brantlinger et al., 2015); participants in this study will be sent the interview transcripts and be given five business days to review and provide any corrections. Peer debriefing is when another person who is familiar with the topic reviews and provides critical feedback to a study (Brantlinger et al., 2015); for this study, regular meetings with my dissertation chair will occur during data analysis. An audit trail is a record about details of the study including when and where interviews take place (Brantlinger et al., 2015); a record of this study will be kept in a researcher's journal and include interview details and notes about the coding process. Particularizability, which is related to whether the findings will transfer to other contexts, is the process of providing a rich and detailed description of the research process that will allow others to replicate the research steps in a different environment (Brantlinger et al., 2005); the researcher's journal will capture details of the study, which will contribute to thick, rich reporting of the interview setting, enabling readers to determine transferability to their own setting. Finally, Brantlinger et al. (2005) also recommends researcher reflexivity,

which is a self-disclosure of the researcher's "beliefs, values, and biases" as a way to establish trustworthiness and credibility. The researcher reflexivity statement for this study is provided below.

Researcher Reflexivity

As previously established, the qualitative researcher is so entrenched in the research process that she is often the instrument of inquiry herself (Brantlinger et al., 2005; Marshall & Rossman, 2016) making it imperative that the researcher reflects on her own intrinsic biases in providing credibility to the research process (Braun & Clarke, 2013). This reflection process is referred to as researcher reflexivity (Braun & Clarke, 2013). I chose the topic for the current study due to my experience and interest in the field of trauma and, therefore, it is important that I discuss my own researcher reflexivity.

Much of my career has focused on children and families who have histories of trauma and adverse experiences. As a social worker, I have seen children fall behind in school, which seems likely due to lack of knowledge by their teachers that trauma can lead to academic and behavioral challenges (Berardi & Morton, 2017; Dotson Davis, 2019; Overstreet & Chafouleas, 2016; Perry & Daniels, 2016). Given my education and professional experience in behavioral health, I am aware that children cannot simply leave their traumatic experiences at the classroom door each morning.

I feel that teacher awareness of trauma and its effect on learning and behavior is key to helping children be successful. Though I believe teachers are simply unaware of trauma-informed practices, I also believe that the majority would want to know how to better relate to all their students. The importance of teacher–student relationships, however, can be seen as less important than the emphasis placed on standardized assessments and even day-to-day activities.

It is my belief that the more information we give to teachers, the better equipped they will be to manage behaviors and bridge gaps in academics. However, exploring teachers' behaviors following dissemination of information is not something I have explored before. I realize that there is much to learn on this subject. Brantlinger et al. (2005) recommends reflection as a means of accounting for researcher bias and maintaining quality research, which I will do throughout the research process through the use of a researcher's journal.

Chapter IV

Findings

This mixed methods study utilized explanatory sequential design (Creswell et al., 2011) to investigate the research questions and problem of practice. A Likert scale questionnaire was used to determine teachers' knowledge of trauma based on their preservice experience to inform Research Question 1. The questionnaire responses were analyzed using descriptive statistics. Questionnaires were also used to recruit volunteers to participate in interviews for the qualitative portion of the study, which informed both Research Questions 1 and 2. The interviews were analyzed using in vivo coding (Saldana, 2016) and findings are presented using direct quotes from the participants. To maintain confidentiality, participants of the interview portion of the study are identified using pseudonyms: Allison, Elizabeth, Jennifer, Kristie, Louisa, and Sheila. This chapter presents the findings of the data and is organized by research question.

Trauma, ACEs, and their Influence on Students (RQ 1)

Research Question 1 examined how teachers' preservice experiences informed how they describe trauma, ACEs, and the influence of trauma and ACEs on students. Questionnaire and interview responses were analyzed to answer this question. Quantitative data are presented first, followed by qualitative data to help explain the quantitative findings.

Mean values for all questionnaire responses indicated that participants agreed that during their preservice experience they learned basic information about trauma such as its prevalence, that recovery from trauma is possible, and that paths to healing are different for everyone (see Table 4.1). Participants "agreed" that trauma-informed care is essential for students who have experienced trauma, that they believe in and support trauma-informed

practices. They disagreed, however, that their preservice experience provided a comprehensive understanding of trauma informed care.

Table 4.1

*Questionnaire Responses Based on Teachers' Preservice Experiences (*N = *52)*

Factor	*M*
1. Exposure to trauma is common	3.63
2. Trauma affects physical, emotional, and mental well-being	4.17
3. Substance use issues can be indicative of past traumatic experiences or ACEs	3.92
4. There is a connection between mental health issues and past traumatic experiences or ACEs	3.89
5. Distrusting behavior can be indicative of past traumatic experiences or ACEs	3.71
6. Retraumatization can occur unintentionally	3.71
7. Recovery from trauma is possible	3.63
8. Paths to healing/recovery from trauma are different for everyone	3.92
9. People are experts in their own healing/recovery from trauma	3.15
10. Trauma-informed care is essential to working with students who have experienced trauma	4.13
11. I have a comprehensive understanding of trauma-informed care	2.38
12. I believe in and support trauma-informed practices	3.75
13. I would have liked to have received more training on the principles of trauma-informed care	4.62

A portion of the interview was designed to lend further understanding to questionnaire responses. In parallel to the questionnaire, the first interview question asked participants about the prevalence of trauma in their current and former students. All six interview participants responded, "very prevalent."

In addition to the perception that trauma is very prevalent, a second theme emerged indicating that participants said that they frequently observed the impact of trauma in the classroom (see Table 4.2). Comments about the frequency of trauma included, "I had all kinds [of students impacted by trauma] packed into one classroom and I, every single day I was, like,

'there's a lot going on' and it was very difficult to manage [their classroom behaviors] (Elizabeth) and "There [were so many students with trauma] in the classroom. I'd say not a day went by when I didn't see [trauma-related behaviors exhibited in the classroom]" (Sheila).

Table 4.2

Interview Participants' Perceptions of the Prevalence of Trauma

Theme	Description	Sample Statements
Amount of Trauma	How much trauma teachers' felt was experienced by the students in their current and former students	"it is very prevalent"; "really prevalent"; "a lot of trauma"; "more and more"; "so many in one classroom"; "large number of students"
Frequency of Trauma	How often teachers felt that trauma's impact was experienced in the classroom	"experienced on a daily basis"; "not a day went by"

The second interview question asked participants to define trauma. Of note, only Elizabeth attempted a true definition, stating "anything that adversely affects the lives of children." All other participants noted traumatic experiences rather than providing a definition. Within the experiences, the following themes emerged: students' experiences of abuse or neglect, perceptions of students' emotions, home environment, and family members' experiences (see Table 4.3).

When describing students who had experienced trauma, Allison explained that "they all have some sort of neglect . . . in their life" whereas Kristie noted "some of them were struggling with violence at home. . . . Some of them were struggling with sexual abuse." Jennifer commented that "I've [had students who had been] physically abused, sexually assaulted, and raped."

In sharing how they perceived students' emotions when impacted by trauma, teachers noted the following: "it's normal for them [students with trauma] to feel pain or anxiety or

stress" (Allison) and that "anger and shame were the most powerful emotions that I'd see" (Elizabeth).

Table 4.3

Interview Participants' Definitions of Trauma

Theme	Description	Sample Statements
Students' Experiences of Abuse or Neglect	Abuse or neglect that was directly experienced by a student	"physical abuse"; "struggling with violence at home"; "his father had beat him"; "rape and children being molested"; "mental abuse"
Teachers' Perceptions of Students' Emotions	Teachers' descriptions of how they interpreted the emotions of students who had experienced trauma	"it left him very angry all the time"; "anger and shame"; "a lot of pain and anxiety"; "constant fear"; "pain or anxiety or stress"
Home Environment	Home environments where parents had been divorced, were raised by single parents, or in unstable homes where frequent moves occurred	"a lot of single moms"; "21 of 23 children there had a broken home"; "a divorce in many ways is very traumatic"; "taking care of younger siblings"; "mother was always in and out of his life"; "living with another family"
Family Members' Experience	Things that were experienced by a students' family member that were also traumatic for the student	"his parents were killed in front of him by the cartel"; "parents were murdered"; "dad got arrested"; "sister had died"

The students' home environment was mentioned by all of the participants in their definition of trauma. Sheila shared that "many live in low-income homes and you would have to experience it to believe it, but 21 out of 23 children [in her classroom] had [single parent homes]." Participants also mentioned "single moms" (Jennifer; Elizabeth), and "divorce" (Elizabeth; Sheila). Kristie elaborated on home environment, stating "a lot of them . . . were moving constantly and into living situations that were not stable and sometimes pretty violent."

The final theme that emerged under definitions of trauma was family members' experiences that were also traumatic for the student. Some descriptions of this included "his parents died (Elizabeth), "her sister had died" (Allison), "his dad got arrested in front of him, his brother had committed suicide, and his mom was in jail, too" (Louisa). Jennifer shared that

"I had students whose parents were in jail, who had been murdered. . . . I had one [student] who his parents were killed in front of him by the cartel."

Next, teachers were asked how they define ACEs as related to their students (see Table 4.4). Four of the six participants responded that they were not familiar with ACEs, with statements such as "ACEs is not a term I've heard before; we've never done any work with ACEs" (Jennifer) and "[I've] never heard of them" (Elizabeth). Sheila stated that she is familiar with ACEs today, but that "I don't remember learning anything about ACEs in school [her preservice program]." Allison noted that she had taken an ACEs course provided by the school she worked at during her student teaching experience. She noted several of the ACESs indicators—divorce, substance abuse, household dysfunction—and stated that "[the ACEs workshop] was awesome." Of note, while most teachers stated they were not familiar with ACEs, they had actually previously identified the primary ACEs indicators (i.e., abuse, neglect, and household dysfunction) when providing their definitions of trauma.

Table 4.4

Interview Participants' Definitions of ACEs

Theme	Description	Sample Statements
Not Familiar	Participant was not familiar with, could not remember, or had not learned about ACEs	"Don't remember anything about ACEs"; "Not a term I've heard before"; "I don't know what that means"; "I don't think we covered ACEs at all"; "We didn't get anything about that"
Workshop During Student Teaching	Participant had attended an ACEs workshop during the student teaching experience	"A whole list"; "Broken Homes"; "Mental abuse"; "Alcoholics, drug addicted"

The next series of questions asked teachers what they believed the impact of trauma and ACEs is on the physical, emotional, behavioral, and academic well-being of their students. Each of these yielded a variety of responses and are discussed individually below.

Physical Impacts of Trauma

When asked about the physical impact of trauma on students, teachers gave many examples within four distinct themes: safety, hygiene, sleep, and nutrition (see Table 4.5).

Table 4.5

Interview Participants' Perceptions of the Physical Impact of Trauma on Students

Theme	Description	Sample Statements
Safety	Students' regard for the safety or well-being of themselves or others	"did not think of the well-being of herself and others"; "she would scratch herself"; "cutting is very common"; "run away from school"; "fleeing classrooms"; "hair pulling"
Hygiene	The effort that teachers felt students and their caretakers put into student hygiene	"same clothes, hair terribly done"; "wet herself"; "very dirty"
Sleep	The amount of sleep teacher felt student was getting at home as indicated by students' behavior	"sleepy and tired because they don't sleep"; "super tired all the time"; "they're gonna sleep"; "they'll sleep all class"
Nutrition	What teachers thought students were eating at school or home and how this impacted the way they looked or behaved	"they don't eat well"; "didn't get enough to eat"; "just so skinny"; "malnourished"; "a lot of junk food"; "obese"; "weight gain"

Several participants noted that students had little regard for their own safety or well-being. Elizabeth described a second-grade female student who would "start freaking [acting] out" during class and "knock over things in the room . . . even if it would harm her. . . . it's like it didn't matter what happened to [her] . . . when she was really upset." Elizabeth also noted that the student "often did not think of the well-being of herself and others." Other teachers also mentioned the prevalence of self-harm: "lots of students will cut themselves to act out or to show that they want help, but they don't know how to say it" (Jennifer), "a lot of kids would do hair pulling . . . they were so nervous" (Sheila).

Teachers also frequently mentioned hygiene when discussing the physical impact of trauma. Elizabeth shared that "you would see them come in, [wearing the] same clothes for the last few days, hair [unkempt]" and that one student would "wet herself" during class, which she

described as “an utter shock to me as a new teacher.” Kelly also noted that students were often “very dirty [unclean]. . . . You could tell there was not an influence [person] at home [that] was taking care of them.”

All six participants identified lack of sleep as a physical impact resulting from trauma. Allison attributed lack of sleep to one student’s living situation, explaining that a first-grade student’s “whole family was living with another family so there was constantly something going on . . . he was super tired all the time because there was not a lot of structure in that house, so physically it takes a toll on him.”

Each of the participants also discussed student nutrition, noting that many of their students who had been impacted by trauma did not eat enough at home, or that the food they did get was of poor nutritional value. Allison shared that “they don’t eat well, you know. . . . Some of them are just so skinny that you just, you know, constantly want to feed them.” She went on to explain that, during school lunches, “they won’t eat the vegetables, but if you give them a bag of chips they’ll eat that and so they were eating a lot of junk food.” These physical indicators of trauma are closely related to the emotional impacts of trauma, which participants also discussed.

Emotional Impacts of Trauma

Four themes emerged when participants were asked what they felt the emotional impact of trauma was on their students: anxiety, withdrawal, self-regulation, and quality of relationships (see Table 4.6).

Several participants stated that they felt students exhibited symptoms of anxiety, which they attributed to various traumatic experiences. Elizabeth described one student as “scared all the time . . . she would start screaming and freaking [acting] out . . . it was so clear that she was filled with anxiety.” Other participants described anxiety in their students as “they were so

nervous" (Sheila), and "you can also see them being anxious and not wanting the day to end" (Allison).

Table 4.6

Interview Participants' Perceptions of the Emotional Impact of Trauma on Students

Theme	Description	Sample Statements
Anxiety	Teacher witnessed behaviors in students that they attributed to anxiety	"worried"; "you can see them being anxious"; "separation anxiety"; "so nervous"; "she was filled with anxiety"; "so much upset"
Withdrawal	Students were withdrawn, did not participate, or did not show emotion	"they turn inward"; "they just shut down"; "closed body language"; "she stopped talking"; "suppress their emotions"
Self-Regulation	Students had a difficult time managing their emotions and behaviors	"you don't know what you were going to get from one moment to the next"; "just a wreck"; "they just don't know how to regulate or express things"; "she just had to let out the feelings"; "didn't really have a whole lot of emotional control"
Quality of Relationships	Students had difficulty creating and/or maintaining relationships with adults and/or peers	"she was terrified of adults"; "had a hard time making friendships"; "nobody wants to be their friend"

Participants also described students who had experienced trauma as emotionally withdrawn. In one example, Jennifer explained that "they try to suppress their emotions and push them down, and then it leads to a lot of acting out." She went on to connect acting out behaviors to lack of self-regulation "sometimes they just don't know how to regulate or express things." Another participant described the behaviors of a second-grade student who had been sexually abused, as "night and day", noting that "she could not calm herself, or self-regulate. . . . She began scratching her arms. . . . There was something inside of her that was filling her with such upset and stress . . . it felt like there was just a demon chasing her inside (Elizabeth). Kristie also identified lack of self-regulation in some students, stating that they "didn't have really have a whole lot of emotional control. . . . Everything would become like a huge thing. . . . They

couldn't deal with just one little thing because it became this and this and this and it spiraled into just everything [behavior] was uncontrollable."

Students' quality of relationships with others was also identified as an emotional indicator of trauma. Some participants noted general barriers in this area such as "they really don't trust other people, they don't let people in" (Louisa), "some [students with trauma] hated people", and "he didn't like other people; he didn't like being around anyone" (Elizabeth). Other descriptions were specific to relationships with adults and teachers: "from the very first time you met her you could tell that she was terrified of adults" (Elizabeth), "she had a really hard time . . . making those relationships with us as teachers" (Sheila). Andrea described how students who have experienced trauma have difficulty with peer relationships, noting that:

> It affects the kids socially, the trauma that they experience . . . as far as how they make friends. . . . I think for some of them it's harder to make friends because they act out, so nobody wants to be their friend, you know, so I think sometimes that creates isolation for them.

As with other indicators of trauma, the emotional impact is also closely related to the behavioral impacts, which participants discussed next.

Behavioral Impacts of Trauma

The perceived behavioral impacts of trauma were discussed, at length, by each participant, and often included in their answers about the physical, emotional, and academic impacts of trauma as well, causing an overlap in some themes. A total of seven themes emerged from this question: disruptive behaviors, disrespect, verbal aggression, physical aggression, aggression using objects, attention-seeking behavior, and withdrawal (see Table 4.7).

Table 4.7

Interview Participants' Perceptions of the Behavioral Impact of Trauma on Students

Theme	Description	Sample Statements
Disruptive Behaviors	Student behaviors are disruptive to classroom instruction and/or classroom management	"kind of mischievous"; "wanted to play rather than work"; "cutting up"; "they wouldn't even try to be serious"; "they're going to do what they want to do"; "their behavior was challenging"
Disrespect	Student behaviors are disrespectful to teachers and/or peers	"I could write them up for being disrespectful"; "really bad attitudes towards teachers"; "just being defiant"; "their behavior was challenging"
Verbal Aggression	Students use profanity, insults, or name-calling towards peers and/or teachers	"just yelling out cuss words"; "calling them names"; "insults"; "he was like verbally hateful"; "screaming at students"
Physical Aggression	Students cause, attempt to cause, or threaten to cause injury to others	"they just get very aggressive at the smallest things"; "sometimes they get physical with you"; "try to even stab someone with a pencil"; "I've had students hit each other"; "threaten someone"; "fighting"
Aggression Using Objects	Students use objects to cause, attempt to cause or threaten injury to others	"would kick and throw things"; "throwing pencils; "they just throw something"
Attention-seeking Behaviors	Student behaviors are perceived as an attempt to gain the attention of a peer and/or adult	"wanting attention"; "a lot of attention-seeking behaviors"; "screaming out to get attention
Withdrawal	Student physically withdraws from others, the classroom, or the school	"quiet and withdrawing into themselves"; "escape underneath her desk"; "she liked to climb under the table and just sit there"; "would exit the room"; "put their heads down"; "run under a desk and hide"

Disruptive behaviors were identified as an indicator of trauma and included behaviors that were a barrier to classroom instruction and/or classroom management such as "cutting up" (Louisa), being "kind of mischievous" (Elizabeth), and "[wanting to] to play rather than do work [classwork]" (Louisa).

Disrespect towards teachers and/or peers was also mentioned as a behavioral indicator of trauma. Louisa described students who had "really bad attitudes towards teachers" with an attitude of "nobody can tell me what to do." She went on to state "I could write them up for

being disrespectful . . . it was on our discipline rubric" and "it was disrespectful because she was sleeping while I was talking." Disrespect was also described as students being "defiant" (Allison), and "challenging" (Kristie) towards teachers.

Closely related to disrespect was verbal aggression where participants shared how students used profanity, insults, or name-calling towards peers and/or teachers. Louisa specifically identified "profanity" and "calling [their peers] names" and others stated "insults" (Elizabeth), and "screaming at students" (Kristie).

One teacher elaborated on verbal aggression, noting:

> You can't imagine what kind of trauma they must be experiencing or who in the world speaks to them in this manner for them to know how to come back [use profanity] at someone. . . . Some of the words that came out of these second-graders mouths, I'm [wondering] where in the world did you hear that? (Allison)

All six participants also mentioned physical aggression, which included descriptions of students who caused, attempted to cause, or threatened to cause injury to others. One participant stated that students would "just get very aggressive at the smallest things and sometimes they get physical with you" (Allison). Another described a student who had been physically abused, stating "he didn't like being around anyone and he let it be known, sometimes physically . . . he hit other students on occasion" (Elizabeth). Louisa noted how she had witnessed aggression in students, "It was like they were determined to go punch [other students]. . . . it was just like they could not slow down and reflect on [their anger]."

Aggression using objects was another theme that participants identified. In describing a first-grade student who struggled academically due to trauma, Sheila explained "if we were doing a stem activity . . . that child would get frustrated and knock the other person's work over

or crumple up their paper or even try to stab someone with a pencil." Kristie stated that, "sometimes, when they needed attention, they would kick and throw things."

Attention-seeking behaviors were also mentioned by several participants in statements such as "there are a lot of attention-seeking behaviors because [students with trauma] feel like they're not seen at home . . . so they act out in school because they want someone to pay attention to them and to notice them and to be there for them" (Jennifer) and "for [students] with trauma, you had to go check on them [deliberately] because otherwise they're not going to ask for help and the attention-seeking behaviors would just take over" (Elizabeth).

Conversely, participants also identified withdrawal as a behavioral indicator of trauma. Elizabeth explained that one female student who had experienced trauma often "hid under a table right outside the hallway. . . . She liked to climb under the table and just sit there, and you could sometimes get her to calm down when she went there." In similar statements other participants shared that students with trauma "just shut down. . . . You will have those who actually physically run under a desk and hide" (Allison), and "the only place that she felt safe was underneath her desk" (Sheila). Other indicators of withdrawal included "some of them [students with trauma] were just pretty quiet and withdrawing into themselves" (Louisa), and "sometimes he would just exit the room" (Kristie). Throughout their descriptions of how trauma impacts student behaviors, participant descriptions often overlapped with the academic impacts of trauma, which are described next.

Academic Impacts of Trauma

Throughout the interviews, the academic impact of trauma was consistently interwoven with participant's responses regarding the physical, emotional, and behavioral impact of trauma. One participant stated that academic performance was her "biggest concern" (Sheila)

in working with students who had experienced trauma. Another quickly stated, "I found that my students who didn't have trauma did much better academically" (Elizabeth). Eight themes emerged in this category: cognitive, academic performance, attitude, lack of engagement, lack of participation, overachievement, the impact on other students, and lack of parental support (see Table 4.8).

Table 4.8

Interview Participants' Perceptions of the Academic Impact of Trauma on Students

Theme	Description	Sample Statements
Ability	Barriers to students' ability to learn or progress due to experiences of trauma	"couldn't even read"; "did not know how to count past 10"
Academic Performance	Concerns about academic performance due to experiences of trauma	"most of them have failed"; "suffering academically"
Attitude	Students' attitudes towards education impacted their academic performance	"they don't care about the curriculum"; "they just give up";
Lack of Engagement	Lack of engagement was attributed to students' poor academic outcomes	"not able to concentrate"; "not engaged in the learning";
Lack of Participation	Lack of participation was attributed to students' poor academic outcomes	"they don't try at all"; "refusing to take a test"
Over-achievement	Teachers perceived trauma experiences as a drive for some students' overachievement	"some soar through"; "push themselves so hard"
Impact on Other Students	Academic impacts to all students when students with trauma disrupted classroom instruction	"taking away from instruction time"; "halt to everybody's learning"; "no time to teach"
Lack of Parental Support	Parents of students who had experienced trauma were not academically supportive	"did not want to work with the school"; "don't have parents at home"

Several participants identified students' abilities as a barrier to academic success. Elizabeth described one student who "was in second grade but she came to my classroom with basic kindergarten reading level. . . . She should know all of her alphabet [but] she did not know how to count past 10." Other participants noted that students "couldn't read" (Louisa; Kristie) and Sheila explained that one student suffered academically, "her language was so limited because she wasn't taught to speak at home . . . she had a really hard time

[academically].” Other participants also cited academic performance as a concern, noting “trauma had a significant impact on their academic well-being” (Louisa), and “he was so distraught because he was years behind his peers and he just wanted to be successful (Jennifer).

Students’ attitudes were also a recurring theme among participants. One participant described how student attitudes impacted them academically:

> Most of them have said that they were held back [a grade] anyway. . . . I feel like they already had this mentality that [they have] never been good at school, and [they are] never going to do well in school anyway. (Louisa)

Another participant also elaborated about the attitudes of students who have experienced trauma, explaining:

> They [students with trauma] purposely fail. . . . They’ll act like they don’t care even though you know they do. . . . They’re like ‘I’m done, I quit, I don’t want to try anymore because I’m not good enough’. . . . It’s really hard [for students with trauma] to be successful, but really easy [for students with trauma] to be a failure. (Jennifer)

All six participants identified lack of participation as an academic indicator of trauma in students. Jennifer explained that students are “not able to concentrate in class” because of their experiences with trauma. Allison provided a similar explanation: “[Because of trauma experiences], they have very little concentration.” Others stated, “they weren’t focusing” (Louisa), “they’re not engaged in the learning” (Kristie), “they just couldn’t focus to learn” (Sheila), and “she definitely [could not focus] academically” (Elizabeth).

Though similar, there was a distinction between lack of engagement, which participants attributed to students’ emotional states, and lack of participation, which participants attributed to students’ behavior. Allison discussed lack of participation, sharing that students who have

experienced trauma often "don't want to do the work that is necessary in school . . . [they] are spending probably a third to half of their day not even trying to learn." Lack of participation also included "missing a lot of class" (Louisa), and "refusing to participate" (Elizabeth).

In contrast to lack of participation, participants also identified overachievement as an impact of trauma for some students. Jennifer described her experience with overachievement:

> I've seen both ends of the spectrum. . . . Some students that have trauma at home, they work so hard and they push themselves so hard, and they stress themselves out to get perfect grades, straight A's . . . but then they're so stressed out . . . and I'm like it's okay to make mistakes . . . it will get better.

Participants were also concerned about the academic impact on other students, not just students who had experienced trauma. Louisa mentioned that students with trauma would often "take away from instruction time" and were "distracting to the [students] around them" while another participant stated that, due to time spent working with students who were impacted by trauma, "there was no time [left for her] to teach" (Allison). Kristie explained that students impacted by trauma are often "not only putting a halt to their own learning but to the rest of the class's [learning] as well. . . . We have to stop, deal with [the behaviors] before we can keep on going."

Finally, participants identified lack of support by parents as a barrier to academic success: "they did not want to work with the school" (Elizabeth), "the dad didn't see the importance [of school], he was like 'oh yeah, he's [the student] always been the class clown' and that [the student] wasn't going to college anyway so my class didn't matter" (Louisa).

Race-Based Trauma

The next question was related to race-based trauma, which was included because of its presence in empirical literature and helped discover how comprehensive participants' knowledge about trauma was (see Table 4.9). When participants were asked if they felt their students had experienced race-based trauma, three requested and were provided a definition before responding. These three participants went on to assert that they did not believe their students had experienced race-based trauma. Sheila stated, "I can definitely see it [race-based trauma] being real . . . . However, I don't think I observed that in my [students]" and Louisa shared that her school "is not [located in] a very diverse area . . . so I can't think of anyone who wasn't White." Finally, Kristie noted "No, it was not something that was ever a problem."

Table 4.9

Interview Participants' Perceptions of Race-based Trauma Experienced by Students

Theme	Description	Sample Statements
Requested definition	Asked for a definition of race-based trauma	"If you could just give me a definition"; "I'm not familiar with that"
No race-based trauma	Did not perceive students as experiencing race-based trauma	"not with my children"; "not a diverse area"
Race-based trauma was perceived	Felt that students had experienced race-based trauma	"definitely"; "I know one child did"

The remaining three participants affirmed the presence of race-based trauma in some of their students. Allison did not elaborate, but asserted "systemic racism exists, period." Jennifer shared multiple examples of Black students who may have experienced race-based trauma. She disclosed that,

> It was rough . . . . My Black students have obviously experienced a lot of trauma . . . . Every time they leave that [predominately Black] community they feel like they're in a different world because people treat them [negatively] . . . .

Jennifer discussed students of other ethnicities, too. She stated that "everyone calls them [Latinx students] Mexican no matter where they're from . . . . It hurts them because their heritage is a big part of who they are . . . . And everyone assumes they're illegal [immigrants]." She went on to describe an Egyptian student:

> He actually fled persecution from terrorism . . . . His family came [to the United States] because people [in Egypt] were being killed by terrorists, and he told me he went to [a supermarket in the United States] and a group of kids were pointing at him and calling him a terrorist . . . . It's traumatizing when people do that. They're teenagers for goodness' sake, they're not terrorists.

Secondary Trauma

The next question, regarding secondary trauma, was also used to learn how extensive participants' knowledge about trauma was. Contrary to race-based trauma, participants did not request a definition for secondary trauma and responses yielded five themes: acknowledgement, sadness, anxiety, questioning career choice, and resilience (see Table 4.10).

Table 4.10

Interview Participants' Perceptions of Secondary Trauma Experiences

Theme	Description	Sample Statements
Acknowledgement	Acknowledged the experience of secondary	"it was sucking the air out of me"; "it was traumatic"; "I've had some triggers"
Sadness	Described feelings related to sadness and/or depression	"sometimes I cried"; "sadness"; "depression"
Anxiety	Shared feelings of anxiety	"anxious all the time"; "panicky"; stopped sleeping" "Zoloft"
Questioning Career Choice	Shared thoughts that questioned their choice to teach	"not good enough"; "leave the profession"; "I should just quit"
Resilience	Shared thoughts of their own resilience	"I'm strong"; "I'm resilient"; "good support system"

The first theme, acknowledgement of trauma, occurred when teachers shared they had experienced secondary trauma but did not share specific details. One participant revealed the following:

> It was just like every day was just sucking the air out of me . . . . And I'm like, 'I am not good enough to do this job, there's no way' . . . . I almost feel like you have to have a social work degree in order to teach. (Allison)

Louisa disclosed the following regarding secondary trauma:

> Yes, I would say it [teaching students with trauma] has affected me and I've never really said that out loud, I don't think . . . no one's ever asked me about this . . . . Now that I think about it, I think I've had some triggers from my own childhood that I didn't realize were triggers at the time"

In terms of sadness, statements such as "When I would come home [from teaching] I would just cry" (Allison) and "I was just drained emotionally, it was all so sad." (Sheila) were shared by participants. Some participants simply used words such as "sad" (Elizabeth; Kristie) or "depressed" (Louisa).

Statements about experiences of anxiety included, "I felt [secondary trauma] more in terms of being anxious a lot" (Kristie) and "I just felt a lot of stress [and] anxiety . . . every day" (Sheila). Elizabeth disclosed having pursued medical treatment for the anxiety she experienced, "I don't know if it's considered trauma or not, but I definitely stopped sleeping and I did feel anxious, kind of all the time. I definitely had anxiety, so I saw [a doctor] and started taking Zoloft."

Questioning of career choices was also a theme mentioned by participants. As previously noted, Allison expressed that she sometimes felt she was "not good enough to do this job" and she went on to share the following:

> [I felt like] I should just quit [teaching] now. I can't believe [the preservice program] waited until my last year of school and I would just now see all this [trauma] . . . . And now I'm like 'I'm not good enough to teach these kids' and wondering 'Why did you choose this career?'

Sheila also shared thoughts about career choice, which tied into the theme of resilience:

> It really alters your heart . . . . and it can make you do one of two things . . . . It can make you leave the [teaching] profession, or it can make you a better teacher.

Additional statements categorized as resilience included, "I'm a pretty strong human . . . and I'm pretty resilient . . . . I don't think [teaching students with trauma] gives me trauma, but it makes me look at the world a little bit differently [with more understanding of trauma]" (Jennifer) and "I have a really good support system at home and a very patient husband, and that helps me to bounce back [from secondary trauma]" (Kristie).

Summary

The purpose of Research Question 1 was to learn how teachers describe trauma, ACEs, and the influence of trauma and ACEs on students, based on what they learned during their preservice experience. Questionnaire responses indicated an agreement that they had learned about trauma and ACEs during their preservice experience. Interview responses revealed that, though teachers did not provide working definitions for trauma, they had a clear understanding of what trauma is and were able to identify many of the indicators of trauma when prompted for further information. There were no notable differences in the participant's responses based

on their degree type or the grade level in which their student teaching experience was completed.

For example, teachers identified specific examples of the emotional, behavioral, physical, and academic indicators that often impact students who have experienced trauma. When asked to provide a definition about ACEs, participants could not do so and several stated that they had never heard of ACEs. As with trauma, however, participants did mention several of the indicators of ACEs, such as divorce, parental incarceration, and family dysfunction, when providing examples of trauma. Of note, participants did not mention the long-term health effects of ACEs, which is key to the findings of the original ACEs study (Felitti et al., 1998). To lend further understanding of teachers' description of trauma, participants were asked if their students experienced any race-based trauma, where half of the participants stated they did not while the other half shared their perceptions of how their students experienced race-based trauma. The final question asked participants about their own experiences with secondary trauma, which yielded a variety of responses, indicating how their teaching experiences impacted their own well-being.

Preservice Preparation for Supporting Students with Trauma (RQ 2)

Research Question 2 focused on how teachers' preservice programs informed how they support students who have trauma-related indicators. One questionnaire item along with interview responses were analyzed to answer this question. Quantitative data are presented first, followed by qualitative data to help explain the quantitative findings.

The final item of the KAP (King et al., 2019) questionnaire addressed if participants would have liked to receive more information about the principles of trauma-informed care during their preservice preparation. Analysis of mean responses indicated that participants

"strongly agreed" with this item, with a mean of 4.62 on a 5-point scale. The interview further explored this topic by asking participants what they had learned about trauma during preservice, how they managed trauma-indicators in the classroom, how they felt when managing trauma-indicators in the classroom, what they would like to have learned during preservice to assist with managing trauma-indicators in the classroom, and at what point of the preservice experience would this information have been helpful.

Participants were first asked what they learned during their preservice experience regarding trauma and its influence on students, then later asked what specific tools or techniques they learned that were helpful in working with students who had experienced trauma. These items are discussed together due to the considerable overlap in responses. Three themes emerged from participant responses to this item: none, Maslow's hierarchy of needs (Maslow, 1943), and classroom environment (see Table 4.11).

Table 4.11

Interview Participants' Perceptions of Working with Students Who Have Experienced Trauma

Theme	Description	Sample Statements
No Tools or Techniques	Teachers indicated that they did not learn any tools or techniques for working with students who had experienced trauma	"didn't hear the term trauma"; "we just didn't discuss students with trauma"; "nothing really sticks out"; "mostly all about academics"
Maslow's Hierarchy of Needs	Teachers indicated that they learned about Maslow's Hierarchy of Needs (Maslow, 1943)	"Maslow's Pyramid"; "the hierarchy of needs"; "talked about their basic needs"
Classroom Environment	Teachers indicated that they learned about trauma-related behaviors and the importance of managing them in the classroom	"repetitive information about behavior"; "behavior, but never concrete strategies"; "how to calm them down"; "build a safe environment"

Three of the six participants indicated that they had not received any information about trauma during their preservice experience. One participant quickly responded, "with all regrets, I have to say that we just didn't discuss students with trauma" (Sheila), while others stated, "I

don't remember preservice ever having discussed trauma except that . . . 'you need to know that they have trauma'" (Allison) and "I don't recall much [learning about trauma], I don't know if I can say anything at all [about what I learned in my preservice program about trauma]" (Louisa).

Some participants did indicate that they learned about students' basic needs through the incorporation of Maslow's hierarchy of needs during their coursework and found it helpful. Kristie mentioned learning about Maslow's pyramid prior to her preservice experience:

> I specifically remember freshman year we talked a little bit about how some students were hungry and, you know, Maslow's pyramid . . . but I mean that was about the extent of it, it was just kind of the focus on the pyramid and that [basic] needs [should] be met, but it didn't go any deeper than that.

Jennifer also elaborated on her experience learning about the hierarchy of needs in the classroom:

> We talked a lot about the hierarchy of needs . . . and I remember as an undergraduate thinking like, oh most students will already have [their basic needs] met . . . . And we talked about the importance of [basic needs being met] but that was the end of it and later I was shocked to find out how many students were homeless or didn't have food and shelter but I realized I had never learned how to help them . . . . I was clueless.

Information about the classroom environment, as related to the importance of managing trauma behaviors also emerged as a theme. Participants noted that during their preservice experiences, information about trauma behavior was presented in general terms: "it was just repetitive information about behavior, nothing that said what to actually do about [negative behaviors]" (Elizabeth), "basic negative behaviors . . . but just theory, never concrete strategies

[for managing negative behaviors]" (Kristie). One participant, who had previously indicated that she didn't remember ever learning about trauma shared that,

> I did take a [special education] class, where it's a lot of information about behavior . . . . It was more about basic behavior . . . . There wasn't a lot of discussion about where the behavior came from or what to do . . . just that we need to address it, fix it so that the kid can get back to the learning environment . . . . it wasn't at all about understanding the trauma that might be [present]. (Allison)

Other comments about classroom management were specifically related to maintaining a safe classroom environment. Comments about this included "there's a huge emphasis on [creating] a safe environment" (Kristie), "[We learned] about how to de-escalate behavior . . . but not really the emotional side or the physical side" (Jennifer), and "keep [students] safe, don't agitate the situation, and if you have to [remove other students from the classroom]" (Allison).

The next question asked participants to recall specific difficult classroom experiences with students who had experienced trauma and share how they managed the situation. Five themes emerged from this question: communication, positive reinforcement, punishment, physical or emotional release, and external support (see Table 4.12).

The first theme was communication, in which participants shared that they would converse with the student to manage trauma indicators. Communication ranged from generalized discussions that included all students in the classroom to more targeted discussions directly with students who were displaying trauma-related indicators. Elizabeth, who had described her student teaching classroom as having a large population of students who had experienced trauma, stated "I tried doing lessons on dealing with feelings and that cut in on academic time, but I think maybe it helped." Louisa shared her communication approach,

I would just try to level with them . . . . 'You're more grown up than anybody in this room because of what [trauma] you've been through and what [trauma] you've seen and what [trauma] you've been exposed to and I'm so sorry for that, but we've got to get through this [lesson]'.

Sheila identified social stories as a tool she used in the classroom to communicate with students:

"I would always use this particular child [who had experienced trauma] as . . . one of the characters in the stories to talk about desired behaviors. That seemed to help [curb negative behaviors] some."

Table 4.12

Interview Participants' Perceptions Managing Trauma Indicators in the Classroom

Theme	Description	Sample Statements
Communication	Talked with the student(s) about his/her behaviors	"we would do highs and lows"; "social stories"; "level with them"
Positive Reinforcement	Reinforced desired behaviors with rewards or praise	"lots of positive reinforcement"; "high five's"; "rewards"; lunch with teacher"
Punishment	Used punishment to address difficult behaviors	"write-ups"; removed from the class"; send to the office"
Physical or Emotional Release	Provided ways for students to release their emotions in a positive way	"take a walk"; "fidget spinner"; "get his wiggles out"; "draw"
External Support	Sought supports outside the classroom to assist with trauma behaviors	"called child services"; "behavioral teacher"; meetings with the principal;"; "tried to work with the parent"

Positive reinforcement was named by multiple participants as an approach to nurturing desired behaviors. Teachers described strategies such as "positive praise" (Jennifer), "high fives" (Sheila), and "rewards" (Allison). Elizabeth shared, "I tried setting up rewards like good behavior gets [to eat] lunch with [the teacher]." Another participant said that she would "always talk with [students impacted by trauma], let them know I loved [them] and was proud of them,

and I tried to make [the classroom environment] as positive as I could . . . because I knew [students] had suffered some trauma" (Sheila).

In contrast to positive reinforcement, several participants divulged that they used punishment when managing trauma indicators in the classroom. Louisa stated that she occasionally used "write-ups [written disciplinary warnings] and [students] might sometimes go to in-school suspension or something, but . . . you just kept getting [the students] back in class and [negative behaviors] kept happening." Another statement regarding the use of punishment with a student who had experienced trauma came from Sheila,

[A student said] very, very inappropriate words to the other children and the teachers. And, unfortunately all that did was [require] him to be removed from the classroom a lot. . . . [Which] made him less able to build healthy relationships [with his peers] or to have access to the learning that he needed.

The next theme to emerge was physical or emotional release, which occurred when teachers allowed students various opportunities to release their emotions in a positive manner. Allison shared that she would "work with [students] to see . . . if they need to take a walk [outside]. . . . . Or give them a fidget spinner or a reward of some kind . . . to let them get it [their emotions] out and get back on track [completing classwork]." Sheila described her morning routine with one student:

> He needed lots of love, lots of attention, lots of guidance . . . . And with this particular child, I knew he was very active . . . and so I would meet him at the door, give him a high five, and I would have a [classroom] job for him to do. Not only did he have ADHD [attention deficit hyperactive disorder], but I needed that little boy to feel like he was

worthy . . . . He needed to feel good about himself after the trauma that he'd went [sic] through.

The final theme for this question was external support, in which the participant sought external supports to aid with classroom behaviors indicative of trauma. Two participants noted that they reached out to students' parents for support but had little success. One participant remarked, "I tried talking with the [student's] mom, that didn't work" (Elizabeth) and another noted "you try to get the parents to be involved but so many won't even return your calls" (Louisa). Elizabeth shared that she "called child [protective] services because of some of his behaviors but nothing came of it that I know of", as did Kristie, "we did report him to CPS [child protective services] because we believed he was being physically abused at home." Other comments regarding external supports included "I started setting up appointments with the [school] counselor so she could get help" (Elizabeth), "sometimes I would have meetings with the principal [regarding student behaviors]" (Louisa), and "another teacher helped me [manage trauma behaviors] a lot" (Allison).

After participants shared how they managed trauma indicators in the classroom, they were then asked about their feelings during and after trauma-related incidents. The five themes that emerged from this question were feelings of incompetency, uncertainty, helplessness, sadness, and shock (see Table 4.13).

Each participant shared that they felt incompetent in managing students who had been impacted by trauma. Sheila shared that she often thought "I was not competent enough to teach children", and Allison said, "I felt like I wasn't equipped to handle all this [trauma] he [a student] had experienced." Elizabeth mentioned that "I think when it comes down to it, I feel in many ways that I ended up being reactionary rather than trying to plan [how to manage

behaviors] . . . . I had no idea what I was doing." Elizabeth also spoke to uncertainty, disclosing "The sad thing is, I don't know if I helped any of these kids at all" while another participant stated, "you have to act quickly and you're not trained for what to do [when a student has trauma-related behaviors] . . . . I'm still not entirely sure if I did the right things" (Louisa). Participants also expressed feelings of sadness and helplessness when trying to support students impacted by trauma. Statements about sadness included assertions such as "It really hurts my heart . . . . I would just cry" (Louisa), "it was just so sad" (Sheila). Statements about helplessness were "I feel like I never could have done enough" (Louisa), and "I just felt like I couldn't do enough to save them" (Allison).

Table 4.13

Interview Participants' Perceptions of Managing Difficult Classroom Experiences

Theme	Description	Sample Statements
Incompetency	Teachers questioned if they had the skills to manage situations	"not competent"; "wasn't equipped" "not prepared"; "not confident"; "not sure I did the right thing"
Sadness or Helplessness	Teachers felt sand or helpless when trying to help students impacted by trauma	"not good enough"; "my fault"; "couldn't do enough"; "it was just so sad"; "hurts my heart"
Shock	Teachers were shocked by student behaviors resulting from trauma	"eye opener"; "caught me by surprise"; "utter shock"

Lastly, participants voiced feelings of shock regarding their work with students who had experienced trauma. Jennifer shared that she "wasn't expecting the amount of trauma that [was present]." Much like her response when describing a specific student who exhibited trauma behaviors, Elizabeth stated that working with students who had experienced trauma "was an utter shock to me as a new teacher." Sheila explained, "Each year we're seeing more and more [trauma] in children . . . . You would have to experience it to believe it."

The next question participants were asked was “Is there any trauma-related information that you did not receive during your preservice experience that would have been helpful to you as a new teacher?” This question revealed three themes: trauma theory, ACEs theory, and practical application (see Table 4.14).

The first theme was trauma theory, which was named by all six participants. Kristie shared the following:

> It would have been beneficial to have a class that just went deep into what trauma looks like in children and how to help them . . . . You know, what you’re legally allowed to do, what supports you put in place as a teacher, and what you talk to your principal about.

Another participant said, “Trauma, just something about trauma . . . . I don’t know exactly what I needed but I know I needed more” (Louisa). Sheila shared that “If I would have had a trauma-informed course . . . I would have had some tools, and I would have had the background knowledge before working with [students with trauma].” Sheila also went on to state that,

> I know for a fact that each teacher who works in the public school system needs a . . . trauma-informed course before they student teach, before they do any [classroom] observations, that way they [understand] that there is trauma behind the behaviors they will [observe].

Coursework dedicated to ACEs was also mentioned by participants. Louisa commented, “With what I know now, I . . . think that definitely learning about ACEs [during] coursework would have helped” while Sheila noted “I wish that there was a class that was solely just around the ACEs topic because I think that would have helped me prepare [for working with students with trauma].”

Table 4.14

Interview Participants' Perceptions of Desired Trauma-Related Information

Theme	Description	Sample Statements
Trauma Theory	A class or classes about trauma or trauma-informed care	"what trauma looks like in children"; "trauma-informed course"
ACEs Theory	A class or classes about ACEs	"ACEs definitions"; "the ACEs topics"
Practical Application	Practical tools for managing trauma-related behaviors	"how to talk with students"; "support strategies"; "what am I supposed to do"

The next theme, practical application, was the theme that participants elaborated the most on, particularly when it came to behavior management of trauma indicators in the classroom. Allison shared that,

> I think putting us into a classroom and then saying 'Oh, yeah, by the way, these kids have trauma' doesn't really help . . . . So, tell us, what does that look like, how do I fix that, how do I help? . . . [Preservice students are] not understanding the underlying reasons why [students with trauma exhibit negative behaviors] and I feel like if I'd had more training on [how to manage] behavior issues than I did on just theory, that would have helped.

Kristie also shared multiple examples of topics for practical application:

> What do you do when a child is harming themselves or others, what about when they begin tearing up the classroom, running out of the room, or . . . screaming at the top of their lungs . . . . Like what, specifically, what am I supposed to do?"

Other comments for this theme were "when and how do you communicate with [child protective services]" (Elizabeth), "how to talk to students [about trauma]" (Jennifer) and "how to de-escalate [negative behaviors]" (Sheila).

After sharing what trauma-related indicators would have been helpful to learn, participants were asked to share at what point, during their preservice experience, would they have liked to receive this information. Teachers identified coursework, during the student teaching experience, and throughout the entire preservice experience (see Table 4.15). Note that there was overlap regarding where trauma-related information fit into the preservice experience, with little consistency between participants. Additionally, unless noted, participants did not typically make distinctions about multiple topics fitting into multiple sectors of the preservice experience.

Table 4.15

Interview Participants' Perceptions of When to Integrate Trauma-Related Information

Theme	Description	Sample Statements
Coursework	Trauma-related information should be embedded into existing coursework and/or trauma-specific courses should be designed	"integrated into every course"; "courses need to be specifically designed"
Student Teaching Experience	Identified items fit best into the student teaching experience	"in your first year teaching in a mentor program"; "first semester student teaching"
The Entire Preservice Experience	Identified items should be addressed throughout the entire preservice experience	"all four years"

When asked where trauma education should appear during the preservice experience, Sheila shared all three themes in her response:

> I think Year 1 [the first year of coursework], but it doesn't need to stop with Year 1, I think it needs to be touched on throughout the whole four years of getting your teaching licensure . . . . I think at least two courses need to be specifically designed for trauma, and then I would think that ACEs and trauma need to be integrated into every course.

Louisa also mentioned that the duration of the preservice experience should include trauma education, stating "I think definitely curriculum in . . . trauma and ACEs, but then student teaching because you need to learn how to apply [trauma-related information]", while Jennifer felt that coursework "before student teaching" was appropriate. Finally, Allison shared that "Maybe you would lose too many teachers if you did this, but at the very beginning . . . if you said, 'this is what it's going to be like, this is your degree . . . . Are you sure?' . . . . Then teachers would know from the beginning." Allison then added, "then as you're going through the process of learning the [coursework] . . . . then at the end, obviously. So, for me the perfect environment is for you to [embed trauma-related information] through the entire [preservice program]."

Summary

The purpose of Research Question 2 was to learn how teachers perceive their preservice experiences informed how they support students who display trauma-related indicators. Questionnaire responses indicated that participants had a desire to have received more information on the principles of trauma-informed care and interview responses both supported this claim and expounded upon it. Participants' responses indicated that some had received basic information about trauma during their preservice experience while others had received none at all. Management of trauma-related indicators in the classroom came in the form of techniques such as talking with students, reinforcing positive behaviors, and seeking external supports. Participants stated that they felt incompetent, helpless, and sometimes shocked when managing behaviors resulting from trauma. Participants stated that they would have liked to have had more information about trauma and ACEs, along with practical tools that would assist them in managing trauma-related behaviors in the classroom, which they stated should be shared throughout the entire preservice experience, particularly during coursework and while

undergoing their student teaching experiences. As with the first research question, responses did not indicate any notable differences when considering participants' degree type or the grade level in which the student teaching experience was completed.

Chapter V

Discussion and Recommendations

The purposes of this study are to (1) explore how teachers describe trauma and ACEs and the influence of trauma and ACEs on students, based on their preservice experiences, and (2) explore how teachers perceive their preservice experiences informed how they support students who display trauma-related indicators. This chapter provides a discussion of the findings as related to the literature synthesis. It concludes with a discussion of the limitations and delimitations of the study along with implications for future practice and research.

Discussion

Interpretations from the findings revealed four major themes. First, teachers could not formally define trauma or ACEs and could identify some, though not all, indicators of trauma and ACEs. Second, teachers reported that they frequently (a) taught students who had experienced trauma and (b) observed indicators of trauma and ACEs in the classroom. Teachers shared, however, that they were underprepared for meeting the needs of students who had experienced trauma. Third, their frequent work with students who have experienced trauma has resulted in some indicators of secondary trauma. Lastly, teachers would have liked more training on trauma, ACEs, and trauma-informed care during their preservice experience. Each theme is described below.

Defining and Identifying Trauma and ACEs

A key component of the trauma-informed care framework is recognizing and appropriately responding to the key indicators of trauma (SAMHSA, 2014). For teachers to be trauma-informed, they must first have a comprehensive understanding of what trauma is, along with what its signs and symptoms are. The findings of the present study align with the original

ACEs study, which identified traumas such as abuse, neglect, and household dysfunction as contributors to negative physical, emotional, and behavioral outcomes (Felitti et al., 1998). Teachers' responses also demonstrated that they could identify trauma indicators in their students and recognized that trauma often results in emotional states such as anxiety or depression, similar to studies by Larson et al., 2017 and Zyrmoski et al., 2018. Particpants, however, failed to mention some key physical indicators of trauma such as interrupted neurological development, similar to Oehlberg's (2008) assertion, or compromised immune systems and long-term illnesses (Berardi & Morton, 2017). That only one teacher shared that she had a student with a documented behavioral health diagnosis was, unfortunately, not surprising because the need for mental health services for children is often undervalued (Larson et al., 2017) and the emotional impact of trauma is not emphasized in teacher preparation programs (Brown et al., 2020).

Finally, teachers' perceptions that race-based trauma is non-existent may be due to a lack of diversity in the districts that teachers work in but this does not account for their unfamiliarity with this type of trauma, especially given the assertion that teachers who understand race-based trauma are more likely to help mitigate its long-term effects on their students (Miller & Flint-Stipp, 2019).

It is interesting to note that, although they may have been unaware they were doing so, the teachers did cite ACEs indicators when giving descriptions of and examples of trauma. This included items such as incarcerated family members, single-parent homes, and experiences of abuse or neglect. A link between ACEs and negative school outcomes has been established (Blodgett & Lanigan, 2018) and the presence of multiple ACEs carries the potential for long-term health problems (Felitti et al., 1998). According to the research, educators should be

knowledgeable about ACEs and implement trauma-informed strategies to counteract the negative outcomes associated with ACEs (Blodgett & Lanigan, 2018). It is clear from the interview responses that, while teachers did identify some ACEs indicators, this was unintentional and they had either never heard of or did not have a solid understanding of ACEs and their impact on students. A logical fit for a foundation of ACEs understanding is during the coursework portion of teachers' preservice experience.

Teacher Preparedness for Indicators of Trauma

A review of the literature found that teacher preparation programs in the United States may not include pedagogical strategies needed to support the needs of students who have experienced trauma (Cummings et al., 2017; Wiest-Stevenson & Lee, 2017). Teachers' responses to the interview questions indicated that this may be the case for this Middle Tennessee preparation program as well.

Regardless of their level of preparedness, teachers shared that they were faced with management of trauma indicators in the classroom. They shared feelings of incompetency, uncertainty, and helplessness when managing trauma-related behaviors. The literature shows that many teachers use trauma-informed practices in the classroom (Cummings & Swindell, 2019) and this was also true for the teachers in this study who stated they employed techniques such as positive reinforcement and supplementary academic supports along with seeking supports outside the classroom from school staff and parents. Though there is evidence that a strengths-based approach can increase academic and behavioral outcomes for students (Post et al., 2020), punishment is not considered an appropriate way to manage trauma behaviors (Larson et al., 2017). Research about trauma-informed care suggests that teachers often use

inappropriate discipline techniques when they do not understand and are not prepared for managing behaviors that result from trauma (Minahan, 2019; Oehlberg, 2008).

Teachers' Secondary Trauma

Secondary trauma occurs when individuals are exposed to the trauma of others (Miller & Flint-Stipp, 2019) and react with stress symptoms that mimic post-traumatic stress disorder, such as anxiety and depression (Christian-Brandt et al., 2020). Educators working with students who have experienced trauma are often exposed to the horrific experiences of their students, leaving themselves also vulnerable to mental illnesses such as toxic stress and depression (Brown et al., 2020). The teachers in this study revealed that-while secondary trauma is a common experience for teachers, many do not realize that "trauma can be transferred from one individual to another" (Miller & Flint-Stipp, 2019, p. 39). When teachers are under prolonged stress, they are more likely to use punitive discipline approaches, thus putting stress on the relationships they have developed with their students (Miller & Flint-Stipp, 2019).

Trauma-Informed Training During Preservice

Teachers often feel underprepared for working with students who have experienced trauma (Chen & Phillips, 2018) and have expressed a desire to learn more about how to help children with trauma during their preservice coursework (Alisic, 2012).Trauma-informed care research has urged preservice programs to incorporate more trauma training into coursework (Alisic, 2012; Reker, 2016), and to seek support from psychology and social work departments to assist with the integration of trauma supports into the preservice experience (Miller & Flint-Stipp, 2019). It is clear from the responses, however, that teachers did not receive the support they needed for working with students who have experienced trauma, and would like to have received more, particularly in terms of how to manage negative behaviors in the classroom.

Limitations

Limitations in research are components of a study that are beyond control of the researcher (Simon & Goes, 2013). Limitations exist in every research project, are unavoidable, and must be fully disclosed to the reader (Marshall & Rossman, 2016). The limitations of the current study are a lack of related research studies, l, internal validity, and the intrinsic limitations of survey research.

While there is a great deal of research on the impact trauma has on students, trauma-informed care, and professional learning, the literature about preservice teachers' attitudes towards their preservice preparation as related to trauma is scant. The lack of literature made it difficult to find an instrument of inquiry that was directly related to the topic, which was addressed by making small modifications to the language in the questionnaire and using the questionnaire to guide the interview questions, then obtaining face validity from experts in the field of psychology.

The ability to generalize the questionnaire results to the population is also a limitation of this study. While the use of inferential testing is a prerequisite for generalizability in quantitative research (Hinkle et al., 2003), this study utilized descriptive analysis as a way to describe the quantitative portion of this study. Quantitative data, however, informs only a small portion of this study. To enhance transferability of the qualitative data, thick, rich details are used to describe the context, participants, and design of the study (Schreier, 2018).

COVID-19 is a historical event that occurred in tandem with this research study that may impact its internal validity. Campbell and Stanley (1963) assert that outcomes of research during historical events may be a threat to internal validity given the "specific combinations of stimulus conditions at that time" (p. 20). Gall et al. (2007) also discuss history as a potential

threat to internal validity in that as time passes, events transpire that may impact the results of a study. Recent research suggests that COVID-19 will have an impact not only on the validity of research conducted during the event, but on all future research as well, given the society-altering effects of the pandemic (Fell et al., 2020). The impact that COVID-19 had on schools is unprecedented, leading to school closures and wide-ranging psychological distress (Fell et al., 2020), which may impact the ways that teachers observed, experienced, and managed students who have experienced trauma. As recommended by Fell and colleagues (2020), this study includes a discussion of the historical context under which it was conducted, which can help determine impact to the validity of the study.

There are also limitations specific to survey research. First, low response rates are a common barrier to survey research (Coughlan et al., 2013). Response rates for this study were low, possibly due to emailing questionnaires to potential participants' student accounts, which they may check infrequently or not at all post-graduation. Additionally, surveys were sent during a summer month, which may have impacted the frequency of which potential participants checked their email accounts. Reminder emails were sent 5 and 10 business days after sending the initial survey to help increase the number of survey responses. Another limitation to survey research is that interviews are self-reported data and are subject to participant bias meaning participants may respond in ways they feel are consistent with what the researcher is trying to discover (Marshall & Rossman, 2016). To improve the accuracy of responses, the surveys were anonymous. The interview process was confidential and pseudonyms were used in reporting. The informed consent, provided to both survey and interview participants, addressed confidentiality.

Delimitations

Delimitations to research are limitations purposely set by the researcher that make it reasonable to achieve the goals of the study (Theofanidis & Fountouki, 2019). For this study there are several delimitations. One is the choice to select participants based on the location of their preservice preparation. This university is the same university where I am currently employed. While this is a convenience, it is important to note that the findings will be used to make recommendations to the university's college of education for improvement of their preservice program, providing relevance to the participant selection. Recommendations for improvement includes evaluating existing coursework for existing elements of trauma-informed care, adding courses specific to trauma-informed care, and incorporating a trauma-informed approach into the student teaching experience. Another delimitation is the exclusion of teachers who graduated prior to May 2015. This choice was made because I wanted teachers who had graduated recently enough to accurately recollect their preservice experience. There is also a delimitation in the choice to omit an evaluation of courses in the College of Education to determine if trauma-informed care framework is embedded beyond the syllabi. This decision was made because a full evaluation of courses would be out of the scope of the research questions, which are focused on teachers' perceptions. Finally, the problem of practice is also a delimitation as I have worked with children who have experienced trauma, their families, and their teachers for many years and wish to contribute to further the research on this topic with the hopes of improving preservice training in trauma and contribute to positive outcomes in children who have experienced trauma.

Implications for Practice, Research, and Policy

This study contributes to the small body of research about teachers' perceptions of how their preservice experience prepared them for working with students who have experienced trauma. The results of this study yield implications for practice, research, and policy. Implications for practice are embedding a comprehensive trauma-informed care approach into preservice coursework and working with affiliated districts to embed a trauma-informed approach into the student teaching experience. Implications for future research are conducting an evaluation of all required preservice education courses and replicating this study among other universities. Finally, implications for policy include standardized requirements for (a) designation as a trauma-informed school and (b) incorporation of trauma-informed care education into the preservice experience.

Implications for Practice

The results of this study indicate that teachers did learn some basic information about trauma and how to manage trauma in the classroom, but that what they learned was not enough to adequately support student success. Embedding a comprehensive trauma-informed care approach into the preservice coursework will better prepare teachers for meeting the needs of students who have experienced trauma. A comprehensive approach would broaden the program's definition of trauma to include ACEs and race-based trauma. SAMHSA's (2014) concept of trauma, which includes events, experience, and effects, would also inform the definition of trauma and could be used as the foundation for a course designed specifically about trauma. A comprehensive approach would also incorporate the use of pre-graduation performance assessments, shown to increase preservice teacher's perceptions of preparedness for meeting students' needs (Okhremtchouk et al., 2009), which will also

benefit the college of education through the collection of data for use in continuous quality improvement efforts.

Coursework should include instruction about how to use trauma-informed rather than punitive approaches to discipline in the classroom. Coursework should also inform preservice teachers about when and how to use outside supports such as seeking behavioral health supports for students, making referrals to children's services, and effectively communicating with parents. When designing coursework, input from departments, such as social work or psychology, should be obtained as trauma understanding originated from the social sciences. Comprehensive use of trauma-informed care would also require putting supports in place for preservice teachers who are working with children who have experienced trauma, which could reduce incidents of secondary trauma (Capatosto, 2015).

A trauma-informed care approach should also be embedded into the student-teaching experience. Colleges of education could accomplish this by doing outreach to provide trauma-informed resources and education to the districts. Trauma learning during the student teaching experience should be an extension of what is learned in the classroom, with particular attention to practical application of evidence-informed techniques in managing trauma behaviors. Colleges of education could conduct orientations with mentor teachers to provide current, evidence-based information about trauma and reinforce the need to model trauma-informed practices to preservice teachers they supervise. Modeling should include identifying possible indicators of trauma, using trauma-informed classroom management approaches, reducing secondary trauma by practicing self-care, and effectively seeking resources to assist in managing trauma behaviors. One recommendation for meeting the needs of students with trauma is for teachers to know when and how to provide behavioral health

supports to their students (Alisic, 2012), an external support that went largely unmentioned by participants and could be addressed during the student teaching experience. Common practice should include preservice teachers' involvement in professional learning about trauma and trauma-informed care.

Implications for Research

This study revealed that, although teachers had completed coursework in classroom management, they did not feel that this coursework provided the practical knowledge needed to sufficiently manage behaviors and meet the needs of students who had experienced trauma. A comprehensive evaluation of all courses, including classroom management courses, would inform the Colleges of Education about where trauma-informed care material exists and where opportunities exist for the addition of this material. An evaluation of courses should begin with an analysis of syllabi. Classroom observations would be helpful to (a) confirm the teachings of trauma-informed care if present on the syllabi, (b) discover trauma-informed care instruction that is not present on syllabi, and (c) provide recommendations for opportunities to embed trauma-teaching in existing courses.

The evaluation of syllabi and classroom observations would be a precursor to curriculum mapping and might provide additional insight and direction as to how trauma-informed content could be embedded into the program to ensure alignment with current learning standards and assessments (Jacobs, 2004). As previously mentioned, embedding information about SAMHSA's (2014) concept of trauma would create a foundation for learning about trauma and its effects. Curriculum mapping presents opportunities for ensuring this information is embedded sequentially so that preservice teachers receive trauma

information in a logical progression. Furthermore, curriculum mapping would assist in the planning of assessments to support mastery of student learning outcomes.

When conducting the current study, there were numerous studies pointing to trauma's impact on student success, but little in regard to teachers' preparation for working with students who had experienced trauma. Future research on this subject, including a replication of the current study, would add to the small body of existing research. Replication in other preservice programs at other universities would provide clarity on whether teachers' needs are unique to this College of Education or more widespread. Researchers seeking to replicate this study should consider expanding to education programs within and across other states and increasing the number of participants and districts participating in the study, perhaps by using already-established partner districts. Furthermore, replication studies might consider specific examination of both rural and urban areas. Finally, the participants of this study were all White females. Replication studies should include diversity in culture and gender. Deliberate recruitment of participants of color might provide additional insight, particularly when exploring how participants describe race-based trauma and its impact on their students.

One limitation to this study was the low survey response rate. Replication studies should consider questionnaire recruitment methods that go beyond teachers' college email addresses and avoid distribution during the summer months, both of which could potentially broaden the response rates and result in a more comprehensive investigation. This might include working with school districts to distribute the questionnaires, and market via social media. Alumni associations, who often have updated contact information (e.g., personal email addresses), might also be utilized as a resource for distributing the questionnaires.

Implications for Policy

The state of Tennessee, under the Supporting Trauma-Informed Education Practices Act of 2019, has awarded funding to 175 schools throughout the state to be used in the incorporation of trauma-informed training. At this time, however, there is no specific guidance from the state as to how schools choose trauma-informed training, who receives the training, and how the training should inform teachers' practices. This study revealed that most teachers did not know if their school was designated trauma-informed, though many worked in districts with designated trauma-informed schools. To ensure widespread understanding and consistent use of trauma-informed practices, Tennessee should look to SAMHSA's (2014) trauma-informed care framework as a model for establishing clear guidelines for the use of this funding.

This study revealed that trauma indicators are prevalent in the classroom, but that teachers feel their preservice program did not prepare them for managing these indicators. Currently, the Tennessee Educator Preparation Policy provides no guidelines for incorporating trauma-informed practices into preservice programs (Tennessee State Board of Education, 2017). Given the prevalence of trauma, this policy should be re-examined and trauma-informed practices should be incorporated into the standards for preservice preparation programs. Further rationale for this incorporation comes from the Tennessee Literacy Success Act of 2021. This law takes effect in August of 2022 and will require preservice preparation programs to incorporate trauma-informed care principles into its behavior management instruction to preservice providers. While this mandate is not optional for preservice programs located in Tennessee, it provides justification for the need to incorporate trauma-informed practice standards into preservice programs in other states.

References

Achenbach T. M., & Rescorla L. A. (2001). *Child Behavior Checklist*. Achenbach System of Empirically Based Assessment. https://store.aseba.org/CHILD-BEHAVIOR-CHECKLIST_6-18/productinfo/201/

Alisic, E. (2012). Teachers' perspectives on providing support to children after trauma: A qualitative study. *School Psychology Quarterly, 27*(1), 51-59. https://doi.org/10.1037/a0028590

Alisic, E., Bus, M., Dulack, W., Pennings, L., & Splinter, J. (2012). Teachers' experiences supporting children after traumatic exposure. *Journal of Traumatic Stress, 25*, 98-101. https://doi.org/10.1002/jts.20709

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

American Psychological Association. (2021, April). *Trauma*. https://www.apa.org/topics/trauma/

Annie E. Casey Foundation. (2019). *Kids count data book: State trends in child well-being.* https://www.aecf.org/m/resourcedoc/aecf-2019kidscountdatabook-2019.pdf

Avalos, B. (2011). Teacher professional development in teaching and teacher education over ten years. *Teaching and Teacher Education, 27*(1), 10-20. https://doi.org/10.1016/j.tate.2010.08.007

Barnett, E. R., Yackley, C. R., & Licht, E. S. (2018). Developing, implementing, and evaluating a trauma-informed care program within a youth residential treatment center and special needs school. *Residential Treatment for Children & Youth, 35*(2), 95-113. https://doi.org/10.1080/0886571X.2018.1455559

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

Berardi, A., & Morton, B. M. (2017). *Academic success for foster care students: A trauma-informed approach* (EJ1148240). ERIC. https://files.eric.ed.gov/fulltext/EJ1148240.pdf

Berardi, A. A., & Morton, B. M. (2019). *Trauma-informed school practices: Building expertise to transform schools.* George Fox University Library. https://open.umn.edu/opentextbooks/textbooks/718

Bethell, C. D., Newacheck, P., Hawes, E., & Halfon, N. (2014). Adverse childhood experiences: Assessing the impact on health and school engagement and the mitigating role of resilience. *Health Affairs, 33*(12), 2016-2115. https://doi.org/10.1377/hlthaff.2014.0914

Bill & Melinda Gates Foundation. (2012). *America's teachers on the teaching profession*. https://www.scholastic.com/primarysources/pdfs/Gates2012_full.pdf

Blitz, L. V., Yull, D., & Clauhs, M. (2020). Bringing sanctuary to school: Assessing school climate as a foundation for culturally responsive trauma-informed approaches for urban schools. *Urban Education, 55*(1), 95-124. https://doi.org/10.1177/0042085916651323

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), 137–146. https://doi.org/10.1037/spq0000256

Boyd, D., Goldhaber, D., Lankford, H., & Wyckoff, J. (2007). The effect of certification and preparation on teacher quality. *The Future of Children, 17*(1), 45-68. https://doi.org/10.1353/foc.2007.0000

Brantlinger, E., Jimenez, R., Klingner, J., Pugach, M., & Richardson, V. (2005). Qualitative studies in special education. *Council for Exceptional Children, 71*(5), 195-207. https://doi.org/10.1177/001440290507100205

Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners*. Sage.

Brown, E. C., Freedle, A., Hurless, N. L., Miller, R. D., Martin, C., & Paul, Z. A. (2019). Preparing teacher candidates for trauma-informed practices. *Urban Education,* 1-24. https://doi.org/10.1177/0042085920974084

Brown, E. L., Phillippo, K. L., Weston, K., & Rodger, S. (2020). United States and Canada pre-service teacher certification standards for student mental health: A comparative case study. *Teaching and Higher Education, 80*, 71-82. https://doi.org/10.1016/j.tate.2018.12.015

Capatosto, K. (2015). *From punitive to restorative: Advantages of using trauma-informed practices in schools.* Kirwan Institute for the Study of Race and Ethnicity. http://kirwaninstitute.osu.edu/implicit-bias-training/resources/From-Punitive-to-Restorative1.pdf

Campbell, D. T., & Stanley, J. C. (1963). *Experimental and quasi-experimental designs for research.* Rand McNally.

Carter, R. T. (2007). Racism and psychological and emotional injury: Recognizing and assessing race-based traumatic stress. *The Counseling Psychologist, 35*(1), 13-105. https://doi.org/10.1177/0011000006292033

Centers for Disease Control and Prevention. (2019). *Preventing adverse childhood experiences (ACEs): Leveraging the best available evidence.* www.cdc.gov/violenceprevention/ACEstudy

Chafouleas, S. M., Johnson, A. H., Overstreet, S., & Santos, N. M. (2016). Toward a blueprint for trauma-informed service delivery in schools. *School Mental Health, 8*, 144-162. https://doi.org/10.1007/s12310-015-9166-8

Chen, S., & Phillips, B. (2018). Exploring teacher factors that influence teacher-child relationships in Head Start: A grounded theory. *The Qualitative Report, 23*(1), 80-97. https://doi.org/10.46743/2160-3715/2018.2962

Child Mind Institute. (2018). *Children's mental health report: Understanding anxiety in children and teens*. https://www.childmind.org

Christian-Brandt, A. S., Santacrose, D. E., & Barnett, M. L. (2020). In the trauma-informed care trenches: Teacher compassion satisfaction, secondary traumatic stress, burnout, and intent to leave education with underserved elementary schools. *Child Abuse and Neglect, 110*(3), 1-8. https://doi.org/10.1016/j.chiabu.2020.104437

Clarke, V., & Braun, V. (2017). Thematic analysis. *The Journal of Positive Psychology, 12*(3), 297-298. https://doi.org/10.1080/17439760.2016.1262613

Corbin, J., & Strauss, A. (2015). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (4th Ed.). Sage.

Coughlan, M., Cronin, P., & Ryan, F. (2013). Survey research: Process and limitations. *International Journal of Therapy and Rehabilitation, 16*(1), 9-15. https://doi.org/10.12968/ijtr.2009.16.1.37935

Creswell, J. W., Klassen, A. C., Plano Clark, V. L., & Smith, K. C. (2011). *Best practices for mixed methods research in the health sciences.* Office of Behavioral and Social Sciences Research (OBSSRO). https://obssr.od.nih.gov/wp-content/uploads/2016/02/Best_Practices_for_Mixed_Methods_Research.pdf

Crouch, E., Radcliff, E., Hung, P., & Bennett, K. (2019). Challenges to school success and the role of adverse childhood experiences. *Academic Pediatrics, 19*(8), 899-907. https://doi.org/10.1016/j.acap.2019.08.006

Cummings, K. P., Addante, S., Swindell, J., & Meadan, H. (2017). Creating supportive environments for children who have had exposure to traumatic events. *Journal of Child and Family Studies, 26*, 2728-2741. https://doi.org/10.1007/s10826-017-0774-9

Cummings, K. P., & Swindell, J. (2019). Using a trauma-sensitive lens to support children with diverse experiences. *Young Exceptional Children, 22*(3), 139-149. https://doi.org/10.1177/1096250618756898

Darling-Hammond, L., & DePaoli, J. (2020). *Why school climate matters and what can be done to improve it.* National Association of State Boards of Education. https://www.nasbe.org/why-school-climate-matters-and-what-can-be-done-to-improve-it/

Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). *Effective teacher professional development* (ED606741). ERIC. https://files.eric.ed.gov/fulltext/ED606741.pdf

Desimone, L. M., & Garet, M. S. (2015). Best practices in teachers' professional development in the United States. *Psychology, Society, & Education, 7*(3), 252-263. https://doi.org/10.25115/PSYE.V7I3.515

Dombo, E. A., & Sabatino, C. A. (2019). Trauma care in schools: Creating safe environments for students with adverse childhood experiences. *American Educator, 43*(2), 18-21.

Dorado, J. S., Martinez, M., McArthur, L. E., & Leibovitz, T. (2016). Healthy environments and response to trauma in schools (HEARTS): A whole-school, multi-level, prevention and intervention program for creating trauma-informed, safe and supportive schools. *School Mental Health, 8*, 163-176. https://doi.org/10.1007/s12310-016-9177-0

Dotson Davis, L. (2019). Implications of trauma-sensitive practices at the middle level. *Middle Grades Review, 5*(1), 1-8. https://scholarworks.uvm.edu/mgreview/vol5/iss1/3

Eklund, K., Rossen, E., Koriakin, T., Chafouleas, S. M., & Resnick, C. (2018). A systematic review of trauma screening measures for children and adolescents. *School Psychology Quarterly, 33*(1), 30-43. https://doi.org/10.1037/spq0000244

Essary, J. N., Braza, L., & Thurston, R. J. (2020). Secondary traumatic stress among educators. *Kappa Delta Pi Record, 56*(3), 116-12. https://doi.org/10.1080/00228958.2020.1770004

Every Student Succeeds Act, 20 U.S.C § 6301 (2015). https://www.congress.gov/114/plaws/publ95/PLAW-114publ95.pdf

Fantuzzo, J. W., LeBoeuf, W. A., & Rouse, H. L. (2014). An investigation of the relations between school concentrations of student risk factors and student educational well-being. *Educational Researcher, 43*(1), 25-36. https://doi.org/10.3102/0013189X13512673

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: The adverse childhood experiences (ACE) study. *American Journal for Preventive Medicine, 14*(4), 258. https://doi.org/10.1016/s0749-3797(98)00017-8

Fell, M. J., Pagel, L., Chien-fei, C., Goldberg, M. H., Herberz, M., Huebner, G. M., Sareen, S., Hahnel, U. J. J. (2020). Validity of energy social research during and after COVID-19:

Challenges, considerations, and responses. *Energy Research & Social Science, 68*, 1-7. https://doi.org/10.1016/j.erss.2020.101646

Flower, A., McKenna, J. W., & Haring, C. D. (2017). Behavior and classroom management: Are teacher preparation programs really preparing our teachers? *Preventing School Failure, 61*(2), 163-169. https://doi.org/10.1080/1045988X.2016.1231109

Frydman, J. S., & Mayor, C. (2017). Trauma and early adolescent development: Case examples from a trauma-informed public health middle school program. *Children and Schools, 39*(4), 238-247. https://doi.org/10.1093/cs/cdx017

Gall, M. D., Borg, W. R., & Gall, J. P. (2007). *Educational research: An introduction*. (8th Ed.). Prentice Hall.

Gershoff, E. T., & Font, S. A. (2018). Corporal punishment in U.S. public schools: Prevalence, disparities in use, and status in state and federal policy. *Social Policy Report, 30*(1). https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5766273/

Giboney Wall, C. R. (2020). Relationship over reproach: Fostering resilience by embracing a trauma-informed approach to elementary education. *Journal of Aggression, Maltreatment, & Trauma, 30*(1), 118-137. https://doi.org/10.1080/10926771.2020.1737292

Goodman, R. D., Miller, M. D., & West-Olatunji, C. A. (2012). Traumatic stress, socioeconomic status, and academic achievement among primary school students. *Psychological Trauma: Theory, Research, Practice, and Policy, 4*(3), 252-259. https://doi.org/10.1037/a0024912

Hales, T., Kusmaul, N., & Nochajski, T. (2017). Exploring the dimensionality of trauma-informed care: Implications for theory and practice. *Human Services Organizations:*

Management, Leadership, & Governance, 41(3), 317-325. https://doi.org/10.1080/23303131.2016.1268988

Harris, M., & Fallot, R. (2001). *Using trauma theory to design service systems*. Jossey Bass.

Helms, J. E., Guerda, G., & Green, C. E. (2012). Racism and ethnoviolence as trauma enhancing professional and research training. *Traumatology, 19*(1), 65-74. https://doi.org/10.1177/1534765610396728

Herrenkohl, T. I., Hong S., & Verbrugge B. (2019). Trauma-informed programs based in schools: Linking concepts to practices and assessing the evidence. *American Journal of Community Psychology, 64*(3/4), 373-388. https://doi.org/10.1002/ajcp.12362

Hinkle, D. E., Wiersma, W., & Jurs, S. G. (2003). *Applied statistics for the behavioral sciences* (5th Ed.). Wadsworth Cengage Learning.

Hoover, S. A., Nadeem, E., Sapere, H., Lang, J. M., Dean, K. L., & Vona, P. (2018). Statewide implementation of an evidence-based trauma intervention in schools. *School Psychology Quarterly, 33*(1), 44-53. https://doi.org/10.1037/spq0000248

Jacobs, H. H. (2004). *Getting results with curriculum mapping*. ASCD.

Jaffee, S. R., & Fong, A. M. (2011). Effects of chronic maltreatment and maltreatment timing on children's behavior and cognitive abilities. *Journal of Child Psychology and Psychiatry, 52*(2), 184-194. https://doi.org/10.1111/j.1469-7610.2010.02304.x

Jennings, P. A. (2019). Teaching in a trauma-sensitive classroom: What educators can do to support students. *American Educator, 43*(2), 12-17.

Johnson, R. B., & Onwuegbuzie, A. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher, 33*(7), 14-26. https://doi.org/10.3102/0013189X033007014

Kang, H., & Burton, D. L. (2014). Effects of racial discrimination, childhood trauma, and trauma symptoms on juvenile delinquency in African American incarcerated youth. *Journal of Aggression, Maltreatment, & Trauma*, *23*(10), 1109-1125. https://doi.org/10.1080/10926771.2014.968272

Katz, S. (2019). *Trauma-informed practice: The future of child welfare?* Temple University Legal Studies Research (Paper no. 2019-06). https://racism.org/articles/basic-needs/family/3075-trauma-informed-practice

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), 1-6. https://doi.org/10.1097/pq9.0000000000000215

Kyere, E., Joseph, A., & Wei, K. (2020). Alternative to zero-tolerance policies and out-of-school suspensions: A multitiered centered perspective. *Journal of Ethnic & Cultural Diversity in Social Work, 29*(5), 421-436. https://doi.org/10.1080/15313204.2018.1528914

Knight, C. (2018). Trauma-informed practice and care: Implications for field instruction. *Clinical Social Work Journal, 47*, 79-89. https://doi.org/10.1007/s10615-018-0661-x

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

Lincoln, Y. S., & Guba, E. (1985). *Naturalistic inquiry*. Sage.

Lubit, R., Rovine, D., Defrancisci, L., & Eth, S. (2003). Impact of trauma on children. *Journal of Psychiatric Practice, 9*(2), 128-138. https://doi.org/10.1097/00131746-200303000-00004

Marshall, C., & Rossman, G. B. (2016). *Designing qualitative research* (6th Ed.). Sage.

Maslow, A. H. (1943) A theory of human motivation. *Psychological Review, 50*(4), 370-396. https://doi.org/10.1037/h0054346

MacDonald, K., Thomas, M. L., Sciolla, A. F., Schneider, B., Pappas, K., Bleijenberg, G., Bohus, M., Bekh, B., Carpenter, L., Dannlowski, U., Dorahy, M., Fahlke, C., Finzi-Dottan, R., Karu, T., Gerdner, A., Glaesmer, H., Grabe, H. J., Heins, M., Kenny, D. T., … Wingenfeld, K. (2016). Minimization of childhood maltreatment is common and consequential: Results from a large, multinational sample using the childhood trauma questionnaire. *PLOS One, 11*(1), 1-16. https://doi.org/10.1371/journal.pone.0146058

Miller, K., & Flint-Stipp, K. (2019). *Preservice teacher burnout: Secondary trauma and self-care issues in teacher education* (EJ1239631). ERIC. https://files.eric.ed.gov/fulltext/EJ1239631.pdf

Mills, R., Alati, R., O'Callaghan, M., Najman, J. M., Williams, G. M., Bor, W., & Strathearn, L. (2013). Child abuse and neglect and cognitive function at 14 years of age: Findings from a birth cohort. *Pediatrics, 127*(1), 4-10. https://doi.org/10.1542/peds.2009-3479

Minahan, J. (2019). Trauma-informed teaching strategies. *Educational Leadership, 77*(2), 30-35. http://www.ascd.org/publications/educational_leadership/oct19/vol77/num02/Trauma-Informed_Teaching_Strategies.aspx

Moser, A., & Korstjens, I. (2018). Series: Practical guidance to qualitative research. Part 3: Sampling, data, collection, and analysis. *European Journal of General Practice, 24*(1), 9-18. https://doi.org/10.1080/13814788.2017.1375091

National Center for Education Statistics. (2017). *Indicators of school crime and safety.* (NCES Publication No. 2017072). https://nces.ed.gov/programs/crimeindicators/ind_11.asp

National Center for Education Statistics. (2020). *Schools and staffing survey*. https://nces.ed.gov/surveys/sass/

National Center for Mental Health Promotion & Youth Violence Prevention. (2012). *National center brief: Childhood trauma and its effect on healthy development.* https://www.ccpa.net/DocumentCenter/View/21000/Childhood-Trauma?bidId=

National Child Traumatic Stress Network. (2003). *What is child traumatic stress?* https://www.samhsa.gov/sites/default/files/programs_campaigns/childrens_mental_health/what-is-child-traumatic-stress.pdf

Nealy-Oparah, S., & Scruggs-Hussein, T. C. (2018). Trauma-informed leadership in schools: From the inside-out. *Leadership, 47*(3), 12-16. https://dd8gr3lf3l21bfk121euvr12-wpengine.netdna-ssl.com/wp-content/uploads/2018/01/Leadership-Extra.pdf

Newman, F., & Wehlage, G. (1997). *Successful school restructuring: A report to the public and educators* (ED387925). ERIC. https://files.eric.ed.gov/fulltext/ED387925.pdf

Norman, R. E., Munkhtsetseg, B., De, R., Butchart, A., Scott, J., & Vos, T. (2012). The long-term health consequences of child physical abuse, emotional abuse and neglect: A systematic review and meta-analysis. *PLOS Medicine, 9*(11), 1-31. https://doi.org/10.1371/journal.pmed.1001349

Oehlberg, B. (2008). Why schools need to be trauma-informed. *Trauma and Loss: Research and Interventions, 8*(2), 1-4. http://www.traumainformedcareproject.org/resources/WhySchoolsNeedToBeTraumaInformed(2).pdf

Okhremtchouk, I., Seiki, S., Gilliland, B., Ateh, C., Wallace, M., & Kato, A. (2009). *Voices of pre-service teachers: Perspectives on the performance assessment for California teachers* (EJ851541). ERIC. https://files.eric.ed.gov/fulltext/EJ851541.pdf

Olofson, M. W. (2017). Childhood adversity, families, neighborhoods, and cognitive outcomes: Testing structural models of the bioecological framework. *International Journal of Education and Practice, 5*(12), 199-216. https://doi.org/10.18488/journal.61.2017.512.199.216

Overstreet, S., & Chafouleas, S. M. (2016). Trauma-informed schools: Introduction to the special issue. *School Mental Health, 8*, 1-6. https://doi.org/10.1007/s12310-016-9182-3

Overstreet, S., & Mathews, T. (2011). Challenges associated with exposure to chronic trauma: Using a public health framework to foster resilient outcomes among youth. *Psychology in the Schools, 48*(7), 738-754. https://doi.org/10.1002/pits.20584

Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research, 42*(5), 533-533. https://doi.org/10.1007/s10488-013-0528-y

Patton, M. (1990). *Qualitative evaluation and research methods.* Sage.

Patton, M. Q. (2002). Two decades of developments in qualitative inquiry. A personal, experiental perspective. *Qualitative Social Work, 1*(3), 261-283. https://doi.org/10.1177/1473325002001003636

Perry, D. L., & Daniels, M. L. (2016). Implementing trauma-informed practices in the school setting: A pilot study. *School Mental Health, 8*, 177-188. https://doi.org/10.1007/s12310-016-9182-3

Phifer, L. W., & Hull, R. (2016). Helping students heal: Observations of trauma-informed practices in the schools. *School Mental Health, 8*, 201-205. https://doi.org/10.1007/s12310-016-9182-3

Pieterse, A. L., Todd, N. R., Neville, H. A., & Carter, R. T. (2012). Perceived racism and mental health among Black American adults: A meta-analytic review. *Journal of Counseling Psychology, 59*(1), 1-9. https://doi.org/10.1037/a0026208

Post, B., Grybush, A. L., Elmadani, A., & Lockhart, C. E. (2020). Fostering resilience in classrooms through child-teacher relationship training. *International Journal of Play Therapy, 29*(1), 9-19. https://doi.org/10.1037/pla0000107

Queirós, A., Faria, D., & Almeida, F. (2017). Strengths and limitations of qualitative and quantitative research methods. *European Journal of Education Studies, 3*(9), 369-387. https://doi.org/10.5281/zenodo.887089

Rapport, F. (2010). Summative analysis: A qualitative method for social science and health research. *International Journal of Qualitative Methods, 9*, 270-290. https://doi.org/10.1177/160940691000900303

Reker, K. (2016). *Trauma in the classroom: Teachers' perspectives on supporting students experiencing child traumatic stress* [Doctoral dissertation, Loyola University Chicago]. Digital Commons. https://ecommons.luc.edu/luc_diss/2146/

Robers, S., Kemp, J., Truma, J., & Snyder, T. D. (2013). *Indicators of school crime and safety: 2012.* National Center for Education Statistics, Bureau of Justice Statistics. https://nces.ed.gov/pubs2013/2013036.pdf

Rossiter, A., Byrne, F., Wota, A. P., Nisar, Z., Ofuafor, T., Murray, I., Byrne, C., & Hallahan, B. (2015). Childhood trauma levels in individuals attending adult mental health services: An

evaluation of clinical records and structured measurement of childhood trauma. *Child Abuse & Neglect, 44*, 36-45. https://doi.org/10.1016/j.chiabu.2015.01.001

Rowell, K., & Thomley, R. (2013). *Recovering emotionally from a disaster.* American Psychological Association. https://www.apa.org/helpcenter/recovering-disasters

Sacks, V., & Murphey, D. (2018). *The prevalence of adverse childhood experiences, nationally, by state, and by race/ethnicity* (Issue Brief No. 2018-3). https://www.childtrends.org/publications/prevalence-adverse-childhood-experiences-nationally-state-race-ethnicity

Saldaña, J. (2009). *The coding manual for qualitative researchers*. Sage.

Saldaña, J. (2016). *The coding manual for qualitative researchers* (3rd Ed.). Sage.

Schreier, M. (2018). Sampling and generalization. In U. Flick (Ed.), *The SAGE Handbook of Qualitative Data Collection* (pp. 84-98). Sage.

Shonkoff, J., Garner, A., Siegel, B., Dibbins, M., Earls, M., McGuinn, L., & Wood, D. (2012). The lifelong effects of early childhood adversity and toxic stress. *Pediatrics, 129*, 232-246. https://doi.org/10.1542/peds.2011-2663

Simon, M. K., & Goes, J. (2013). *Dissertation and scholarly research: Recipes for success* (2nd Ed.). M. K. Simon.

Skiba, R. (2010). *Zero tolerance and alternative discipline strategies*. National Association of School Psychologists. https://www.nasponline.org/assets/documents/Resources%20and%20Publications/Handouts/General%20Resources/Zero_Tolerance_35-1_S4-35.pdf

Substance Abuse and Mental Health Services Administration. (2014). *SAMHSA's concept of trauma and guidance for a trauma-informed approach* (HHS Publication No. 14-4884).

SAMHSA's Trauma and Justice Strategic Initiative. https://nicic.gov/samhsas-concept-trauma-and-guidance-trauma-informed-approach

Substance Abuse and Mental Health Services Administration. (2020). *Understanding Child Trauma*. https://www.samhsa.gov/child-trauma/understanding-child-trauma

Supporting Trauma-Informed Education Practices Act of 2019, H.R.4146, 116th Cong. (2019). https://www.congress.gov/116/bills/hr4835/BILLS-116hr4835ih.pdf

Tanderhoost, H. (2016). Validity and reliability of the research instrument: How to test the validation of a questionnaire/survey in a research. *International Journal of Academic Research in Management, 5*(3), 28-36. https://doi.org/10.2139/ssrn.3205040

Tennessee Literacy Success Act of 2021, T.C.A.HB7002, 112 General Assembly (2021). https://legiscan.com/TN/text/HB7002/2021

Tennessee State Board of Education. (2017). *Tennessee Educator Preparation Policy 5.504*. https://www.tn.gov/content/dam/tn/stateboardofeducation/documents/5.504_Educator_Preparation_Policy_7-28-17.pdf

Theofanidis, D., & Fountouki, A. (2019). Limitations and delimitations in the research process. *Perioperative Nursing, 7*(3), 155-162. https://doi.org/10.5281/zenodo.2552022

Tooley, M., & Connally, K. (2016). *No panacea: Diagnosing what ails teacher professional development before reaching for remedies* (ED570895). ERIC. https://eric.ed.gov/?id=ED570895

United States Agency for International Development. (2011). *Designing effective pre-service teacher education programs.* American Institutes for Research. https://pdf.usaid.gov/pdf_docs/PNADZ721.pdf

Vescio, V., Ross, D., & Adams, A. (2008). A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and Teacher Education, 24*(1), 80-91. https://doi.org/10.1016/j.tate.2007.01.004

Von Dohlen, H. B., Pinter, H. H., Winter, K. K., Ward, S., & Cody, C. (2019). Trauma-informed practices in a laboratory middle school. *Middle School Journal, 50*(4), 6-15. https://doi.org/10.1080/00940771.2019.1650549

Wei, R. C., Darling-Hammond, L., Andree, A., Richardson, N., & Orphanos, S. (2009). *Professional learning in the learning profession: A status report on teacher development in the U.S. and abroad.* National Staff Development Council. https://learningforward.org/wp-content/uploads/2017/08/status-of-professional-learning-phase-1-technical-report.pdf

Wiest-Stevenson, C., & Lee, C. (2016). Trauma-informed schools. *Journal of Evidence-Informed Social Work, 13*, 498-503. https://doi.org/10.1080/23761407.2016.1166855

Zyromski, B., Dollarhide, C. T., Aras, Y., Geiger, S., Oehrtman, J. P., & Clarke, H. (2018). Beyond complex trauma: An existential view of adverse childhood experiences. *Journal of Humanistic Counseling, 57*, 156-172. https://doi.org/10.1002/johc.12080

Appendix A

Questionnaire

(Adapted from Alisic, 2012)

Eligibility Questions

1. Are you a graduate from [state university's] College of Education?
    - Yes
    - No
2. Did you complete your student teaching experience with [state university]?
    - Yes
    - No
3. Please select the highest degree you received from [state university].
    - Bachelor's Degree, Pre-K-5 Licensure Program
    - Bachelor's Degree, K-5 Licensure Program
    - Master of Arts in Teaching (MAT), Pre-K – 5 Licensure Program
    - Master of Arts in Teaching (MAT), K – 5 Licensure Program
    - Other (Please Describe)
4. How many full years of teaching experience did you have at the end of the 2020-2021 school year?
    - 3 Years
    - 4 Years
    - 5 Years
    - Other (Please Describe)
5. Please indicate the Tennessee county or district where you did your student teaching:
    - Cheatham
    - Dickson
    - Montgomery
    - Nashville-Metro
    - Robertson
    - Stewart
    - None of the above

Please indicate the level to which you agree or disagree with the following statements, based on what you experienced or learned during your teacher preparation program at [state university].

Here are definitions you may find helpful in completing this survey:

- **Adverse Childhood Experiences (ACES):** specific traumatic events (abuse, neglect,

and household dysfunction) that occur in childhood and impact the behavioral as well as physical health of individuals through the lifespan. (Felitti et al., 1998).

- **Trauma:** an event that is emotionally painful or distressful and often results in lasting mental and physical effects (National Child Traumatic Stress Network, 2003).
- **Trauma-informed care:** a recognition and response to the signs, symptoms, and risks of trauma to better support the needs of individuals who may have experienced trauma (SAMHSA, 2020).
- **Trauma-informed care practices:** the use of trauma-informed interventions that address the symptoms of trauma to support individuals who may have experienced trauma (SAMHSA, 2020).

1. *Because of my preservice experience,* I believe that exposure to trauma is common.
   - Strongly Agree
   - Agree
   - Neither Agree nor Disagree
   - Disagree
   - Strongly Disagree
2. *Because of my preservice experience,* I believe that trauma affects physical, emotional, and mental well-being.
   - Strongly Agree
   - Agree
   - Neither Agree nor Disagree
   - Disagree
   - Strongly Disagree
3. *Because of my preservice experience,* I believe that substance use issues can be indicative of past traumatic experiences or ACEs.
   - Strongly Agree
   - Agree
   - Neither Agree nor Disagree
   - Disagree
   - Strongly Disagree
4. *Because of my preservice experience,* I believe that there is a connection between mental health issues and past traumatic experiences or ACEs.
   - Strongly Agree

- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

5. *Because of my preservice experience,* I believe that distrusting behavior can be indicative of past traumatic experiences or ACEs.
   - Strongly Agree
   - Agree
   - Neither Agree nor Disagree
   - Disagree
   - Strongly Disagree
6. *Because of my preservice experience,* I believe that re-traumatization can occur unintentionally.
   - Strongly Agree
   - Agree
   - Neither Agree nor Disagree
   - Disagree
   - Strongly Disagree
7. *Because of my preservice experience,* I believe that recovery from trauma is possible.
   - Strongly Agree
   - Agree
   - Neither Agree nor Disagree
   - Disagree
   - Strongly Disagree
8. *Because of my preservice experience,* I believe that paths to healing/recovery from trauma are different for everyone.
   - Strongly Agree
   - Agree
   - Neither Agree nor Disagree
   - Disagree
   - Strongly Disagree
9. *Because of my preservice experience,* I believe that people are experts in their own healing/recovery from trauma
   - Strongly Agree
   - Agree
   - Neither Agree nor Disagree
   - Disagree
   - Strongly Disagree
10. *Because of my preservice experience,* I believe that trauma-informed care is essential to working with students who have experienced trauma.

- Strongly Agree
- Agree
- Neither Agree nor Disagree
- Disagree
- Strongly Disagree

11. *Because of my preservice experience,* I have a comprehensive understanding trauma-informed care.
    - Strongly Agree
    - Agree
    - Neither Agree nor Disagree
    - Disagree
    - Strongly Disagree
12. *Because of my preservice experience,* I believe in and support trauma-informed care practices.
    - Strongly Agree
    - Agree
    - Neither Agree nor Disagree
    - Disagree
    - Strongly Disagree
13. *During my preservice experience*, I would like to have received more training on the principles of trauma-informed care.
    - Strongly Agree
    - Agree
    - Neither Agree nor Disagree
    - Disagree
    - Strongly Disagree

Would you be willing to participate in a Zoom interview to discuss the degree to which [state university] prepared you to work with students who have experienced trauma?

- Yes
- No

(If yes) Thank you for your willingness to participate in a follow-up survey. Please provide your contact information below so we can reach you to schedule an interview at a time that is convenient to you.

Name:
Email Address:
Telephone Number:

Appendix B

Interview Protocol

(Adapted from Alisic, 2012)

Thank you for your willingness to participate in the interview portion of this study. The purpose of this interview will be to gain an understanding of how your preservice experience prepared you for understanding trauma and for working with students who have experienced trauma. To ensure that I accurately capture your responses, I would like to record our interview. Do I have your permission to record this interview session?

Can you please state your name and the county in which you currently teach? Your name will be replaced with a pseudonym during data analysis.

What grade level do you teach and how long have you taught the current grade?

I would like to begin with getting an idea of how you describe trauma and ACEs *and their influence on students. The first set of questions I ask will be related to* ***trauma and*** ACEs ***and their influences on students.***

1. How prevalent is trauma, in your current or former students? (RQ1)
2. How do you define trauma as related to your students? (RQ1)
3. How do you define ACEs as related to your students? (RQ1)
4. What is the impact of trauma/ACEs on the *physical* well-being of your students? (RQ1)
5. What is the impact of trauma/ACEs on the *emotional* well-being of your students? (RQ1)
6. What is the impact of trauma/ACEs on the *behavioral* well-being of your students? (RQ1)
7. What is the impact of trauma/ACEs on the *academic* well-being of your students? (RQ1)
8. Are there other impacts of trauma that you feel your students experience that haven't already been mentioned? (RQ1)

The next set of questions are about your ***preparation for supporting students who may have experienced trauma.***

1. During your preservice experience, what did you learn about trauma and its influence on students? (RQ1)
2. During your preservice experience, what did you learn about ACEs and their influence on students? (RQ1)
3. During your preservice experience, what tools or techniques did you learn for working with students who may have experienced trauma (RQ2)?
    a. If none … go to Question 4
    b. At what stage (or stages) during your preservice experience did you learn these tools or techniques (ex. coursework, student teaching, mentoring)?
    c. Which tools or techniques that you learned were more or less beneficial than others?
4. Have you had any experiences with regard to students and trauma? (RQ2)
    a. If none . . . go to question 5
    b. If yes… Can you provide an example?
        i. What did you do?
        ii. How did you feel in this situation?
        iii. Can you think of anything from your preservice experience that prepared you more (or less) for this situation?
5. To what degree do you believe your students have experienced race-based trauma?
6. To what degree do you feel you may have experienced secondary trauma?
7. Is there any trauma-related information that you did not receive during your preservice experience that would have been helpful to you as a new teacher? (RQ2)
    a. If no… Go to question 6
    b. If yes… what information do you wish you would have had?
        i. At what stage (or stages) during your preservice experience would this have been beneficial (ex. coursework, student teaching, mentoring)?
8. Is there any additional information about your preservice experience as related to teaching students who have experienced trauma that you would like to share (RQ2)?

Thank you for taking the time to participate in the interview and share your understanding of trauma and how your preservice experienced prepared you for working with children who had experienced trauma.

Appendix C

IRB Amendment Approval

AUSTIN PEAY STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD

Date: 6/15/2021

21-027: Teachers' Perceptions of their Preservice Preparation to Support Students Who Have Experienced Trauma

Re: Revised Application IRB 21-027

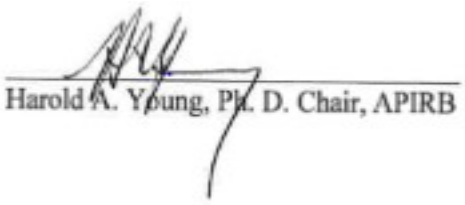
Dear Dr. Prosser,

We appreciate your cooperation with the human research review process. This letter is to inform you that the amendment to study 21-027 was reviewed on an expedited level. It ismy pleasure to inform you that your revised study has been approved.

This approval is subject to APSU Policies and Procedures governing human subject research. The IRB reserves the right to withdraw approval if unresolved issues are raisedduring the review period. Any changes or deviations from the approved protocol must be submitted in writing to the IRB for further review and approval before continuing.

This approval is for one calendar year and a closed study report or request for continuing review is required on or before the expiration date, 6/14/2022. If you have any questions or require further information, please contact me by phone (931-221-7059) or email youngh@apsu.edu).

Sincerely,



Harold A. Young, Ph. D. Chair, APIRB

Appendix D

Informed Consent (Survey)

INFORMED CONSENT STATEMENT

Teachers' Perceptions of their Preservice Preparation to Support Students Who Have Experienced Trauma

INTRODUCTION
The Department of Education Specialties at Austin Peay State University supports the practice of protection for human subjects participating in research. The following information is provided to help you decide whether you wish to participate in the present study. You retain the right to refuse to sign this form and not participate in this study. You should be aware that even if you consent to participate in this study, you may withdraw from this study at any time without consequence. If you choose to withdraw from this study, it will not affect your relationship with this department, the services it may provide to you, or Austin Peay State University.

PURPOSE
The purpose of this study is (1) to illustrate how teachers describe trauma and its influence on students and (2) to describe the preservice preparation of third-, fourth-, and fifth-year elementary school teachers related to working with students who have experienced trauma.

PROCEDURES
You are being asked to participate in a survey related to your preservice experience in preparation for working with students who have experienced trauma. After providing your digital signature, you will be taken to the survey. At the end of the survey, you will be asked to indicate, by providing your contact information, if you would like to participate in a follow-up interview. The survey will remain open for 14 business days. You will be sent reminders after five and 10 business days. The survey is expected to take approximately 15 minutes to complete. The follow-up interview will last approximately 30-45 minutes.

RISKS
The risks associated with participation in this study are no greater than those encountered in daily life.

BENEFITS
A benefit of this study would be to determine the amount and types of trauma training that is provided in teacher preservice programs and how well the preservice experience prepares new teachers for working with students who have experienced trauma. These findings could be used to improve the preservice experience, which could improve the student–teacher relationship and academic outcomes.

COMPENSATION
Participants will not receive compensation.

PARTICIPANT CONFIDENTIALITY

Any study records that identify you will be kept confidential to the extent possible by law. The records from your participation may be reviewed by people responsible for making sure that research is done properly, including members of the Austin Peay State University Institutional Review Board. Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records.

REFUSAL TO SIGN CONSENT
You are not required to sign this Consent and you may refuse to do so without affecting your right to participate in any programs or events of Austin Peay State University or any services you are receiving or may receive from Austin Peay State University. However, if you refuse to sign, you cannot participate in this study.

CANCELLING THIS CONSENT
You may withdraw your consent to participate in this study at any time. If you choose to withdraw from the study before data collection is completed, any collected data will be destroyed and not used.

QUESTIONS ABOUT PARTICIPATION
If you have any questions about the procedures, you may direct them to the principal investigator, Noelle Cannon.

CONSENT
I have read the above information and received a copy of this form. I have had the opportunity to ask questions regarding my participation in this study. I agree to take part in this study as a research participant.

By my digital signature I affirm that I am at least 18 years old and a student at Austin Peay State University.

_____
Print Participant's Name Date

_____
Participant's Signature Date

RESEARCHER CONTACT INFORMATION

Primary Investigator: Noelle Cannon
Email: noellefenske@gmail.com
Phone: 931-206-6176

Faculty Advisor: Dr. Sherri Prosser
Email: prossers@apsu.edu
Phone: 931-221-7516

IRB Contact Information
Dr. Harold Young
Kelly Pitts, IRB Assistant
irb@apsu.edu
(931) 221-7881

Appendix E

Informed Consent (Interview)

INFORMED CONSENT STATEMENT

Teachers' Perceptions of their Preservice Preparation to Support Students Who Have Experienced Trauma

INTRODUCTION
The Department of Education Specialties at Austin Peay State University supports the practice of protection for human subjects participating in research. The following information is provided to help you decide whether you wish to participate in the present study. You retain the right to refuse to sign this form and not participate in this study. You should be aware that even if you consent to participate in this study, you may withdraw from this study at any time without consequence. If you choose to withdraw from this study, it will not affect your relationship with this department, the services it may provide to you, or Austin Peay State University.

PURPOSE
The purpose of this study is (1) to illustrate how teachers describe trauma and its influence on students and (2) to describe the preservice preparation of third-, fourth-, and fifth-year elementary school teachers related to working with students who have experienced trauma.

PROCEDURES
You are being asked to participate in an interview related to your preservice experience in preparation for working with students who have experienced trauma. The interview is expected to last about 30-45 minutes and will take place at a time convenient to you. The interview will be conducted and audio recorded using Zoom. You will have an opportunity to review the interview transcript when it is available. The transcript will be emailed to you and you will have three business days to review and respond with corrections.

RISKS
The risks associated with participation in this study are no greater than those encountered in daily life.

BENEFITS
A benefit of this study would be to determine the amount and types of trauma training that is provided in teacher preservice programs and how well the preservice experience prepares new teachers for working with students who have experienced trauma. These findings could be used to improve the preservice experience, which could improve the student–teacher relationship and academic outcomes.

COMPENSATION
Participants will not receive compensation.

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Any study records that identify you will be kept confidential to the extent possible by law. The records from your participation may be reviewed by people responsible for making sure that research

is done properly, including members of the Austin Peay State University Institutional Review Board. Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records.

REFUSAL TO SIGN CONSENT
You are not required to sign this Consent and you may refuse to do so without affecting your right to participate in any programs or events of Austin Peay State University or any services you are receiving or may receive from Austin Peay State University. However, if you refuse to sign, you cannot participate in this study.

CANCELLING THIS CONSENT
You may withdraw your consent to participate in this study at any time. If you choose to withdraw from the study before data collection is completed, any collected data will be destroyed and not used.

QUESTIONS ABOUT PARTICIPATION
If you have any questions about the procedures, you may direct them to the principal investigator, Noelle Cannon

CONSENT
I have read the above information and received a copy of this form. I have had the opportunity to ask questions regarding my participation in this study. I agree to take part in this study as a research participant.

_____
Print Participant's Name Date

_____
Participant's Signature Date

RESEARCHER CONTACT INFORMATION

Primary Investigator: Noelle Cannon
Email: noellefenske@gmail.com
Phone: 931-206-6176

Faculty Advisor: Dr. Sherri Prosser
Email: prossers@apsu.edu
Phone: 931-221-7516

IRB Contact Information
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Kelly Pitts, IRB Assistant
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