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Teacher Perspectives of Trauma-Informed Practices in Select Minnesota K-12 Schools

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Teacher Perspectives of Trauma-Informed Practices in Select Minnesota K-12 Schools

by

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Abstract

Prior to the advent of the COVID-19 pandemic that began in 2020, children with traumatic or adverse childhood experiences were prevalent in P-12 education systems across the United States (National Survey of Children's Health, 2012). Since the onset of the pandemic, the number of children exposed to trauma has risen significantly (Crosby et al., 2020). Trauma-informed practices in schools are increasingly needed to address the needs of trauma-affected students.

The effects of trauma can impact a child's physical, emotional, and mental health as well as significantly affect a child's ability to learn, develop, and grow (Carrion & Wong, 2011; Cole et al., 2009; Goodman et al., 2012; Illinois ACEs Response Collaborative, 2018; Izard, 2016). Even though schools across the United States are teeming with trauma-affected students, training on how to serve trauma-affected students is generally not a part of the standard curriculum in teacher preparation programs and pre-service teaching experiences (Thomas et al., 2019).

In response to the lack of education regarding trauma and trauma-informed practices, there have been a plethora of resources created to address the needs of students affected by trauma (Thomas et al., 2019). However, there is a lack of consistency in how educators are trained as well as how trauma-informed practices are implemented which makes the effectiveness of employing these practices as well as the observable and quantifiable benefits of trauma-informed practices difficult to measure (Thomas et al., 2019). There have been few studies published that have demonstrated the effects of these practices which make the touted benefits of trauma-informed practices hypothetical (McInerney & McKlindon, 2014). Additionally, there is a lack of education from within the field of education that supports the use of trauma-informed practices (Thomas et al., 2019).

The purpose of this study is to ascertain educator perspectives on the effectiveness of trauma-informed practices in schools as well as educator perspectives as to the perceived benefits and barriers associated with implementing these practices. Additionally, this study aims to determine the trauma-informed practices most frequently utilized by Minnesota K-12 educators. This study will add to the limited body of research currently available surrounding trauma-informed practices in schools.

Acknowledgement

The journey of the past five years enroute to my doctorate has been nothing like I could have imagined. While the journey has been long and difficult at times, I have experienced tremendous growth, and for that, I am incredibly grateful. Being a member of Cohort 9 at St. Cloud State University has been an incredibly valuable experience, both personally and professionally, and I will always be thankful for the knowledge gained from my cohort members, as well as their support and inspiration throughout this journey.

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dissertation process has taken a tremendous amount of time away from all of you. Your constant love and patience have been my guiding light and I love you all so much. Thank you.

Dedication

I dedicate this dissertation to teachers everywhere who show up every day, without fail, to support, teach, and care for students who are affected by trauma. No one understands the amount of time, patience, and connection it takes to teach and serve struggling students better than they do. Teachers are often one of the few adults that will consistently and lovingly be there for a child affected by trauma. Teaching can take a tremendous toll on the well-being of the teacher and teachers often sacrifice their own needs in service of their students. Your work does not go unnoticed.

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Chapter I: Introduction

Children with traumatic or adverse childhood experiences are prevalent in P-12 education systems across the United States (National Survey of Children's Health, 2012). In addition, the COVID-19 pandemic in 2020 forced the shutdown of school buildings across the nation and continued to disrupt the education and lives of school-age children. Trauma-informed practices are increasingly needed to address student behavior that may negatively impact opportunities to learn. Therefore, this study is designed to examine perspectives of K-12 teachers regarding practices that address trauma-affected students.

Background of the Study

Statistically, nearly half of all children (34,825, 978) ages 0-17 are experiencing or have experienced trauma (National Survey of Children's Health, 2012). Pappano (2014) concluded that by the age of 16, the percentage of children that have experienced a possible traumatic event is 68% while Copeland et al. (2018) estimated that by the age of 16, 60% of children will have been exposed to a traumatic event with 30% experiencing more than one trauma. "We know that childhood trauma has become an epidemic. No one is immune: trauma occurs everywhere in all populations and circumstances, across ethnic and cultural lines, within all religions and at all levels of education" (Souers & Hall, 2016, p. 23).

Crosby et al. (2020) further laments that the number of children exposed to trauma has increased significantly since the onset of the COVID-19 pandemic resulting in frequent student behavior challenges. "The immediacy of the COVID-19 onset makes it difficult to provide accurate data on the current prevalence of childhood trauma caused by the pandemic. However,

lessons learned from previous public health crises would indicate that COVID-19 has undoubtedly created trauma" (Crosby et al., 2020, p. 2).

The effects of trauma can impact a child's physical, emotional, and mental health as well as significantly affect a child's ability to learn, develop, and grow (Carrion & Wong, 2011; Cole et al., 2009; Goodman et al., 2012; Illinois ACEs Response Collaborative, 2018; Izard, 2016). Even though schools across the United States are teeming with trauma-affected students, training on how to serve trauma-affected students is generally not a part of the standard curriculum in teacher preparation programs and pre-service teaching experiences (Thomas et al., 2019). "Our schools are full of kids with learning disabilities and mental health issues that are trauma-based but the average teacher never gets a single lecture on trauma. They are fundamentally working with a lack of information" (Benazzo & Benazzo, 2021).

In response to the lack of education regarding trauma and trauma-informed practices in pre-service teacher training as well as the increased attention being given to the need for trauma-informed practices in schools, the United States Department of Education, state educational departments, and other education-serving organizations across the nation have developed a plethora of frameworks, resources, and other informational systems to address the needs of students affected by trauma (Thomas et al., 2019). However, because of the abundance of resources from a wide variety of disciplines and organizations, there is a lack of consistency in how educators are trained as well how trauma-informed practices and methodologies are implemented in schools which makes the effectiveness of employing these practices as well as the observable and quantifiable benefits of trauma-informed practices difficult to measure (Thomas et al., 2019). Although there is a growing body of evidence to support trauma-informed

practices in schools, there have been few studies so far that are published demonstrating the effects of these practices in schools (McInerney & McKlindon, 2014). Additionally, according to McInerney and McKlindon (2014), the perceived impact of trauma-informed practices on student academics and behavior is merely hypothetical due to the lack of studies surrounding the effectiveness of practices in schools. Furthermore, Thomas et al. (2019) noted that while there is a large body of evidence that demonstrates the theoretical benefits of trauma-informed practices in education, most of this evidence comes from disciplines outside of the field of education and added there is a lack of empirical evidence from educators and educational researchers. Lastly, Maynard et al. (2019) stated that despite the abundance of documents grounded in theory, there is a general lack of clarity when it comes to what exactly schools are doing when they say they are employing trauma-informed practices. “Not only do we need more research on the effects, but descriptive and qualitative research on what is actually being implemented would be a welcome addition to the empirical literature in this area” (Maynard et al., 2019, p. 3).

Statement of the Problem

Research from outside the field of education readily documents the theoretical benefits of trauma-informed training for educators and students. However, there is a limited body of research that measures teacher perceptions of the benefits or impact of trauma-informed practices. Furthermore, there is a limited body of research conducted by educational researchers on the effects of trauma-informed practices in schools on student achievement and student behavior as perceived by education professionals.

Although this study will not directly measure the impact of these practices on student behavior or achievement, it will attempt to assess Minnesota K-12 teacher views on the value

and challenges of using trauma-informed strategies and practices. This quantitative study will use a non-experimental survey design to gather data on teacher perspectives.

Purpose of the Study

The aim of this study is to ascertain educator perspectives on the effectiveness of trauma-informed practices and strategies as well as educator perspectives as to the perceived benefits and barriers associated with implementing these practices and strategies. Trauma-informed practices in schools have been growing in popularity over the past several years and while there is a plethora of resources available to assist educators in gaining the knowledge to serve trauma-affected students, there is a lack of a consistency in how educators are trained as well as what practices and strategies they employ after receiving training. Additionally, the review of the literature revealed there is a limited body of research conducted by educational researchers that measure educators' perceptions of the effectiveness of employing trauma-informed practices on student academic achievement and behavior. This study will contribute to the limited body of available research.

School administrators, educators, parents, and all other persons that work within an educational system will benefit from the results of this study. In addition, any person or organization that is involved with the professional development of educators and school leaders, including university teacher and school administrator preparatory programs, will also benefit from the results of this study.

Research Questions

1. What trauma-informed training or preparation has been received as reported by select Minnesota K-12 teachers?

2. To what extent has trauma-informed training or preparation been effective as reported by select Minnesota K-12 teachers?
3. What trauma-informed practices or strategies have been implemented?
4. To what extent are trauma-informed practices or strategies working as reported by select Minnesota K-12 teachers?
5. What are the challenges associated with trauma-informed practices as reported by select Minnesota K-12 teachers?

Delimitations

According to Roberts (2010), a delimitation is, "a boundary to a study and is an indicator of how a study is narrowed by factors determined by the researcher" (p. 138).

Delimitations to the study include:

1. Only licensed K-12 teachers working in Minnesota public schools, both traditional and charter, were included in this study.
2. This study will not disaggregate by ethnicity or gender.
3. Prior traumatic experiences could limit a potential participant from engaging in or completing the survey.
4. Although the survey was designed to be completed in less than 10 minutes, the number of questions (43) could be a deterrent to participants willingness to complete the survey.
5. This study was completed towards the end of the third academic year of the COVID-19 pandemic which, by many accounts from persons working in education, was one

of the most difficult years many had experienced. This could limit teachers' willingness to participate in this study.

Assumptions

1. The respondents will reflect a normal distribution from the state of Minnesota; therefore, results can be inferenced back to the population of K-12 teachers in Minnesota.
2. The survey participants answered the survey with integrity.
3. The survey answers are reflective of the unique professional opinions of each participant.
4. The respondents will have a basic understanding of trauma-informed practices in schools.
5. The respondents will understand student achievement as being more than standardized test scores.

Definition of Terms

1. *Trauma-informed Practices* (TIP)-According to the Substance Abuse and Mental Health Services Administration (SAMHSA, 2014b), are a framework or set of guiding principles that inform programs, systems, and organizations on how to best serve persons affected by trauma.
2. *ACE(s)*- Defined by Felitti et al. (1998), an ACE is an adverse childhood experience that has the potential to contribute to health problems and early death, later in life.
3. *Post-Traumatic Stress Disorder (PTSD)*- "PTSD is a mental health problem that some people develop after experiencing or witnessing a life-threatening event, like

combat, a natural disaster, a car accident, or sexual assault" (U. S. Department of Veterans Affairs, 2021).

4. *Intersectionality*- According to Merriam-Webster (2022), intersectionality is the "complex, cumulative way in which the effects of multiple forms of discrimination (such as racism, sexism, and classism) combine, overlap, or intersect especially in the experiences of marginalized individuals or groups."

Organization of Study

This study is organized into five chapters followed by a reference section, and appendixes in the following manner.

Chapter One provides the problem, the purpose of the study, the research questions, and the significance of the study, and the definition of terms in this study.

Chapter Two consists of an examination of the appropriate literature related to the problem and is organized into the themes that emerged throughout the research. The main themes that emerged throughout the review of literature were defining what trauma is, the effects of trauma on student achievement and behavior, and the exploration of trauma-informed practices.

Chapter Three describes the research methodology used for the study as well as the step-by-step process used to conduct the study.

Chapter Four, the data will be reported, and the findings discussed.

Chapter Five will include a summary of conclusions drawn from the data presented in Chapter Four.

Chapter II: Review of Literature

This study is designed to examine perspectives of K-12 teachers regarding practices that address trauma-affected students. As stated previously, children with traumatic or adverse childhood experiences are prevalent in P-12 education systems across the United States (National Survey of Children's Health, 2012). The number of children exposed to trauma since the onset of COVID-19 in 2020 has increased significantly (Crosby et al., 2020).

Adverse and traumatic childhood experiences have the potential to severely limit a child's potential to receive the full benefits of education (Illinois Aces Response Collaborative, 2018). "These experiences can disrupt brain development and limit social, emotional, and cognitive functioning and often these adverse childhood experiences are the root cause of many serious academic, social, and behavioral problems" (Illinois Aces Response Collaborative, 2018, p. 1).

Not only do the traumatic childhood experiences themselves contribute to the deficits in child development and learning, but the long-term toxic stress that is created from the traumatic experiences can cause developmental delays as well as permanent damage to a child's brain and brain functioning, further harming a child's education, and limiting their potential to grow normally into adulthood (Shonkoff et al., 2012; Burke Harris, 2018). "The greatest hope for traumatized, abused, and neglected children is to receive a good education in schools where they are seen and known, where they learn to regulate themselves, where they can develop a sense of agency" (van der Kolk, 2014, p. 149). Trauma-informed practices have the potential to be that "greatest hope" and these practices are increasingly needed to address student behavior that may

negatively impact opportunities to learn and grow. This study will further examine this topic of trauma-informed practices in schools.

In this chapter, the literature on trauma-informed practices in schools is examined. The review is divided into five main themes including trauma, types of traumas, effects of trauma, adverse childhood experiences (ACEs), and trauma-informed practices in schools. Each theme is divided into several sub-themes.

Trauma

Several definitions of trauma were reviewed in the examined literature, however, a standardized definition of what constitutes trauma was not found because according to Perry and Winfrey (2021), there is not a standard definition available. In response to the lack of a standard definition of trauma, The Substance Abuse and Mental Health Services Administration (SAMHSA) brought together professionals to attempt to create a definition that some consider being close to a standardized definition by explaining trauma as dependent upon the event, the experience, and the effects of trauma on an individual (Perry & Winfrey, 2021). Trauma, therefore, is defined by SAMHSA (2018b) as "an event, series of events, or set of circumstances that are experienced by an individual as physically or emotionally harmful or life-threatening and that has lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being." This definition is referred to as the "Three E's" as the foundation of the definition focuses on the event(s), the experience, and the effects of trauma (Perry & Winfrey, 2021, p. 102).

Besides the SAMHSA definition, several other definitions of trauma were available in the examined literature. Brunzell et al. (2015) described trauma as an "overwhelming experience that

can forever alter one's belief that the world is good and safe" (p. 3). Trauma is defined in the *Oxford Dictionary of Difficult Words* as: "1. A deeply distressing or disturbing experience. 2. Emotional shock following a stressful event or a physical injury, which may lead to long-term neurosis" (Hobson, 2004, p. 444). Pickens and Tschopp (2017) explained childhood trauma as "any event that is experienced by an individual as physically or emotionally harmful because the individual perceives his life or the life of someone he loves as threatened" (p. 1). Further insight into the understanding of childhood trauma can be gained by examining The National Childhood Traumatic Stress Network (NCTSN) definition which states, "A traumatic event is a frightening, dangerous, or violent event that poses a threat to a child's life or bodily integrity" (2018a). Additionally, the NCTSN explained that even witnessing a traumatic event can be detrimental to a child's well-being (2018a).

Despite the several available definitions, trauma and a person's response to trauma are inherently subjective and can be difficult to define as traumatic events and experiences, even collective and/or shared traumatic events and experiences, are inevitably personal in nature (Perry et al., 1995). For example, two people that experienced the same natural disaster may have completely different emotional and physical responses to the event because of their past and present experiences, even though the actual physical event itself (i.e., both people losing their home to a tornado in the same neighborhood) was the same (Perry et al., 1995; SAMHSA, 2014b). Additionally, according to Perry and Winfrey (2021), trauma and a person's response to trauma can be impacted by the connectedness to family, community, and culture that a person has, as well as the timing of the trauma in one's life (p. 108).

Historical Perspective on Trauma

Trauma and its effects have been documented by humans in written form at least as far back as the third millennium BC (3000-2001 BC) (Birmes et al., 2003). While these accounts of traumatic events and experiences were anecdotal references, the literary and philosophical references were foundational to the eventual research and recognition of the impact of trauma on humans by medical, psychological, and other professionals (Birmes et al., 2003). By the time of the American Civil War, clinical recognition of the impact of the trauma of war on soldiers was noted in some isolated cases but by World War I, the study of post-traumatic stress and the impact of trauma was widely advancing (Birmes et al., 2003).

Independent of wartime trauma studies, van Der Kolk (2000) referenced significant research of the emotional distress of trauma that was conducted at a hospital in Paris, France in the late 1800s by researchers Jean-Martin Charcot, Pierre Janet, and later by Sigmund Freud. Charcot "first proposed that the symptoms of what was then called 'hysterical' patients had their origins in histories of trauma" and Janet recognized the post-traumatic effects of the traumatic event (van Der Kolk, 2000, p. 10). Other early documented research on the effects of trauma also took place in Britain coinciding with the Industrial Revolution and the advances in technology that occurred, specifically surrounding traveling by train (Lasiuk & Hegadoren, 2006). Early train travel was particularly dangerous and the widespread "ill effects of this mode of travel on the health of both railway employees and passengers" prompted significant study into these effects (Lasiuk & Hegadoren, 2006, p. 15).

Despite the years of research on trauma and its effects, it took until 1980 for post-traumatic stress to be formally recognized by the medical community and to be included as a

disorder in the third edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-III)* (van Der Kolk, 2000) and according to Lasiuk and Hegadoren (2006), "the significance of this act cannot be understated" (p. 13). Lasiuk and Hegadoren (2006) explain the significance:

> First, it named the residual effects of horrific life events and created a conceptual framework for the systematic study of trauma and its sequelae. Second, it stipulated that an external agent (i.e., a traumatic event) rather than some inherent weakness within the individual was critical to the development of the disorder. Third, the formal declaration of the potentially serious and long-lasting responses to trauma validated and legitimized the experiences of affected individuals (p. 13).

Up until the time of the 1980 DSM inclusion of post-traumatic stress, the effects of trauma on individuals had been deemed by the medical community, as well as society, a personal failing (SAMHSA, 2014a). This believe had prevailed despite the fact that for several decades research had been pointing toward outward physical and external events--for example, the use of the term shell shock being used to describe soldiers post-traumatic responses to the use of heavy explosives during World War 1--as being the cause for post-traumatic responses, people that were thought to be suffering the effects of a traumatic experience were frequently viewed as "morally weak" or having "character flaws" (SAMHSA, 2014a). The DSM inclusion in 1980 required the naming of a "catastrophic stressor" that was outside the typical human experience (SAMHSA, 2014a). Thus, the DSM-III definition and inclusion of post-traumatic stress were pivotal to the growth in research surrounding trauma and its effects, yet its inclusion was not without controversy and debate over what trauma is (SAMHSA, 2014a). According to the examined literature, the debate still exists today.

COVID-19

The COVID-19 pandemic that began in 2020 shut down school buildings across the United States. The pandemic has continued to disrupt the education and lives of school-age children throughout 2022 and the number of children exposed to trauma has increased significantly (Crosby et al., 2020). The immediate effects of the Covid-19 pandemic have shown increased grief, anxiety, and depression in school-age children as well as increasing the levels of violence and bullying within schools (Vestal, 2021). Suicide attempts among school-age children increased by 31% in 2020 compared to 2019 and in the early months of 2021, that number increased to 51% (Vestal, 2021). The traumatic effects of social isolation family instability, and the increase of child abuse and neglect due to higher stress levels of caregivers, as well as the estimated 140,000* children that have lost a caregiver due to the pandemic (among other individual and collective pandemic-induced traumatic experiences), will continue to affect school-age children well after the pandemic ends" (Vestal, 2021; Crosby et al., 2020).

The examined literature regarding trauma revealed that views on what trauma is and how societal views trauma have evolved and continue to evolve as the understanding and acceptance of trauma and the aftereffects of trauma grow. The next section will explore the types of traumas most identified in the available research.

Types of Traumas

Although several types of traumas are identified in the available literature, an exhaustive list of what may or may not constitute a traumatic experience for an individual or a community is impossible to create because a traumatic event(s) is an experience and an experience is defined by the individual and/or the individual community that has suffered the trauma (Perry et al.,

1995; SAMHSA, 2014a). However, in the following section, the trauma types that occurred most frequently throughout the research will be defined.

When reviewing types of traumas, it is important to note that victims of violence perpetrated by humans, as opposed to other traumatic experiences such as a natural disaster, for example, often have the most devastating and lasting effects (Lopez-Martinez et al., 2018). "Children exposed to sudden, unexpected man-made violence appear to be more vulnerable--making the millions of children growing up with domestic violence or community violence at a greater risk for profound emotional, behavioral, physiological, cognitive, and social problems" (Perry et al., 1995, p. 273).

Not only can the trauma or traumatic event itself have a significant impact on the child and their well-being, but often the events following the trauma can also significantly impact a child's well-being (NCTSN, 2012). According to NCTSN (2012), traumatic events "often generate secondary adversities such as family separations, financial hardship, moving to a new home or school, social stigma, ongoing treatment for injuries, and court proceedings" (p. 3).

Additionally, it is imperative to recognize the intersectional nature of trauma as well as to understand how this intersectionality can exacerbate the traumatic experience and the effects of trauma (Wallace, n.d.). Wallace (n.d.) states, "Trauma does not occur in a vacuum—it occurs within the personal, social (and often political) context of the person and their intersecting identities: race, class, ability, gender identity and expression, first language, sexual orientation, religion, immigration status, body size, etc." (p. 6).

Lastly, structural and/or systemic violence, which refers to "the systematic ways in which social structures harm or otherwise disadvantage individuals" can significantly impact the effects

of trauma (Burtle, 2016; Haga, 2020). Any form of institutional or socially constructed form of oppression (i.e., police violence, racism, poverty, and homelessness, etc.) can fall under the umbrella of structural and/or systemic violence (Burtle, 2016; Haga, 2020). According to Chavez-Diaz and Lee (2015), “Trauma is both a byproduct of systemic oppression as well as a barrier to achieving just, equitable, and thriving communities” (p.7).

Violence

According to the World Health Organization (WHO) (2022a), violence is defined as "the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation." The WHO (2022a) further defines violence by categorizing violence into three subtypes according to the relationship between the offender and the victim. The three sub-types include self-directed violence, interpersonal violence, and collective violence (WHO, 2022b).

Self-directed Violence. Self-directed violence is violence that is inflicted on a person by the person themselves (WHO, 2022b). According to WHO (2022b), self-harm (i.e., cutting, and other forms of self-injurious behaviors) and suicide fall within the parameters of self-directed violence.

Interpersonal Violence. Interpersonal violence is defined as “violence between individuals" (WHO, 2022b). Interpersonal violence can be subdivided into family and intimate partner violence and community violence *(*WHO, 2022b). Family and intimate partner violence includes, but is not limited to, “maltreatment of children, intimate partner violence, and elder abuse, while the community violence includes, and again are not limited to, youth violence,

stranger assault, violence related to property crimes, and violence in workplaces and other institutions" (WHO, 2022b).

Physical Abuse. Physical abuse, as defined by the Child Welfare Information Gateway (2016), is when "any non-accidental physical injury to the child occurs and can include striking, kicking, burning, biting the child, or any action that results in a physical impairment of the child" (p. 2).

Sexual Abuse. Child sexual abuse according to Stop It Now! (2008) is when an adult engages in sexual behavior, including touching and non-touching, with a child. Additionally, sexual abuse can occur between children if the child that is perpetrating is older or is significantly different developmentally or size-wise (Stop It Now!, 2008).

Domestic Violence. Domestic violence and intimate partner violence (IPV) are both categorized in this trauma type. While both types of violence often occur in the vicinity of the home, "IPV clearly defines the perpetrator as an intimate, or past intimate partner, of the victim. Domestic violence, a broader term, describes abuse by a parent, child, current or former intimate partners, and possibly others" (Minnesota Department of Health [MDH], 2002, p. 1).

Neglect. "Neglect is the failure of a parent, guardian, or other caregivers to provide for a child's basic needs" (Child Welfare Information Gateway, 2013, p. 3). Neglect can be categorized as physical, medical, educational, or emotional (Child Welfare Information Gateway, 2013). Not providing food, shelter, educational opportunities, medical treatment, mental health care, permitting drug and alcohol abuse, and leaving children without proper supervision are common examples of neglect (Child Welfare Information Gateway, 2013).

Psychological Maltreatment. "Psychological maltreatment is a repeated pattern of damaging interactions between parent(s) and a child that becomes typical of the relationship" (Kairys & Johnson, 2002, p. 1). Kairys and Johnson (2002) stated that "Psychological maltreatment of children occurs when a person conveys to a child that he or she is worthless, flawed, unloved, unwanted, endangered, or only of value in meeting another's needs. The perpetrator may spurn, terrorize, isolate, ignore, or impair the child's socialization" (p. 1).

School Violence. According to the Centers for Disease Control and Prevention (CDC), school violence includes, but is not limited to bullying, pushing, shoving, kicking, and other forms of fighting, use of weapons, electronic bullying (e.g., via gaming or social media), and gang violence (2017). School violence can occur at school, to and from school, at school-sponsored events, as well as to and from school-sponsored events (CDC, 2016).

Complex Trauma. Complex trauma occurs when a child is exposed to multiple traumatic events over time such as witnessing domestic violence or experiencing repeated sexual abuse (NCTSN, 2018a). Complex trauma is "invasive and interpersonal in nature" (NCTSN, 2018a). "Complex trauma exposure results in a loss of core capacities for self-regulation and interpersonal relationships" (Cook et al., 2005, p. 390). These effects are often lifelong (Cook et al., 2005).

Community Violence. Community violence is defined by NCTSN as an event that is witnessed that has occurred in a public place by persons that are not related to the victim (NCTSN, 2018b). An example of this type of trauma would be witnessing a bank robbery, a mass shooting, or other acts of interpersonal violence (NCTSN, 2018b).

Refugee Trauma. According to the NCTSN, refugee trauma refers to the lasting effects experienced by refugees "related to persecution or war including mental and physical health long after the events have occurred" (NCTSN, 2018b).

Sex Trafficking. "Child sex trafficking refers to the recruitment, harboring, transportation, provision, obtaining, patronizing, or soliciting of a minor for the purpose of a commercial sex act" (United States Department of Justice, 2017).

Historical Trauma. Historical trauma consists of an original trauma event that was shared by a group of people that spans more than one generation and still affects the current generation even though the original traumatic event has passed (Mohatt et al., 2014, p. 128). Traumatic events of this trauma type include, but are not limited to, "genocide, slavery, forced relocation, and destruction of cultural practices (University of Minnesota Extension, 2019).

Intergenerational Trauma. Intergenerational trauma occurs when multiple generations of a family have been impacted by a traumatic event that began years prior to the current generation (Hill, 2017). Intergenerational trauma and historical trauma may be present in current generations but are distinct in their origins (Mohatt et al., 2014, p. 128).

Terrorism. "Mass violence, acts of terrorism or community trauma in the form of shootings, bombings or other types of attacks" are included in the NCTSN's definition of terrorism (NCTSN, 2018b).

System-induced Trauma. System-induced trauma includes events such as children being removed from their homes, placement in foster care, and separating siblings (Center for Early Childhood Mental Health Consultation, 2019).

Educational Systemic Violence. "Educational systemic violence results from the practices, procedures, and educational conventions that prevent students from learning, thus harming them (Ross Epp & Watkinson, 1997, p. 5). According to Ross Epp & Watkinson, (1997), educational systemic violence causes harm by dehumanizing students as well as by promoting "discriminatory educational results emanating a school culture that obfuscates the social, historical, legal, and economic differences among students" (p. 4).

Collective Violence. Collective violence is violence "committed by larger groups of individuals and can be subdivided into social, political, and economic violence (WHO, 2022a). Trauma types such as terrorism, refugee trauma, forced relocation, slavery, genocide, and other types of traumas can be classified as collective violence (WHO, 2022a, p. 1) Ginwright (2018) argued that trauma is most often defined as an individual experience and this presumption discounts the magnitude of the harm caused by collective experiences such as trauma that occurs in "neighborhoods, families, and schools" as well as discounting the collective experiences of communities that are disproportionately affected in natural disasters and the like (p. 3).

Additional Trauma Types

While all trauma is personal in nature and because a traumatic event(s) is an experience and an experience is defined by the individual and/or the individual community that has suffered the trauma (Perry et al., 1995; SAMHSA, 2014a) the following additional trauma types could be classified as self-directed, interpersonal, and/or collective types of trauma, however, the following trauma types are listed separately from above as they are not inherently man-made types of trauma.

Natural Disasters. Included in this category of trauma types are natural disasters such as hurricanes, floods, tornadoes, earthquakes, wildfires, and other destructive weather events that cause insecurity, destruction of life and property, and monetary loss (Department of Homeland Security, 2021).

Early Childhood Trauma. The NCTSN defines this type of trauma as trauma that occurs to children between the ages of 0-6 (NCTSN, 2018b).

Poverty. Poverty is the state of being poor or existing in a state that often barely meets having the means necessary to provide for the basic human needs such as food, clean water, health care, shelter, and education (Editors at Encyclopaedia Britannica, 2019). While living in a state of poverty is not inherently traumatic, it is the toxic stress from being exposed to many of the things often associated with or exacerbated by poverty, including physical and emotional abuse, addiction, violence, poor health, and impaired learning (Stand Together Foundation, 2017).

Pediatric Medical Trauma. "Pediatric medical traumatic stress refers to a set of psychological and physiological responses of children to single or multiple medical events" (NCTSN, 2018b).

Traumatic Grief. Traumatic grief occurs when a Child has prolonged difficulties adjusting to the death of a loved one (NCTSN, 2018b).

The examined literature highlighted multiple types of traumas ranging from personal types of traumas to systemic trauma issues. The next section will discuss the effects trauma has on school-aged children.

Effects of Childhood Trauma

The examined research revealed that the effects of trauma directly impact student achievement and behavior as well as their health and development. The effects of trauma often permeate every facet of a child's well-being (Lopez-Martinez et al., 2018) and this impact is now well documented (Goodman et al., 2011, p. 252). Although children who have experienced trauma have been in schools since the first institutions opened, we now know the cumulative effects of trauma exposure and the related stress can have a devastating and permanent impact on a child's development and cognitive abilities (Paccione-Dyszlewski, 2016). "Trauma results in a fundamental reorganization of the way the mind and brain manage perceptions. It changes not only how we think and what we think about, but also our very capacity to think" (van der Kolk, 2014, p. 21)

Effects on Student Achievement and Behavior

The effects of trauma can significantly delay and impair a child's "cognitive, social, and emotional development" including their ability to acquire language, regulate emotion, maintain focus in the classroom, interact appropriately with their peers, as well as other avenues of functionality in the classroom (Crosby et al., 2020, p. 223; Paccione-Dyszlewski, 2016). "Attention, memory, organization, comprehension, and self-regulation of behavior are some of the abilities needed for successful classroom learning. For youth dealing with trauma, this can be very difficult to accomplish" (West et al., 2014, p. 59). Lowenthal (2000) adds that children who have or are experiencing abuse tend to have a negative outlook on learning and perform poorly in school and according to Cole et al., (2009), "hopelessness, self-blame, and lack of control are typical of the feelings that can result from trauma; these feelings may lead to overwhelming

despair and a loss of the ability to imagine the future or hope that circumstances will change." (p. 15). West et al. (2014) offer that youth that have experienced trauma can have the "impaired ability to pay attention, establish appropriate boundaries, cognitively process information, as well as control anger, aggression, and other impulses which may result in acting out another externalized behavior in the classroom (p. 59).

Additionally, the stress caused by trauma can have a significant impact on a child's development, especially the development of a child's brain (Perry, et al. 1995; Pacciones-Dyslewski, 2016; Brantley, 2007; Willis, 2011; Medina, 2014; Cook et al., 2005). In fact, if the traumatic stress persists long enough, the brain can incur permanent damage (Perry, et al. 1995; Pacciones-Dyslewski, 2016; Brantley, 2007; Willis, 2011; Medina, 2014; Cook et al., 2005.) According to Cook et al. (2005), "Under stress, abused and neglected children's analytical capacities tend to disintegrate, leaving them disorganized cognitively, emotionally, and behaviorally, and prone to react with extreme helplessness, confusion, withdrawal, or rage" (p. 393). Medina (2014) adds, **"**Stressed people don't do math well. They don't process language very efficiently. They have poorer memories, both short and long forms . . . They can't concentrate. In almost every way it can be tested, chronic stress hurts our ability to learn" (p. 65). Furthermore, traumatized youth are less engaged, often lack age-appropriate social skills, are referred for special education services more frequently, have higher rates of absenteeism, have more behavioral issues, and have lower GPAs than their non-traumatized peers (West et al, 2014, p. 59). Schwarz and Perry (1994) provide a summation:

> School-age children may be anxious, depressed, or inhibited, and may report guilt, hypervigilance, change in play, loss or change in interests, return of old or onset of new

> fears, sleep disorders, and impaired concentration, functioning, and initiative. . . They may manifest disorders in school performance and learning. Adolescents may add identity, eating, and personality including multiple personality disorders, and pseudo-seizures. They may act out with suicidality, hypersexuality, substance abuse, delinquency, and truancy. Some will self-mutilate (p. 316).

Effects on Health

Physical Health. The physical effects of trauma and adverse experiences on a child have a broad range. Injuries, such as bruises, bite-marks, broken bones, and black eyes which cannot be explained are some of the more obvious physical effects, but the physical effects can manifest in other ways as well (Child Welfare Information Gateway, 2013). Hygiene issues, such as coming to school dirty, having excessive body odor, and/or filthy clothing, inadequate sleep, improper nutrition, as well as lack of medical and dental care, can be considered physical effects of trauma (Child Welfare Information Gateway, 2013). "Childhood trauma also negatively affects the nervous system and immune system development" (Child Welfare Information Gateway, 2013, p. 8). Blodgett et al. (2018) add the following health concerns as an effect of childhood trauma, "seizure disorders, asthma, speech/language disorders, diabetes, obesity, food allergies, and severe dental issues" (p. 1).

Mental and Emotional Health. The effects of traumatic experiences on a child's mental and emotional health manifest in a multitude of ways that are observable in the learning environment (Child Welfare Information Gateway, 2015). For example, children who have experienced trauma may appear as hypervigilant, have trouble concentrating, have excessive mood swings and extreme behavioral patterns, may have unhealthy emotional attachments to

school staff, may act inappropriately for their age, is contemplating or has attempted suicide, and may be emotionally developmentally delayed (Child Welfare Information Gateway, 2015). According to the Anxiety and Depression Association of America (ADAA), Post-Traumatic Stress Disorder (PTSD)--the symptoms of which include nightmares, flashbacks, trouble sleeping, difficulty concentrating, becoming easily angered or distracted, and avoidance of people and things that may remind them of their trauma-- is common amongst children who have experienced trauma (2018). Schwartz and Perry (1994) found that, "Children exposed to trauma may have a range of PTSD symptoms, behavior disorders, anxieties, phobias, and depressive disorders" (p. 311). Cook et al. (2005) concurred with the findings of the ADAA (2018) and Schwartz and Perry (1994) and specifically named attention-deficit/hyperactivity disorder (ADHD), oppositional defiant disorder (ODD), conduct disorder, communication disorders, separation anxiety, and reactive attachment disorder as affecting mental and emotional health (p. 395). Additionally, when a parent or primary caregiver is the person perpetrating the trauma, the capacity for a child to secure healthy attachment patterns is diminished (Kairys & Johnson, 2002, p. 3). According to Cook et al. (2005), "80% of maltreated children develop insecure attachment patterns" (p. 392).

Stress

Stress and the responses to stress are an inescapable part of the human experience (Middlebrooks & Audage, 2008). Humans begin to experience stress prenatally and stress is an essential part of human survival and development (Middlebrooks & Audage, 2008; Schneiderman et al., 2005; Medina, 2014). Prolonged stress, however, can become toxic to humans, causing a dysregulated stress response that can damage a child's brain if left untreated

(Middlebrooks & Audage, 2008; Burke Harris, 2018; Schneiderman et al., 2005; Shonkoff, 2016; Medina, 2014). “Quite literally, severe stress can cause brain damage in the very tissues most likely to help you succeed in life” (Medina, 2014, p. 67).

Stress, as defined by Middlebrooks and Audage (2008) is, “internal or external influences that disrupt an individual’s normal state of well-being and these influences can affect health by causing emotional distress and leading to a variety of physiological changes including increased heart rate, elevated blood pressure, and a dramatic rise in hormone levels” (p. 3). There are three types of stress--positive, tolerable, and toxic--and each type of stress affects humans differently (Middlebrooks & Audage, 2008).

Positive Stress. Positive stress, also known as eustress, is stress that is generated from adverse experiences that are brief in nature and often occur as part of everyday life (Burke Harris, 2018; Middlebrook & Audage, 2008). Examples of positive stress include, but are not limited to, getting childhood shots, meeting new people, experiencing a new daycare center, or having a toy taken away (Burke Harris, 2018; Middlebrook & Audage, 2008; Shonkoff et al, 2012). According to Shonkoff et al. (2012), positive stress is a regular part of growing up and when children have healthy, caring adult relationships, this type of stress is beneficial to development. “When buffered by an environment of stable and supportive relationships, positive stress responses are a growth-promoting element of normal development. As such, they provide important opportunities to observe, learn, and practice healthy, adaptive responses to adverse experiences” (Shonkoff et al, 2012, p. 235). Middlebrook and Audage (2008) concurred, “This type of stress is considered normal and coping with it is an important part of the development process” (p. 3).

Tolerable Stress. Tolerable stress, like positive stress, occurs within the normal scope of the human lifespan and is related to events that are more severe and longer in duration than the events that cause positive stress, yet are still recoverable with the love and support of a caring adult and positive relationships (Burke Harris, 2018; Middlebrook & Audage, 2008). Shonkoff et al. (2012) explained tolerable stress similarly by stating, "A tolerable stress response, in contrast to positive stress, is associated with exposure to non-normative experiences that present a greater magnitude of adversity or threat. Precipitants may include the death of a family member, a serious illness or injury, a contentious divorce, a natural disaster, or an act of terrorism" (Shonkoff et al, 2012, p. 235). The likelihood that a child will recover from a tolerable stressful event before the stress becomes toxic is directly related to the extent of the positive adult caregiving relationship in the child's life (Burke Harris, 2018; Middlebrook & Audage, 2008; Shonkoff et al, 2012).

Toxic Stress. "Children who suffer from child traumatic stress are those who have been exposed to one or more traumas over the course of their lives and develop reactions that persist and affect their daily lives after the events have ended*"* (Burke Harris, 2018, p. 54; NCTSN, 2018a). If the traumatic stress persists over a prolonged period, the stress can become toxic leading to damage to the child's brain (Burke Harris, 2018; Center on the Developing Child, 2018; Medina, 2014; Middlebrooks & Audage, 2008). The National Scientific Council on the Developing Child (2014) adds that in some cases of long-term neglect and abuse early in life or during other periods of critical brain development, toxic stress can cause the areas of the brain that involve "fear, anxiety, and impulsive responses to overproduce neural connections while areas of the brain dedicated to reasoning, planning, and behavioral control may produce fewer

neural connections" (p. 4). Not only does toxic stress disrupt learning and the ability to control behavior, but toxic stress can also lead to physical and emotional impairments as well (Shonkoff et al, 2012). Furthermore, according to the NCTSN (2018a), toxic stress reactions can also include: "depression, anxiety, difficulties self-regulating, relationship and attachment issues, loss of previously acquired skills, attention deficits, difficulty sleeping and eating, use of drugs and/or alcohol, risky behavior, unhealthy sexual activity and physical symptoms, such as aches and pains" (para. 6).

Effects on the Brain

Perry et al. (1995) state that understanding how the human brain develops, functions, and responds to threats is imperative to understanding a child who has experienced trauma (p. 273). The connections that make higher-level thinking possible are not made when stressors are present. According to Carrion and Wong (2012), "Trauma acts as a threat to an individual's well-being, thereby activating a neurobiological stress response. Although necessary for survival, chronic and frequent physiological stress responses can alter brain development, leading to dysregulation of neural circuitry" (p. 23). In short, a stressed brain does not have the capacity to think critically. When the area of the brain that is responsible for critical thought (the prefrontal cortex) is not stimulated, deep thinking does not happen, and the skills needed for deep thought are not developed (Willis, 2011). "When deep thinking skills are not developed, things like reason, logic, creative problem solving, and communication skills, among other functions, are not developed" (Willis, 2011, p. 2). Skills such as these are essential for learning, growth, and development.

Medina (2014) explains the three parts of the human brain and how thought occurs. The first brain, as Medina (2014) described it, is our "lizard brain" or our brain stem (p. 11). It is in our brain stem that the automatic bodily functions such as breathing, heart rate, and sleep/wake patterns occur--this part of our brain keeps us physically alive (Medina, 2014). The second part of our brain is what Medina (2014) termed the "mammalian brain" (p. 11). This part, where the hippocampus and amygdala reside, "has more to do with animal survival than with human potential" (Medina, 2014, p. 11). It is in the mammalian portion of the brain, pinpointed to the amygdala, where our fight, flight, or freeze responses occur (Medina, 2014). Fight, flight, or freeze is our brain's response to stressors or danger, and it works to keep us safe. Also, according to Medina (2014), in our mammalian brain--the amygdala and hippocampus--emotional and memory work occurs, along with sensory work. The third part of the brain is the prefrontal cortex which, according to Medina (2014), is the latest addition to the human brain. It is in the prefrontal cortex where the executive functions such as problem-solving, holding attention, emotion control, flexibility, tolerance, risk assessment, reasoning, analysis, organizing, prioritizing, self-assessing, focusing, and the other functions needed for critical thought occur (Willis, 2011; Medina, 2014).

According to Medina (2014), all three areas of the brain connect and communicate with each other through a series of electrical circuits which Medina describes as a "neural highway" (p.12). "Neurons spark to life, then suddenly blink off, then fire again. Complex circuits of electrical information crackle in coordinated, repeated patterns, racing to communicate their information along large neural highways that branch suddenly into thousands of exits" (Medina, 2014, p. 12). Perry et al. (1995) concurred, "The major working units of the brains are neurons

(over 100 billion of them) that are interconnected into networks, and networks into systems that work together" (p. 273). It is when these circuits are not connecting to the prefrontal cortex that our capacity for critical thinking is diminished or incapacitated, thus harming a child's capacity to learn, and hindering their progress in the classroom (Medina, 2014). When the brain becomes stressed and the fight, flight, or freeze response system has been activated due to a real or perceived threat, these significant connections are not made (Medina, 2014).

The fight, flight, or freeze response is sometimes called the "stress response" (Brantley, 2007, p. 35). When the stress response in the brain is triggered, the brain sounds an alarm to instantaneously activate your fear system (Brantley, 2007). According to Perry and Szalavitz (2017), the greater the distress, the more primitive the behaviors and responses." (p. 297). "Cut adrift from the internal regulating capabilities of the cortex, the brainstem acts reflexively, impulsively, and often aggressively to any perceived threat" (Perry & Szalavitz, 2017, p. 297). It takes the work of the prefrontal cortex to sort out and analyze the stress response, eventually shutting it off (Medina, 2014). If the prefrontal cortex is not functioning properly or has not been developed because of trauma and toxic stress, the stress response alarm will become louder and you will become more stressed, making it even more difficult for critical thinking and emotional regulation to occur (Brantley, 2007). Unmanaged stress can lead to anxiety disorders (Brantley, 2007) and can harm learning (Medina, 2014). Pickens and Tschopp (2017) stated that when the prefrontal cortex is overwhelmed with stressors, the limbic system, the part of the brain that regulates emotion, keeps the "stress response activated at a high level--interfering with the frontal lobes' ability to operate and ultimately contributing to a perpetual mental state of being in *survival mode*" (p. 4). Understanding the fear response, according to Perry & Szalavitz (2017),

"has profound implications for understanding the thoughts, reactions, and behavior of traumatized children" (p. 297). "The immediate reward is most reinforcing; delayed gratification is almost impossible. They are quite literally unable to consider the potential consequence of their behavior because of the physical arousal state of their brains" (Perry & Szalavitz, 2017, p. 297).

Wlassoff (2015) gave further explanation when he pointed out that the hippocampus, prefrontal cortex, and amygdala are part of the "neural circuitry that mediates stress" (p. 3). The hippocampus aids in helping the amygdala in responding appropriately to stressful events while the prefrontal cortex helps regulate "emotional responses of the amygdala" (Wlassoff, 2015, p. 3). Rosenthal (2013) explains in greater detail the relationship and specific effects of trauma on the hippocampus, amygdala, and prefrontal cortex. "The fear induced by trauma makes a deep imprint on your amygdala and hypersensitizes it to danger, which makes it seek out threats everywhere as well as enlarging the amygdala" (p. 3). Rosenthal (2013) goes on to state that the hippocampus may be prevented from doing its job and can shrink as an effect of trauma. Additionally, trauma can decrease the blood flow to the brain (Rosenthal, 2013). When blood flow to the left part of the prefrontal lobe is diminished, language and memory are affected, and when blood flow to the right prefrontal lobe is diminished a person will "experience more sorrow, sadness, and anger" (Rosenthal, 2013, p. 4).

When a stressful event occurs at school, a student whose brain is operating in survival mode may feel threatened by these stressors and the student's capacity to learn is severely diminished (Perry et al. 1995). In fact, some students may be in a constant state of fear, their brains, according to Perry et al. (1995) have become sensitized (p. 278). Children whose brains

are sensitized rapidly move from “being mildly anxious, to feeling threatened, to being terrorized” sometimes by events or stressors that a child whose brain has developed in a non-traumatizing environment would hardly respond to (Perry et al., 1995, p. 278). “Everyday stressors that previously may not have elicited any response now elicit an exaggerated reactivity--these children are hyperreactive and overly sensitive” (Perry et al., 1995, p. 278). Additionally, the “cognitive effects of child abuse include negative views toward learning and poor school academic performance” which further contribute to difficulties in the classroom (Lowenthal, 1998, p. 1).

Vicarious Trauma

Working in an educational environment with traumatized students increases the already rigorous demands of working in a school setting and often adds significant additional stress on educators who are already working in a stressful environment (Pickens & Tschopp, 2017; Venet, 2018). Due to the amount of stress and trauma teachers “bear witness to” teachers can develop secondary traumatic stress and vicarious trauma, also known as compassion fatigue, which includes symptoms such as, “difficulties concentrating, fatigue, depression, unwillingness to take on new tasks, negative thoughts, isolation and/or avoidance of others, and lack of enjoyment from activities that were previously enjoyable” (Pickens & Tschopp, 2017, p. 9; Venet, 2018, p.5). The effects of secondary traumatic stress and vicarious trauma can make it difficult for educators to maintain proper levels of self-care, maintain emotional regulation, and can also trigger an educator’s own unresolved trauma history (Pickens & Tschopp, 2017).

It was demonstrated in the examined literature that the effects of trauma often inhibit or prevent a child’s ability to fully grow and develop and often permeate every facet of a child’s

well-being (Lopez-Martinez et al., 2018). We now know that the cumulative effects of trauma exposure and the related stress can have a devastating and permanent impact on a child's development and cognitive abilities and directly impacts student achievement and behavior (Paccione-Dyszlewski, 2016). The next section will examine adverse childhood experiences (ACEs) including information on the original ACE study, how the study impacted the trajectory of societal discourse surrounding trauma, how the study impacted schools, and the effects of ACEs in the classroom.

Adverse Childhood Experiences (ACEs)

Besides the inclusion of PTSD in the DSM in 1980, the early 1980s were a pivotal time for the foundation of the 1998 landmark report, *Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults: The Adverse Childhood Experiences (ACE) Study* (Felitti, 2019). The *ACE Study* broadly highlighted the significant correlation between childhood trauma and adverse health effects in adults (Felitti, 2019). The *ACE Study* garnered worldwide recognition and significantly elevated the conversation regarding trauma and its effects in a variety of communities including schools, which were some of the first institutions to show interest in the findings of the original study and to recognize the substantial impact that ACEs have on a child's capacity to succeed in school (Felitti, 2019).

What originally began as obesity and weight-loss research by Kaiser Permanente's Department of Preventive Medicine in the 1980's, the researchers in this project used the "counterintuitive results" of the obesity study which led them to recognize the effects of childhood stressors in correlation with health in later life (Felitti, 2019, p. 787). Felitti et al. (1998) described their study as follows, "The ACE Study assessed, retrospectively and

prospectively, the long-term impact of abuse and household dysfunction during childhood on the following outcomes in adults: disease risk factors and incidence, quality of life, health care utilization, and mortality" (p. 247). They categorized the adverse childhood experiences as psychological abuse, physical abuse, sexual abuse, exposure to substance abuse, mental illness, witnessing violence against the mother or stepmother, and criminal behavior (Felitti et al., 1998, p. 248).

Over 17,000 mostly white, middle-class, college-educated adults responded to the 10-question survey and a "strong dose-response (meaning the higher the ACE score, the more health problems later on in life) relationship between the breadth of exposure to abuse or household dysfunction during childhood and multiple risk factors for several of the leading causes of death in adults" (Felitti et al., 1998, p. 251). The findings suggest that the impact of these adverse childhood experiences on adult health status is "strong and cumulative" (Felitti et al., 1998, p. 251). More recently, a study of 54,000 randomly selected students in the United States concurred with the results of the original ACE study finding that teens with adverse experiences before age 18 have a greater chance of developing asthma and diabetes as well as "suffering from overall poor health and an increased risk of heart attack and stroke (Mayer, 2016, p. 110). The likelihood of developing disease increased with the number of adverse experiences (Mayer, 2016).

The original ACE Study did not address intersectionality and it is now recognized that the intersections of poverty, racism, environmental factors of individual communities (violence, over-policing, pollution, etc.) and other experiences "driven by low income such as food insecurity, eviction, overcrowding, homelessness, and the stress of single-parent households" considerably intensify the adverse experience (McEwen & Gregerson, 2019, p. 791). According

to Mayer (2016), several studies demonstrate that the chronic stress associated with the effects of poverty leads to poorer health outcomes. Oppressive environments such as the ones created by homelessness, living in poverty, violence, and racism, for example, “enforce a near-perpetual trauma state in individuals, inducing stress responses that are chronic and unending” (LePera, 2021, p. 70). Lastly, it is now widely accepted of the ACE Study findings that the effects of adverse childhood experiences not only affect people later in life, but the adverse experiences also have a profound effect on health and well-being beginning in childhood (McEwen & Gregerson, 2019).

ACEs in the Classroom

According to the Illinois ACEs Response Collaborative (2018), “students with three or more ACEs are 2.5 times more likely to fail a grade, are significantly more likely to be unable to perform at grade level, be labeled as special education, be suspended, expelled, or drop out of school” (p. 2). Furthermore, “ACEs are often the root cause of serious learning disabilities, health problems, social challenges, and behavioral problems that impact a child’s ability to learn” (The Illinois ACEs Response Collaborative, 2018, p. 1). In fact, Burke Harris (2018) discovered that persons with four or more ACEs were diagnosed with learning and behavioral problems at a rate of 32.6 times greater than persons with fewer ACEs (p. 66). Additionally, the higher the ACE score, the more problems with attendance, which directly affects academic performance (Blodgett et al., 2018, p. 3). The Spokane Childhood ACEs Study (Blodgett et al., 2018, p. 3) demonstrated the dose-response relationship between the number of ACEs and the number of academic concerns, and those findings quantified the dose-response into percentages of students with one or more academic concerns by ACE exposure. Blodgett et al. (2018) found

that 34 percent of students with no adverse experiences had academic concerns and the dose-response percentage increased significantly with each adverse experience. Fifty-six percent of students with one adverse experience had academic concerns while 71 percent of students with two adverse experiences had academic concerns, and 80 percent of students with three or more adverse experiences had academic concerns (Blodgett et al., 2018). Students in racially and socio-economically marginalized populations are disproportionately affected by ACEs (Merck, 2021).

ACEs are a "root cause of many social, emotional, and cognitive impairments" that can significantly alter the trajectory of a child's life (Illinois ACEs Response Collaborative, 2018, p. 1). Schools were some of the first institutions to understand the implications of the ACE Study and these findings are linked to the emergence of trauma-informed practices in schools (Felitti, 2019). The following section will examine the literature regarding trauma-informed practices in schools including the theoretical framework, benefits, and barriers.

Trauma-informed Practices in Education

Trauma-informed practices in schools began emerging in the early and mid-2000s in response to the growing need to serve trauma-affected students (McInerney & McKlindon, 2014; Thomas et al. 2019). Even though trauma-informed practices in schools were introduced well over a decade ago, trauma-informed educational systems are not yet mainstream (Dotson, 2017), however, the concept of trauma-informed practices in schools is now considered a hot topic in education (Adams, 2020). Additionally, while there is a plethora of resources available (Thomas et al., 2019), according to the examined literature, there has not been a single resource or

framework that has been established as the “definitive” guide to trauma-informed practices in schools.

Trauma-informed care in youth-serving organizations “broadly refers to a set of principles that guide and direct how we view the impact of severe harm on young people’s mental, physical, and emotional health” (Ginwright, 2018, para 3). Baker and Lechner (2020) state that trauma-informed care is defined as “practices that promote a culture of safety, empowerment, and healing, and that encourage support and treatment of the whole person, rather than treatment of individual symptoms or specific behaviors” (p. 1). According to the National Association of School Psychologists (2017), schools that are trauma-informed or trauma-sensitive offer spaces where students feel “emotionally, socially, and physically safe and where staff have a collective understanding of how trauma and adverse experiences affect students. In addition, trauma-informed schools have “positive and culturally responsive discipline policies and practices, provide access to comprehensive school mental and behavioral health services, and effectively collaborate with community members" (National Association of School Psychologists, 2017, p. 1). “The goal of a trauma-informed system should be to “infuse an understanding of the impact of trauma and adverse life experiences on students into the classroom culture and promote a physically and psychologically safe environment to foster student growth” (Pickens & Tschopp, 2017, p. 1). According to Cole et al. (2009), another goal of a trauma-informed system is “not to turn teachers into therapists, but to enable them to create stable, supportive classrooms in which traumatized children can become full participants in the school community” (p. 52).

SAMHSA (2018b) stressed that besides creating spaces that are both physically and psychologically safe, trauma-informed school systems must create policies, procedures, and practices that recognize the impact of trauma and adverse experiences and must work to avoid re-traumatization. According to SAMHSA (2014b), the key assumptions of a trauma-informed system are the "Four R's." The Four Rs are necessary for a system to be considered trauma-sensitive or informed (SAMHSA, 2014b). To be considered trauma-informed, an organization must "realize the widespread impact of trauma and understand the potential paths for recovery; recognize the signs and symptoms of trauma; respond by fully integrating knowledge about trauma into policies, procedures, and practices, and seek to actively resist re-traumatization" (p. 9). The Four R's, according to Nealy-Oparah and Scruggs-Hussein (2018), are about how the adults should be responding to trauma-affected students.

Nealy-Oparah and Scruggs-Hussein (2018) added four more R's to the trauma-sensitive framework. These R's include routines, rituals, relationships, and regulation (Nealy-Oparah & Scruggs-Hussein, 2018). Routines can help to establish safety and predictability in the classroom while rituals and modeling regulation can promote an atmosphere of calmness and connection by giving students the tools they need to learn regulate (Nealy-Oparah & Scruggs-Hussein, 2018). Relationships with a caring adult creates connections and these connections can aid in the brain's ability to rewire itself (Nealy-Oparah & Scruggs-Hussein, 2018).

Step (2021) adds that a goal of a trauma-informed system should be to "create an environment that exudes calm, safety, and compassion. It takes a profound paradigm shift in knowledge, perspective, attitudes, and skills that continue to deepen and unfold over time" (para. 2). "To be trauma-informed is to change the knowledge, perspective, attitudes, and skills of the

entire community--not just programs within the community" (Step, 2021, para. 6). "Trauma-informed practices emphasize voice, choice, safety, trustworthiness, collaboration, and empowerment" (Blanch et al., 2012, p. 7).

Key Tenets of Trauma-Informed Practices

Mindset Shift. At the core of being a trauma-sensitive or trauma-informed educational system is an understanding of a student's past and present traumas and experiences and how those events contribute to a student's challenges in the classroom (Dotson, 2017, p. 2). Souers and Hall (2016) add that it is not important that educators know the details of a student's story, but simply to know and believe that their students have a trauma story.

One of the key tenets and the most fundamental element of a trauma-responsive system according to the examined literature is the reframing of the question, "What is wrong with this child?" to asking, "What happened to this child?" or "What is going on with this child?" (Counts et al. 2017, p. 229; Dotson, 2017, p. 2; Overstreet, 2015, p. 31; Bloom & Sreedhar, 2008, p. 50). Reframing the question shifts the mindset from "This person is being willfully disobedient" to "They are reacting adaptively to a situation they have no control over" (Pappano, 2014, p. 1). The assumption becomes one that recognizes "disruptive behavior is the symptom of a deeper harm, rather than willful defiance, or disrespect" (Ginwright, 2018, para. 4). Katz (1997) states:

> By not realizing that children exposed to inescapable, overwhelming stress may act out their pain, that they may misbehave, not listen to us, or seek our attention in all the wrong ways, can lead us to punish these children for their misbehavior...If only we knew what happened last night, or this morning before he/she got to school, we would be shielding the same child we're now reprimanding (p. 7).

Safety. Besides reframing the question of *what is wrong* to *what is happening*, schools that are trauma-responsive recognize that safety in the classroom is foundational to ensuring a trauma-sensitive environment, regardless of implementation methods or the program of delivery (Relias, n.d.). “Before a student is able to learn and fully engage cognitively, they need to viscerally feel safe” (Miller & Moffett, 2019, p. 6). Pickens & Tschopp (2017) argue that a safe environment in the classroom is the root of a trauma-informed approach (p. 10). Cavanaugh (2016) agrees and states, “A key principle of trauma-informed educational practice is the development of a safe environment” (p. 42). According to Izard (2016) “creating a safe space enriches the students’ safety” and that simply greeting children in a positive manner every morning can be one of the first steps to creating safety (p. 25). Oehlberg (2008) states that becoming a trauma-sensitive school begins with the administration unequivocally supporting the idea that all students will be safe at school and on the busses (p. 2). “The framework of total security, especially emotional security, becomes the primary focus of all situations and actions by students and staff” (Oehlberg, 2008, p. 2; Brown, 2008). Components that are essential for safety include (but are not limited to) safe buildings and grounds, school staff that clearly communicate and implement expectations of student behavior, open communication with families and stakeholders that welcomes input and feedback, administrative priority, policy support, collaboration with service providers, staff training and development, and ongoing evaluation of efforts (SAMHSA, 2014b). “Becoming a trauma-informed system is about creating conditions that mobilize people into thriving not just surviving. In order to move toward this kind of adaptive capacity, you have to generate huge gobs of psychological safety” (Daniels, 2018, para. 15).

Relationships. Relationships are yet another key factor in creating a trauma-informed school (Pickens & Tschopp, 2017; SAMHSA, 2014b; Venet, 2018; Multiplying Connections, 2010; Shonkoff et al. 2012; Zanolli, 2018; Cole et al. 2009; West et al. 2014.) According to Multiplying Connections (2010), "The most important thing you can do for a child affected by trauma is to create a positive, nurturing relationship with them" (p. 4). The caring adult can serve as a "powerful buffer" against stress, even in highly traumatized children (Shonkoff et al., 2012, p. 4). The student-staff relationship plays a crucial role in "regulating stress hormone production, especially during the early years" (Shonkoff et al., 2012, p. 4). In fact, Zanolli (2018) argues that "without the influence of a caring and calming adult stress becomes toxic, and elevated cortisol levels change the functioning of the child's brain, weakening the immune system and even altering the way a child's DNA is read and transcribed" (p. 1). All school staff, not just teachers, should work to create and maintain healthy and supportive relationships with not only every student but with parents and guardians as well as others that assist with helping to grow and nurture the trauma-affected students (Cole et al., 2009, p. 50). Research conducted by West et al. (2014) of student's perceptions regarding teacher-student relationships and trauma-informed educational settings agreed with the mainstream research stating that students recommend that teachers develop relationships that are rooted in respect and positive interactions to optimize classroom feelings of safety and to optimize learning (p. 62). Brunzell et al., (2015) state, "Although teachers are not therapists or clinicians, and are neither trained nor prepared to delve into personal trauma histories with their students, there are techniques they can use that have a healing effect. Indeed, the very relationship they form with students can be a key element of healing in and of itself" (p. 4). Nurturing relationships with caring adults "can prevent or

reverse" the damage caused by toxic stress and trauma and increase a child's capacity to succeed in the classroom (Cole et al., 2009, p.44; Center on the Developing Child, 2018; Katz, 1997, p. 30). These relationships can have healing effects for the student (Brunzell et al., 2015) and according to Venet (2018), "relationships have to come before content" (p. 2). "Connectedness has the power to counteract adversity" (Perry & Winfrey, 2021, p. 108).

Benefits of Trauma-Informed Education

Trauma-informed practices are not only beneficial to students that have experienced trauma but are beneficial to other students as well (Oehlberg, 2008; Multiplying Connections, 2010; Venet, 2018). Besides the benefits that come from a safe school environment and positive relationships, trauma-formed practices in schools promote healthy brain development in all students, not just the trauma-affected ones (Multiplying Connections, 2010, p. 4).

Another example of benefits for all is that there is almost always a reduction in disciplinary actions needed when a trauma-informed approach (Oehlberg, 2008, p. 3). For example, when Principal Jim Sporleder of Lincoln High School in Walla Walla, WA implemented a trauma-informed approach to discipline in his school, student days missed due to suspension dropped from 798 to 135, expulsions dropped from 50 to 30, and written referrals from 600 to 320, all in one school year (Stevens, 2012). Additionally, "Trauma-informed and SEL practices benefit all children by building critical skills like self-awareness, self-regulation, empathy, and openness to teamwork and cooperation" (Venet, 2018; Multiplying Connections, 2010, p. 7; Brunzell et al., 2015). Oehlberg (2008) stated that increased academic success, improved test scores, increased feelings of positive school culture and climate, increased teacher satisfaction, improved retention of new staff, higher attendance rates and student retention, a

reduction in stress for students and staff, and a reduced need for special education services are all additional benefits to employing a trauma-informed approach (p. 3).

Barriers to Trauma-Informed Education

Despite the many touted benefits of a trauma-informed approach to education, there were several barriers found in the examined literature that prevent or limit a school system from supporting and implementing a trauma-informed approach. Hodas (2006) states that "perhaps one of the most significant barriers to a trauma-informed approach is when caregivers mistakenly attribute intentionality to a child's behavior" by asking what is wrong with a child instead of what is happening to a child (p. 37).

Another common barrier to trauma-informed practices in schools, is the "buy-in" or recognition of the need for trauma-informed practices in the classroom and the subsequent commitment needed by school staff to enact the change (Cole et al., 2009, p. 49). Hodas (2006) states that staff often do not see or understand the need for organizational change (p. 35). "Change can be difficult at any level, but in complex systems, it is time-consuming and requires commitment across all levels" (Walkley & Cox, 2013, p. 124). Walkley and Cox (2013) add that "Commitment to adopting a trauma-informed approach requires the full support and commitment of the leadership" and that oftentimes staff that have been in a system for a long time may 'cling fervently' to the way things are or used to be and can be resistant to change (Walkley & Cox, 2013, p. 124-125).

Besides believing that children willfully act out, and a lack of buy-in or recognition of need, other staff issues that contribute to barriers when implementing a trauma-informed approach include (but are not limited to) burnout, a lack of training on how to best serve trauma-

affected students, and not understanding how trauma affects students as well as staff (Anderson et al., 2015; Hodas, 2006). According to Sparks (2019), teachers and school staff are the ones that ultimately "make or break efforts to create trauma-sensitive schools" (p. 1). Efforts sometimes fail because of the high level of support teachers need to "cope with the emotional weight of helping students in distress" is often underestimated and the added stress of caring for students eventually contributes to burnout" (Sparks, 2019, p. 1). A lack of "awareness of the potential impact of each helping adult, both positive and negative, including feelings of hopelessness and overwhelm" contribute to burnout (Hodas, 2006, p. 35-37; Cole et al., 2009, p. 49).

Additionally, Hodas (2006) states that programs or institutions that are highly concerned with "rules and procedures, or that equate trauma-informed care with being 'soft' as well as those that have a prevailing belief that we are already doing this" create barriers to a successful implementation of a trauma-informed practice (p. 36-37). There are even some educators that say that addressing the "mental health and behavior needs of students is a direct conflict with the academic mission" or that trauma is a "home problem" and not a school issue (Overstreet, 2015, p. 29; Cole et al., 2009, p. 49).

Yet another barrier to implementing trauma-informed practices in schools is that there is a lack of consistent framework as well as a lack of consistent measures of effectiveness when districts do implement trauma-informed practices (Thomas et al., 2019). "Trauma-informed practices (as a coherent framework) is still in its infancy" (Valenzuela, 2021, p. 3). Furthermore, according to Thomas et al. (2019), "in many instances across the recommended practices promoted on Department of Education websites as well as in some of the research literature,

authors and advocates were unclear or not explicit in providing evidence that the guidance offered was rooted in an empirical base" (p. 443). Lastly, "trauma and toxic stress are topics often dismissed, denied, and avoided due to their difficult nature and fear that talking about them will make it worse" (Jurman, 2020, p. 60).

Summary

The review of literature revealed that trauma and the societal views of trauma have evolved over the centuries and historically, trauma has been difficult to precisely define. The review of literature also demonstrated there are several types of traumas and the effects of trauma and adverse childhood experiences can be detrimental to a child's ability to learn, develop, and grow (Carrion & Wong, 2011; Cole et al., 2009; Goodman et al., 2012; Illinois ACEs Response Collaborative, 2018; Izard, 2016).

Additionally, the review of literature revealed that there are several benefits and barriers to implementing trauma-informed practices in schools. Even though implementing trauma-informed practices in schools is not yet the norm, Thomas et al. (2019) stressed that trauma-informed practices in schools should not be dismissed as a hot topic in education or something that is fleeting. "Due to the ever-increasing levels of adversity facing children and youth in our society, the need for providing environments where students feel cared for, safe, and empowered will continue to be tremendous" (Thomas et al., 2019, p. 445). According to van Der Kolk (2014) schools that employ trauma-informed practices can be a great hope for children who have experienced trauma. "At their best, schools can function as islands of safety in a chaotic world" (van Der Kolk, 2014, p. 353).

The review of literature examined the common themes surrounding trauma-informed practices in education. Chapter Three will explain in detail the methodology used to complete the study.

Chapter III: Methodology

This study was designed to understand K-12 educator perspectives on trauma-informed practices and training, to determine to what extent practices and training are impactful, and what challenges continue to be experienced by participants in the study.

The following chapter will outline the design of the study including the methodology used to collect data. This section will describe the procedures, instrumentation, statistical analysis, and population sampling technique.

Purpose of the Study

The aim of this study was to ascertain educator perspectives on the effectiveness of trauma-informed practices and strategies as well as educator perspectives as to the perceived benefits and barriers associated with implementing these practices and strategies. Trauma-informed practices in schools have been growing in popularity over the past several years and while there is a plethora of resources available to assist educators in gaining the knowledge to serve trauma-affected students, there is not a consistent framework for employing these practices nor is there a consistency in how educators are trained to utilize trauma-sensitive practices (Thomas et al., 2019). According to Thomas et al. (2019) there is large body of evidence that demonstrates the theoretical benefits of trauma-informed practices in schools, however, most of this evidence comes from outside the field of education and concludes there is a lack of empirically based research stemming from the field of education surrounding the effectiveness these practices. This study will add to the limited body of research.

Research Questions

The study is guided by the following research questions:

1. What trauma-informed training or preparation has been provided as reported by select Minnesota K-12 teachers?
2. To what extent have trauma-informed training or preparation been effective as reported by select Minnesota K-12 teachers?
3. What trauma-informed practices or strategies have been implemented?
4. To what extent are trauma-informed practices or strategies working as reported by select Minnesota K-12 teachers?
5. What are the challenges associated with trauma-informed practices as reported by select Minnesota K-12 teachers?

Research Design

For this study, a quantitative approach using a non-experimental survey design was employed to gather data on teacher perspectives of trauma-informed practices in schools.

The survey (see Appendix A) was distributed via Qualtrics, an internet-based survey platform. This study used a 43-item questionnaire including Likert-type items with a 4-point rating scale, structured and semi-structured items, and two items for open-ended comments. The survey also included two skip-logic questions. Participation in this study was anonymous and voluntary. Participants were licensed, K-12 public-school educators from Minnesota.

The researcher obtained participants names and contact information from publicly available databases at the Minnesota Department of Education (MDE) and from school district

online directories. The survey was distributed via email to one thousand participants with 962 emails ultimately sent successfully.

Included in the email with the link to the survey, was the Statement of Implied Consent (see Appendix B). The implied consent contained an invitation to participate as well as a description of the study, the background of the study, and the purpose for the study. Also included in the implied consent statement was a description of the procedures, the benefits of the study, a statement of confidentiality, researcher contact information, how to obtain the results, a statement of voluntary participation/withdrawal, and a statement of acceptance to participate. It was estimated that the survey takes 10 minutes to complete.

The first request for participation was sent on April 28, 2022 (see Appendix C). A second request was emailed on May 19, 2022 (see Appendix D). The survey was closed on June 1, 2022. Due to a low response rate, the researcher consulted with the advisors to the study and it was determined that one final request would be required. The third request for participation (see Appendix E) was emailed on June 8, 2022. The survey was closed for the final time on June 27, 2022.

Before the survey was distributed to participants, the survey was piloted with a select group of educators. The survey was revised and again piloted with select educators. The feedback received from the pilot group was used to clarify and refine the questions and content of the survey.

To select participants for this survey, a simple random sampling technique was used. According to Borg and Gall (1989), a simple random sample is “a process of selection from a population that provides every sample of a given size and equal probability of being selected” (p.

220). The researcher accessed publicly available databases from the Minnesota Department of Education (MDE) to generate a list of elementary, middle, and secondary schools. Then using a random number generator, school lists were created that included thirty-five schools from each category. From there, each school's website was accessed to retrieve the publicly available staff directories. Again, using a random number generator, ten participants from each school were selected for the study until a list of 1,000 participants was generated. If there was no public database available or if the email addresses of staff were not readily available in the online directory, the school was removed from the list and again, using a random number generator, a different school was added to the list of schools.

Participation in this survey was voluntary and anonymous and there was no risk to the participants. There was no identifying information included in the survey and all data collected is confidential.

Instrumentation

Quantitative data was collected via survey for this study. Survey questions were designed by the researcher based on relevant research and theoretical frameworks as well as modeled after studies that were similar in nature to this study (Miller & Moffet, 2019; Murray, 2020; Perez, 2017; Nealy-Oparah & Scruggs-Hussein, 2018; Oehlberg, 2008; Hodas, 2006). The survey was a 43-item questionnaire that included Likert-type items with a 4-point rating scale, structured and semi-structured items, and two items for open-ended comments. The survey also included two skip-logic questions.

The first two questions of the survey were multiple-choice demographic questions regarding the level of education of the respondents are currently working in as well as the

number of years the respondent has spent working in education (Miller & Moffet, 2019; Murray, 2020; Perez, 2017). The third question was a skip-logic question that asked if the respondent had been trained in trauma-informed practices (Miller & Moffet, 2019; Murray, 2020). If not, the respondent was directed to skip to Question 42. If yes, the respondent was directed to the next question which asked how many hours the respondent had spent in training regarding trauma-informed practices (Miller & Moffet, 2019). The fifth question was another skip-logic question. That question asked whether the respondent had implemented any of the strategies learned in training (Murray, 2020). If not, the respondent was asked to skip to Question 42.

Questions 6-9 on the survey were Likert-type scale questions asking teacher perceptions on whether there had been a positive effect on student behavior, student achievement, and climate and culture (Perez, 2017; Murray, 2020). Respondents rated their perceptions using a four-point scale that included the options “Not at All, Very Little, Somewhat, To a Great Extent” (Vagias, 2006).

The next set of questions, 10-18, sought to discover what practices and strategies teachers employed in their classrooms and to what extent they used these practices (Perez, 2017; Murray, 2020; Nealy-Oparah & Scruggs-Hussein, 2018). The rating scale for this section asked respondents to rate responses with the following choices “Never, Seldom, Sometimes, Often” (Vagias, 2006). Questions 19-30 were designed to gather teacher perspectives on the benefits of using trauma-informed practices and strategies and questions 31-41 sought perceptions of the barriers that educators face when implementing practices and strategies (Oehlberg, 2008; Perez, 2017; Murray, 2020; Nealy-Oparah & Scruggs-Hussein, 2018; Hodas, 2006). All questions in the

range from 19-41 used the same ratings scale with choices that included “Strongly Disagree, Disagree, Agree, Strongly Agree (Vagias, 2006).

The final two items on the survey were open-ended questions. These items were designed to gather teacher comments and suggestions regarding trauma-informed practices. Question 42 sought educator perspective on recommendations regarding trauma-informed practices (Perez, 2017) while the final question was designed to solicit any other comments regarding the survey, trauma-informed practices, or any other input the respondent wished to offer (Murray, 2020).

Study Respondents

Study respondents were licensed K-12 educators currently teaching in public schools in the state of Minnesota. According to MDE, during the 20-21 school year, the latest year that information was available, there were 54,569 teachers working across the state in public K-12 education (2022). This number represents the total population of this study. The sample size for this study is 1,000 participants with an expected response rate of 15-30%.

Human Subject Approval

The protocols outlined for the use of human subjects in research were implemented as per the Institutional Review Board (IRB) procedures and guidelines and were conducted with the permission of the IRB (see Appendix F). Participation in this study was voluntary. Participants were able to withdraw at any time during the study. The confidentiality of the participants was maintained as there is no identifying information contained in the study. The data collected was treated in a secure matter and kept until the degree was awarded and then destroyed.

Sampling Procedure

A random sampling technique was used to determine the participants for this study. A random sampling technique was chosen because, according to Borg and Gall (1989), "random sampling yields research data that can be generalized to a margin of error that can be determined statistically" (p. 220). Only public-school educators teaching both traditional and charter settings in grades K-12 were included in the total population for this study, therefore, the results of this study are generalizable only to public school educators and districts.

Study participants were identified through publicly available databases on the MDE website and on individual school district websites. School lists were extracted from the MDE site according to the school levels previously sorted and designed by MDE. Three databases were extracted and included lists of all schools that identified as elementary, middle, and secondary schools.

Next, a random number generator was used to determine which schools were targeted for participants. Schools were chosen according to the random number until a list of thirty-five schools for each grade level group was created. From there, each district's online database was accessed and a random number generator was used to create a list of ten participants from each identified school. This process was repeated until a list of 1000 participants was generated.

The database of participants was secured in a password-protected computer. The survey was designed for the anonymity of the participants and there were no questions that require answers that would enable participants to be identified.

Data collection

The initial data collection took place during a four-week period that ran from April 28, 2022, to June 1, 2022, via a quantitative survey that was distributed by email. Due to a low response rate, the researcher consulted with the advisors to the study and it was determined another data collection should take place. The survey was re-opened and a third request for participation was emailed on June 8, 2022. The survey was closed for the final time on June 27, 2022. The data was secured in the Qualtrics platform and with the assistance of the Statistical Consulting & Research Center at St. Cloud State, the data was disseminated for analysis. The initial link to the survey was sent to participants and two-weeks later a reminder email was sent to encourage additional participation. The survey link closed after the initial four-week period and then again after the second data collection period.

Data Analysis

After the data was collected, the Statistical Consulting & Research Center at St. Cloud State University provided an in-depth review and analysis of the quantitative data collected. The data was run, analyzed, and compiled. The results were reviewed with the researcher and follow-up analysis was completed.

In consultation with the Statistical Consulting & Research Center, the researcher analyzed the qualitative data collected and determined the best way to code the data. The method of coding was determined by the number of responses collected from the survey.

Summary

This study was designed to understand K-12 educator perspectives on trauma-informed practices and training, to determine to what extent practices and training are impactful, and what challenges continue to be experienced by participants in the study. Chapter IV will report the results of the study.

Chapter IV: Results

Purpose of the Study

The aim of this study is to ascertain educator perspectives on the effectiveness of trauma-informed practices and strategies as well as educator perspectives as to the perceived benefits and barriers associated with implementing these practices and strategies. Trauma-informed practices in schools have been growing in popularity over the past several years and while there is a plethora of resources available to assist educators in gaining the knowledge to serve trauma-affected students, there is not a consistent framework for employing these practices nor is there consistency in how educators are trained to utilize trauma-sensitive practices (Thomas et al., 2019). According to Thomas et al. (2019) there is large body of evidence that demonstrates the theoretical benefits of trauma-informed practices in schools, however, most of this evidence comes from outside the field of education and concludes there is a lack of empirically based research stemming from the field of education surrounding the effectiveness of the practices.

Questions of the Study

Chapter IV reports the findings of the study. After a review of literature and an analysis of related studies was completed, the researcher developed the survey questions. Forty-three questions were asked of respondents regarding their grade level of teaching, years of teaching experience, amount of training in trauma-informed practices, as well as questions that asked about classroom practices and the perceived effectiveness of these practices. Forty-one of the questions were quantitative-type questions and two questions were qualitative in design. The data from the survey was analyzed and the findings were reported according to the corresponding research question. The research questions are as follows:

1. What trauma-informed training or preparation has been provided as reported by select Minnesota K-12 teachers?
2. To what extent has trauma-informed training or preparation been effective as reported by select Minnesota K-12 teachers?
3. What trauma-informed practices or strategies have been implemented?
4. To what extent are trauma-informed practices or strategies working as reported by select Minnesota K-12 teachers?
5. What are the challenges associated with trauma-informed practices as reported by select Minnesota K-12 teachers?

Study Sample

The study participants were licensed K-12 teachers working in Minnesota public schools. The researcher obtained participant names and email addresses from databases that were available to the public on the Minnesota Department of Education website as well as school district websites. Of the 1,000 participant emails that were obtained, 962 emails were successfully sent.

The first request for participation was sent on April 28, 2022. A second request was emailed on May 19, 2022. The survey was closed on June 1, 2022. Due to a low response rate, the researcher consulted with the advisors to the study and it was determined that one final request would be required. The third request for participation was emailed on June 8, 2022. The survey was closed for the final time on June 27, 2022.

A total of 29 participants responded to the survey, a 3% response rate. Because of the small number of respondents to the survey, the results were not statistically significant on a large

scale or generalizable to the greater population of Minnesota teachers, however, the results will still be reported in the remainder of this chapter as the data will add to the limited body of available research. Basic demographic data will be reported followed by the research questions which will be individually reported on. The quantitative data will be depicted in table format with a written description of the data to follow. The qualitative data will be reported following the quantitative data as it applies to each research question. Additional qualitative data that did not correspond directly to a research question will be reported in a separate section following the quantitative data.

Research Findings

Table 1

Grade Level Taught

N=29		**Grade Level:**			
Item #	**Question**	**Elementary K-6**	**Middle 6-8**	**Secondary 7-12**	**Other**
1	Grade level taught	n=5 (17.24%)	n=8 (27.59%)	n=12 (41.38%)	n=4 (13.79%)

Twenty-nine teachers responded to the survey. Participants were asked to identify what grade levels they were currently teaching. Table 1 displays the results this question. Of the 29 participants, five (17.24%) reported to be teaching elementary school in grades kindergarten through grade 6. Eight participants (27.59%) identified as middle school teachers teaching grades 6-8. Twelve (41.38%) of participants reported teaching grades 7-12 in a secondary school, and four participants (13.79%) did not report their grade level.

Table 2

Years of Teaching Experience

N=29		Years of Teaching Experience:						
Item #	**Question**	**0-3 Years**	**4-6 Years**	**7-10 Years**	**11-15 Years**	**16-20 Years**	**21-25 Years**	**26+ Years**
2	Years of Teaching	n=2 (6.0%)	n=3 (10.34%)	n=4 (13.79%)	n=5 (17.24%)	n=7 (24.14%)	n=3 (10.34%)	n=5 (17.24%)

Table 2 represents the years of teaching experience as reported by the participants. Twenty-nine teachers responded. Two participants (6%) reported 0-3 years of teaching experience. Three participants (10.34%) reported 4-6 years of teaching experience. Four (13.79%) of participants reported having 7-10 years of teaching experience. Five teachers (17.24%) reported having 11-15 years of teaching experience. Seven teachers (24.14%) had 16-20 years of experience. Three teachers (10.34%) reported 21-25 years of experience while five participants (24%) reported having 26+ years of teaching experience.

Research Question #1

1. What trauma-informed training or preparation has been provided as reported by select Minnesota K-12 teachers?

Table 3

Training in Trauma-Informed Practices

Item #	Question	*N*	Yes	No
3	Training in Trauma-Informed Practices	29	n=12 (41.39%)	n=17 (58.62%)

Table 3 represents the number of participants reporting their experiences in trauma-informed training practices. Twenty-nine participants responded with 12 (41.39%) participants

stating they had received training in trauma-informed practices and seventeen participants (58.62%) stated they have not received training.

Table 4

Hours of Trauma-Informed Training Received

Item #	Question	1-5 Hours	6-10 Hours	11-15 Hours	16-20 Hours	21-39 Hours	40+ Hours
4	Hours of Training Received	n=8 (57.14%)	n=3 (21.43%)	n=0 (0.00%)	n=3 (21.43%)	n=0 (0.00%)	n=0 (0.00%)

Participants were asked about the number of hours of training they have received in trauma-informed practices. Fourteen participants responded. Eight participants (57.14%) received 1-5 hours of training, three (21.43%) participants, 6-10 hours of training, and three participants (21.43%) received 16-20 hours of training. Zero participants responded to the other available answers of 11-15 hours, 21-39 hours, and 40+ hours.

Some participants provided comments in one or both qualitative-type questions. One participant stated they had to look up the concept of trauma-informed practices as they had not been trained and were not familiar with the term. Other participants commented not knowing anything or very much about trauma-informed practices and others explicitly stated they had never been trained.

Research Question #2

2. To what extent has trauma-informed training or preparation been effective as reported by select Minnesota K-12 teachers?

Table 5

Implementation of Trauma-Informed Practices

Item #	Question	*N*	Yes	No
5	Implementation of Trauma-Informed Practices	15	n=8 (53.33%)	n=7 (46.67%

When asked if participants had implemented any of the practices they had learned about in training received, 15 participants responded. Eight participants (53.33%) had implemented trauma-informed practices in their classrooms while seven (46.67%) participants had not implemented any training.

Table 6

Perceptions of Effectiveness of Implemented Trauma-Informed Practices

Item #	Question	Mean	*N*	S.D.	Not at All	Very Little	Somewhat	To a Great Extent
6	Positive impact on student behavior	2.57	7	.73	n=1 (14.29%)	n=1 (14.29%)	n=5 (71.43%)	n=0 (0.00%)
7	Positive impact on student achievement	2.75	8	.83	n=1 (12.5%)	n=1 (12.5%)	n=5 (62.5%)	n=1 (12.5%)
8	Positive impact on classroom climate and culture	2.57	7	.73	n=1 (14.29%)	n=1 (14.29%)	n=5 (71.43%)	n=0 (0.00%)
9	Positive impact on overall school climate and culture	2.29	7	.70	n=1 (14.29%)	n=3 (42.06%)	n=3 (42.06%)	n=0 (0.00%)

Table 6 represents the perceptions of the positive effectiveness of the trauma-informed practices that were implemented by participants. Using a scale of 1 to 4 with (1) being not at all effective, (2) having very little effect, (3) being somewhat effective, and (4) being effective to a great extent, participants rated their perceptions of the positive impact on student behavior, student achievement, classroom climate and culture, and overall climate and culture. Seven participants responded to the questions regarding behavior, classroom climate and culture, and overall climate and culture, while eight participants responded to the question regarding student achievement.

Participants viewed trauma-informed practices having the greatest effect on student achievement, Item 7, with five participants or 62.5% reported perceiving trauma-informed practices somewhat positively affecting student achievement with one participant or 12.5% reported implementation of trauma-informed practices as having positively impacting student achievement to a great extent. One participant or 12.5% reported trauma-informed practices having very little effect and one participant or 12.5% reported trauma-informed practices had no effect on student achievement. Eight teachers responded to this question with a mean of 2.75 with a standard deviation of .83.

Implementing trauma-informed practices had the next greatest positive affect on student behavior, Item 6, as well as on classroom climate and culture, Item 8. Regarding the perceived effects of on behavior, 5-of-7 participants or 71.43%, reported feeling trauma-informed practices had somewhat positively impacted student behavior while one each or 14.29% reporting that implementation of trauma-informed practices had very little or no effect on student behavior. With seven teachers responding, the participants reported the same perceptions regarding the

positive impact on classroom climate and culture. 2.57 was the mean for both questions with a standard deviation of .73.

When reporting perceptions of the positive impact of implementing trauma-informed practices on overall climate and culture, Item 9, participants ranked the impact as slightly less than the impact on behavior and classroom climate and culture. Three participants or 42.06% thought implementing trauma-informed practices somewhat positively impacted overall climate and culture and the same number of participants viewed trauma-informed practices as having very little effect on overall climate and culture. One participant or 14.29% reported no positive impact to overall climate and culture. The mean for this question was 2.29 with a standard deviation of .70. Additionally, there was one comment from a participant who stated they have seen significant improvement with some of their students and they know it (trauma-informed practices) works.

Research Question #3

3. What trauma-informed practices or strategies have you implemented in your classroom?

Table 7

Implemented Trauma-Informed Practices and Strategies

Item #	Question	Mean	*N*	S.D.	Never	Seldom	Sometimes	Often
12	I work to build and maintain positive relationships	4.00	7	0.00	n=0 (0.00%)	n=0 (0.00%)	n=0 (0.00%)	n=7 (100%)
14	I use routines to promote predictability	4.00	7	0.00	n=0 (0.00%)	n=0 (0.00%)	n=0 (0.00%)	n=7 (100%)
10	I think about what is happening or going on with this student	3.71	7	.45	n=0 (0.00%)	n=0 (0.00%)	n=2 (28.57%)	n=5 (71.43%)
11	I use a variety of strategies to increase feelings of safety	3.71	7	.45	n=0 (0.00%)	n=0 (0.00%)	n=2 (28.57%)	n=5 (71.43%)
16	I openly communicate with parents and other stakeholders	3.5	8	.71	n=0 (0.00%)	n=1 (12.50%)	n=2 (25.00%)	n=5 (62.50%)
13	I use a variety of strategies to promote resiliency	3.43	7	.73	n=0 (0.00%)	n=1 (14.29%)	n=2 (28.57%)	n=4 (57.14%)
17	I utilize trauma-informed policies in my classroom	3.14	7	.64	n=0 (0.00%)	n=1 (14.29%)	n=4 (57.14%)	n=2 (28.57%)
15	I employ rituals that promote calmness and connectedness	2.86	7	.99	n=0 (0.00%)	n=4 (57.14%)	n=0 (0.00%)	n=3 (42.86%)
18	I utilize social and emotional based activities	2.83	6	.90	n=0 (0.00%)	n=3 (50.00%)	n=1 (16.67%)	n=2 (33.33%)

Table 7 reported the types of trauma-informed practices implemented in the classroom. There were nine questions asking participants to report which trauma-informed practices they have implemented and how frequently they use these practices. Participants reported usage on a scale ranging from never-to-often with (1) being never, (2) seldom, (3) sometimes, and (4) often.

All responding teachers reported utilizing a variety of trauma-informed practices and strategies in their classrooms and they reported using these strategies often in 7-of-9 questions. A total of 6-to-8 participants responded. Zero percent of the participants reported never using a strategy.

There were two questions, Items 12 and 14, where all seven participants or 100% of those responding reported using a strategy often. These strategies included working to build positive relationships with students and using classroom routines to promote predictability and aid in classroom management. The mean was 4.0 and the standard deviation, 0, for both questions.

Five participants or 71.43% reported using the strategy of a mindset shift as well using techniques to increase feelings of safety in their classrooms, Items 10 and 11, often and two participants or 28.57% in each of these questions reported using the strategies sometimes. The reported mean for these questions was 3.71 with a standard deviation of .45 and seven teachers responding.

Regarding the use of utilizing open communication, Item 16, 5-of-8 participants or 62.5% reported using this strategy often while two or 25% of participants reported using this strategy sometimes. One participant or 12.5% reported seldom using this strategy. 3.5 was the mean with a standard deviation of .71.

When it came to Item 13, which asked if teachers used a variety of strategies to promote resiliency and strength building, all responding teachers reported having utilized a strategy. Four participants or 57.34% reported using strategies often. 28.57% or two participants used these strategies sometimes, while one participant or 14.29% seldom used a strategy. Seven teachers responded with the mean being 3.43 and a standard deviation of .73.

Four teachers or 57.14% reported having sometimes used Item 17, trauma-informed policies, in their classrooms. Two or 28.57% of teachers reported using trauma-informed policies often while one participant (14.29%) seldom utilized trauma-informed policies. The mean for this question was 3.14 with a standard deviation of .64.

Regarding using classroom rituals, Item 15, all seven of the teachers responding either seldom used or often used rituals with no participants reported sometimes or never using. Four participants or 57.14% reported seldom using rituals while three or 42.86% reported using rituals often. The mean was 2.86 with a standard deviation of .99.

Lastly, when it came to asking if teachers used social and emotional-based activities in their classrooms, Item 18, six participants responded. Three participants or 50% responded seldom employing social and emotional-based activities while two or 33.33% often used and one participant or 16.67% sometimes used these strategies. The mean was 2.83 with a standard deviation of .90.

One respondent stated they had been trained on how trauma affects students but they had not been trained on any strategies to implement in the classroom. Another respondent commented they had received one presentation on trauma during their first year of teaching but there was no follow-up training and another stated they wanted to learn more strategies.

Research Question #4

4. To what extent are trauma-informed practices or strategies working as reported by select Minnesota K-12 teachers?

Table 8

Perceptions on the Benefits of Using Trauma-Informed Practices and Strategies

Item #	Question	Mean	*N*	S.D.	Strongly Disagree	Disagree	Agree	Strongly Agree
20	Relationships positively impacted	3.00	7	.53	n=0 (0.00%)	n=1 (14.29%)	n=5 (71.43%)	n=1 (14.29%)
19	Increased feelings of safety	2.71	7	.45	n=0 (0.00%)	n=2 (28.57%)	n=5 (71.43%)	n=0 (0.00%)
26	Improved student social and emotional skills	2.57	7	.73	n=1 (14.29%)	n=1 (14.29%)	n=5 (71.43%)	n=0 (0.00%)
29	Decreased student stress levels	2.43	7	.73	n=1 (14.29%)	n=2 (28.57%)	n=4 (57.14%)	n=0 (0.00%)
21	Improved students' ability to self-regulate	2.29	7	.70	n=1 (14.29%)	n=3 (42.86%)	n=3 (42.86%)	n=0 (0.00%)
24	Fewer expulsions and suspensions	2.17	6	.69	n=1 (16.67%)	n=3 (50.00%)	n=2 (33.33%)	n=0 (0.00%)
28	Increased staff satisfaction	2.15	7	.83	n=2 (28.57%)	n=2 (28.57%)	n=3 (42.86%)	n=0 (0.00%)
23	Fewer discipline referrals	2.14	7	.64	n=1 (14.29%)	n=4 (57.14%)	n=2 (28.57%)	n=0 (0.00%)
25	Improved attendance rates	2.14	7	.83	n=2 (28.57%)	n=2 (28.57%)	n=3 (42.86%)	n=0 (0.00%)
27	Reduced referrals to special education	2.14	7	.83	n=2 (28.57%)	n=2 (28.57%)	n=3 (42.86%)	n=0 (0.00%)
30	Decreased staff stress levels	2.14	7	.64	n=1 (14.29%)	n=4 (57.14%)	n=2 (28.57%)	n=0 (0.00%)
22	Improved standardized test scores	1.67	6	.47	n=2 (33.33%)	n=4 (66.67%)	n=0 (0.00%)	n=0 (0.00%)

Table 8 depicts the perceived benefits of utilizing trauma-informed practices in the classroom as reported by teachers. There were 12 questions asking participants to rate their perceptions of the benefits of implementing trauma-informed practices on a scale ranging from strongly disagree to strongly agree with (1) being strongly disagree, (2) disagree, (3) agree, and (4) strongly agree.

Overall, participants rated the highest perceived benefits of implementing trauma-informed practices as increased positive relationships and increased feelings of safety. Seven participants responded to each question. 71.43% or five teachers agreed that implementation of trauma-informed practices, Item 20, positively impacted relationships, while one teacher or 14.29% strongly agreed and one or 14.29% disagreed. The mean was 3.00 with a standard deviation of .53. As for the perceptions of increased feelings of safety, Item 19, 71.43% or five teachers agreed that implementation of trauma-informed practices has increased feelings of safety. Two teachers or 28.57% disagreed. The mean was 2.71 with a standard deviation of .45.

Seven teachers responded when asked if implementation of trauma-informed practices has increased students' social and emotional skills, Item 26. Five participants or 71.43% agreed, with one or 14.29% disagreeing and one or 14.29% strongly disagreeing. The mean for this question was 2.57 with a standard deviation of .73.

Participants reported a perceived a drop in student stress levels, Item 29, since implementation of trauma-informed practices, 57.14% or four teachers agreed there was a drop in student stress levels while two teachers or 28.57% disagreed and one or 14.29% strongly disagreed. The mean was 2.43 and the standard deviation, .73. Seven participants responded to this question.

Seven teachers responded to the question that asked about perceptions of students' ability to self-regulate, Item 21, after implementation of trauma-informed practices. Three participants or 42.86% reported agreeing with the same percentage of participants reported disagreeing. One or 14.29% strongly disagreed with the statement. 2.29 was the mean with a standard deviation of .70.

Regarding the question of fewer suspensions and expulsions, Item 24, since implementation of trauma-informed practices, six teachers responded. Fifty percent of those responding disagreed there has been a decrease in the number of suspensions and expulsions while two teachers or 33.33% agreed there was a decrease and one or 14.29% strongly disagreed there was a drop. The mean was 2.17 with a standard deviation of .69.

When asked if there was a perception of increased staff satisfaction, Item 28, since implementing trauma-informed practices, seven teachers responded. 42.86% or three participants agreed staff satisfaction increased while two teachers each or 28.57% disagreed and strongly disagreed. 2.15 was the mean for this question with a standard deviation of .83.

Seven participants ranked the questions regarding a decrease in referrals to special education and improved attendance rates, Item 27, and Item 25 respectively, since implementation of trauma-informed practices the same. Three teachers or 42.86% agreed there have been fewer referrals to special education and improved rates of attendance since implementation of trauma-informed practices while two each or 28.57% of participants disagreed and strongly disagreed. The mean for each question was 2.14 with a standard deviation of .83.

Percentages for Item 23 and Item 30 were identical. When asked if there have been fewer discipline referrals and if staff stress levels have decreased since implementation of trauma-

informed practices, 57.14% or 4-of-7 participants disagreed with both statements. Two teachers or 28.57% agreed and one or 14.29% strongly disagreed. The mean was 2.14 with a standard deviation of .64.

Lastly, participants rated their perceptions of an increase in standardized test scores, Item 22, after implementation of trauma-informed practices. Six teachers responded with all of them disagreeing or strongly disagreeing. 66.67% or four teachers disagreed while two or 33.33% strongly disagreed. 1.67 was the mean with a standard deviation of .47.

Research Question #5

5. What are the challenges associated with trauma-informed practices as reported by select Minnesota K-12 teachers?

Table 9

Perceptions of Barriers to Implementing Trauma-Informed Practices

Item #	Question	Mean	*N*	S.D.	Strongly Disagree	Disagree	Agree	Strongly Agree
38	Lack of consistent framework and training	3.00	7	1.07	n=1 (14.29%)	n=1 (14.29%)	n=2 (28.57%)	n=3 (42.86%)
34	Staff burnout	2.86	7	.83	n=0 (0.00%)	n=3 (42.86%)	n=2 (28.57%)	43n=2 (28.57%)
31	Lack of buy-in or support	2.57	7	.73	n=1 (14.29%)	n=1 (14.29%)	n=5 (71.43%)	n=0 (0.00%)
32	Staff resistant to change	2.57	7	.73	n=1 (14.29%)	n=1 (14.29%)	n=5 (71.43%)	n=0 (0.00%)
35	Lack of understanding of the effects of trauma	2.57	7	.73	n=1 (14.29%)	n=1 (14.29%)	n=5 (71.43%)	n=0 (0.00%)
40	Secondary trauma	2.50	6	1.12	n=1 (16.67%)	n=3 (50.00%)	n=0 (0.00%)	n=2 (33.33%)
36	TIP viewed as soft	2.43	7	.73	n=1 (14.29%)	n=2 (28.57%)	n=4 (57.14%)	n=0 (0.00%)
33	Leadership resistant to change	2.29	7	.70	n=1 (14.29%)	n=3 (42.86%)	n=3 (42.86%)	n=0 (0.00%)
41	My own unresolved trauma	1.74	19	.85	n=9 (47.37%)	n=7 (36.84%)	n=2 (10.53%)	n=1 (5.26%)
39	TIP is simply a hot topic and the trend will pass	1.71	7	.70	n=3 (42.86%)	n=3 (42.86%)	n=1 (14.29%)	n=0 (0.00%)
37	Trauma is a home problem	1.57	7	.49	n=3 (42.86%)	n=4 (57.14%)	n=0 (0.00%)	n=0 (0.00%)

Table 9 represents the perceived challenges of implementing trauma-informed practices in the classroom as reported by teachers. There were 11 questions asking participants to rate their perceptions of the challenges of implementing trauma-informed practices on a scale ranging from strongly disagree to strongly agree with (1) being strongly disagree, (2) disagree, (3) agree,

and (4) strongly agree. The number of participants answering this set of questions ranged from 6-19.

The greatest barrier to implementing trauma-informed practices as perceived by teachers is the lack of consistent framework and training regarding trauma-informed practices, Item 38. Seven participants responded to the question with 42.86% or three participants strongly agreed and 28.57% or two participants agreed while one each or 14.29% disagreed and strongly disagreed. 3.00 was the mean for this question with a standard deviation 1.07.

Seven participants responded when asked if staff burnout, Item 34, was a perceived barrier to implementing trauma-informed practices. 28.57% or two participants strongly agreed and agreed while 42.86% or three participants disagreed. The mean was 2.86 with a standard deviation of .83.

When asked about if they perceived (1) a lack of buy-in or support to implementing trauma-informed practices, Item 31, (2) staff are resistant to make changes, Item 32, and (3) a lack of understanding of the effects of trauma negated the need for implementing trauma-informed practices, Item 35, all seven participants responded the same way to each question. 71.43% or five teachers agreed with each statement while one each or 14.29% disagreed and strongly disagreed. The mean for this set of questions was 2.57 with a standard deviation of .73.

Six teachers rated their perceptions of secondary trauma, Item 40, being a barrier to implementing trauma-informed practices with three teachers or 50% disagreeing with the statement. 33.33% or two teachers, however, strongly agreed that secondary trauma was a barrier. One teacher or 16.67% strongly disagreed. 2.5 was the mean for this statement with a standard deviation of 1.12.

Regarding trauma-informed practices being viewed as soft and not providing adequate discipline as a barrier to implementing trauma-informed practices, Item 36, 57.14% or four participants agreed with the statement while two participants or 28.57% disagreed and one or 14.29% strongly disagreed. Seven participants responded and 2.43 was the mean for this statement with a standard deviation of .73.

Seven participants responded to the question regarding perceptions of leadership being resistant to change, Item 33, when it comes to implementation of trauma-informed practices. Three participants or 42.86%, agreed and the same number of participants disagreed. One participant, or 14.29% strongly disagreed. 2.29 was the mean with a standard deviation of .70.

When it came to the perception of trauma being a home problem and it is not a teacher's job to address students' mental health needs, Item 37, all seven teachers responding either disagreed or strongly disagreed to this being a barrier to implementing trauma-informed practices. 57.14% or four teachers disagreed while 42.86% or three teachers strongly disagreed. The mean was 1.57 with a standard deviation of .49.

Nineteen teachers responded to the question regarding their own unresolved trauma being a barrier, Item 41, to implementing trauma-informed practices. 47.37% or nine teachers strongly disagreed with the statement, 36.84% or seven teachers disagreed, 10.53% or two teachers agreed, and 5.26% or one teacher strongly agreed. 1.47 was the mean with a standard deviation of .85.

Lastly, participants were asked to rate their perceptions of trauma-informed practices simply being a hot topic in education and the trend will pass, Item 39, as being a barrier to implementation of practices. Seven participants responded with most participants disagreeing or

strongly disagreeing. 42.86% or three participants each responded they strongly disagreed or disagreed while 14.29% or one participant agreed. The mean was 1.71 with a standard deviation of .70.

The final two items on the survey sought qualitative data. Item 42 asked, *what recommendation do you have regarding trauma-informed practices in schools*? While Item 43 was a statement that said, *please share anything else that you feel is relevant to trauma-informed practices in schools.* Participants were directed to these items either by completing the entire survey or by answering no to one of the skip-logic items. There were several comments from teachers pertaining to perceived barriers to implementation of trauma-informed practices, as well as recommendations for practices, and other general comments. Seventeen teachers responded to Item 42 and 11 teachers responded to Item 43.

Two comments addressed buy-in and presentation of strategies. Two teachers responded that everyone, all staff, needs to have "buy-in" and that steps to implementation should be provided to ease implementation and another teacher similarly commented that because "veteran teachers often get frustrated with another thing added to their plate," trauma-informed practices training should be elicited in a manner that promotes "buy-in" so that strategies will be implemented. Another teacher commented similar thoughts stating there are too many programs and practices thrown at educators of which many, they feel, are "poorly implemented by districts." They went on to comment that they feel training is offered then forgotten about and many training topics are "common sense and often insulting toward the professional abilities of teachers."

Other comments pertaining to barriers included a statement from a teacher who feels that teachers lack an understanding of trauma and do not always respect students that are dealing with trauma adding but added they feel social media platforms contribute to students' abilities to say and do the right things (regarding their trauma) to get out of classwork. Another teacher stated they do not believe trauma-informed practices are just a "hot topic" and will disappear, but they believe trauma-informed practices are a "rehashing of other ideas including cultural competency, restorative practices, and brain research" adding that these concepts are circular in nature. The teacher added they believe "trauma-informed practices is an educational theory that is motivated by for-profit entities."

Additional comments pertaining to barriers included a teacher that stated the social workers in the school dealt with trauma because as teachers they do not really deal with trauma, and another commented they felt privacy laws sometimes made implementation difficult.

Summary

In all, 29 teachers responded to the survey. Most of the participants taught at the middle school or high school level, eight (27.59%) teachers at middle school and 12 (41.38%) at a high school and most teachers, 20-of-29 reported having taught for 11 or more years or more.

Of the 29 teachers responding, twelve reported having received training in trauma-informed practices while 17 reported having no training, however, 14 teachers responded they had received at least an hour of trauma-informed training. Seven teachers of the twelve that had received training, reported utilizing trauma-informed practices in their classrooms. Overall, teachers perceived trauma-informed practices to have a somewhat positive affect on student achievement, behavior, as well as on climate and culture.

Regarding the practices and strategies used by teachers, all participants (100%) reported often utilizing the practices of building positive relationships and implementing classroom routines to promote strength and resilience. Additionally, 5-of-7 (71.43%) reported utilizing a mindset shift in how they view students as well as implementing strategies to increase feelings of safety in the classroom.

Among the perceptions of the benefits of implementing trauma-informed practices, teachers reported feeling that increased feelings of safety, positive relationships, and an improvement in students' social and emotional skills as the greatest benefits. As for the barriers to implementation of trauma-informed practices, teachers reported a lack of a consistent framework and training the biggest barrier to implementation. Staff burnout as a barrier was the second biggest perceived barrier to implementation.

Chapter IV provided a summary of the findings of the quantitative study. Chapter V provides an analysis of the data as it relates to the review of literature as well as to each research question. Conclusions are drawn, the study's limitations discussed, and the researcher's recommendations are presented.

Chapter V: Conclusion

Summary

Children with traumatic experiences are prevalent in school systems across the United States, with nearly half of all children experiencing trauma (National Survey of Children's Health, 2012). Since the advent of the Covid-19 pandemic in 2020, the number of children exposed to trauma has increased significantly (Crosby et al., 2020), yet most teachers are not trained in how to best serve trauma-affected students (Thomas et al., 2019). Trauma and the effects of trauma often permeate every facet of a child's well-being (Lopez-Martinez et al., 2018). Trauma-informed practices in schools emerged as a framework to better serve trauma-affected students yet most teachers are not trained in these practices nor is there enough empirical evidence on the effectiveness of these practices from within the field of education to emphatically state trauma-informed practices are effective in schools (Thomas et al., 2019).

This study was designed to gain educator perspectives on the efficacy of trauma-informed practices, to gain knowledge about what practices educators are using, as well as the perceived barriers to implementing trauma-informed practices. The response rate of the study was too low to generalize the results to the greater population or to draw any significant conclusions. However, even with the limited amount of data collected, there are indications that teacher perceptions as to the benefits of and barriers to utilizing trauma-informed practices aligns with the theoretical frameworks and practices frequently referred to in the literature examined for this study.

Although children who have experienced trauma have been in schools since the first institutions opened, we now know the cumulative effects of trauma exposure and the related

stress can have a devastating and permanent impact on a child's development and cognitive abilities (Paccione-Dyszlewski, 2016). Dotson (2017) states, “every single educator has a responsibility to shape the lives of their students by looking beneath the surface for the root causes of their challenges. It’s not always an easy path, but it’s one we must travel to do what’s best for them” (p. 3). According to Oehlberg (2008), teaching today requires a skillset that was not required even a generation ago. Trauma-informed teaching practices can be part of that skillset.

This study did not directly measure the impact of these practices on student behavior or achievement; however, it did attempt to assess Minnesota K-12 teacher views on the value and challenges of using trauma-informed strategies and practices. The study also attempted to gain insight into the type and amount of trauma-informed training received by teachers. Additionally, the study attempted to determine what trauma-informed practices educators are utilizing.

The survey instrument consisted of 43 questions intended to gather data regarding the five research questions of the study. Two questions were demographic, two were skip-logic questions, two were open-ended questions, and 37 questions were Likert-type questions with a 4-point rating scale. The survey questions were designed by the researcher based on relevant research and theoretical frameworks as well as modeled after studies that were like this study (Miller & Moffet, 2019; Murray, 2020; Perez, 2017; Nealy-Oparah & Scruggs-Hussein, 2018; Oehlberg, 2008; Hodas, 2006). The data was collected by surveying K-12 licensed teachers who were currently employed in a Minnesota public school. The survey was sent to 962 educators with 29 participating.

Chapter V contains discussions and conclusions based on the findings of the study, limitations to the study, recommendations for further research, recommendations for current practices, and a summary. The data presented in Chapter IV provided the basis for the conclusions.

Conclusions and Discussion

Each research question's findings are addressed in this section. The findings are based on the study results and the review of literature as well as a discussion and conclusion as interpreted by the researcher. The findings, discussion, and conclusions are reported per each question.

The first two questions on the survey pertained to the demographic of the teachers regarding their grade levels taught as well as the number of years spent teaching. Of the 29 teachers who responded to the survey, 69% of respondents reported teaching middle school, defined in the study as grades 6-8, or high school, grades 7-12. Regarding years of experience teaching, 69% of respondents reported teaching for 11 or more years with the largest group (24.14%) reported 16-20 years of experience, with the next largest groups (17.24%) each reported teaching 11-15 years or 26+ years with the remaining percentage in this group 10.34% reported 16-20 years of experience.

The aim of the demographic questions was to gain an understanding of the participants' teaching experience and to look for potential correlations between experience, grade level, and utilization of trauma-informed practices. Due to the low response rate to the survey, correlations were not run.

Research Question 1

What trauma-informed training or preparation has been provided as reported by select Minnesota K-12 educators?

According to Thomas et al. (2019), training on how to serve trauma-affected students is often not a part of the standard curriculum in teacher preparation programs or pre-service teaching experiences while Benazzo and Benazzo (2021) stated the average teacher does not receive even one lecture on trauma.

Of the 29 teachers who responded to the survey, 58.62% (17) reported having received no training in trauma-informed practices and 41.39% (12) reported having received some training. Even though 12 teachers reported having received some training, 14 teachers responded when asked about the hours of training they had received. 57.14% or eight of the respondents with training reported having only 1-5 hours of training and three reported 6-10 hours of training. In addition to the quantitative data, there were seven comments made in the qualitative section of the survey. These comments directly supported the quantitative findings with four of the seven commenters reporting having no training and three reported having a limited amount of training. It could not be determined if the commenters had previously reported in the quantitative questions.

The findings, although limited in numbers, support the research examined in the review of literature. Many respondents reported having received no training, and of those who reported having received training, the majority reported having only receiving 1-5 hours of training with three teachers reported having 6-10 hours of training and three more reporting to having 16-20 hours of training.

I believe the amount of training received, as reported by most, is indicative of the amount of training typically provided in a pre-service lecture or in a workshop, teacher in-service, or professional development setting. The three teachers who reported having 16-20 hours training, while still limited in hours as compared to receiving training in a teacher preparation program, for example, could indicate their training experiences are outside the norm of what most teachers receive, however, with the limited number of responses, this indication is not generalizable to the greater population of teachers in Minnesota.

Research Question 2

To what extent has trauma-informed training or preparation been effective as reported by select Minnesota K-12 teachers?

The benefits of trauma-informed practices in schools on student achievement, student behavior, and school climate and culture were abundantly reported throughout the literature examined for this study, however, much of the research surrounding these benefits, although grounded in theory, are hypothetical due to the lack of research surrounding the effectiveness of these approaches in schools (McInerney and McKlindon, 2014). Additionally, according to Thomas et al. (2019), there is a lack of empirical evidence from educators and educational researchers and added that most of the evidence supporting trauma-informed practices in schools comes from outside the field of education. Question 2 aimed to seek educator perspective on the theoretical benefits of employing trauma-informed practices.

Five items in the survey were designed to seek answers to the question. Item 5 of the survey asked if teachers had implemented any of the training they had received after being trained in trauma-informed practices. While 12 teachers had first reported having received

training, 14 teachers reported having received at least an hour of training. However, 15 teachers responded when asked if they had implemented practices. Eight teachers (53.33%) responded they had implemented practices and strategies learned in training while seven reported not implementing any practices and strategies they learned in training.

Items 6-9 sought educator perceptions from the educators who had reported implementing training on the effectiveness of implementation of trauma-informed practices as related to the positive impact on student achievement, behavior, classroom climate and culture, and school-wide climate and culture. Overall, respondents perceived at least a somewhat positive impact after employing practices with respondents reporting the greatest perceived impact being on student achievement with 75% (62.5% somewhat, 12.5% to a great extent) reporting perceiving a positive impact on student achievement.

Regarding the perceived impact on student behavior as well as classroom climate and culture, in both instances, 71.43% reported trauma-informed practices as having a somewhat positive effect. The results regarding the perceived impact on school-wide climate and culture showed some teachers (42.06%) perceiving a positive impact, however, the same number of teachers reported perceiving very little effect. Additionally, a commenter stated they have seen significant improvement with students since implementing trauma-informed practices.

Although limited in numbers, the findings support the theoretical benefits of utilizing trauma-informed practices in schools. It is important to note that this study measured perceptions and did not require teachers to provide additional data such as disciplinary and behavioral records, grade reports, attendance records, student, administrative, and other stakeholder perceptions, and/or additional data to support the teacher's perceptions. Also of note, there were

no definitions offered as to how student behavior, achievement, and climate and culture were defined. This omission was by design as the study sought to measure perceptions of the effectiveness of trauma-informed practices only and not the effectiveness as perceived to an adherence to a specific set of definitions that may or may not apply to the perceptions of the educator. It is possible that if given a strict set of guidelines to adhere to when defining behavior, achievement, and climate and culture, the educator's perceptions may have been different.

Research Question 3

What trauma-informed practices or strategies have been implemented?

Although there is not a standard definition of trauma-informed practices, the definitions reviewed by the researcher almost all included references to safety, relationship, and awareness of trauma and the effects of trauma. Pickens and Tschopp (2017) provided a definition that summarized the sentiments of the reviewed definitions when they stated, "The goal of a trauma-informed system should be to infuse an understanding of the impact of trauma and adverse life experiences on students into the classroom culture and promote a physically and psychologically safe environment for student growth" (p. 1).

SAMHSA (2014b) extended the definitions of trauma-informed practices when it provided a framework known as The Four R's. To be considered trauma-informed organizations must realize the pervasive impact of trauma, recognize the signs and symptoms of trauma, respond by creating trauma-informed policies and procedures, and actively resist re-traumatization. Nealy-Oparah and Scruggs-Hussein (2018) expanded upon SAMHSA's framework and added four more R's. These R's include routines, rituals, relationships, and regulation.

Three concepts consistently appeared when reviewing the available literature on trauma-informed practices: mindset shift, safety, and relationships. Although these concepts fall within the frameworks provided by SAMHSA and Nealy-Oparah and Scruggs-Hussein, the terms appeared frequently throughout the examined literature and are foundational to a trauma-informed system. A brief explanation of these three key tenets is as follows:

1. A mindset shift occurs when the question moves from what is wrong with a child to what is happening or what is going on with a child (Counts et al., 2017; Dotson, 2017; Overstreet, 2015; Bloom & Sreedhar, 2008; Perry & Winfrey, 2021). This mindset shift reframes the notion that a child is being willfully disobedient to an adaptive response beyond their control (Pappano, 2014).
2. Safety, according to Pickens and Tschopp (2017) is the root of a trauma-informed system. Miller and Moffett (2019) add that no learning will occur until a child is feeling safe.
3. Relationships are a key factor in creating a trauma-informed school (Pickens & Tschopp, 2017; SAMHSA, 2014b; Venet, 2018; Multiplying Connections, 2010; Shonkoff et al., 2012; Zanolli, 2018; Cole et al., 2009; West et al, 2014). According to Multiplying Connections (2010) building a positive, caring relationship with a student is the most important thing you can do to serve a trauma-affected child.

The examined literature documented a plethora of trauma-informed practices and strategies that are theoretically foundational to being trauma-sensitive institution. Items 10-18 of

the survey sought to identify what trauma-informed practices educators are utilizing and to what extent. The survey items were based upon the examined frameworks and concepts.

There were two practices that all seven respondents utilized often: the highest rating available in the survey for this subset of items. These practices included building and maintaining positive and healthy relationships and using classroom routines to promote predictability and aid in classroom management.

The next two most utilized trauma-informed practices were a mindset shift and using a variety of strategies to increase feelings of safety within the classroom. 71.43% of respondents said they often used these strategies while the remainder of the respondents (28.57%) stated using these strategies sometimes, the second highest rating available.

These results, again, while limited in number, indicate that educators with trauma-informed training are utilizing the strategies most often recommended in the available literature. While proponents of trauma-informed education may find validation in these results, there is no evidence that these educators did not practice at least some of these strategies before receiving trauma-informed training, for example, using classroom routines for predictability (safety) and to aid in classroom management and/or building positive relationships with students. I believe these concepts are best practices in teaching and strategies to develop these concepts are widely taught across several platforms and often utilized in classrooms.

Research Question 4

To what extent are trauma-informed practices or strategies working as reported by select Minnesota K-12 teachers?

Researchers, mostly from outside the field of education, readily tout the benefits of trauma-informed practices (Thomas et al., 2019). The oft-cited benefits include, but are not limited to: increased feelings of safety, more positive relationships, healthier brain development, increased ability of students to self-regulate, a decrease in disciplinary actions including suspensions and expulsions, increased academic success, improved test scores, a more positive climate and culture, improved retention rates, decreased stress levels, and a reduction in special education referrals (Venet, 2018; Multiplying Connections, 2010; Brunzell, 2015; Oehlberg, 2008, Stevens, 2012).

There were twelve items on the survey that were based directly upon these cited benefits. Participants rated their perceptions on a scale from (1) Strongly Disagree, (2) Disagree, (3) Agree, and (4) Strongly agree. The findings for the top-rated benefits, as well as one outlier, will be discussed.

The trauma-informed practice the seven respondents found most beneficial were the ones designed to increase positive relationships. 85.72% agreed or strongly agreed (71.43% and 14.29% respectively) that creating and maintaining positive relationships is a benefit to implementing trauma-informed practices.

The next most effective trauma-informed practices, according to the respondents, were the practices and strategies designed to increase feelings of safety in the classroom as well as increase students' social and emotional skills. 71.43% stated they agreed that implementation of trauma-informed practices had increased feelings of safety in the classroom and 71.43% agreed that students had improved their social and emotional skills, however, one participant strongly

disagreed students' social and emotional skills had increased therefore decreasing the mean which produced an overall lower perception rating.

Two other item responses stood out in this subsection of questions. The only additional item to have over 50% of respondents agree that a trauma-informed practice was beneficial pertained to the item asking if student stress levels had decreased since implementation of trauma-informed practices. 57.14% of respondents agreed that student stress levels had decreased. The other item of note was the response to the item that asked if student test scores had increased since implementation of trauma-informed practices. All six of the respondents to the item disagreed (66.67%) or strongly disagreed (33.33%) that trauma-informed practices had increased test scores. The remaining questions had somewhat of an even distribution across the rating scales that neither fully supported nor refuted the benefits touted in examined research.

The small number of respondents aside, the highest rated benefits by the participants--safety and relationships—are the two benefits that appeared the most frequently and consistently throughout the examined research. Additionally, as discussed in Question 3, practices and strategies that promoted safety and relationships were two of the most utilized strategies. While it could be possible that respondents highly rated practices and strategies promoting safety and relationships because those practices truly are the most effective, it could also be that those practices and strategies could be the most effective because they the most frequently used practices and strategies.

While most of the respondents at least partially agreed that trauma-informed practices and strategies had some benefit, when it came to perception of test scores increasing after implementing trauma-informed practices and strategies, the respondents all disagreed or strongly

disagreed. This could be an example of what researchers would call a theoretical benefit. In theory, when practicing within a trauma-informed framework, students that are feeling safe and regulated in the classroom will perform better academically daily as well as performing better on tests, however, the educators' perceptions refuted that theory.

Research Question 5

What are the challenges associated with trauma-informed practices as reported by select Minnesota K-12 teachers?

As with the many touted benefits of implementing trauma-informed practices, there are also many theoretical barriers to implementation of trauma-informed practices. Commonly listed barriers include, but are not limited to: educators mistaking disobedience as intentional, a lack of buy-in of the need for trauma-informed practices, a lack of commitment by school staff to make changes, teacher burnout, lack of training in trauma-informed training, secondary trauma, trauma is viewed as a home problem and not a school problem, a lack of consistent framework for implementation, a view that trauma-informed practices are too soft on discipline, trauma-informed practices are simply a hot topic in education and will pass, and educator's own trauma prohibits implementation of practices (Jurman, 2020; Hodas, 2006; Thomas et al., 2019; Cole et al. 2009; Anderson et al., 2015; Walkley & Cox, 2014).

There were 11 items in the survey designed to address the theoretical barriers to implementation of trauma-informed practices. The items were derived directly from the examined literature. Participants rated their perceptions on a scale from (1) being strongly disagree, (2) being disagree, (3) being agree, and (4) being strongly agree. The findings for the

top-rated barriers as well as three items that directly refuted the theoretical barriers, will be discussed.

Respondents rated the greatest perceived barrier to implementation of trauma-informed practices as the lack of a consistent framework in how to implement practices. 71.43% of respondents agreed or strongly agreed, 28.57% and 42.86% respectively, with this statement. This barrier was followed by the perception that staff burnout is a significant barrier to implementation of trauma-informed practices. 57.14% of respondents agreed or strongly agreed, the distribution was equally split, that staff burnout was a factor in not implementing trauma-informed practices.

There were three barriers perceived by respondents as bearing equal weight when it came to not implementing trauma-informed practices. These barriers include a lack of buy-in or support from staff, staff that are resistant to change, and a lack of understanding of the effects of trauma therefore feeling there is no need. 71.43% of respondents to each of these questions agreed that these factors were a barrier to implementation of trauma-informed practices. While this percentage amount is close to the top-rated barrier, there was one participant for each barrier that disagreed and one participant that strongly disagreed to these factors being a barrier, which significantly lowered the mean.

Three items in this subset of questions had participants mostly disagreeing or strongly disagreeing with the theoretical barrier. Trauma being a home problem and not a school problem was the lowest rated barrier to implementation of practices. 100% of respondents disagreed or strongly disagreed with this barrier, with the distribution of ratings at 57.14% and 42.86% respectively. The next lowest rating was the factor of trauma-informed practices being a hot-

topic in education and the trend will pass so no need to implement. 85.72% of respondents disagreed or strongly disagreed with this statement, the distribution was split equally between the ratings while only one respondent or 14.29% agreed to this statement. Lastly, the question of whether an educator's personal trauma was a barrier to implementation of trauma-informed practices was asked. Due to a misdirect in the survey, 19 teachers responded to this item as opposed to the 6-8 that responded to the other items in this section. 84.21% of respondents disagreed or strongly disagreed to this statement while 10.52% agreed and 5.26% strongly agreed that personal trauma was a barrier.

Several comments were made in the qualitative section of the survey regarding perceptions of challenges and barriers. One teacher stated that while they do not believe that trauma-informed practices are a "flash in the pan," however, they stated that they perceived trauma-informed practices as a "rehashing" of other ideas in education for example restorative practices, culturally relevant practices, and brain research. The same educator perceived trauma-informed practices to be a business. "The profit motivation to come up with a new teachable educational theory cannot be ignored when considering its validity." Another educator stated everyone needs to "buy in" while another educator perceived that teachers do really understand or respect students' trauma. Two other commenters stated they felt there are too many things thrown at educators and that there are many things on "veteran teachers' plates," and many are frustrated with the trainings that are offered and not followed up or implemented with fidelity. "We take training. Then it disappears. It is common sense stuff mainly, and in many cases insulting towards the professional abilities of teachers."

The findings indicate that teacher perceptions align with some of the commonly mentioned theoretical barriers found in the examined literature. The qualitative data supported the quantitative findings, especially regarding the barriers of staff buy-in, resistance to change, and a lack of understanding.

The findings also refute some of the commonly mentioned theoretical barriers. There is an indication that educators acknowledge they have a responsibility to address trauma and the effects of trauma in their classrooms. Also, the data revealed that educators do not believe trauma-informed practices are simply a hot topic in education and will disappear in the future. The low ratings on these barriers coupled with a higher rating when it came to staff burnout being a barrier could indicate perceptions that have arisen since the Covid-19 pandemic began.

While there was not enough data collected by the survey to draw large-scale generalizable conclusions, the researcher believes the conclusions are significant on a small scale. Data collected indicated that at least some of the theoretical benefits, specifically surrounding safety and relationships, aligned with educator perspectives. Additionally, there was evidence that educators who implemented trauma-informed practices after receiving training used the practices of promoting safety, relationships, and a mindset shift most frequently, which also aligns with the theoretical foundational practices found in the examined literature.

Limitations

According to Roberts (2010) a limitation is a “particular feature of the study that is known to negatively affect the results or the ability to generalize the results, usually in areas where there is no control on the part of the researcher” (p. 162). The limitations to the study are as follows:

1. A low response rate was a limitation to the study. 962 individuals were emailed the survey on three separate occasions with 29 responses.
2. The COVID-19 pandemic has significantly disrupted education since its onset in 2020. At the time the survey was sent, educational systems were ending the third year of pandemic education, which by many accounts was the most difficult to date.
3. The instrument was a limit to the survey. There were two skip-logic questions directing participants to the final two questions of the survey. Due to the small number respondents, the skip-logic questions significantly limited the number of participants.
4. Participants may have chosen not to answer the survey because they had a limited understanding of or no knowledge of trauma-informed practices.

Recommendations for Further Research

Based on the findings of the study, further research is recommended in the following areas:

1. Replicate this study with a wide range of educators.
2. Conduct further research from within the field of education. Educator voice is missing from the research surrounding trauma-informed practices in schools and in-depth, empirical evidence is needed to further refine strategies and practices to serve trauma-affected students.
3. Conduct a study designed to determine what practices and strategies are utilized most frequently in schools to promote feelings of safety and to build positive

relationships as well as perceptions of the benefits of using these practices regardless of prior trauma-informed training or deeming the practices and strategies utilized as trauma-informed.

4. Conduct a similar study where all school staff, including certified and non-certified staff, are surveyed as to their perspectives on trauma-informed practices in schools.
5. Revise the instrument used in this study to facilitate a similar study in districts that have already committed to being a trauma-informed institute.

Recommendations for Practice

1. Colleges and universities should prioritize teaching about trauma, the effects of trauma, educational neuroscience, and trauma-informed practices in teacher preparation programs and pre-service teaching experiences.
2. Educational leadership programs at the graduate and doctoral levels should prioritize teaching about trauma, the effects of trauma, educational neuroscience, and trauma-informed practices and how these practices and strategies apply to educational leadership.
3. Districts should examine all current practices, strategies, curriculums, and initiatives to determine overlaps and circular processes then work to refine and simplify best practices.
4. Educators are professionals. Before offering training on trauma-informed practices, school districts should survey staff to determine their current levels of training and knowledge as well as what practices and strategies are already being

utilized. Staff perspectives on the efficacy of those practices and strategies should also be sought.

5. Educators and districts should prioritize utilizing practices and strategies that promote safety and relationships regardless of if those practices were presented in a trauma-informed framework or not.
6. School districts need to examine current practices, strategies, initiatives, policies, procedures, etc. through a trauma-informed framework to determine what the district is already doing well regarding trauma-informed work and to capitalize on those strengths to further develop and refine current practices.
7. Follow through on practices and strategies developed in trauma-informed training offered by districts is essential. Trauma-informed training should not be a "one and done" as, according to the research, trauma-sensitive work in schools is a practice that requires consistency and time to develop the necessary skills.
8. Trauma-informed educators and researchers need to practice a mindset shift when conducting trauma-informed training for educators by first seeking to determine what practices are currently being used and by examining what educators are already doing right in their classrooms before proceeding with further training in trauma-informed practices.

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Appendix A: Instrument, Qualtrics

1. What level of education are you working in? (Check all that apply.)
    a. Elementary (K-6)
    b. Middle (6-8)
    c. Secondary (7-12)
    d. High School (9-12)
2. How many years have you been working in education?
    a. 0-3
    b. 4-6
    c. 7-10
    d. 11-15
    e. 16-20
    f. 21-25
    g. 26+
3. Have you been trained in trauma-informed practices?
    a. Yes
    b. No (Please skip to question 41)
4. How many hours of training on trauma-informed practices have you received?
    a. 1-5
    b. 6-10
    c. 11-15
    d. 16-20

e. 21-20

f. 40+

5. Did you implement any trauma-informed practices or strategies after receiving training?
    a. Yes
    b. No (Skip to question 42)
6. Student behavior has been positively affected since the implementation of trauma-informed practice or strategies. Not at all Very Little Somewhat To a great extent
7. Student achievement has been positively affected since the implementation of trauma-informed practice or strategies. Not at all Very Little Somewhat To a great extent
8. Classroom climate and culture has been positively affected since the implementation of trauma-informed practice or strategies. Not at all Very Little Somewhat To a great extent
9. Overall school climate and culture has been positively affected since the implementation of trauma-informed practice or strategies. Not at all Very Little Somewhat To a great extent
10. I think about *what is happening with this student* or *what is going on with this student* instead of *what is wrong with this student*. Never Seldom Sometimes Often
11. I utilize a variety of strategies to increase feelings of safety in my classroom. Never Seldom Sometimes Often
12. I work to build and maintain positive and healthy relationships in my classroom. Never Seldom Sometimes Often

13. I use a variety of strategies to promote resiliency and strength-building in my classroom. Never Seldom Sometimes Often
14. I utilize classroom routines that promote predictability and aid in classroom management. Never Seldom Sometimes Often
15. I employ classroom rituals such as circle time, mindfulness practices, etc. that promote calmness and connectedness. Never Seldom Sometimes Often
16. I openly communicate with parents and other stakeholders. Never Seldom Sometimes Often
17. I utilize trauma-informed policies and procedures in my classroom. Never Seldom Sometimes Often
18. I utilize social and emotional-based activities in my classroom. Never Seldom Sometimes Often
19. Implementing trauma-informed practices and strategies has increased feelings of safety in my classroom. Strongly Disagree Disagree Agree Strongly Agree
20. Implementing trauma-informed practices and strategies has positively impacted relationships in my classroom. Strongly Disagree Disagree Agree Strongly Agree
21. Implementing trauma-informed practices and strategies has improved students' ability to self-regulate. Strongly Disagree Disagree Agree Strongly Agree
22. Standardized test scores have improved since utilizing traumas-informed practices and strategies. Strongly Disagree Disagree Agree Strongly Agree
23. There have been fewer discipline referrals since utilizing trauma-informed practices and strategies in my classroom. Strongly Disagree Disagree Agree Strongly Agree

24. There have been fewer suspensions and expulsions in my school since implementing trauma-informed practices and strategies. Strongly Disagree Disagree Agree Strongly Agree
25. Attendance rates have improved since implementing trauma-informed practices and strategies. Strongly Disagree Disagree Agree Strongly Agree
26. Students' social and emotional skills have improved since implementing trauma-informed practices and strategies. Strongly Disagree Disagree Agree Strongly Agree
27. There has been a reduction in the number of referrals to special education since implementing trauma-informed practices and strategies. Strongly Disagree Disagree Agree Strongly Agree
28. Staff satisfaction has increased since implementing trauma-informed practices and strategies. Strongly Disagree Disagree Agree Strongly Agree
29. Student stress levels have been reduced since implementing trauma-informed practices and strategies. Strongly Disagree Disagree Agree Strongly Agree
30. Staff stress levels have been reduced since implementing trauma-informed practices and strategies. Strongly Disagree Disagree Agree Strongly Agree
31. There is a lack of staff buy-in or support in implementing trauma-informed practices and strategies. Strongly Disagree Disagree Agree Strongly Agree
32. Staff are resistant to the changes needed to implement trauma-informed practices and strategies. Strongly Disagree Disagree Agree Strongly Agree
33. Leadership is resistant to the changes needed to implement trauma-informed practices and strategies. Strongly Disagree Disagree Agree Strongly Agree

34. Staff burnout is a barrier to implementing trauma-informed practices and strategies. Strongly Disagree Disagree Agree Strongly Agree
35. There is a lack of understanding of the effects of trauma therefore staff feels that there is no need for implementing trauma-informed practices and strategies. Strongly Disagree Disagree Agree Strongly Agree
36. Trauma-informed practices and strategies are viewed as soft and do not provide adequate discipline. Strongly Disagree Disagree Agree Strongly Agree
37. Trauma is a home problem and it is not my job to address students' mental health needs. Strongly Disagree Disagree Agree Strongly Agree
38. The lack of consistent framework and training in trauma-informed practices and strategies make it difficult to implement. Strongly Disagree Disagree Agree Strongly Agree
39. Trauma-informed practices are simply a hot topic and the trend will pass so there is no need to implement them. Strongly Disagree Disagree Agree Strongly Agree
40. The effects of secondary trauma from teaching trauma-affected students makes it difficult for me to implement trauma-informed practices and strategies. Strongly Disagree Disagree Agree Strongly Agree
41. My own unresolved trauma makes it difficult for me to implement trauma-informed practices and strategies. Strongly Disagree Disagree Agree Strongly Agree
42. What recommendations do you have regarding trauma-informed practices in schools?
43. Please share anything else that you feel is relevant to trauma-informed practices in schools.

Appendix B: Implied Consent Form

Teacher Perspectives of Trauma-Informed Practices in Select K-12 Minnesota Schools
Implied Consent

You are invited to participate in this study to determine teacher perspectives of trauma-informed practices in schools. You were randomly selected as a potential participant from public email databases available on the Minnesota Department of Education website and district online staff directories. The research project is being conducted by Melissa Hoffman Bodin, a doctoral candidate in the Educational Administration and Leadership Program at St. Cloud State University.

Background Information and Purpose
The purpose of this study is to ascertain educator perspectives on the effectiveness of trauma-informed practices and strategies as well as educator perspectives as to the perceived benefits and barriers associated with implementing these practices and strategies.

Procedures
If you decide to participate, you will be asked to complete an online survey. Completion of this survey will take approximately 10 minutes of your time.

Benefits
The questions on this survey were developed by reviewing the research surrounding trauma-informed practices in schools. Much of the research on the effectiveness of trauma-informed practices in schools comes from outside the field of education. Participation in this study will seek to ascertain the perspectives of teachers, a perspective that is largely missing from the current body of research.

Confidentiality
There are no identifiers included in the survey questions. Your answers are anonymous and all data collected will be anonymous. Data will be destroyed after degree completion.

Research Results
If you are interested in learning the results of this survey, please contact the researcher at 320-262-1039 or by email at home0901@stcloudstate.edu.

Contact Information
If you have any questions, please contact the researcher at 320-262-1039 or by email at home0901@stcloudstate.edu. You may also contact the researcher's advisor, Dr. Dave Lund at dlund1@stcloudstate.edu.

Voluntary Participation/Withdrawal
Participation is voluntary. Your decision whether to participate will not affect your current or future relations with St. Cloud State University or the researcher. Due to the sensitive and personal nature of trauma and its effects, there may be questions you are not comfortable answering. You are free to skip those questions. Additionally, if you decide to participate, you are free to withdraw at any time without penalty.

Acceptance to Participate
Completion of this survey indicates that you are at least 18 years of age and you consent to participation in the study.

Appendix C: Initial Invitation to Participate in Survey

My name is Melissa Hoffman Bodin and I am a Minnesota teacher and a Doctoral candidate in Educational Administration and Leadership at St. Cloud State University. My research topic is trauma-informed practices in schools and I am seeking your assistance in completing my study.

Trauma-informed practices in schools are considered a hot topic in education. While there is a plethora of research available that touts the benefits of such practices, much of this research comes from outside the field of education. Educator perspectives on the benefits of trauma-informed practices as well as the barriers to implementation of these practices are largely missing from the current body of research. My study is seeking to ascertain educator perspectives and to add to the body of available research.

If you are willing to participate in this study, I have provided a link to an anonymous online survey. The survey takes less than 10 minutes to complete and is easily accessible via computer or your cell phone. Your input and perspectives are incredibly valuable and I thank you in advance for sharing your perspectives

Sincerely,
Melissa Hoffman Bodin

Appendix D: Second Request for Participation

Dear Educator:

If you have already taken the opportunity to complete this survey, thank you for your participation. If you have not had the opportunity to complete this survey yet, please consider doing so. Your perspective is needed and incredibly valuable. Thank you, again, for your consideration and participation in this survey.

Sincerely,
Melissa Hoffman Bodin

Appendix E: Third and Final Request for Participation

Dear Minnesota Teacher:

Thank you to those that have taken the time to complete my survey on trauma-informed practices. If you have not had the opportunity to complete the survey yet, it will be open for two more weeks. Your perspective is incredibly valuable and greatly needed. This email serves as the final request for participation.

As a fellow Minnesota teacher, I understand the hectic schedules that come with wrapping up the academic year. Also, as a fellow teacher that has now taught through three school years that have been affected by a global pandemic, as have many of you, I fully understand the feelings of weariness that many of us are currently experiencing. Adding a survey to your end-of-the-year list of things to do likely is not a priority, I understand that as well. Thank you, one last time, for your consideration. For more information, the original request is included below. A statement of informed consent and a link to the survey is also included.

Sincerely,
Melissa Hoffman Bodin

Appendix F: IRB Approval

Institutional Review Board 720 Fourth Avenue South, AS 101, St. Cloud, MN 56301-4498 April 19, 2022 To: Melissa Hoffman Bodin Email: home0901@stcloudstate.edu Faculty Mentor: David Lund dlund1@stcloudstate.edu Project Title: Teacher Perspectives of Trauma-Informed Practices in Select Minnesota Schools

The Institutional Review Board has reviewed your protocol to conduct research involving human subjects. Your project has been: Approved Expiration Date: N/A Approval Type: Exempt SCSU IRB#: 37394013 Please read through the following important information concerning IRB projects: ALL PROJECTS: • The principal investigator assumes the responsibilities for the protection of participants in this project. Any • adverse events must be reported to the IRB as soon as possible (ex. research related injuries, harmful outcomes, significant withdrawal of subject population, etc.). • The principal investigator must seek approval for any changes to the study (ex. research design, consent process, survey/interview instruments, funding source, etc.). The IRB reserves the right to review the research at any time EXEMPT PROJECTS: • Exempt review only requires the submission of a Continuing Review/Final Report form in advance of the expiration date indicated in this letter if an extension of time is needed. EXPEDITED AND FULL BOARD REVIEW PROJECTS: • The principal investigator must submit a Continuing Review/Final Report form in advance of the expiration date indicated on this letter to report conclusion of the research or request an extension. • Approved consent forms display the official IRB stamp which documents approval and expiration dates. If a renewal is requested and approved, new consent forms will be officially stamped and reflect the new approval and expiration dates. If we can be of further assistance, feel free to contact the IRB at 320-308-4932

or email ResearchNow@stcloudstate.edu and please reference the SCSU IRB number when corresponding. Sincerely, IRB Chair: IRB Institutional Official: Dr. Mili Mathew Dr. Claudia Tomany Chair and Graduate Director Assistant Professor Associate Provost for Research Communication Sciences and Disorders Dean of Graduate Studies