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Responding to Students Exposed to Community Violence: A Mixed Methods Study of Teachers' Perceptions of Trauma-Informed Service Delivery

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RESPONDING TO STUDENTS EXPOSED TO COMMUNITY VIOLENCE: A MIXED METHODS STUDY OF TEACHERS' PERCEPTIONS OF TRAUMA-INFORMED SERVICE DELIVERY

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ABSTRACT

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This mixed methods study evaluated attitudes related to trauma-informed care among 52 general and special education teachers in an urban school district. Additionally, 11 qualitative interviews were used to explore trauma-informed care trained teachers' experiences working with youth impacted by trauma. Compared to the non-trained group, teachers who had been trained in trauma-informed care, specifically Healthy Environments and Response to Trauma in the Schools (HEARTS), demonstrated a significantly greater understanding that experiencing trauma can lead to problematic behavior in the classroom and that these students may need additional support to learn. Trained teachers' mean attitudes trended in the direction of more favorable viewpoints related to trauma-informed care compared to the non-trained group, except for attitudes related to Self-Efficacy. The most influential factor of teachers feeling capable to meet the demands of working with students impacted by trauma was having a personal history of trauma. Being trained in conjunction with having a personal history of trauma appeared to create more trauma-informed perspective related to on-the-job behavior, such as having empathy-focused (e.g., "it's okay that my students are upset"), rather than control-focused attitudes. Qualitive findings revealed that teachers who had participated in the trauma-informed training were able to recognize the signs of trauma and respond to

student behavior in a trauma-informed manner. Teachers responded in a variety of ways including being more mindful of their own behavior, being proactive, and taking a flexible approach to managing trauma-related behavior. Developing safe and secure relationships and creating a sense of community were vital in providing trauma-informed care. To best support their students, teachers recognized the emotional impact of working with trauma-affected students and communicated the importance of self-care and expressing gratitude. Teachers discussed the value of the training and the training team. There were clear similarities between trauma-informed care frameworks and the qualitative findings. Implications of the findings focus on implementation of trauma-informed service delivery in the schools.

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INTRODUCTION

Ms. Smith is puzzled; the friendly, engaging 8-year-old student named Emily has changed before her eyes. Where once she laughed with her friends, Emily now sits and stares blankly out the window, and her enthusiasm for reading has dwindled; she can barely stay awake in class. Emily was once a leader in the classroom, often helping other students with their work. Now, for no apparent reason, she will scream at the top of her lungs, throw chairs, and fling herself onto the floor crying. One day, a classmate accidently bumped into her, and Emily punched him in the nose. Emily's dramatic shift in behavior keeps Ms. Smith up at night thinking about ways to help, and wondering "what is wrong with Emily?" The school principal asked Ms. Smith, "Emily looks either terrified or out of it, what's wrong with her?" Ms. Smith does not know what to do, but she believes this behavior is unacceptable and is hurting the other students' academic progress. Ms. Smith has sent Emily to the office daily for aggression towards others, work incompletion, and distraction of her classmates. Emily's teacher and the school are unsure how to help her and are considering whether to have her suspended or refer her to special education.

Like so many children in our schools, there is more to Emily's story that the teacher, principal, and others in her school do not know. Emily resides in a poorer neighborhood with her mother and younger brother. Her father was arrested four and

half months ago for punching and choking her mother and is currently incarcerated. Since as young as age four, she has told her mother about hearing gun shots at least eight times. Her walk to and from school every day brings her by the local gang that sells drugs on the street corner. About two months ago, she saw one of the gang members assault someone with a knife, stabbing him several times. Emily complains to her mother of nightmares and stomachaches. Given these multiple risks, how might Emily's school, effectively intervene to support Emily's mental health needs?

Statement of the Problem

Youth exposed to violence in their communities is a national public health crisis (Geffner, Griffin, & Lewis III, 2008). Violence includes, but is not limited to, child abuse and neglect, domestic and community violence, and sexual violence. A National Survey of Children's Exposure to Violence (NatSCEV) conducted in 2011 found that almost a quarter of youth surveyed had witnessed violence, over half had been exposed to some type of violence (e.g., physical abuse, neglect, dating violence, exposure to shootings, witnessing violence), and about one-fifth of respondents had been exposed to multiple violent events (Finkelhor, Turner, Shattuck, & Hamby, 2013; Ridgard, Laracy, DuPaul, Shapiro, & Power, 2015). Exposure to community violence (ECV) is particularly elevated for children and adolescents living in urban, low-income, primarily ethnic minority communities, and these youths (e.g., African-American, Hispanic, Native American) are not only more likely to be exposed to traumatic violence, they experience higher rates of posttraumatic stress disorder (PTSD) compared to their White peers (American Psychological Association [APA], 2013; Ridgard et al., 2015). According to a national survey of children's exposure to community violence, in the past year, just under

half of the 4,549 nationally represented sample ages 0-17 had experienced physical violence, nearly 10% had experienced child maltreatment, 6.1% had experienced sexual victimization, and more than 25% had witnessed domestic or community violence (Hamblen & Barnett, 2014). Evidence has shown that traumatic experiences in childhood have an impact long into adulthood. The Adverse Childhood Experiences (ACE) studies (e.g., Felitti et al., 1998) were landmark longitudinal research which consistently linked these adverse experiences such as maltreatment and violence exposure to negative outcomes such as an adult such as substance abuse, depression, obesity, and committing violent crimes. The more immediate impact of experiencing trauma can be devastating as well. These traumatic events are often categorized into different types of trauma which are defined in the literature.

The Substance Abuse and Mental Health Services Administration (SAMHSA, 2014) conceptualize individual trauma as "an event, series of events, or set of circumstances, that is 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" (p. 7). Two types of trauma defined in the literature are acute and chronic. Acute trauma may have long-term psychological effects, but the event itself is often abrupt and short-lived (e.g., natural disaster, school shooting). On the other hand, chronic trauma may occur when an individual endures aversive conditions over time, such as homelessness or constant exposure to community violence (Blaustein, 2013). Exposure to multiple instances of

threatening and devastating events (i.e., chronic trauma) can cause complex trauma in individuals (Blaustein, 2013; The National Child Traumatic Stress Network; NCTSN, n.d.).

There is an emerging amount of empirical evidence that asserts that young people exposed to violence are at an increased risk to develop an array of internalizing (e.g., post-traumatic stress, anxiety) and externalizing (e.g., aggression, defiance) symptoms and disorders. The most common reactions to violence exposure involve anxiety, posttraumatic stress disorder (PTSD), and depression (Ozer & Weinstein, 2004). Traumatic experiences can lead to the development of posttraumatic stress symptoms (PTSS) and in some cases, Post-Traumatic Stress Disorder (PTSD) (American Psychiatric Association, 2013; Hamblen & Barnett, 2014). The main distinction between PTSS and PTSD is individuals with PTSS may exhibit some symptoms of PTSD but do not meet the symptom count threshold needed to fulfill the diagnostic criteria. People with PTSD experience a significant number of posttraumatic stress symptoms (PTSS) and to a marked degree that impacts their daily functioning. There appears to be a lack of agreement regarding the prevalence rate for PTSD in younger children in the general population, but the National Center for PTSD reports that in a sample of 10,000 adolescents (ages 13-18), 5% met the criteria of PTSD in their lifetime and the prevalence was higher for girls (8%) than for boys (2.3%), and 3.9% of the adolescents in the survey currently met the criteria for PTSD (Hamblen & Barnett, 2014). Since developmentally children may have difficulty articulating their thoughts and feelings, it can be challenging to use the diagnostic criteria for PTSD to identify the disorder in

younger children. Therefore, taking a system-wide approach to identify and intervene may be the best way to reach every child impacted by trauma and in need of support.

Being exposed to violence is often a common occurrence for children and adolescents residing in poorer, urban communities, and these youths are in large majority African-American or Hispanic/Latino (Gaylord-Harden, Cunningham, & Zelencik, 2011; Lyons, 2016). One study reported that just over 17% of a sample of African-American youth living in Detroit, who were exposed to violence, met the criteria for PTSD (Goldmann et al., 2011). Additionally, a National Crime Victimization Survey by the Bureau of Justice Statistics found that, compared to White-American and African-American youth residing in suburban or rural areas, African-Americans living in urban communities were three times more likely to be a victim of a violent crime (Truman & Langton, 2015).

The overwhelming evidence of children and adolescents being exposed to violence leads to the reasonable assumption that many students served within the schools, especially those located in urban areas, likely have a history of or will experience trauma in their future. Traumatic experiences can adversely affect a student's functioning at school. Post-traumatic stress, anxiety, depression, aggressive and oppositional behavior, and suicidal ideation are associated with exposure to violence, and these symptoms have been shown to decrease reading, math, and science achievement in elementary age children (Goodman, Miller, & West-Olatunji, 2012; Overstreet & Matthews, 2011; Ridgard et al., 2015; Ruchkin, Henrich, Jones, Vermeiren, & Schwab-Stone, 2007). Historically, the treatment of trauma in schools has been in the form of crisis interventions when acute traumas such as natural disasters or school shootings have

occurred, or in the form of more targeted interventions (e.g., Trauma-Focused Cognitive-Behavioral Therapy; Cohen, Mannarino, & Deblinger, 2010) delivered to individual students (Ridgard et al., 2015). In some large urban districts, Cognitive Behavioral Intervention for Trauma in the Schools (CBITS; Jaycox, 2004) has been delivered as an evidence-based program designed for small group delivery to at-risk students.

An alternative to only addressing trauma after acute incidents or intervening solely at the individual or small group level, is to change the larger systems within which students are educated. For example, the CBITS program was extended to include a more targeted teacher training component to implement trauma-informed interventions at the universal level (Jaycox, Langley, & Dean, 2009). Although not specific to trauma, other research has shown that altering the school system can have a positive impact on student outcomes. For example, Positive Behavioral Interventions and Support (PBIS) models that have been shown to decrease negative behavior and improve academic outcomes for students (see Sugai & Horner, 2009). Thus far, there is limited research on systems level trauma-informed models, but preliminary studies have shown promising outcomes regarding decreased suspensions and office discipline referrals (see Dorado, Martinez, McArthur, & Leibovitz, 2016; Stevens, 2012; Stevens, 2013). The school system has the potential to act as a protective factor against emotional and behavioral problems related to ECV, if the system is designed to respond appropriately to the needs of their students experiencing trauma. When considering systems level supports, a guiding theory is important to help strengthen service delivery.

Bioecological Systems Theory

Bioecological systems theory is a groundbreaking theory introduced by Urie Bronfenbrenner (1979) that helped to change the ways we understand children's development. He noted that "human development is a product of interaction between the growing human organism and its environment," (p. 16) and that the "developing person is not merely a tabula rasa on which the environment makes its impact, but as a growing dynamic entity that progressively moves into and restructures the milieu in which it resides" (Bronfenbrenner, 1979, p. 21). Bronfenbrenner's Bioecological Theory of Human Development has evolved since its inception to represent the multiple systems in which an individual impacts and is impacted throughout the course of development (Rosa & Tudge, 2013). The interaction between individuals and their environments is reciprocal and development results from the interaction between the individual and context, and the people within those contexts (Bronfenbrenner, 1979; Rosa & Tudge, 2013).

The microsystem is the most proximal setting in which a person is positioned; for example, a child's family and school are examples of microsystemic contexts. At this level, experiences in the classroom are an important part of a students' healthy development. This would include teacher-student and student-student interactions. If the teacher creates a strong classroom culture responsive to students' needs and reduces conflict, the student may be more likely to thrive in this type of environment. The mesosystem is the interaction between an individual's microsystems such as family and school or family and peers. For example, the quality of communication between teachers and caregivers is a component of the mesosystem. Stronger family and school

communication may produce more positive outcomes for students. The system in which the individual does not actively participate but is still influenced by, such as the demands of parents' employment (e.g., long hours, travel, or recently laid off), are represented in the exosystem. The macrosystem consists of institutions and those institutions' cultures, or subcultures, and overarching beliefs. A school system's values, norms, discipline policies, and available school resources would be part of this system. The chronosystem consists of changes that occur over the lifespan and can be both external (e.g., going to a new school) or internal (e.g., puberty). Additionally, events in time, such as the big financial loss in 2008-2009 can adversely impact students such increasing family stress due to job loss or homelessness (Bronfenbrenner, 1979; Rosa & Tudge, 2013).

Creating a trauma-informed system of care in the schools would filter through all levels of the system described above. Perhaps improving the microsystem, such as teacher-student interactions, and the macrosystem, such as adjusting school policy through implementation of programming that recognizes that students, their families, and the school personnel who work with them, may have experienced trauma either directly or vicariously. Implementing such a system could foster healthy child and adolescent development by increasing awareness of the impact of trauma and ways to reduce its negative effects on youth.

A trauma-informed approach is a system-wide delivery of trauma-specific interventions to individuals and communities through the integration of important principles into the culture of the institution (Keesler, 2014; Substance Abuse and Mental Health Service Administration [SAMHSA], 2014). SAMHSA (2014) created a trauma-informed framework with four basic elements: (1) realizing the impact of trauma on

people and organizations; (2) recognizing trauma symptoms; (3) responding to those affected; and (4) resisting re-traumatization of those involved. Additionally, principles regarding safety, trustworthiness and transparency, peer support, collaboration and mutuality, empowerment, and cultural responsiveness are integrated into the system-wide delivery (SAMHSA, 2014). Typically, this framework is incorporated into the school system as part of a multi-tiered systems of support (MTSS) model (Chafouleas, Johnson, Overstreet, & Santos, 2016; Keesler, 2014; Ridgard et al., 2015; Walkley & Cox, 2013). The recent inception of SAMHSA's trauma-informed framework and its integration into the school system calls attention to the need for additional research.

Rationale for the Study

Since children and adolescents who have suffered from a traumatic event are at a higher risk for academic, social, and emotional problems, schools can be an ideal context for mental health professionals, teachers, and staff to intervene to lessen the psychological impact of experiencing trauma and enhance the students' ability to learn in the classroom. Although there is evidence that teachers can act as a buffer, or protective factor, against negative outcomes for students (e.g., Troop-Gordon & Kopp, 2011), the relationship between teacher-student relationships and the role of the school as a buffer against the effects of ECV is less clear. However, there is research demonstrating that students exposed to community violence, who endorsed a stronger connection to school and greater levels of teacher support, tended to have lower ratings of psychological symptoms compared to those who felt less connected and supported (Ludwig & Warren, 2009). Additionally, youth living in urban communities and perceived their school climate as more positive, reported fewer internalizing and externalizing symptoms

(Hardaway, McLoyd, & Wood, 2012). Since ECV often occurs in urban, economically disadvantage neighborhoods, with majority being African-American or Hispanic/Latino, school-based services may be especially needed for underserved ethnic minority youth who often have limited access to mental health resources (Kataoka, Langley, Wong, Baweja, & Stein, 2012; Lyons, 2016; Ridgard et al., 2015). However, "trauma confronts schools with a serious dilemma: how to balance their primary mission of education with the reality that many students need help dealing with traumatic stress to attend regularly and engage in the learning process" (Ko et al., 2008, p. 398). More is being asked of K-12 public school teachers and their role is shifting from a traditional educator of academic skills to a more robust role, including educator, care giver, and mental health provider. In general, there is a lack of research on teachers' perceptions of students' suffering from trauma and interventions used to address posttraumatic symptoms (Alisic, 2012; Crosby, Day, Baroni, & Somers, 2015; Williams, Horvath, Wei, Van Dorn, & Johnson-Reid, 2007). Teachers and other school staff will not always know whether students have experienced trauma, and therefore, creating a system that is more responsive to the needs of students, families, and staff impacted by trauma may be the most effective approach to prevention and intervention.

Considering significant traumatic events (e.g., hurricane Katrina, 9-11 terrorist attacks), schools have created comprehensive crisis response plans and provided staff training to prepare for and respond to community-wide trauma. However, there is a lack of information regarding schools' preparedness and ability to respond to students' chronic exposure to community violence (Ridgard et al., 2015). By developing students' ability to cope with the negative effects of community violence, school engagement and

performance may be improved. Further, treating behaviors related to trauma as a mental health issue, rather than a disciplinary problem, is a social justice imperative (Ridgard et al., 2015). Typically, education systems attempt to diminish the effects of trauma on their students through crisis plans and crisis response teams following distinct crisis events, and teachers and staff go largely untrained on how to best work with students impacted by chronic trauma (Ko et al., 2008).

Systems change is important to not only effectively respond to students' and staffs' needs but may be necessary to help avoid liability for the impact of traumatic exposure. A lawsuit pending in Compton, California (Peter P. et al. v. Compton Unified School District, 2015) was filed on the behalf of five students and three teachers who maintain that the school did not do enough to address trauma exposure, including direct exposure and secondary traumatic stress. The plaintiffs requested that the school promptly train all adult staff in school-wide trauma-informed approaches. At the very least, this lawsuit highlights the need for evidence-based interventions for schools to utilize in response to students and staff experiencing complex trauma (Ahlers, Stanick, & Machek, 2016). Providing training in early interventions may help mitigate adverse outcomes due to children dealing with chronic trauma, such as living in violent communities (Jaycox, Kataoka, Stein, Langley, & Wong, 2012; Ko et al., 2008). Since most of current research of trauma-informed schools has focused on "uncontrolled and/or advocacy-driven program evaluation studies" that may have resulted in methodological flawed studies, more research is needed on trauma-informed approaches being implemented in the schools (Overstreet & Chafouleas, 2016, p. 4). Although several frameworks exist for trauma-informed schools (Bloom, 2007; Cole, Eisner, Gregory, &

Ristuccia, 2013; Wolpow, Johnson, Hertel, & Kincaid, 2009), additional research is needed to determine variables relevant to effective implementation and sustainability of trauma-informed care (TIC) in the schools, as well as teachers' and school staff's perceptions of TIC (Overstreet & Chafouleas, 2016).

Healthy Environments and Response to Trauma in the Schools (HEARTS)

Healthy Environments and Response to Trauma in the Schools (HEARTS; Dorado et al., 2016) is a school-wide intervention program that incorporates the SAMHSA framework to train teachers to respond to students impacted by trauma. The program is fairly new and has been implemented to some extent in relatively few urban school districts in the United States. HEARTS is designed to be delivered in a 3-tiered system of support model. At tier 1 (primary prevention or universal supports), the school system aims to deliver intervention and supports through a trauma-informed lens. All school staff are trained to provide trauma-sensitive practices, and address secondary trauma and burnout, and caregiver workshops to build skills and knowledge on how to cope with stress are provided. Students also receive instruction on coping with stress. At tier 2 (secondary intervention or selected supports), the school's discipline policies are reviewed to ensure appropriate procedures are taking place. Wellness support for teachers is provided, and more targeted interventions are delivered to at-risk students. At tier 3 (tertiary intervention or targeted/intensive supports), district-wide consultation occurs to improve mental health services, and limited crisis support is provided to staff impacted by trauma or secondary trauma. School-based, trauma-specific interventions at the individual, group, and family level are provided (Dorado et al., 2016). Since HEARTS is in its infancy, there is a paucity of evidence regarding its effectiveness.

Purpose of the Study

This current mixed methods study explored the relationship between trauma-informed training (i.e., HEARTS program), years of teaching experience, personal history of trauma, and attitudes related to trauma-informed care (TIC), as well as teachers' experiences working with students impacted by trauma. To aid in the understanding of these relationships and perceptions, a convergent mixed methods design was employed. Both quantitative and qualitative data were given equal weight, and after independent data collection and analysis, the data sets were merged for the purposes of interpretation. A quantitative measure to explain differences in teachers' attitudes related to trauma-informed care was used. Then individual interviews were conducted to explore teachers' perceptions of the trauma-informed training, system support, and implementation.

Research Questions

The following quantitative research question guided strand one of this study.

Q1 Does participation in the Healthy Environments and Response to Trauma in Schools (HEARTS) training explain the variance in teachers' attitudes related to trauma-informed care regardless of years of experience or personal history of trauma?

The following are broad qualitative research questions guided strand two of this study.

Q2 How do teachers perceive the impact of the HEARTS training on their perspectives and behaviors related to responding to students impacted by trauma?

Q3 What are teachers' perception of the support system they have and the barriers they face when implementing trauma-informed approaches and responding to students' behavior?

Limitations

Across the nation, schools are starting to implement trauma-informed approaches; however, empirical research is just beginning to emerge on the effectiveness and related variables of such approaches. Therefore, a mixed methods design was used due to the relatively new and understudied nature of trauma-informed schools. Moreover, there is currently only one psychometrically validated instrument measuring educators' perspectives on trauma-informed care, and the reliability and validity were found using a relatively homogenous sample, with only 165 of the participants working in education. The qualitative portion of the study helped to elucidate experiences that the quantitative measure does not capture. For example, the quantitative instrument asks closed-ended questions about attitudes, and the interviews provided specific examples of those attitudes in addition to expanding on the personal experiences with the trauma-informed training and intervention delivery, and perspectives on system level supports.

In the interest of accessibility and feasibility, participants were sampled in partnership with a community-based mental health organization and school leadership from a local school district where some of the staff have been trained in trauma-informed care. School-based mental health professionals and administrators were excluded from the sample. Unlike school psychologists, school social workers, and principals, teachers and school staff (e.g., paraprofessionals) have daily, continuous interactions with students, and unlike school-based mental health professionals, teachers likely have not had training recognizing trauma and providing interventions. Therefore, teachers are considered more on the frontlines of the system and may need additional training and support to address traumatized students, which are foci for this study. The school district

was specifically chosen not only for accessibility reasons, but because it has relevant characteristics to this study, including having schools with diverse student populations and schools situated in communities that have high rates of violence.

The use of convenience sampling, rather than random sampling, limited the generalizability and transferability of study results. In addition, the non-random selection of participants may threaten internal validity in that differences among participants may impact the quantitative results. For example, teachers took part in the trauma-informed training on a volunteer basis, either personally, or their principal nominated them. These volunteers may already have had more favorable attitudes towards trauma-informed care. The explanatory and exploratory nature of this study didn't permit causal conclusions. The researcher was not able to say that the differences in attitudes and perspectives related trauma-informed training was due to participation in the HEARTS training. These limitations were kept in mind throughout the implementation of this study and the interpretation of its results.

Definition of Terms

Acute Trauma: An abrupt, short-lived event that may have lasting psychological effects (e.g., natural disaster, school shooting) (Blaustein, 2013).

Chronic Trauma: When an individual endures aversive conditions overtime, such as homelessness, child maltreatment, domestic violence or constant exposure to community violence (Blaustein, 2013).

Complex Trauma: Exposure to multiple instances of threatening and devastating events (e.g., chronic trauma) (Blaustein, 2013; NCTSN, n.d.).

Compassion Satisfaction (CS): is "the ability to receive gratification from caregiving" (Simon, Pryce, Roff, & Klemmack, 2006, p. 6).

Exposure to Community Violence (ECV): experiencing, directly or indirectly, deliberate interpersonal acts of violence conducted in public places, including gang fights, shootings, drug activity, etc. The perpetrator and victim tend to not be intimately related (Mathews, Dempsey, & Overstreet, 2009; NCTSN, n.d.).

Posttraumatic Stress Disorder (PTSD): a mental health condition activated by experiencing, directly or indirectly, a traumatic event. Individuals who develop a sufficient number of posttraumatic stress symptoms (e.g., anxiety, flashbacks, aggression, avoidant behaviors, sense of hopelessness) and these symptoms markedly impact their daily functioning, may meet the diagnostic criteria for PTSD (APA, 2013).

Posttraumatic Stress Symptoms (PTSS): after directly experiencing, directly witnessing, or hearing about a traumatic event, individuals can develop posttraumatic stress symptoms (PTSS). These symptoms may include flashbacks, anxiety, uncontrollable thoughts about the event, aggression, etc. (APA, 2013).

Secondary Traumatic Stress (STS): also known as *compassion fatigue* (CF), can occur when those working with individuals exposed to trauma develop psychological symptoms, such as decreased energy, feelings of hopelessness; these symptoms can impair their functioning at work (Figley, 2001; Ray, Wong, White, & Heaslip, 2013).

Teacher Competence: is related to a broad mixture of behaviors such as knowledge and skills related to behavior management, academic instruction, and healthy child development (Heller et al., 2011).

Teacher Self-efficacy: "is a teacher's belief that she or he has the skills needed to bring about the desired outcome" (Heller et al., 2011, p. 148).

Trauma: Individual trauma is "an event, series of events, or set of circumstances, that is 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" (SAMHSA, 2014, p. 7).

Trauma-Informed Care (TIC): a system-wide approach to mental health service delivery. Organizations that are trauma-informed, implement a framework with four basic elements: (1) realizing the impact of trauma on people and organizations, (2) recognizing trauma symptoms; (3) responding to those affected; and (4) resisting re-traumatization of those involved. Additionally, principles regarding safety, trustworthiness and transparency, peer support, collaboration and mutuality, empowerment, and cultural responsiveness are integrated into the system-wide delivery (SAMHSA, 2014).

Vicarious Trauma (VT): VT can occur when an individual working with trauma survivors' experiences disruption of their cognitive schemas and worldview (Hydon, Wong, Langley, Stein, & Kataoka, 2015).

Children and adolescents' exposure to community violence, such as child maltreatment or witnessing violence, and the consequences from such exposure (e.g., anxiety, PTSD), needs to be addressed. One way to address this need is through the creation of trauma-informed systems of care. In order to reach a broad number of youth, schools are ideal locations to implement such systems. Implementing trauma-informed care in the schools, such as Healthy Environments and Response to Trauma in the Schools (HEARTS), can effectively address student and family needs while enhancing teachers' ability to teach and enabling students' readiness to learn.

CHAPTER II

REVIEW OF THE LITERATURE

A significant number of children and adolescents in the United States are exposed to community violence and impacted by trauma. Youth living in urban, low-income communities are highly susceptible to exposure to community violence (ECV) and are at risk for developing post-traumatic stress symptoms (PTSS) (Finkelhor et al., 2013; Ridgard et al., 2015). To attend to this problem, it is important to understand how ECV may manifest in the classroom, and how teachers and schools can best support and mitigate adverse outcomes for trauma-impacted students.

Exposure to Community Violence (ECV) and Trauma

Young people exposed to violence are likely to develop an array of internalizing and externalizing symptoms and disorders, such as anxiety and aggression (Benhorin & McMahon, 2008; Gaylord-Harden et al., 2011). For example, self-, peer-, and teacher-reports showed that ECV significantly predicted aggressive behavior in a sample of mostly African-American youth living in poverty (Benhorin & McMahon, 2008). Many children and adolescents exposed to community violence may utilize aggressive behaviors as a coping mechanism or as a way of adapting to the perilous neighborhoods in which they reside (Garbarino, Kostelny, & Dubrow, 1991).

Unfortunately, ECV has been found to negatively impact academic outcomes as well. In Maryland, elementary students who attended schools in more violent

neighborhoods, as measured by objective evaluations of violence in the community and student's self-reported perceptions of neighborhood, routinely scored lower on state standardized achievement tests compared to those attending schools in less violent neighborhoods (Milam, Furr-Holden, & Leaf, 2010). The researchers hypothesized that children and adolescents living in a constant state of fear and worry regarding their safety will struggle to concentrate on academic work (Milam et al., 2010). The study showed that as observational assessment of neighborhood violence increased, students' reading and math achievement scores on standardized tests decreased. This did not hold true after controlling for low-socioeconomic status or student perceptions of neighborhood safety. However, students who perceived their school and/or their way to school as less safe demonstrated lower academic achievement even after accounting for poverty compared to those who perceived their school and/or way to school as safe. Thus, student perceptions of safety at school and in their communities as well as the effects of poverty may have greater impact on academic achievement compared to objective measures of community violence (Milam et al., 2010). One of the emerging beliefs among researchers is that the resulting trauma from ECV may interfere with new learning and school functioning (e.g., Mathews et al., 2009).

Post-traumatic Stress Symptoms (PTSS) may include symptoms such as intrusive thoughts, increased arousal, trouble sleeping, and irritability (Mathews et al., 2009). As reported by McGill et al. (2014), community and family violence are correlated with PTSS and lower school functioning (e.g., poor attitude towards school and teachers, elevated sensation seeking). These findings built upon the earlier work of Mathews et al. (2009), who found that ECV was negatively related to school functioning (academic

performance and attendance) and PTSS mediated the relationship between GPA and ECV after controlling for poverty.

Manifestations of PTSS vary across the lifespan. In general, the younger individuals are at the time of the trauma, the greater their risk for developing PTSD (APA, 2013; Hamblen & Barnett, 2014; Ozer & Weinstein, 2004; Stein et al., 2003). Young children may report terrifying dreams nonspecific to the traumatic event, and before age six, they may express the trauma, either directly or symbolically, through play. Other potential symptoms in youth may include mood changes and avoidant behaviors such as restricted play in younger children and reduced participation in developmental opportunities (e.g., dating, driving) for adolescents. Adolescents with PTSS may believe they are socially undesirable, creating a strain on social relationships and resulting in disruptive behaviors at school, physical complaints, and/or aggression (APA, 2013; Brock & Cowan, 2004).

Youth residing in urban areas with ECV endorse high rates of somatic symptoms such as headaches, muscle pain, and stomach pain (Hart, Hodgkinson, Belcher, Hyman, & Cooley-Strickland, 2013; White & Farrell, 2006). Further, cumulative stress is evident as one study found that for every unit of growth on the school and peer stress scale, the likelihood of exhibiting somatic symptoms increased by nearly 25% (Hart et al., 2013). Ozer and Weinstein (2004) reported that high exposure to violence was related to a greater number of self-reported symptoms of PTS and depression for both young adolescent boys and girls. This finding held true even after controlling for daily hassles (i.e., non-traumatic stressors such as no place to play in the community, or not enough money to buy the clothes one wants). Additionally, the authors found that daily hassles in

conjunction with exposure to violence was the strongest predictor of symptom levels suggesting a cumulative risk of these two factors on adolescents' functioning (Ozer & Weinstein, 2004). Therefore, school environments that implement trauma-informed practices may help to decrease stress levels created by these daily hassles and ultimately reduce cumulative stress.

Experiencing complex trauma, such as maltreatment and/or ECV during childhood, can lead to difficulties with self-regulation (e.g., impulse control, emotion regulation) and interpersonal relationships (e.g., lack of trust in others). These experiences and related difficulties may result in becoming a "survival-focused child" (Cook et al., 2005; D'Andrea, Ford, Stolbach, Spinazzola, & van der Kolk, 2012; Greene, Grasso, & Ford, 2014, p. 20). Traumatic experiences stimulate the growth of neural connections that cater to the automatic stress response system and can dysregulate children, making them hypersensitive to perceived threats in the environment (Greene et al., 2014; Perry, Pollard, Blakley, Baker, & Vigilante, 1995). To survive chronically adverse conditions, children are more prone to rely on their survival brain to cope. Even when moving to a healthier and more supportive environment such as a school, children's coping strategies used for survival can become maladaptive in this environment, and thus, interfere with successful school functioning (Greene et al., 2014). In a sense, children become stuck in routines that they use to cope with trauma but are unable to learn more adaptive skills to navigate new environments. To help "shift the brain from survival to learning mode," interventions are needed (Greene et al., 2014, p. 29). There are environmental variables that contribute to PTSS; there are also systemic variables that can act as buffers, known as protective factors.

Protective Factors

Not all individuals who are exposed to violence acquire experience symptoms of post-traumatic stress or necessarily meet the diagnostic criteria for PTSD (Ozer & Weinstein, 2004). Ozer and Weinstein (2004) describe four main factors that may prevent the development of PTSS or PTSD in children and adolescents, particularly in regard to experiencing community violence: (1) social support, (2) opportunity for youth to discuss their experiences related to violence, (3) safer or more cohesive family environments, and (4) the school setting. However, several important factors must be recognized. First, more research is needed to understand the relationship between broad social support and psychological symptoms in youth exposed to community violence. In one study, adolescents attending an alternative high school who reported greater social support from adults and peers endorsed few PTSD symptoms (Berman, Kurtines, Silverman, & Serafini, 1996). More recently, it was reported that although family support was not related to fewer self-reported PTSS among suburban adolescents, perceived teacher support was a protective factor against PTSS for youth exposed to community violence (Löfving-Gupta, Lindblad, Stickley, Schwab-Stone, & Ruchkin, 2015). Although research regarding protective factors is limited as specific to ECV, it builds on a larger body of research related to the importance of supportive adult buffering against various risk factors (e.g., Fowler, Banks, Anhalt, Der, & Kalis, 2008; Pisani et al., 2013; Troop-Gordon & Kopp, 2011).

Second, since "a traumatic event will stay in "active" memory as intrusive recollections until it can be assimilated into an individual's existing schemas of the world and self," it is important to provide opportunities for children to discuss their thoughts

and feelings about the event so they can "receive alternative information" and interpret the event in a way that lessens psychological symptoms related to the trauma (American Academy of Child & Adolescent Psychiatry [AACAP], 2010; Jaycox et al., 2012; Ozer & Weinstein, 2004, p. 464). Third, it was found that safe home environments improve child functioning and can act as a buffer for children living in more violent neighborhoods. Fourth, although research has shown that perceptions of safety at school have shown a positive impact on educational and psychological outcomes, there is a gap in the research exploring children and adolescents' perceptions of school safety acting as a buffer against ECV (Ozer & Weinstein, 2004).

Talking about traumatic experiences is not only part of the treatment for PTSD (i.e., trauma narratives), but it can also be a protective factor against the development of the disorder. Ozer and Weinstein (2004) found that a significant number of adolescents perceived "others as uncomfortable or unwilling to talk about violent experiences" (p. 474). Therefore, intervention efforts should endorse communication between adults and adolescents regarding these experiences and foster coping strategies as well. According to Ozer and Weinstein (2004), teachers are currently underutilized, and it is important to include them in prevention and intervention efforts to support students who experience community violence. Additionally, it is essential to train teachers in active listening skills and educate them on how to recognize violence-related symptoms and make referrals to counselors or school psychologists when necessary (Jaycox et al., 2012; Ozer & Weinstein, 2004; SAMHSA, 2014).

Although psychological symptoms are related to violence exposure, research analyzing protective factors (e.g., social support and school connection) related to

mitigating effects of urban stress and ECV on the mental health of children and adolescents has not been sufficiently researched (Hart et al., 2013; Ludwig & Warren, 2009). Benhorin and McMahon (2008) found that teacher support may decrease aggressive behaviors in the classroom (as rated by teachers), because children and adolescents may be "more likely to confide in their teachers, seek support in times of need, and aspire to be like them" (p. 736). Interestingly, self- and peer-rated aggressive behavior was not associated with perceived teacher support. Benhorin and McMahon (2008) speculated that aggression in the classroom is less adaptive, but aggression in violent neighborhoods may be enlisted for protection, and this could account for the discrepancy. Further, students may be better able to appropriately adjust their behavior for the classroom if their environment is safe and supportive (Benhorin & McMahon, 2008). Teacher support and a strong connection to school may help buffer against the impact of ECV, but the relationship is unclear.

In an ethnically diverse sample of 175 adolescents attending urban public schools in the northeastern United States, Ludwig and Warren (2009) found that experiencing violence was significantly associated with increased internalizing and externalizing symptoms. Students who endorsed greater feelings of hope, stronger connection to school, and more teacher support, had lower ratings of psychological symptoms. These findings also showed students with more self-reported levels of hope experienced less psychological symptoms, even when exposed to violence, and feelings of hope remained high after violence exposure for students who endorsed greater perceived school connection and high teacher support (Ludwig & Warren, 2009). Teacher support and perceived school connection appeared to decrease the level of ECV for male students, but

not female students. This result conveys that strengthening school connection and increasing teacher support could decrease ECV for male students (Ludwig & Warren, 2009). Similarly, for a sample of urban youth living in impoverished and dangerous neighborhoods, Hardaway et al. (2012) found that when more positive perceptions of school climate were endorsed, fewer internalizing and externalizing symptoms were reported. However, these perceptions did not moderate the relationship between ECV and internalizing and externalizing behaviors.

Although the role of the school as a protective factor against aversive outcomes due to ECV is somewhat unclear, it is reasonable to suggest that schools could provide interventions to help protect against the full impact of ECV on the mental health of youth (Ludwig & Warren, 2009). Interventions such as trauma-informed care, which focuses, in part, on creating a safe environment and building positive student-teacher relationships may be an appropriate school-wide intervention. Moreover, behaviors demonstrated by students impacted by trauma pose a challenge to teachers and schools, and without adequate training and support, negative outcomes for children and staff may result.

Trauma Symptoms Manifested in the Classroom

Depending on individual and environmental level factors, the presentation of behaviors of students impacted by trauma may vary. Because of consistent and extensive interaction, educators are in a prime position to recognize students' behaviors that may be related to traumatic experiences and take steps to support these children to mitigate adverse outcomes (Bell, Limberg, & Robinson III, 2013; Chafouleas et al., 2016; Kataoka et al., 2012). It is important to keep in mind that reactions to traumatic experiences are unique to everyone. An experience may profoundly impact one child and

have no effect on another. Several variables influence the level of distress a person may experience such as those related to biology, environment, and level of support received (Bell et al., 2013). Moreover, different traumatic events may have unique behavioral manifestations. For example, "the child traumatized by rape may withdraw from physical contact, while the child traumatized by loss of a loved one may utilize physical closeness as a coping mechanism" (Bell et al., 2013, p. 141). Bell et al. (2013) contend that teachers do not necessarily need to be able to verify that a child has suffered a traumatic experience, but if they learn to notice a student's trauma symptoms, they can refer the child to appropriate services (Bell et al., 2013). Taking this one step further, the teacher can also respond to the student using trauma-informed practices (e.g., creating a safe environment, building trust between student and teacher, and empowering the student). In Table 1, Bell et al. (2013) outlined how symptoms from traumatic exposure might manifest into challenging behaviors in the classroom.

Table 1

Trauma Symptoms and Classroom Examples

Symptom Category	Symptoms	Classroom Examples
Physical	Recurring physical complaints, may be prompted by a similar occurrence	Repeatedly complaining of a stomachache, lightheadedness, headaches, or other sickness
	Hyper-vigilance/heightened startle reaction: an above normal state of alertness	Constantly looking around the room, checking behind oneself; may appear to jump or be startled at everyday noises
	Sleep disorders/recurring nightmares: sleeping too much or not enough	Consistently coming late to class, appearing exhausted or lethargic, resting head on desk repeatedly throughout the day
Behavioral	Social isolation: withdrawal from normal social network	Chooses to sit alone, does not talk to others during breaks, avoids social interactions
	Bids for attention: acting in a way to draw attention, through negative or positive actions	Suddenly becoming an overachiever or underachiever, acting out to draw attention
	Increased aggression	Yelling, becoming upset quickly, inability to stop aggression
Emotional	Difficulty regulating emotions/easily angered: emotions are not consistent or lack a logical flow	Mood swings, easily angered or irritated
	Stress	Late or not turning in assignments, easily overwhelmed by new projects
	Distrust	Unwilling to work with partners or in groups
Cognitive	Inability to focus	Fidgeting, frequently glancing around the room, not completing assignments
	Learning disabilities/poor skill development	Patterns of learning become apparent, accompanied by other trauma symptoms
	Changed attitudes about people in general, life, and the future	Expressions of how humanity is generally "bad," expectations that another trauma will soon follow, lack of planning for the future

Note. Reproduced, in part, with permission (Bell et al., 2013, p.141)

In fact, students who end up in more restrictive settings, such as detention centers or residential facilities, often have experienced traumatic events that contributed to their challenging behaviors at school. West, Day, Somers, and Baroni (2014) conducted focus groups with 39 court-involved adolescent females attending public school at a residential treatment facility. Students discussed how their behaviors were demonstrated at school and what experiences may have led to these behaviors. Students reported having emotions related to anger, with one student saying, "You already got the anger and the frustration and the stress and the pressure that build up inside you…" (p. 61). These angry emotions often resulted in aggressive acts at school in the form of verbal fights or aggressive posturing. Participants explained that some of these behaviors stemmed from outside environmental influences, such as watching negative behaviors modeled by peers and family members. Further, there were environmental triggers at school, such as "certain sounds, words, physical touch," and interpersonal interactions (West et al., 2014, p. 62). One participant explained, "Or scents. Anything that reminds you of the past," and another shared, "…we were in social studies class one day and we were just listening to songs—was something to help us write a poem or something like that—and just listening to this one verse in this song just brung back everything and I just put my head down on my desk and just bawled my eyes out" (p.62). These triggers, "…reminds you of a really hard time and it's hard to like come back and be able to focus on everything else" (p. 62). These findings suggest that trauma may manifest differently for different students, and this can be a challenge for teachers and schools to meet the unique needs of each individual.

This school used trauma-informed practices such as a space for students to go when they needed to calm down and talk to someone (West et al., 2014). Teachers working at this residential school for adolescent girls reported seeing the following challenging student behaviors related to trauma to "shutting down behaviors," such as "putting their heads down, sleeping in class, not doing assigned work, openly disengaging from class participation," internal distractions such as "being off-task and focused on things unrelated to school work" (Crosby et al., 2015, p. 350). In this type of context, teachers seemed to be much more aware of the connection between trauma and certain unexplained behaviors. However, in public schools, teachers might be more likely to understand challenging behavior through more traditional perspectives such as attempting to avoid work or gain attention.

Role of Educators

More and more is being asked of public school teachers, and their role has shifted dramatically, making it even more complex than it already was. Due to the relative absence of empirical research in the United States, and worldwide, regarding the role of a teacher as it relates to working with students affected by trauma, an international study was utilized to explore this point. Alisic (2012) used qualitative methods to explore the perspectives of 21 elementary school teachers' towards working with traumatized students. The author did not note if these teachers had received trauma-informed training, but it appeared that they had not. The teachers resided in the Netherlands and had an average of 10 years teaching experience. All participants had students who had traumatic experiences. The interview questions were "related to teachers' experiences with traumatized children, their strategies and feelings when working with these children

and their families, exchanges with colleagues, and information needs" (Alisic, 2012, p. 53). Teachers reported that their students' behavioral and emotional reactions after exposure to trauma (e.g., loss of parent, maltreatment, war, domestic violence) manifested in a variety of ways in the classroom including externalizing (e.g., screaming, crying excessively throwing things) and internalizing (e.g., withdrawing) behaviors. Themes related to teachers' roles—how to balance diverse needs, and a lack of knowledge and skills related to helping traumatized students—were gleaned from interviews (Alisic, 2012). "Several teachers struggled with their role and wondered at what point their tasks as a teacher ended and at what point those of a social worker or psychologist started," and there was the "impression that teaching was moving away from teaching academic skills toward playing a major role in children's social and emotional development" (Alisic, 2012, p.54). One teacher remarked, "Children are confronted with more and more adverse events these days, and with more extreme ones…I think teachers' task was more like proper teaching in earlier days, but that we're slowly growing into a caregiver's role" (Alisic, 2012, p. 54). Some teachers supported this new direction, while others would rather their role be confined to teaching academic skills. Moreover, teachers expressed a preference for more distinct and clearly defined roles so that each professional (e.g., school psychologist, teacher) can perform in the role related to their expertise (Alisic, 2012).

There are challenges in finding balance in meeting the needs of the group versus the needs of an individual student. Teachers believed that often, the impacted child demands so much one-on-one attention that this took time away from the other students (Alisic, 2012). Perhaps having a class-wide trauma-informed approach can help reduce

this time battle. Teachers shared that it was difficult to find a balance between addressing the trauma and focusing on "normal life" (Alisic, 2012, p. 55). Further, teachers expressed hesitation to talk about the trauma for fear of exacerbating or adding stress to child and family. Some teachers spoke of balance, and "stressed the importance of taking up normal routines and focusing on aspects of life other than the trauma; they did not want to play down the experience of the child either and tried to involve the class in an appropriate way" (Alisic, 2012, p. 55).

Even when teachers saw their role as providing psychological support to students who had experienced trauma, it was challenging for them to turn this view into action when confronted with daily duties of teaching (Alisic, 2012). Further, teachers' perspective on providing psychological supports to their students is impacted by their belief in their own competencies (Alisic, 2012; Kos, Richdale, & Hay, 2006). Alisic, Bus, Dulack, Pennings, and Splinter (2012) believe that "teachers do not need to become therapists, but they should have basic knowledge about traumatic stress and feel confident about working with children who have been exposed to trauma" (p. 100). Providing additional and adequate training may help teachers successfully face these complex demands. Alisic et al. (2012) suggest that when developing trauma informed practice in the school, start with informational materials that cover "how to facilitate coping when working with children in the classroom, how to recognize symptoms of adaptive and maladaptive coping, where to refer children and their families when specialized services are necessary, and how to take care of themselves under stressful conditions" (p. 100).

Teacher Perception of Student Behavior

Teachers tend to view the source of students' disruptive behavior in a variety of ways. Although some evidence is available, there is less research on how teachers view behavior of traumatized students, and in general, the causes (i.e., internal vs. external) teachers attribute to misbehavior. Some research, not specifically focusing on work with students affected by traumatic experiences, demonstrates that teachers often attribute students' problematic behavior (e.g., off-task behavior, noncompliance, physical aggression) to inadequate rules and limits at school, deficient communication between school and families, and use/abuse of social networks (Alter, Walker, & Landers, 2013); other teachers may be acutely aware of the impact trauma has on their students. In general, teachers seem to view students' misbehavior through a certain kind of lens that comes from basic training in classroom management and personal experiences. This becomes different when teachers adopt a trauma-informed lens and consider challenging behavior as a manifestation of possible trauma. For example, a teacher with more knowledge and experience working with traumatized students than the average teacher commented on a students' apathetic behavior. The teacher stated, "They have reached the point where they are just like 'this [traumatic experience] always happens to me'…they lose interest in everything else because of their experiences" (Crosby et al., 2015, p. 351). Teachers who are aware their students are dealing with trauma, yet lack the training to sufficiently intervene, may experience difficulties when interacting with and responding to these students.

Zetlin, MacLeod, and Kimm (2012) found that novice general education teachers reported challenges when working with students who were in foster care, a population

that often has a history of trauma. These students displayed "roller coaster" emotions and a range of externalizing (tantrums, hitting) and internalizing (withdrawal, depression) behaviors (Zetlin et al., 2012, p. 9). Teachers found that Mondays were often the worst due to a visit with or a missed visit with a biological parent. One teacher remarked that she felt like she was "walking on eggshells. Some days are good, some are bad especially when he had had contact with his mother." Another teacher mentioned that "these kids are on an emotional roller coaster ride. It certainly keeps them from being free to be educated" (Zetlin et al., 2012, p. 9 & 10). So, even though these teachers were primed to view these students' behaviors through a trauma-informed lens, they were still under-prepared to effectively navigate those behaviors. Perhaps teacher education and training are not keeping up with the trend and demands of the profession.

Additionally, in a study not specific to teachers working with traumatized students, a sample of 70 teachers, 38 of whom taught special education (SPED) and 32 who taught general education (GenEd) in PreK-12th grade schools in the southeastern United States, 43% and 24%, respectively, reported that their students demonstrated challenging behaviors. The "three most prevalent types of behavior for both groups were defiance and noncompliance, disruption, and socially inappropriate behavior" (Westling, 2010, p. 54). GenEd teachers found that the most difficult behaviors to handle were from students with no identified disabilities, those with specific learning disabilities, and those with ADHD. Half of the teachers believed students' problematic behavior was attributable to the student's personality. Over 80% believed behavior is learned, and nearly 100% believed student behavior can be improved. About three quarters of SPED teachers believed challenging behavior was attributable to a disability and/or originates in

the home or community, whereas only half of GenEd teachers attributed problematic behaviors to students' disability and 90% believed that these behaviors originated in the home or community (Westling, 2010). These results provide some conflicting information how teachers perceive student misbehavior. On one hand, they viewed the behavior as stemming from both an external resource (i.e., home and community, learned from others), while on the other hand, teachers also attributed the negative behavior to an internal factor (i.e., personality, disability) (Westling, 2010). This seems similar to the view that individual biology and environment interact to produce behavior. It seems that teachers tend to attribute causes of behavior to both external and internal factors, but more research is needed in this area.

Educators' Response to Challenging Student Behavior

Research conducted in the United States regarding teachers' response to challenging student behavior tends to focus on teacher delivered interventions (e.g., the Good Behavior Game) or teacher-focused, non-trauma informed interventions (e.g., consultation). The focus of this study is on teachers' natural or typical responses to students' behaviors in the classroom. As such, a broad range of studies were reviewed from both national and international sources to better understand teacher responses to students who are not known to have experienced trauma. Managing disruptive behavior in the classroom presents daily challenges for teachers who often receive very little training regarding behavior management, and almost no training in managing disruptive behavior as a manifestation of trauma and ECV. In fact, how teachers respond to students' behavior related to trauma is under researched, and thus, the evidence presented

below is mostly regarding teachers' responses to general student misbehavior and classroom management.

Many teachers focus on preventing behavior from occurring in the first place, and when that is not possible, using positive strategies to prevent behaviors from escalating. For example, in a study of elementary school teachers (*N*=97) in Melbourne, Australia (Clunies-Ross, Little, & Kienhuis, 2008), teachers reported employing proactive strategies (e.g., active listening, provide nurturance and support) more than reactive strategies (e.g., removing the child from the classroom, using lectures and threats). The most frequently used proactive strategy was "spending time and energy to help the child" and the reactive strategy was using rewards and punishment (Clunies-Ross et al., 2008, p. 700). Based on observations in the classroom, the authors found teachers provided more positive (e.g., 'Keep up the good work') than negative (e.g., 'Sit still while I am talking!') responses to student behavior. Interestingly, teachers were more likely to respond to academic behavior more positively and respond to social behavior more negatively. The mean observed positive responses to academic behaviors was nearly 44% of the time and only approximately 12% for social behaviors, and the mean negative responses for academic and social behaviors was approximately 9 and 35 percent respectively. There was no significant relationship found between reported use of proactive strategies and observed on-task behaviors for students, but the relationship was significant for reactive strategies and on-task behavior in that on-task behavior was reduced when reactive strategies were reportedly employed (Clunies-Ross et al., 2008). Based on this study, the merit of proactive strategies in managing misbehavior is unclear in that these strategies may not be entirely effective, yet they are not ineffective (Clunies-Ross et al., 2008).

At four diverse urban elementary schools in the Southeastern United States, Shook (2012) used semi-structured interviews and written observations by university supervisors during preservice teaching to evaluate 19 preservice teachers' inclination to use positive and proactive behavior management strategies in the classroom. The teachers reported using six strategies: "rules and routines, positive and negative reinforcement, punishment, referring the student elsewhere, instruction, and talking with students" (Shook, 2012, p. 131). Participants informed that they used instruction as a proactive strategy to keep students engaged and talking with students was a go-to strategy to address misbehavior. However, in the observation reports, these strategies were less often mentioned as being utilized, and rules/routines and positive reinforcement were the most frequently used strategies recorded in the observations (Shook, 2012).

Rules and routines was the main behavior management strategy used and the participants and observation reports, "indicated a reliance on proactive strategies when all goes well but a change to reactive strategies when problems occur" (Shook, 2012, p. 132). Just over half of the participants reported that they would not have altered how they addressed the misbehavior and they believe their strategies were effective. About a quarter of the preservice teachers believed they could have changed their approach but they were not sure how. Two participants were noted as saying, "They get me frustrated, and then I don't teach as well 'cause I'm annoyed," and "The behaviors were consistent no matter what I tried to do" (Shook, 2012, p. 133). Shook (2012) concluded that the preservice teachers appeared to have the knowledge and skills to address students' challenging behavior, but they did not adjust their approach when their response to misbehavior was ineffective. This lack of adjustment seems to be related to teacher's

lack of flexibility to employ alternate strategies to handle challenging behavior. It is unclear if this inflexibility is due to teacher inexperience, lack of skill in implementing practices, or another reason.

As might be expected, the context of the settings seems to play a role in the types of strategies selected. Westling (2010) found that the top three strategies most used by special education teachers in the sample were "identify triggers of behaviors," "reinforce desired behavior," and "use social reinforcement." Since special education classrooms tend to have fewer students in them, special education teachers may be able to look for the reasons underlying the behaviors. General education teachers reported using techniques such as "change classroom arrangements or conditions," and "reinforce desired behaviors" (p. 56) which would be more consistent with interventions in a larger classroom setting with more students. Sending students to the office, using time-out, or ignoring behavior were the least endorsed strategies. Only 37% of GenEd teachers "identify triggers of behaviors," 7% "address out-of-classroom conditions," and 39% change "interactions with students" to handle challenging behavior (Westling, 2010, p. 56).

Teachers may lack the skills to involve students with behavior problems in their classroom and not understand that making use of proactive strategies may help mitigate these problem behaviors while relying on reactive or punitive strategies likely increases their occurrence (Barton-Arwood, Morrow, Lane, & Jolivette, 2005; Lannie & McCurdy, 2007; Niesyn, 2009; Shook, 2012; Stormont & Reinke, 2009). Teachers new to the profession tend to rely on reactive strategies when facing students' misbehavior (Shook, 2012; Wehby, Lane, & Falk, 2003). There is a large amount of research regarding

changes in instruction and curriculum to address misbehavior in the classroom (see Barton-Arwood et al., 2005; Lannie & McCurdy, 2007; Niesyn, 2009; Shook, 2012), but less research is available regarding teachers' use of trauma-informed strategies to address problematic behavior. Through a meta-analysis, not specific to students affected by trauma, Marzano, Marzano, and Pickering (2003) found that positive student-teacher relationships decreased student misbehavior by just over 30%. Relationship building is a key component of trauma-informed approaches (SAMHSA, 2014). Unfortunately, teachers may use ineffective methods to attend to disruptive behavior (Shook, 2012); Tillery, Varjas, Meyers, and Collins (2009) found that teachers tended to have more negative interactions with students displaying misbehavior. Typically, these teachers are not viewing student behavior through a trauma-informed lens, and therefore, they may be using ineffective strategies to address challenging behavior.

Teacher Self-Efficacy and Competence

Perceived self-efficacy may indicate a person's functioning in a particular area. Teacher self-efficacy "is a teacher's belief that she or he has the skills needed to bring about the desired outcome," and teacher competence is related to a broad mixture of behaviors such as knowledge and skills related to behavior management, academic instruction, and healthy child development (Heller et al., 2011, p. 148). Albert Bandura (1993) explains that perceived self-efficacy has influence over four major processes: (a) cognitive, (b) motivational, (c) affective, and (d) selection. The first three are discussed because of their relevance to this study. Bandura reviewed several beliefs and constructs related to cognitive processes. First, goal setting, the stronger people's perceived self-efficacy, the higher likelihood they will set challenging goals and have a stronger

commitment to complete each goal. Second, having a strong sense of self-efficacy allows a person to silence self-doubt and visualize success. Third, strong self-efficacy also enables people to anticipate events and deliberately plan how to manage the impact of these events on their lives. Fourth, a high sense of self-efficacy leads to the cognition of construed ability. It is possible that the stronger belief people have in their abilities, the more confidence and higher sense of self-efficacy they can have. Lastly, perceived controllability is the extent to which a person perceives the environment as controllable. A person who believes that they can influence their environment may have an increased ability to be creative and persevere in challenging environments (Bandura, 1993).

Regarding motivation, motivation revolves around the expectation that a certain outcome and its value is caused by a behavior. For example, highly efficacious people attribute their failures to a lack of personal effort. According to Bandura, affective processes can be an emotional mediator of self-efficacy beliefs. For instance, a low belief in one's own capabilities can lead to high stress, depression, and anxiety when faced with challenging situations and a person with a high sense of efficacy can more easily cope with obstacles (Bandura, 1993). Heller et al. (2011) found that teachers who participated in a state-wide mental health consultation (MHC) model, endorsed increased competence and self-efficacy as it related to supporting their students' healthy socioemotional development. MHC supplied teachers with training in key areas including establishing positive relationships, addressing challenging behaviors, and creating supportive environments, as well as cognitive behavioral treatments for traumatized students (Heller et al., 2011).

Although research has shown that schools are the best place to reach large numbers of students to provide mental health services, teachers often lack training on how to best educate children impacted by trauma (Chafouleas et al., 2016; Ko et al., 2008; Little & Akin-Little, 2013). This lack of training may impact teachers' sense of self-efficacy. Due to the significant time spent with children daily, teachers are in a prime position to recognize changes in student behavior, identify possible impediments to recovery, and provide classroom interventions that may diminish negative psychological responses to trauma and promote recovery (Alisic, 2012; Baum, Rotter, Reidler, & Brom, 2009). Managing difficult student behavior in the classroom can be a challenge for teachers, particularly for preservice and novice teachers (Shook, 2012). Many teachers leave the profession within the first year (20%), and within the first five years (42%) of entering the profession, often due to issues with student misbehavior; half of novice teachers working in urban schools reported leaving teaching within the first five years because of student behavior problems (McKinney, Campbell-Whately, & Kea, 2005; Voke, 2002). A majority of special and general education teachers "agreed or strongly agreed that they had increased ability to deal with most challenging behaviors since teaching," but only a quarter of GenEd teachers believed that they had adequate pre- and in-service training to manage most challenging behavior (Westling, 2010, p. 55). So, it seems that there may be a trial and error learning process to behavior management. Perhaps providing specific training, such as trauma-informed care, can help teachers be more efficient in navigating the complexities of student behavior.

In a study, not specifically focused on working with traumatized students, of teachers' perceptions related to student behavior, nearly two thirds of general education

teachers believed that "challenging behavior caused them to be less effective teachers," and nearly half agreed or strongly agreed with the statement that students' misbehaviors have made them "think about quitting" (Westling, 2010, p. 56). Based on the Netherlands sample of 21 elementary school teachers (Alisic, 2012), it seems that the participants were aware that their students had a need but perhaps lacked the skills to address these needs. The participants expressed that they did not feel "sufficiently competent to solve the issues," and Alisic reported that their "narratives were dominated by doubts" (Alisic, 2012, p. 55). A small number of experienced teachers shared that their experience has helped them learn to address the needs of their students, but desired more trauma-focused training, because "learning through being thrown into the deep end was "not the best way" to acquire the necessary skills" (Alisic, 2012, p. 55). Overall, there is a need for more training, so teachers can gain knowledge and skills (e.g., how to talk about a traumatic event, how to create a safe environment allowing for emotional expression, how to distinguish between typical and atypical reactions that require referral to more targeted services) to work with students impacted by trauma (Alisic, 2012).

Because talking with the student is a preferred behavior management strategy among typical teachers (see Shook, 2012), it seems preservice teachers are inclined to use relationships as a means to address student misbehavior. Although the content of these discussions was talks was not provided, it seems teachers want to engage in a dialogue with students, and perhaps trauma-informed training can provide them with approaches to make these teacher-student conversations meaningful and effective. Teachers tended not to use evidence-based strategies, such as applied behavior analysis or positive behavior support, to address challenging behavior. This finding suggests that teachers may lack

knowledge related to the importance or usefulness of such strategies; they have the knowledge, but lack the skill to implement, or there are additional barriers to implementation (Westling, 2010, p. 59). Perhaps providing teachers the knowledge about trauma-informed practices as well as trainings that help teachers effectively implementing practices in the classroom is needed.

In a nationally represented sample in the Netherlands, 765 teachers with an average of 18.4 years of experience, completed questionnaires about the degree of difficulty they have supporting children in the schools who have been impacted by trauma (Alisic et al., 2012). Of these teachers, close to 90% had experience working directly with students exposed to trauma in the last three years, and just under 10% had participated in a training related to supporting children affected by trauma. Many teachers reported difficulty understanding and balancing their role as a "teacher of academic skills versus mental health care provider" (Alisic et al., 2012, p. 100). One in five participants reported experiencing significant challenges in working with students affected by trauma, including having a lack of knowledge and skills. They found that teacher competence was lacking; for example, nearly two thirds of teachers they sampled had trouble knowing when a student's symptoms indicated a need for mental health care, and about half did not know where to get their questions answered about traumatic stress symptoms (Alisic et al., 2012). In their recommendations for future research, Alisic et al. (2012) suggested it was important to consider relevant variables related to teachers' difficulties, such as personal traumatic history and the degree of support they receive from colleagues. This study raises the interesting question: how do teachers balance their responsibility to teach academic skills with that of providing mental health support in the

classroom? There is an added challenge for teachers of recognizing potential behaviors and symptoms related to traumatic stress without knowing if the child has been exposed to trauma. When teachers work with students exposed to violence yet lack the knowledge and skill to address these students' challenging behavior in the classroom, teachers can be negatively impacted cognitively, emotionally, and behaviorally.

Emotional and Behavioral Impact on Educators

Teachers who work closely with children and adolescents affected by trauma have the potential to suffer negative effects as well. This is known as compassion fatigue (CF), or Secondary Traumatic Stress (STS); these two terms are often used interchangeably in the literature (Hydon et al., 2015). According to Devilly, Wright, and Varker (2009), there is disagreement regarding the construct of STS as being distinct from burnout as well as uncertainty about prevalence rates of STS among mental health professionals. Some researchers view compassion fatigue as decreased energy and impaired functioning when working with traumatized youth which can lead to burnout, feelings of hopelessness, and decreased work effectiveness (Figley, 2001; Ray et al., 2013). Figley, director of Tulane University's Traumatology Institute, defined STS as the emotional and behavioral consequences of being aware of traumatic experiences of a close other and the stress that comes with a desire to help this person (as cited in Hydon et al., 2015). Hydon et al. (2015) view STS as having additional associated elements separate from compassion fatigue: vicarious trauma (VT) and burnout. VT can occur when an individual working with trauma survivors experience disruption of their cognitive schemas and worldview. STS tends to focus on the behavioral and emotional changes, where VT emphasizes the cognitive component. Burnout is when an individual

experiences constant work-related stress that can lead to exhaustion and reduced job satisfaction among other things (Hydon et al., 2015). Although often used synonymously in the literature, CF and STS are complex constructs that need additional research. It is fair to say that these constructs have evolved over time to refer to cognitive-behavioral-emotional changes when working with traumatized populations, and STS and CF are often associated with stress, burnout, and work performance (see Bride, Radey, & Figley, 2007; Craig & Sprang, 2010).

Much of the empirical research regarding CF, CS, and STS relates to non-school-based mental health professionals work with trauma survivors. Ray et al. (2013) analyzed compassion fatigue (CF), compassion satisfaction (CS), and person–job match in six areas of work life (e.g., workload, control, rewards, community, fairness, and values) to determine if these three areas impacted burnout rates in front line mental health care professionals working with individuals who had experienced trauma. Compassion satisfaction is "the ability to receive gratification from caregiving" (Simon et al., 2006, p. 6). Individuals who reported higher levels of CS, higher levels of person-job match in six areas of work life, and lower levels of CF were less likely to experience burnout (Ray et al., 2013). They also reported that individuals receiving services from professionals affected by compassion fatigue noted lower levels of satisfaction with the care they were provided. This suggests that the impact of CF and the potential for burnout does not only directly affect the provider of the services, but also the individual receiving the services (Ray et al., 2013). The importance of this and other studies can be applied to individuals working within a school setting. In a school setting, these results suggest teachers may be less effective in managing class-wide behavior, delivering appropriate academic

instruction, and creating an overall sense of safety in the classroom when impacted by compassion fatigue. Steele (2015) maintains that educating school personnel about compassion fatigue and self-care interventions can be helpful in preventing and alleviating the effects CF.

Using a nationally represented sample of social workers and psychologists working with individuals impacted by trauma, Craig and Sprang (2010) investigated the professionals' responses to their work such as burnout, compassion fatigue, and compassion satisfaction. They found that younger and less experienced providers and those with no specific trauma training reported greater levels of burnout, whereas those with more clinical experience endorsed greater levels of compassion satisfaction. The greater number of clients with PTSD the provider worked with also increased the likelihood of CF and burnout. Interestingly, their results showed the employment of evidence-based practices, significantly decreased CF and burnout, and increased CS. The researchers suggested that "maturity and professional experience" may act as a protective factor to the aversive effects of working with traumatized populations (Craig & Sprang, 2010, p. 335). Providing trauma-informed training to teachers and equipping them with evidence-based skills to address students affected by trauma, may mitigate the effects of burnout and CF and foster feelings of compassion satisfaction.

One study that focused on educators working with traumatized students found that many teachers reported that it was a challenge not to become overinvolved emotionally with their students (Alisic et al., 2012). No prior trauma-informed training was indicated for these elementary school teachers. Teachers expressed difficulty balancing "between being committed to the wellbeing of a child and keeping enough distance to avoid too

strong an emotional involvement," with one teacher noting "if I could just take them home in my arms. Because you want them to have a much better life…I take that with me. It's that feeling of powerlessness and sometimes of not knowing which steps to take exactly" (Alisic, 2012, p. 56). More experienced teachers said, that with time, they have become better at managing their emotions. Teachers who had a personal history of trauma shared that it was overwhelming to work with traumatized students while others said, that although it was difficult, they were also motivated to support these students (Alisic, 2012). These teachers seem to be viewing their students through a trauma-informed lens, yet without adequate training and skills to intervene, working with these students can be challenging and exhausting.

On the other hand, educators with trauma-informed training and more experience working with traumatized students seem to have better developed skills to care for their own needs while also responding to their students' needs. For instance, one individual teaching at a residential school said, "…more times than not, teachers are nurturers at heart. We're nurturers, we're lovable, we're caring, we're empathetic…so you have to have that balance where, 'OK, I can listen to your problems, maybe give you some advice about it, but not take everything on' because it's emotionally draining" (Crosby et al., 2015, p. 351). Although not specifically focused on teachers working with students impacted by trauma, Westling (2010) found that most teachers did not feel adequately supported in dealing with difficult student behavior. Westling (2010) discovered that quality pre- and in-service training lead to greater confidence in teachers' ability to address challenging behavior, and these teachers reported using more strategies in the classroom. Studies have shown that trauma specific trainings, use of evidence-based

interventions, and increased system-level support, can decrease CF and burnout for mental health providers working with traumatized populations, and help teachers respond effectively when working with students who have experienced trauma. Intervening at the systems level in schools, by providing trauma-informed training to teachers, may be an effective way to support teachers in their work with youth exposed to trauma and improve outcomes for students and school staff.

Trauma-Informed Approach

"There is hardly a child who crosses the threshold of a school who does not carry with them a reservoir of trauma. Whether this pain is the size of a pencil case, knapsack, or duffle bag, the odds are that some degree of trauma is present and that it hurts" (Paccione-Dyszlewski, 2016, p. 8). Traditionally, support for children impacted by trauma has been delivered in the form of individual or group level cognitive behavioral interventions. The most thoroughly studied treatments for PTSS in children and adolescence has been cognitive behavioral therapy (CBT) approaches (Kataoka et al., 2012). Trauma Focused-Cognitive Behavioral Therapy (TF-CBT; Cohen et al., 2010) is an empirically supported treatment of childhood PTSD (AACAP, 2010). The TF-CBT components can be described using the PRACTICE acronym: psychoeducation; parenting skills; relaxation skills; affective modulation; cognitive coping and processing; trauma narrative; in vivo mastery of trauma reminders; conjoint child-parent sessions; and enhancing future safety and development (AACAP, 2010).

Cognitive Behavioral Intervention for Trauma in the Schools (CBITS)

A more commonly used trauma-informed treatment is Cognitive Behavioral Intervention for Trauma in the Schools (CBITS; Jaycox, 2004), a well-researched, early

intervention, CBT treatment program for childhood PTSS. CBITS is typically delivered in small group format (AACAP, 2010; Jaycox et al., 2012) and involves screening of students for ECV to assess need; when appropriate, students are then placed in intervention groups. CBITS is unique because it provides a teacher component to enhance teacher knowledge about the possible influences traumatic experiences have on students' behavior and learning in the classroom (AACAP, 2010; Jaycox, et al., 2012). Information is provided to teachers about typical reactions to trauma and strategies for working with students impacted by trauma (Jaycox et al., 2012). A recent adaptation to CBITS (see Jaycox et al., 2009), involves more deliberate training, rather than merely psychoeducation, for teachers to incorporate strategies in their classroom. For example, using trauma narratives, students tell their experiences and these experiences are put into context in classroom exercises (AACAP, 2010; Jaycox et al., 2012).

Stein et al. (2003) conducted a randomized control trial to assess the short-term effectiveness of CBITS. The participants were sixth-grade students from two middle schools in Los Angeles who had substantial exposure to violence and had symptoms of PTSD in the clinical range. The sample consisted of 126 students divided into two groups: the early intervention group (n=61) and the delayed intervention group (n=65) whom received the intervention 3-months following the first group. There were 5-8 students in each group and 10 sessions of CBITS were given. The group attended one session a week during nonacademic periods (e.g., study hall) and individual sessions were conducted between sessions two and six. The results showed, that at the 3-month assessment, the early intervention group had significantly fewer self-reported symptoms of post-traumatic stress and depression and higher parent reported psychosocial

functioning than the delayed intervention group. Furthermore, after receiving treatment, the delayed intervention group showed similar progress; at the six-month follow-up, both groups showed similar levels of PTSS, depression, and psychosocial dysfunction. However, there was no difference between the two groups with regards to teacher reports of classroom behavior. The author hypothesized that this could be because the improvement of PTSS did not translate to the classroom; there was a delay of generalization to the classroom, or the teachers were just more conscious of the disruptive behaviors of the students rather than their symptoms of post-traumatic stress (Stein et al., 2003). Perhaps, a decrease in PTSS did not translate to a change in classroom behavior because teachers needed more explicit training in how to create an environment and interact with these students in a manner that would be conducive in not only reducing PTSS, but also improving appropriate classroom behaviors. Systems-level trauma-informed intervention could be one way to accomplish this.

During focus groups investigating the implementation of the Bounce Back Program, a component of CBITS, teachers voiced a need to improve teachers' awareness about the manifestations of trauma in the classroom. Additionally, a main concern of the teachers was the logistics of the program. Students participating in the 60-minute, weekly, small-group intervention, were often the same students pulled-out of the classroom to receive additional supports, such as for academics. Finally, teachers expressed interest when implementing an intervention, that it should be part of already established school programs (Langley, Santiago, Rodríguez, & Zelaya, 2013). Interruption to student learning is a legitimate concern from teachers, as is having to implement a stand-alone intervention to respond to students' trauma. This makes the

case for implementing a system-wide intervention that is preventive in nature to reduce the number of students in need of more targeted support that requires pull-out services. A universal trauma-informed intervention can also be incorporated into other interventions in place, such as positive behavioral supports.

A Universal Approach

Outside of specific group interventions, there are more universal approaches that can create a school environment that is more supportive of youth and families who have experienced trauma. Similar to SAMHSA's model, trauma therapy offers a framework for providing trauma-informed services. "Trauma therapy is often characterized by Herman's three stages (1997): 1) establishing safety, 2) remembering and mourning the trauma, and 3) connecting with others" (as cited in Bell et al., 2013, p. 143). Teachers can be involved in each of these stages to help promote recovery. For example, maintaining confidentiality (stage 1), demonstrating flexibility when child's emotions may be heightened (stage 2), and facilitating peer bonding opportunities (stage 3). At the school-wide level, administrators can help foster a climate of safety, implement school-wide trauma interventions, and create teams to provide treatments for traumatized students (Bell, et al., 2013).

Murray, Cohen, and Mannarino (2013), described four strategies frequently and efficaciously employed when working with youth who experience ongoing trauma. The first strategy is to prioritize safety. When youth live in violent communities, it may be helpful to have them and their families create a map of the neighborhood to identify the safe and unsafe places, as well as alternative and safer routes the child may take, such as from home to school or school to a community center (Murray et al., 2013). The second

strategy is enhancing engagement. By involving helpful adults, the child's resilience and safety improves which reduces risk and danger. The third strategy is helping the youth distinguish between real danger and a trauma reminder. Youth who experience ongoing trauma are often in a continuous state of hyperarousal. This hypervigilance can diminish the child's protective capabilities, so by creating a trauma narrative, the child can develop an ability to recognize real danger vs. overgeneralized reminders and learn coping skills specific to each situation. The fourth and final strategy is providing advocacy, which may include advocating for children and adolescents to receive needed community services that enhance safety and well-being (Murray et al., 2013). Schools can provide a safe and nurturing environment and surround students with helpful and caring adults that provide evidence-based, trauma-informed interventions.

Trauma-Informed Framework

A trauma-informed framework is an approach to mental health service delivery which provides evidenced-based interventions to individuals exposed to traumatic events (U. S. Department of Health and Human Services, 2001). A trauma-informed approach not only includes trauma-specific interventions (e.g., assessment, treatment, etc.), but it aims to integrate vital principles of trauma-informed care into an institution's culture (Keesler, 2014; SAMHSA, 2014). The following four elements are included in an effective trauma-informed framework (SAMHSA, 2014). First, individuals in the organization have a fundamental realization of the impact trauma has on individuals, families, communities and the organization itself, and they have an understanding how to support the affected individual in the healing process. Second, by having a basic knowledge and understanding of trauma, adults who are part of the system

can recognize symptoms related to trauma and refer these individuals to the necessary services. Third, the organization responds to their population affected by trauma by integrating the key principles (discussed below) of the trauma-informed approach into policies and professional development. The system also takes a universally preventive approach in responding to trauma exposure. Fourth, the organization aims to resist re-traumatization of all parties by recognizing how certain practices (e.g., placing a child with a history of neglect in a seclusion room) may elicit distressing memories for students with trauma histories (SAMHSA, 2014). This framework can be applied to various types of organizations including community mental health centers, hospitals, and schools.

In addition to the four components of the trauma-informed framework, SAMHSA (2014) outlines six essential principles (safety, trustworthiness/transparency, peer support, collaboration and mutuality, empowerment, and cultural issues) of a trauma-informed approach. Schools can create a safe and nurturing environment though school-wide trauma-informed training that teaches staff to interact with students in a warm and caring way. Furthermore, culturally responsive and proactive, rather than reactive practices, regarding prevention, intervention, and discipline can be integrated into school policies. At the universal (tier 1) level, schools can make "systematic changes to school policies, practices, and procedures" by incorporating the four aspects of trauma-unformed care (i.e., realize, recognize, respond, and resist re-traumatization) so as to bring about effective change to the school's culture and response to children and adolescents exposed to trauma (Ridgard et al., 2015, p. 12). Additionally, allowing meaningful collaboration among families, students, teachers, and staff can cultivate trust and empower individuals

to take part in the healing process. There are several trauma-informed trainings that incorporate, to varying degrees, the components and principles of SAMHSA's framework.

Trauma-Informed Care (TIC)

Subsumed within this trauma-informed framework, is a more specific approach to service delivery known as trauma-informed care (TIC). TIC is a more recent approach to supporting youth in the school setting who have been impacted by trauma is through the implementation of trauma-informed care (TIC) practices. The evidence-base for trauma-informed approaches is just starting to build. TIC requires individuals to look at behavior through a trauma-informed lens, which means ecological influences on behavior are considered (Chafouleas et al., 2016). Key knowledge and skill areas related to TIC are understanding the "prevalence and impact with a focus on neurobiological impact of chronic trauma exposure, de-escalation strategies to avoid re-traumatization of students, and staff self-care, with a focus on vicarious traumatization (Chafouleas et al., 2016, p. 154-55). TIC can thrive if the "layered complexities" (e.g., school resource capacities) related to implementation are identified and successfully addressed (Chafouleas et al., 2016, p. 145). Therefore, TIC is intended to be another layer of service delivery as part of multi-tiered systems of support (MTSS) rather than an isolated intervention to be implemented (Chafouleas et al., 2016; Keesler, 2014; Ridgard et al., 2015; Walkley & Cox, 2013). One vital component of MTSS is utilizing evidence-based practices to provide supports to the student population (Sugai & Horner, 2009). Trauma-informed care has been implemented through different programs in community-based organizations and educational settings.

Trauma-Informed Training

Some of the recent school-based trauma-informed programs found in the literature that have a teacher or staff training element include the Sanctuary Model, Risking Connection, and school-wide CBITS; however, the empirical base for TIC programs is just starting to accumulate. In uncontrolled program evaluation studies of TIC programs, researchers have found at least a 30% decrease in school suspensions and office discipline referrals (Dorado et al., 2016; Stevens, 2012; Stevens, 2013). At a residential facility working with adolescent girls, 27 teachers participated in a trauma-informed training called "The Heart of Learning and Teaching: Compassion, Resiliency, and Academic Success" (HLT; Crosby et al., 2015). Following the training, teachers felt capable in creating positive relationships with students and addressing externalizing behaviors (e.g., anger, defiance, aggression). One teacher shared, "I can verbally de-escalate them, and I can get in a non-threatening posture towards them… 'I'm not trying to hurt you, I just want to get the issue resolved'" (Crosby et al., 2015, p. 350). After receiving trauma-informed training, teachers learned to adjust their instructional methods to be more accommodating for their students (Crosby et al., 2015). This highlights the need for flexibility in the classroom to meet the needs of students. One teacher remarked, "So it [the training] allowed me to feel more comfortable taking time out to build relationships…instead of just coming in and saying, 'OK we're going to learn, learn, learn today'" (Crosby et al., 2015, p. 352). The training improved teachers' perspectives on student behaviors and what may be a manifestation of trauma rather than willing defiance. "I learned that the trauma that our students have experienced has an effect on their learning. And you have to be conscious of that while teaching, it has to be trauma

informed, it has to be gentle teaching …They [students] might not be able to articulate why they're acting like that…but through these professional developments we see behind the scenes a little more. They might not be able to say, 'I'm acting like that because somebody beat me up last year.'" (Crosby et al., 2015, p. 352). Following the training, teachers communicated a need for additional guidance in taking what they learned and putting it into action in the classroom (Crosby et al., 2015).

The Healthy Environments and Response to Trauma in the Schools (HEARTS; Dorado et al., 2016) is a school-wide intervention program that incorporates the SAMHSA framework to train teachers to respond to students impacted by trauma. The program was implemented in San Francisco Unified School District (SFUSD); one study found a significant increase in school staff's knowledge of trauma and its effects after participating in HEARTS. This change was measured using a retrospective pre- and post-test measure. After a year of implementation, the teachers were asked to report their level of knowledge about trauma before HEARTS was implemented at the same time they were asked to report their current level of knowledge (Dorado et al., 2016). This likely made it difficult for teachers to accurately report their level of understanding after a year of engaging in the program.

An unpublished, preliminary program evaluation of the implementation of the HEARTS program at four schools in a diverse urban school district, found the school district had a 67% decrease in disciplinary actions, a significant increase in teachers' knowledge about trauma and its effects, increased knowledge of strategies to use in the classroom, and improved awareness of burnout and self-care strategies after two years of implementation (Kailin, McArthur, & O'Muireadhaigh, n.d.). HEARTS program

evaluation data from 2016-2017, presented at a conference, found similar results with significant decrease in discipline referrals and suspensions at schools with HEARTS trained teachers and staff. The data also revealed a decrease in chronic student absenteeism over the years of TIC implementation. The end of the year survey completed by teachers and school staff from 10 HEARTS schools found teachers had significant knowledge about trauma and its impact on students as well as knowledge regarding burnout and vicarious trauma. The program evaluation also found that teachers demonstrated a significant understanding of trauma-sensitive strategies and employed such strategies in the classroom (Brennan, McArthur, & Stiles, 2017). Additional research on the efficacy of the HEARTS program is needed, as is more information related to individual and system level variables that contribute to successful implementation of trauma-informed care in the schools.

Exposure to community violence is a reality for many young people, particularly those residing in urban, low-income areas, and schools are being faced with the immense task of not only supporting these youth but mitigating the adverse impact of ECV. Trauma-informed interventions, such as CBITS and HEARTS, have shown promising results in helping traumatized students. However, more research is needed to investigate how to best serve students affected by trauma and support schools and teachers in their intervention efforts.

CHAPTER III

METHODOLOGY

Mixed methods research joins ideas, methods, and designs from quantitative and qualitative approaches which permits the researcher to collect a robust body of evidence related to a problem (Creswell & Plano Clark, 2011). Since "individuals tend to solve problems using both numbers and words," mixed methods design may be ideal to answer some types of research questions (Creswell & Plano Clark, 2011, p. 13). For example, research problems that need to involve more than one data source to sufficiently address the research question, and/or to explain one data source by using a second source, are good candidates for mixed methods design. Further, using qualitative inquiry can give voice to quantitative results and provide context and personal perspectives while quantitative results can provide a more objective interpretation of relevant variables (Creswell & Plano Clark, 2011).

Mixed Methods

This study used a convergent mixed methods design to address the research questions (see Figure 1). In mixed methods, parts or phases of the study (i.e., quantitative and qualitative) are referred to as strands (Creswell & Plano Clark, 2011). This design was most appropriate for this study because both strands, quantitative and qualitative, were treated with equal importance, analyzed separately, and then these data were brought together for interpretation. The data collection phases occurred simultaneously.

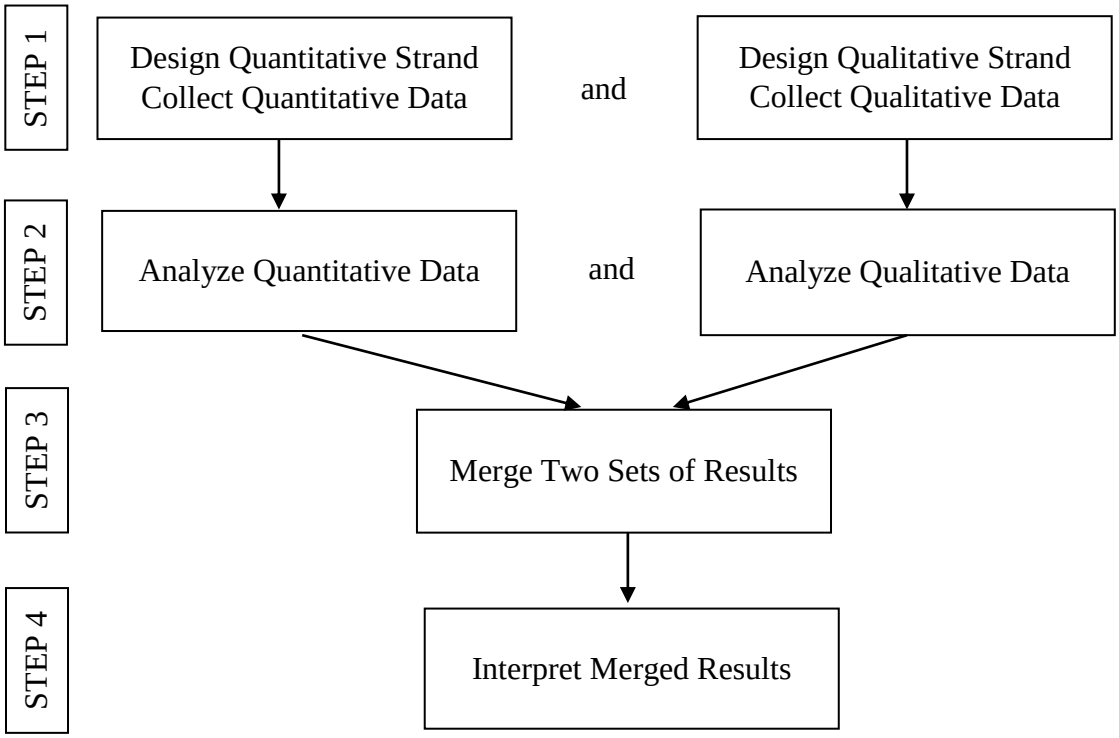

Figure 1. Convergent Mixed Methods Design

Main goals of this design are to develop a more thorough understanding of a phenomenon, and to increase validity of the results through triangulation (Creswell & Plano Clark, 2011). The qualitative questions were pre-formed and not based on the quantitative results (Creswell & Plano Clark, 2011). The interview questions were created based on the theoretical basis of biological systems theory and trauma-informed care, and thus, were somewhat related to the content on the quantitative measure (i.e., ARTIC). However, themes from the qualitative data were permitted to emerge independently from the quantitative data. Due to the relative newness of trauma-informed care in the schools being empirically researched, and the novelty of the quantitative measure being used in this study, a convergent mixed methods design was

most appropriate to gain insight and understanding of a complex topic, as well as try to validate results from the measure. Additionally, gaining teachers' perspectives and insight into their experiences lent itself to gathering information about the trauma-informed training process and other systemic variables.

Typically, a convergent design uses a pragmatism perspective. From a pragmatic lens, the researcher tends to test hypotheses and consider different viewpoints by combining quantitative and qualitative data (Creswell & Plano Clark, 2011). It seems that pragmatism utilizes both post-positivism and constructivism worldviews. Post-positivism generally requires a researcher to reject or fail to reject hypotheses, collect data objectively, and reduce bias through safeguards, such as checks of validity and reliability (Creswell & Plano Clark, 2011). On the other hand, social constructivism allows participants to create subjective meanings from their experiences via interactions with others, as well as by means of cultural and historical norms relevant to the individual (Crotty, 1998). This interpretive framework allowed participants in the qualitative strand to express their beliefs, attitudes, and behaviors as it related to trauma-informed practices and their schools' cultural norms and interpersonal interactions with students, parents, and school staff. This mixed methods design used a pragmatic lens to collect, analyze, and interpret the data.

Setting

Data were collected in an urban school district serving a diverse population. The majority of students in this district were from low-income homes (71% qualify for free and reduced-priced lunch), and the student population represented 131 different countries and 133 different languages (Kailin et al., n.d.). Based on 2013-2014 data, the school

district had a lower on-time graduation rate (55%) compared to the whole state (76%) and had almost twice as high of a dropout rate (4.7%) compared to the state (2.5%). Additionally, students from ethnic minorities in this district were more likely to be suspended or expelled compared to their ethnic majority counterparts (Kailin, et al., n.d.).

The community in which the school resides had a population of 353,108. Based on 2014 data, the violent crime rate in the community was markedly higher than other towns and cities across the United States. Violent crimes per 1,000 people was 4.10, in the state it was 3.09, and the national average was 3.75. One in 244 people were likely to be victims of a violent crime in this community, compared to the state average of 1 in 324. The urban community had an 83% higher crime rate (both violent and property crime) compared to all other towns and cities in the state combined. Based on the Federal Bureau of Investigation (FBI) Crime Index, this community had a crime index of 18 with 100 being the safest. This means, the community was as safe as or safer than 18% of the towns and cities across the United States (Federal Bureau of Investigation, 2015).

Participants

Participants were K-12 general and special education teachers employed by the urban public-school district described above. School-based mental health professionals, such as school psychologists, school counselors, and school social workers, as well as administration staff (e.g., principals) were excluded from the sample. They were excluded, because mental health professionals likely have additional knowledge and training related to interactions and treatment of traumatized students which could confound the results. Moreover, administrators and school psychologists do not have

daily, recurrent contact with students in the classroom. This aspect helped narrow the focus of this study. Substitute teachers were also excluded. Participants were recruited through a community-based mental health organization which collaborated with the school district, as well as through district and school leadership personnel. Teachers who had voluntarily completed the HEARTS training and those who had not completed the training were sampled for the quantitative strand. Ideally, for the quantitative data collection, there would be a similar number of participants who had participated in the trauma-informed training (i.e., HEARTS) and those who had not. A prior power analysis was conducted, and to achieve recommended 0.80 level of power with a medium effect size of 0.15 (f2) and at a 0.05 alpha level, a total of at least 68 participants was required for the quantitative phase. Characteristics of the quantitative sample are discussed in further detail in the following chapter.

Similar to the quantitative phase, participants for the qualitative strand were recruited through partnership with the community-based mental health organization and the school district. Only those who had completed the HEARTS training were recruited. Those who had not completed the trauma-informed training were excluded since this strand was targeted at understanding the impact of the training and the systemic variables related to implementing a trauma-informed approach in the schools. Twelve general and special education teachers participated in individual interviews lasting approximately 30 minutes each. Additional details of the qualitative participants are presented in the following chapter.

Healthy Environments and Response to Trauma in Schools (HEARTS) Intervention

Project Aware (Advancing Wellness and Resilience in Education) is a program organized by the state department of education. One main goal of the project is to strengthen schools' ability to provide comprehensive school behavioral health services to support all students through increasing youth's awareness regarding mental health issues, providing training for school personnel so they can identify students with mental health issues and intervene, and connecting youth and families to appropriate services. Different trainings on the topic of mental health are provided to school personnel on a voluntary basis. One such training is Healthy Environments and Response to Trauma in Schools (HEARTS). The first HEARTS training was delivered in the public school district being used in this study in 2013, and by summer 2016, teachers of varying numbers from ten different schools had been trained. Four more schools, including the training of an entire school staff, were added in the fall of 2016. Initial trainings have occurred throughout the school year based on interest.

Framework

HEARTS is a program which incorporates the SAMHSA trauma-informed framework. HEARTS provides training to teachers so they are able to *realize* the impact of traumatic events on their students and *recognize* the trauma related symptoms. Further, HEARTS targets the first principle of SAMHSA, *safety*, by helping to foster safe teacher-student interactions that are responsive to the students' prior experiences of trauma. The HEARTS program encourages trainees to view students' problematic behaviors through a trauma lens and instead of asking, "What is wrong with

you?" school personnel are trained to ask, "What has happened to you?" (Dorado et al., 2016, p. 164). The main goals of HEARTS are:

> (1) Increase student wellness, engagement, and success in school, (2) build staff and school system capacities to support trauma-impacted students by increasing knowledge and practice of trauma-informed classroom and school-wide strategies, (3) promote staff wellness through addressing burnout and secondary trauma and (4) integrate a cultural and equity lens with an understanding of the sequelae of trauma to reduce racial disparities in disciplinary actions such as suspensions and expulsions (Dorado et al., 2016, p. 164).

HEARTS was developed based on the framework of the Trauma and Learning Policy Initiative and the public health triangle continuum (e.g., multi-tiered system of supports). At the primary prevention (tier 1), HEARTS provides training and consultation to school staff, develops students' ability to cope with stress, and implements trauma-informed school-wide supports and interventions (e.g., restorative justice practices and social emotional learning) (Dorado et al., 2016). This researcher participated in the HEARTS training prior to collecting data. In general, the full HEARTS training takes about seven hours to complete. This initial training is facilitated by a team of trainers from a community-based mental health organization. The training is delivered in multiple formats including presentation, vignettes, role-play, and active participation. Key topics covered are the definition of complex trauma, trauma responses and what that might look like in the classroom, impact of trauma (biologically, cognitively, emotionally, socially), compassion fatigue and secondary trauma, building resilience in self and students, and developing healthy relationships. Additionally, strategies in

responding to students who may be behaviorally or emotionally escalated are reviewed and practiced. Practical interventions in the classroom are discussed such as peace corners which are similar to a calm down spot where students can use it when escalated. During the training, individuals participate in mindfulness-based and self-care activities. Following the initial training, school staff may receive booster sessions, or consultation sessions, twice a month or as requested by teachers.

Researcher's Experience

As I developed my research plan, I wanted to experience the HEARTS training for myself, and therefore, I joined an entire elementary school staff being trained in the HEARTS Program prior to interviewing participants. The training began in a gym with the staff sitting in chairs in a large circle facing inward. At the center, a man knelt over five "singing bowls." A singing bowl is basically an inverted bell and is played by striking it or rotating a mallet around the rim. These "singing bowls" are used for different purposes, such as meditation or creating music. At the center of the gym, red, blue, brown, and gold bowls formed a semi-circle. The man at the center began to strike and rotate different sized mallets around the bowls; the sounds began soft and then slowly grew until they reverberated intensely throughout the space. The "singing" energy entered my body, twisted and turned, and became momentarily stuck. I deeply inhaled and exhaled to release the intense feeling; quickly, the energy released. As the bowls continued to play, the energy moved more freely through me and around me, creating a sense of calm and peace. Thoughts left my mind, as I focused solely on the harmonious sounds. After this masterful display, the HEARTS team posed several questions. "What is your hope for today?" "How are you challenged by this profession?" Pondering these

two questions, my excitement about the day grew and I felt that my brain was prepared to learn.

The training was consistent with the aforementioned goals of HEARTS. The trainees were then separated into smaller groups. As I walked into the classroom with my group, I observed how the team had modeled how to create an inviting atmosphere. There were coloring pages, fidgets, herb scented bags, and candy provided at each table. The trainers provided anticipatory guidance of what we might expect throughout the day; thus, creating a sense of predictability. Interestingly, the training began with information on compassion fatigue and "the cost of caring for others," rather than the impact of trauma on students. They emphasized that teachers and school staff are the first responders; therefore, there is a high need for self-care. They used the metaphor of needing our own oxygen mask first, because we cannot take care of others if we pass out. They normalized compassion fatigue. It stuck with me that not only was the adverse impact of caring for others being discussed, but so was "vicarious resilience" and that as "our students become more resilient, so do we." I think this is great motivation for teachers to focus on strengths and fostering resiliency in their students.

The training followed with an emphasis on creating a healing community and being "asset-focused." The trainers instructed how to establish morning meetings, or community circles, and using these circles as a space for students to share their strengths and assets. Next, the training provided psychoeducation on trauma and its impact, particularly focusing on its effect on brain functioning. Teaching and discussion of shifting perspective to provide trauma-informed care was provided. There was an emphasis on schools acting as a protective factor for students exposed to aversive

community environments, and how typically teachers do not come from these environments and need to be aware of this different perspective or "lens." One example provided was how giving praise or affection to a student can be triggering if that child has experienced trauma, because some children learn that "first comes love then comes abuse." Related to this example, the training heavily focused on attachments and relationships. Psychoeducation regarding trauma and attachment was provided, and how to create healthy, warm relationships and remap a child's internal working model was discussed. The trainers provided strategies such as establishing routines, recognizing students' unique triggers, and allowing repair after a student-teacher relationship ruptures. For example, allowing students to apologize after they said something mean or behaved inappropriately and then moving on. The training discussed ways to improve self-regulation for students, such as utilizing peace corners. The trainers used a variety of teaching methods to involve the learners including modeling, table discussions, and role-plays. They modeled self-care and self-regulation techniques; for instance, they provided "brain-breaks" where the trainees smelled different essential oils. The training allowed questions throughout and ended on a strength-based note that schools are "havens for resiliency." The HEARTS team provided paper resources and offered their consultation services for follow-up. Throughout the training, it was emphasized that trauma-informed care is not meant to be another intervention teachers are responsible for implementing, but rather a layer of support to what they are already doing. Overall, the training was inspiring, informative, and offered specific strategies in delivering trauma-informed care in the classroom.

Instrumentation

Each strand has specific instrumentation to collect data. First, the survey for the quantitative strand, demographic questions and the trauma-informed based measure, is described. Next, the interview procedures for the qualitative strand are described.

Strand I: Quantitative

All participants for the quantitative phase completed demographic questions designed to gather information on gender, race/ethnicity, age, years of experience, highest degree obtained (High School Diploma, Bachelor's level, Master's level, Doctorate level), and grade level taught. Participants had the option to provide the school name where they primarily work. Additionally, participants were asked to answer two yes/no questions: (1) Do you have a prior history of experiencing psychological trauma? Participants were provided with the following definition of trauma. Trauma is "an event, series of events, or set of circumstances, that is 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" (SAMHSA, 2014, p.7). (2) Have you participated in the Healthy Environments and Response to Trauma in the Schools (HEARTS) training offered in your district? If participants answered yes to the second question, they were asked to report when they took the initial training and to estimate how many consultation sessions they have had since the initial training. Participants were also asked if they had completed any another type of mental health training, and if so, they were asked to provide the name of the training. All of these questions described above were asked following the presentation of the survey questions regarding attitudes related to trauma-informed care described below.

This was done so as not to prime participants prior to completing the *Attitudes Related to Trauma-Informed Care* (ARTIC) questionnaire.

The *Attitudes Related to Trauma-Informed Care* (ARTIC) scale (Baker, Brown, Wilcox, Overstreet, & Arora, 2016) was used to collect data on the five independent variables in the quantitative data collection phase. The ARTIC was developed using trauma-informed principles (see SAMHSA, 2014), and the premise is that if attitudes towards trauma-informed care are favorable, then with the right support systems can be implemented to meet the needs of individuals impacted by trauma (Baker et al., 2016). The ARTIC-35 version was used; it consists of 35 questions, takes approximately ten minutes to complete, and is written in a sixth-grade reading level. This instrument has five subscales: (1) underlying causes of problem behavior and symptoms, (2) responses to problem behavior and symptoms, (3) on-the-job behavior, (4) self-efficacy at work, and (5) reactions to the work. The measure also yields a total score. Seven items load on to each subscale and 19 items are reversed scored. The ARTIC-35 measures favorable and unfavorable attitudes towards trauma-informed care (TIC) on five domains (See Table 2). Each set of items begins with a leader statement, "I believe that…," and all items employ a seven-point bipolar Likert scale with a favorable attitude paired with an opposite or unfavorable attitude. This permits participants to endorse an attitude on a spectrum and help minimize the risk of participants responding in a socially desirable manner (Baker et al., 2016). Higher subscale and total scores indicate more favorable attitudes towards TIC.

Table 2

Attitudes Related to Trauma-Informed Care (ARTIC) domain names, descriptions, and example items

Subscale	Description	Example items	
		TIC-unfavorable attitude	TIC-favorable attitude
Underlying causes of problem behavior and symptoms	Emphasizes internal and fixed versus external and malleable	Students' learning and behavior problems are rooted in their behavioral or mental health condition	Students' learning and behavior problems are rooted in their history of difficult life events
Responses to problem behavior and symptoms	Emphasizes rules, consequences, and eliminating problem behaviors versus flexibility, feeling safe, and building health relationships	It's best to be very strict at first so students learn they can't take advantage of me	It's best to treat students with respect and kindness from the start so they know I care
On-the-Job behavior	Endorses control-focused behaviors versus empathy-focused behaviors	It reflects badly on me if my students are very upset	Being very upset is normal for many of the students I serve
Self-efficacy at work	Endorses feeling unable to meet the demands of working with a traumatized population versus feeling able to meet the demands	I don't have what it takes to help my students	I have what it takes to help my students
Reactions to the work	Endorses underappreciating the effects of vicarious traumatization and coping by ignoring versus appreciating the effects of vicarious traumatization and coping though seeking support	Sometimes I think I'm too sensitive to do this kind of work	The fact that I'm impacted by my work means I care

Note. Reproduced, in part, with permission from journal of *School Mental Health* (Baker et al., 2016, Table 2, p.7).

The ARTIC scale was only recently developed and made available for use. The development and psychometric evaluation of the scale was completed by Baker et al. (2016) with a sample of 760 service providers, 165 of whom worked in education. The participants' demographics were as follows: 83% female, 92% identified as White, 96%

completed a post-secondary degree, and 57% reported receiving formal trauma-informed care training. Based on this sample, the ARTIC-35 scores had an internal reliability of .91 and the subscales ranged from .71 to .81. The test-retest reliability was .84, and construct validity was strong for the scores. Because the ARTIC is a relatively new scale, with a paucity of literature using it in empirical studies of trauma-informed approaches in the schools, the reliability of the measure as it relates to this sample is discussed in the following chapter.

Strand II: Qualitative

Semi-structured individual interviews were conducted with 12 general and special education teachers. The interviews were guided by a pre-determined list of questions (see Appendix A) used in a flexible manner so as to respond to and build off of participants' in-the-moment responses. Purposeful sampling was used to recruit participants who had been HEARTS trained.

Procedures

University's Institutional Review Board (IRB) approval was obtained prior to implementing this study. Permission was also granted from the school district in which participants were recruited. The researcher collaborated with district and school leadership and the community-based mental health organization to recruit participants for both the quantitative and qualitative strands. The ARTIC-35 and demographic information was distributed via a link to a survey supported by Qualtrics. Prior to completing the survey, participants were provided with a description of the research study and informed consent was acquired electronically. As an incentive, a raffle for a $20 grift card was provided for those who chose to share their email address. For strand

II (qualitative), participants were recruited via email. The community based mental health center identified schools with HEARTS trained teachers. Members of the HEARTS team, school principals, and this researcher sent teachers at these schools a recruitment email. Teachers contacted the researcher directly if they were interested in participating in an interview. Each interview participant received a $20 gift card. Interviews were conducted either in-person or over the phone. All interviews were audio recorded and transcribed.

Data Analysis

Specific data analysis procedures for each strand as well as how the two strands are integrated is described. Analysis of each strand discusses the analysis of reliability or consistency and a review of assumptions and trustworthiness.

Strand I: Quantitative

Statistical Package for the Social Sciences (SPSS) was used to analyze strand I data. First, preliminary analyses were conducted. Chi square tests were completed to assess the differences between demographic variables. The ARTIC-35 was scored following the instrument's scoring guidelines. Reliability for the ARTIC-35 for the sample was found using Cronbach's alpha. Correlation between the continuous variables was analyzed, followed by independent samples t-tests to compare means.

Next, the assumptions of multiple regression were evaluated. Multiple regression (MR) assumes that there is no error when measuring independent variables and all common causes are included in the regression model (Keith, 2006). Additional assumptions underlying multiple regression (MR) were tested for violations as outlined in

Keith (2006). These assumptions include: (1) linearity; (2) independence of errors; (3) homoscedasticity; (4) normality; and (5) collinearity.

Finally, the primary analysis was conducted. Hierarchical multiple regressions were used to evaluate the extent to which the HEARTS training variable explained the variation in attitudes related to trauma-informed care. The variable trauma-informed training and personal history of trauma were dummy coded, and the dummy groups were included in the regression (no trauma-informed training = 0 and trauma-informed training = 1; no personal history of trauma=0 and yes personal history of trauma = 1). Six separate regressions were conducted; one for the total score and one for each of the five subscales. The six dependent variables based on the ARTIC-35 are as follows: (1) attitudes about the underlying cause of students' behavior and symptoms; (2) responses to problem behavior and symptoms; (3) on-the-job behavior; (4) self-efficacy at work; (5) compassion fatigue; and (6) total score. An alpha of 0.05 was used for the significance level.

Strand II: Qualitative

Audio recordings of the interviews were transcribed into a word-processing file for analysis. Transcripts were read through to gain a general understanding of the data. Then transcripts were analyzed for the purpose of category construction. Transcripts were initially hand-coded to indicate information that was potentially relevant to the research questions. Then codes were organized and further analyzed using NVivo qualitative data analysis software. Coding involves reducing text into smaller units, and then bracketing these units and identifying ideas to represent wide-ranging perspectives (Creswell & Plano Clark, 2011). Analysis was completed as follows: First, the

researcher engaged in open coding by creating categories of information and being open to "having a conversation with the data" (Merriam & Tisdell, 2016, p. 206). Next step was to compare and connect codes or categories which is referred to as axial coding. During this step, the open codes were combined to create more complete categories (Merriam & Tisdell, 2016). Based on these categories, relevant themes or a story was derived, and these themes were compared in order to identify interrelated themes (Creswell & Plano Clark, 2011). Themes and codes were supported by specific units of text.

Trustworthiness, or validity and reliability, is the confidence researchers and others have in the process, ethics, and findings of a qualitative investigation. The main components of trustworthiness include: credibility (findings are likely given the data offered), transferability (generalizability of the findings), dependability (the findings are consistent with the data collected), and confirmability (others are able to corroborate the findings) (Merriam & Tisdell, 2016). In this study, various strategies were employed to enhance the trustworthiness of the process and the findings. One, the dissertation committee and the researcher's advisors provided external checks to the methods and interpretations made by the researcher. Two, the researcher maintained an audit trail and memos by logging data collection and category construction procedures. The audit and memos included the researcher's reflections and questions, as well as decisions made throughout the inquiry. Three, triangulation was achieved through data collection from different sources and means of data collection (e.g., ARTIC-35). Fourth, the researcher engaged in reflexivity, critical self-reflection with respect to personal biases and assumptions, in order to regulate the researcher's impact on the interpretations of the

qualitative data. Fifth, a rich and thick description of the findings was provided to allow readers to determine the applicability of the findings to their own situations (Creswell, 2013; Merriam & Tisdell, 2016).

Additionally, intercoder agreement was employed to enhance reliability of the findings. The researcher, and one graduate level peer with training in qualitative research, analyzed two transcripts and coded the passages independently using a code book. A percentage of agreement was derived by tallying the number of codes in agreement and dividing that by the number of agreements plus the number of disagreements, with 80% of agreement as a reasonable target (Creswell, 2013).

Results Integration

In mixed methods, conclusions are made independently regarding the quantitative and qualitative strands and then "meta-inferences" are made as the researcher analyzes the two strands together (Creswell & Plano Clark, 2011, p. 213). The quantitative and qualitative results were merged for comparison purposes and then integrated to create a coherent whole. Convergent, divergent, and supporting information from the results of the two strands was evaluated and the data interpreted in relation to the research questions (Creswell & Plano Clark, 2011). Validity checks of the two strands led to the validity of the mixed methods design, as did appropriately designing the study upfront so that merging the two strands was less problematic. For example, sampling quantitative and qualitative participants from the same population, and having distinct data collection procedures for each strand, helped to make the data more comparable and reduced validity threats. Additionally, when merging the strands, potential threats to validity were minimized, because the researcher identified themes that corresponded to the

statistical results and quantitative and qualitative data were jointly displayed to make for easier comparisons (Creswell & Plano Clark, 2011).

CHAPTER IV

RESULTS

Presented in this chapter is the analysis of the quantitative and qualitative threads of this study. The quantitative results are presented first to provide a broad context for understanding the effects of the Healthy Environments and Response to Trauma in Schools (HEARTS) program on teachers' attitudes towards trauma, followed by the qualitative results. Hierarchical multiple regression was used to answer the quantitative research question. Coding and thematic analysis were used to answer the qualitative strand's questions. Common themes are presented with the support of graphics and participants' quotes. Finally, supporting cross-over between the two strands is presented.

Quantitative Results

The quantitative results explore the research question: Does participation in the Healthy Environments and Response to Trauma in Schools (HEARTS) training explain the variance in teachers' attitudes related to trauma-informed care regardless of years of experience or personal history of trauma? Sample characteristics are presented first followed by the presentation of preliminary analysis, assumptions, and regression results.

Sample Characteristics

Sixty-five individuals responded to the survey, with a desired response rate of 68. Thirteen responses had to be omitted because the respondents had not indicated whether they had participated in the HEARTS training. The overall sample was fairly

homogeneous regarding reported race/ethnicity and gender. The overall sample was 80.8% White/Caucasian and 92.3% female. The average age of the respondents was 36 years old (range 23-64 years old). Approximately half of the sample (51.9%) held a master's degree and 44.2% reported a bachelor's as their highest degree earned. The number of years of teaching experience ranged from one year to 27 years with an average of 9.81 years. Approximately 38% of the sample taught elementary school (grades 1-5), 44% taught middle school (grades 6-8), and about 17% taught high school (grades 9-12). Over half (61.5%) of the sample reported a personal history of trauma.

The sample for this study was comparable to the school district demographics regarding race/ethnicity and average years of teaching experience. The school district' licensed employees (i.e., teachers, specialized service professionals, and teachers on special assignment) was 82.45% White with an average of eight years of teaching experience. The school district had a higher percentage of males (23.45%) compared to the 7.7% in this sample, suggesting males were underrepresented. Displayed in Table 3 are sample characteristics by group: participants in the HEARTS training (n = 30) and non-participants (n = 22). The groups displayed similar characteristics across most demographic variables except for the highest degree earned and grade level taught. Most of the HEARTS trained group held a master's degree and taught middle school, compared to the non-HEARTS group, the majority held a bachelor's degree and taught elementary school. Additionally, a higher percentage of the HEARTS trained participants reported a personal history of trauma as compared to the non-HEARTS group. Chi-square tests were completed, and differences between the HEARTS and non-HEARTS groups related to the demographic variables were not significant.

Table 3

Characteristics as a Percentage of the Sample Grouped by HEARTS Trained and Non-HEARTS trained

Characteristic	HEARTS (n = 30)	Non-HEARTS (n = 22)
Race/Ethnicity		
White/Caucasian	80.0	81.8
Hispanic/Latino	6.7	4.5
Black/African American	0.0	4.5
Asian/Pacific Islander	3.3	4.5
Native American	0.0	4.5
Multi-racial	3.3	0.0
Missing	6.7	0.0
Gender		
Female	96.7	86.4
Male	3.3	9.1
Missing	0.0	4.5
Age Range		
23-29	26.6	27.2
30-39	36.7	36.1
40-49	23.2	4.5
50+	9.9	9.0
Missing	3.3	22.7
Degree Earned		
Bachelor's	33.3	59.1
Master's	60.0	40.9
Doctorate	3.3	0.0
Other	3.3	0.0
Number of Years Teaching Experience Range		
1-5	43.3	36.4
6-15	36.7	40.9
16+	20.0	22.7
Grade Taught		
Elementary (1-5)	26.7	54.5
Middle School (6-8)	50.0	36.4
High School (9-12)	23.3	9.1
Personal Trauma History		
Yes	66.7	54.5
No	33.3	45.5

In addition to the demographic variables, 63% of the HEARTS-trained participants indicated they had received consultation sessions from the HEARTS team ranging from 1-10 sessions. Of the total sample, 36.5% indicated that they had participated in a trauma-informed training other than HEARTS. However, the nature and quality of those trainings were not explored. Thus, it was unknown if those trainings endorsed by participants would indeed qualify as trauma-informed care.

Preliminary Analysis

The ARTIC-35 (Attitudes Related to Trauma-Informed Care) was scored using Statistical Package for the Social Sciences (SPSS) and following the instrument's scoring guidelines. Some items were reversed scored as indicated and then the six composite scores were created to use as the dependent or outcome variables. The composites were Overall scale, and the subscales, Underlying Causes of Problem Behavior and Symptoms, Responses to Problem Behavior and Symptoms, On-the-Job Behavior, Self-Efficacy at Work, and Reactions to the Work. The reliability of the ARTIC-35 for this sample had excellent internal consistency ($\alpha = 0.90$). Four of the composite scores had acceptable internal consistency: Underlying Causes ($\alpha = 0.73$), Responses ($\alpha = 0.74$), On-the-Job Behavior ($\alpha = 0.72$), and Self-Efficacy ($\alpha = 0.75$). The Reactions composite had questionable internal consistency ($\alpha = 0.63$). The ARTIC-35's overall scale reliability for this sample was consistent with Baker et al. 's (2016) finding of a .91 alpha coefficient. The subscales of Underlying Causes, Responses, On-the-Job Behavior, and Self-Efficacy were slightly lower, but similar to Baker et al.'s findings (0.78, 0.76, 0.72, 0.79 respectively). Baker et al.'s prior study found that the Reactions to the Work had the lowest reliability, yet still acceptable, compared to the other subscales ($\alpha = 0.71$);

whereas this study found internal consistency to be problematic for the Reactions subscale ($\alpha = 0.63$).

All the outcome variables were significantly and positively correlated with one another (see Table 4). Years of teaching experience was not significantly correlated with any of the dependent variables. HEARTS training was significantly correlated with Underlying Causes, and Personal History of Trauma was significantly correlated with Self-Efficacy.

Table 4

Correlations of Variables

	1	2	3	4	5	6	7	8	9
1. HEARTS Training	--								
2. Personal History of Trauma	.123	--							
3. Years of Teaching Experience	-.006	.073	--						
4. Overall Scale	.237	.196	.149	--					
5. Underlying Causes	.331*	.075	.159	.811**	--				
6. Responses	.231	.078	.098	.853**	.702**	--			
7. On-the-Job Behavior	.261	.235	.262	.835**	.675**	.717**	--		
8. Self-Efficacy	-.010	.324*	-.072	.664**	.342*	.366**	.391**	--	
9. Reactions	.144	.052	.166	.785**	.509**	.577**	.542**	.477**	--

Note: *p<.05, **p<.01

The mean attitudes for the participants who had been HEARTS trained were higher compared to the non-HEARTS trained participants for each outcome variable (i.e., Underlying Causes, Responses to Problem Behavior, On-the-Job Behavior, Reactions to the Work, Overall scale) except for Self-Efficacy (Table 5).

Table 5

Means of Outcome Variables by Group-HEARTS Training

	HEARTS (n = 30)		Non-HEARTS (n = 22)	
	M	*SD*	*M*	*SD*
Underlying Causes	5.74	.726	5.28	.555
Responses to Problem Behavior	5.69	.712	5.32	.837
On-the-Job Behavior	5.97	.602	5.62	.736
Self-Efficacy at Work	5.52	.659	5.54	.936
Reactions to the Work	5.78	.668	5.57	.766
Overall Scale	5.74	.529	5.47	.607

The means for Underlying Causes of Problem Behavior were significantly different between the two groups. An independent samples t-tests was conducted to compare TIC attitudes for HEARTS trained teachers and non-HEARTS trained teachers. The HEARTS trained group (M = 5.74, SD = 0.73) reported a significantly better understanding of the underlying causes of students' behavior related trauma-informed care than the non-HEARTS group (M = 5.28, SD = 0.56; t (50) = 2.48, p = 0.02). A large effect size (Cohen's d = 0.71) present. Although no other means between the two groups were found to be significant, all trended towards higher means for the HEARTS vs. non-HEARTS group except for self-efficacy (see Figure 2).

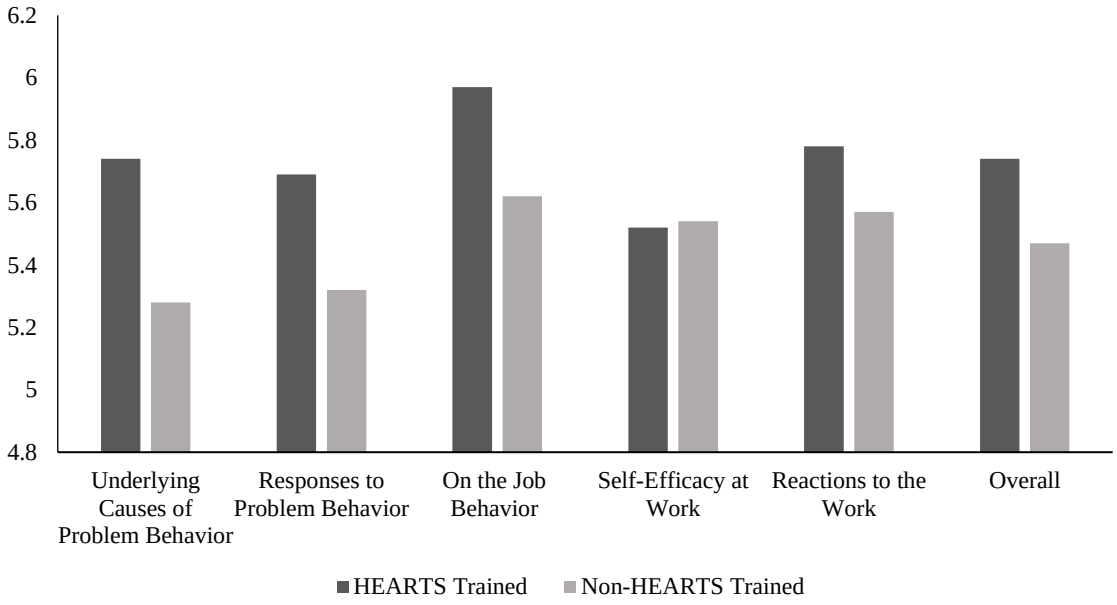

Figure 2. Overall model of teachers' experiences working with students impacted by trauma. The figure displays the mean responses across the five domains of trauma-informed care, and the overall mean score on the ARTIC-35, among participants who had been trained in HEARTS and those who had not been trained.

The mean attitudes for participants who had a reported history of personal trauma were higher for every outcome variable compared to those with no trauma history (see Table 6).

Table 6

Means of Outcome Variables by Group-Trauma History

	Trauma History (n = 32)		No Trauma History (n = 20)	
	M	*SD*	*M*	*SD*
Underlying Causes	5.59	.668	5.48	.742
Responses to Problem Behavior	5.58	.694	5.46	.916
On-the-Job Behavior	5.95	.580	5.62	.786
Self-Efficacy at Work	5.73	.626	5.21	.907
Reactions to the Work	5.72	.669	5.64	.790
Overall Scale	5.71	.487	5.48	.681

An independent samples t-tests was conducted to compare TIC attitudes for teachers with a reported personal history of trauma and teachers without a reported history of trauma. Participants who reported a personal history of trauma (M = 5.73, SD = 0.63) indicated more self-efficacy than those with no personal history of trauma (M = 5.21, SD = 0.91; t (50) = 2.42, p = 0.02). A large effect size (Cohen's d = 0.66) present. No other means between these two groups were found to be significant; although all means trended towards the expected direction with higher means for those participants who had HEARTS training.

Assumptions of Regression

Hierarchical multiple regression was used to determine the amount of variance the HEARTS training accounted for in attitudes related to trauma-informed care in the schools. First, data were analyzed to determine if the assumptions of multiple regression were met. One of the first assumptions was to determine whether the observations were independent of one another. The Durbin-Watson statistic yields values between 0 and 4 with 2 indicating no evidence of autocorrelation. The Durbin-Watson statistics for this study indicated that the assumption of independent errors was tenable with values ranging from 1.699 to 2.126. Generally, values ranging 1.6 to 2.6 do not evince issues with autocorrelation. Another assumption of linear aggression is that the relationship between the outcome and predictor variables is linear. There was only one interval/ratio predictor variable, years of teaching experience. A review of scatter plots determined that there was not a linear relationship between this predictor variable and any of the outcome variables. Due the lack of guidance from the research regarding trauma-informed care and teaching experience, the years of teaching experience variable was not recoded into a

trichotomy (e.g., 0=one to 5 years, 1=six to 12 years, and 2=thirteen+ years). Furthermore, because of the violation of the linearity assumption and lack of a significant correlation with any of the outcome variables, years of experience was eliminated and not included in the regression models. Multicollinearity was not violated as indicated by the variance inflation factors (VIF) which were equal to or close to one. Furthermore, a review of plots determined homogeneity of variance was not violated. Using Cook's distance, no significant outliers were found in the data. An evaluation of Shapiro-Wilk test, skewness, and q-q plots was used to check for normality. All outcome variables were determined to meet the normality assumption, except for Self-Efficacy. The Self-Efficacy variable violated the normality assumption. It had a significant Shapiro-Wilk test at $p<.001$, had a skewness to the left (-4.14), and on the q-q plot not all the plots fitted closely to the trend line. The implications of this assumption violation are further deliberated in the following chapter. Because of its importance to our overall understanding of teacher attitudes and practices of trauma-informed care, Self-Efficacy was retained as an outcome variable.

Primary Analysis

Even though the predictor variables did not have significant correlations with all outcome variables, six separate hierarchical linear regressions were conducted to evaluate alpha levels for each outcome variable (see Table 7). For each regression, the variable of personal history of trauma was entered into the model first, followed by the participation in the HEARTS training variable. No significance was found for the Overall scale, Responses to Problem Behavior and Symptoms, and Reactions to the Work variables. The overall model for On-the-Job Behavior was marginally significant [F (2, 49) = 3.027,

p = .058]. The model accounted for 11% of the total variance. HEARTS training accounted for 5.5% of this variance (ΔR^2 = .055). Results for the variable were not significant (*b* = .320, *t* (49) = 1.733, *p* = .089, 95%CI [-0.051, .6.91]).

The overall model for the Underlying Causes of Problem Behavior and Symptoms was marginally significant [*F* (2, 49) = 3.05, *p* = .056]. The overall model accounted for 11.1% of the variance. HEARTS training accounted for approximately 10.5% of this variance (ΔR^2 = .105). Being trained in HEARTS was found to be significantly related to more trauma-informed attitudes towards the underlying causes of behavior (*b* = 0.453, *t* (49) = 2.406, *p* = .02, 95%CI [.075, .831]). On average, predicted scores for underlying causes of behavior, were .453 points higher for those trained in HEARTS, after controlling for personal history of trauma. Using Keith's rules of thumb for judging the magnitude effects, the β (.327) associated with HEARTS training was large (Keith, 2006).

The overall model for Self-Efficacy, with both predictor variables entered was not significant [*F* (2, 49) = 2.94, *p* = .062], and accounted for 0.2% of the total variance. With just personal history of trauma entered, the model was significant [*F* (1, 50) = 5.845, *p* = .02], Personal history of trauma was significant in predicting scores on Self-Efficacy (*b* = .513, *t* (49) = 2.418, *p* = 0.02, 95%CI [.087, .940]). It accounted for 10.5 % of the variance (R^2 = .105). On average, predicted scores for self-efficacy, were .513 points higher for those with a personal history of trauma. The β (.324) associated with Personal History of Trauma was considered large.

Table 7

Regressions for each outcome variable with unstandardized coefficients, p-values, standard errors, and t-statistics

Variable	1		2		3		4		5		6	
	b (*SE*)	*p* (*t*)	*b* (*SE*)	*p* (*t*)	*b* (*SE*)	*p* (*t*)	*b* (*SE*)	*p* (*t*)	*b* (*SE*)	*p* (*t*)	*b* (*SE*)	*p* (*t*)
Trauma History	.050	.80	.079	.72	.258	.14	.523	.02*	.051	.81	.198	.23
	(.191)	(.260)	(.222)	(.357)	(.188)	(1.52)	(.216)	(2.424)	(.206)	(.248)	(.161)	(1.23)
HEARTS Training	.453	.02*	.351	.12	.320	.09	-.079	.71	.199	.33	.249	.12
	(.188)	(2.41)	(.219)	(1.61)	(1.85)	(1.73)	(.213)	(-.370)	(.203)	(.979)	(.158)	(1.57)
Total R^2	.111		.056		.110		.107		.022		.084	
ΔR^2	.105		.050		.055		.002		.019		.046	

Note: *p<.05; Outcome Variables: (1) Underlying Causes of Problem Behavior, (2) Responses to Problem Behavior, (3) On-the-Job Behavior, (4) Self-Efficacy at Work, (5) Reactions to the Work, and (6) Overall.

Overall, there were several significant findings from the quantitative analysis of participants' responses to the ARTIC-35. Those participants who completed the HEARTS training were more likely to attribute students' learning and behavior problems to their history of difficult life events rather than to fixed internal characteristics (Underlying Causes of Problem Behavior and Symptoms). No other components were significant. Participants with a reported history of personal trauma endorsed feeling more able to meet the demands of working with students impacted by trauma compared to those with no reported history (Self-Efficacy at Work). The HEARTS training in conjunction with a reported history of trauma, appeared to have some influence teachers' On-the-Job-Behavior. These findings are important to consider in the context of understanding the responses of those teachers who participated in HEARTS training and were interviewed in the qualitative part of this study.

Qualitative Results

The general purpose of the qualitative strand was to gain an understanding of trained teachers' utilization and implementation of HEARTS learned strategies and to explore their experiences working with students impacted by trauma. The following questions guided this strand: 1) How do teachers perceive the impact of the HEARTS training on their perspectives and behaviors related to responding to students impacted by trauma? 2) What are teachers' perception of the support system they have and the barriers they face when implementing trauma-informed approaches and responding to students' behavior? Qualitative results were generated through coding, content analysis, and thematic generation of 11 semi-structured interviews with teachers who had attended the

HEARTS training. The relationship between the findings and the HEARTS and SAMHSA's trauma-informed frameworks are discussed in the following chapter.

Participants

Based on my interactions with the teachers during the interviews, they all appeared fully invested and motivated to provide quality trauma-informed care and mindful learning experiences to their students impacted by trauma. Twelve HEARTS trained teachers were interviewed. Due to corruption of an audio, one interview could not be transcribed, and therefore, was not included in the analysis. Another audio was partially corrupted, but 12 minutes were recovered and transcribed for analysis. One participant reported having some exposure to HEARTS through professional development but had not taken the full training. She was scheduled to take the full dose a few weeks after the interview was completed. Two participants reported taking the training in "pieces" over the course of several years. Participants had taken the training between one and four years prior to the interviews. Eight participants taught elementary school and three taught middle school. Of these teachers, seven taught general education, three taught special education, and one taught English Language Development. Nine teachers had their Master's degree and two had their Bachelor's degree. Years of teaching experience ranged from one to 24 years with an average of 12.5 years of experience. All participants were female, one identified as Mexican-American, one identified as Asian-White, and the remaining teachers identified as White, non-Hispanic (see Table 8).

Table 8

Characteristics of participants in qualitative strand

Participant ID	Interview Length	Grade Level	Years Teaching	Education Level
01	23	Elementary	12	MA
02	30	Middle School	24	MA
03	20	Elementary	20	MA
04	38	Elementary	2	BA
05	24	Elementary	11	MA
06	26	Elementary	19	MA
07	36	Elementary	18	MA
08	34	Elementary	1	BA
09	34	Elementary	18	MA
10	15	Middle School	4	MA
11*	25	Middle School	20	MA

*partially transcribed interview (12 minutes transcribed)

The length of the interviews ranged from 15 to 38 minutes, with an average length of about 28 minutes. The interviews yielded 72 single spaced pages of transcript to be analyzed. Similar themes arose within and across interviews. Therefore, saturation of the qualitative data was achieved.

Overall Model

Displayed in Figure 3 is the overall model of the themes and subthemes of the participants' experiences with the HEARTS training and working with students impacted by trauma. Following the presentation of the figure, each theme and subtheme is discussed. The number of participants endorsing each theme is noted. The number of participants (n) was found in order to help trim themes and codes that had sparse support and strengthen themes that had a high number of participant support. This was also used as a proxy for saturation. Additionally, for each quote, a citation using participant identification numbers is provided. Refer to table 8 for participant details. Minor

changes were made to the quotes to improve clarity by removing repetitions and fillers like um, uh, etc.

Consistency

To assess inter-coder reliability, the approach outlined by McAlister et al. (2017), was utilized with slight modifications. First, a code book, complete with definitions of each individual theme and subthemes, was generated. A brief training was provided to a peer reviewer on how to use the code book and how to document the identified themes in the transcripts. The peer reviewer coded two transcripts. These codes were compared to the researcher's codes and percentage of agreement was calculated to measure consistency between the two coders. The coders had an 80% agreement on each transcript they reviewed. An agreement of 80% or higher is considered acceptable (Creswell, 2013).

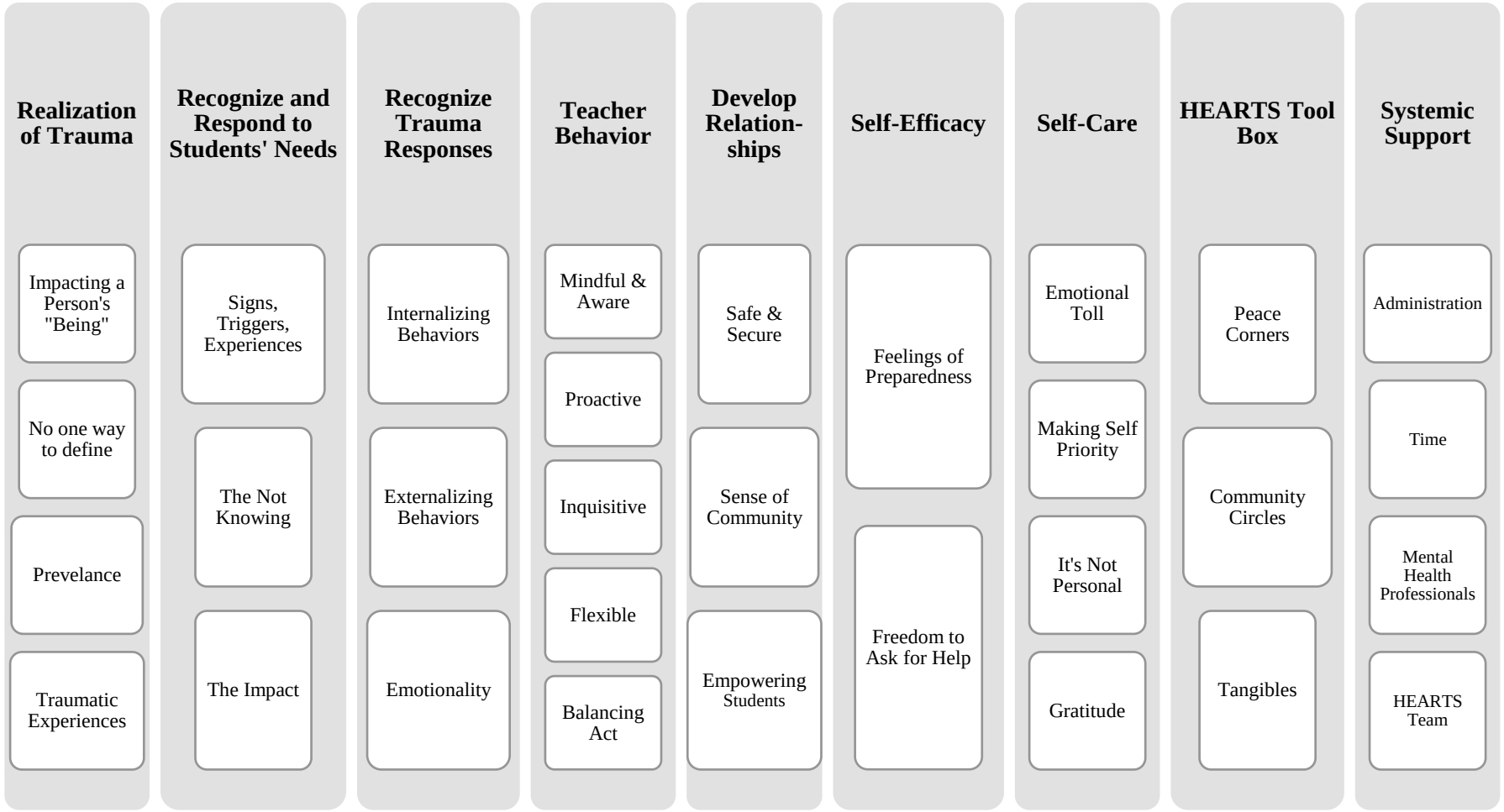

Figure 3. Overall model of teachers' experiences working with students impacted by trauma

Realization

The teachers interviewed were apt to realize the presence of traumatic experiences within the student population they served. Participants were asked how they would define trauma and what kinds of traumas their students had experienced. Some teachers shared how their definition or view on trauma has broadened following the HEARTS training. One teacher shared:

> I think my definition of trauma has changed a lot since the HEARTs training. Like, I use to think trauma was a traumatic event, like I saw, I saw a dead guy in the alley. I suffered trauma. Or, or my dad beat my mom, that was traumatic for me. I think now I see trauma as that constant grinding down of a kid just because they are spending so much time in those high stress situations. Almost like some of the kids have PTSD. (P02)

Teachers not only described the functional changes a person may experience due to trauma, but the less measurable and visual changes as well. The most common encompassing definition of trauma discussed by the teachers, was *impacting a person's way of being* (*n* = 9), including ways of thinking and behaving. One teacher said, "trauma is any event or circumstance that negatively impacts your ability to be a human being. To be yourself, to be comfortable, to be aware, to fully engage mentally in the material that's being presented; to be engaged with your world" (P08). Continuing with the impact on your being, other definitions included, "It's anything that happens to you that seriously affects your person and your insides" (P01), and "it jars you so much, you don't even realize what it has done until two or three weeks later…totally rocks your world" (P09). Others commented, "Anything substantial enough in a person's life to affect their thinking, their physical well-being and their ability to perform daily tasks,"

and “their perception of how substantial that is in their lives is their perception and that becomes their reality” (P05).

Several participants related trauma to the ability to process the events. One stated, “Trauma that we deal with is when, when the difficult experiences have not been, been processed. The child hasn’t had a chance to process those experiences because of, because of their circumstance” (P04). Additionally, participants highlighted the impact on a person’s worldview and affective experiences. One teacher said, “It’s going to be like either anything that's emotional or physically interfering with your happiness, or it is making it more difficult for you to feel happy” (P10), and another shared, “Trauma is an event in someone's life that has changed their views, that has changed how they, how a person reacts to different types of situations” (P03). When defining trauma, participants not only communicated the global impact trauma can have on a child, but also recognized individual differences related to trauma.

Due to unique responses to trauma, approximately half of the participants (n = 6) agreed that there was *no one way to define trauma*. They realized that trauma is not just one thing and is often specific to the individual. One participant remarked, “I think what is very traumatic for one child is not necessarily going to have the same impact on another child” (P04), and another said, “I think it’s hard to generalize, but I think it depends on the kids” (P02). Some participants acknowledged the complexity of defining trauma. One said, “There’s just so many definitions of what trauma can be to students. I don’t think there is one simple response as to what trauma could be” (P07).

Not only did participants recognize trauma via defining it, they also *acknowledged the prevalence of trauma* (*n* = 8) among their student population. One teacher noted, "I think that my students reveal things to me on a daily basis, and I try to make note of all of those. But, I know that there is so much more that I haven't even touched on" (P01). Another participant shared viewing her students through a trauma-informed lens; "I kind of approach all students that there's some trauma, there's something going on" (P08). Through their acknowledgment of the widespread reach of trauma, participants appeared better equipped to recognize the traumatic events experienced by their students.

Traumatic experiences. All participants (*N* = 11), provided specific examples of the types of trauma their students experienced. The most common identified experience was *Family discord* (*N* = 11) including domestic violence, child maltreatment, divorce, parent medical illness, and family substance use. One teacher shared a story of one of her students who had a noticeable change in behavior. "When I called the mom, she described to me in length about the fight and the violence that went on, and her getting the kids out of the apartment and into a new apartment over the weekend" (P09). Additionally, many teachers noted childhood maltreatment including physical, emotional/verbal, and sexual abuse, and neglect as common traumas. Others shared that their students experienced parent illness such as diabetes and narcolepsy, and the complications that arose from having an ill parent. *Separation from parent or caregiver* (n=10) often due to incarceration or death of a parent was a frequently identified traumatic experience. This disrupted parent-child attachment relationship was viewed as traumatic with one teacher noticing negative behavioral changes in a student when her

mother was in jail and then following the mother's release (P11). Another teacher shared that a student's "father was murdered" due to a "drug cartel" situation (P09). There were several other stories teachers shared regarding students grieving a death of a parent or a student losing the adult they depend on to care for them.

In addition to disrupted attachments and family-related stress, *economic trauma* (n = 7) was identified including poverty and unstable living situations. Teachers noted that trauma is not always an event but can be daily experiences in the students' lives. One teacher stated, "poverty induced trauma; it's like an ongoing thing" (P11). Another commented, "Sometimes those basic needs, like do you have somewhere to sleep tonight? Do you have food? No kid can learn when those basic human needs are not met" (P02). One participant shared that she had a student who "had nowhere to stay and was living on the streets" (P07). The teacher also shared stories of students "who couch surf and don't know where their next meal is coming from. Additionally, the teacher shared the story of "one family came to school with their suitcase because they were literally living out of their suitcase; they didn't have anywhere to go, and they finally came to the school" (P07). Participants shared many stories of their students being impacted by poverty.

Unstable living situations due to poverty and homelessness because of neighborhood gentrification were also recognized as traumatic. One teacher described the mobility rate at her schools as 38%. She noted that "kids will come and stay for the six months lease and for whenever and then they'll move and then come back again years later…they're just in and out of schools all the time" (P11). In some cases, families were being displaced or pushed out of their neighborhood to make room for middle and upper-

class housing. Teachers discussed how it was difficult to support their students impacted by economic trauma because often they would just begin to get to know a student and how to support him or her, and then the student would move and not have a chance to say goodbye to teachers or classmates. Although frequent moves in and of themselves are not considered a source of trauma, it is likely that considering other events, this mobility added to the family and student stress. Furthermore, it likely disrupted so many aspects of life for these youths including academic, social, and emotional development.

Participants specifically spoke about chronic stress related to ongoing experiences such as the community environment, students' responsibilities, and poverty. A teacher noted:

> Overcrowding, like you hear the kids talking about all the people living in their apartment, you know. And, a lot of things, you know, the impression that there's a lot more people living in their home than, the homes are meant to house. And, that they're not getting, like physical space or mental space outside of school. (P04)

Some teachers viewed lack of support or a large amount of responsibilities as stressful. One person stated, "I think the biggest ones that I've seen is where they're not getting a lot of support at home, so it could be that their parents have to work so much that they don't see them enough" (P10). Another teacher shared:

> [these] kids have so much responsibilities, so many responsibilities, and so much that they take care of for the parents. I mean, they take care of their little brothers and sisters and pick them up from school because their mom is working, or their grandma can't do it. Or, they have to take school off to go translate for their mom and dad, to whatever. (P02)

Although, in general, teachers communicated an understanding that these stressors were not traumatic in and of themselves, some did identify difficult experiences, such as lack of support, as traumatic. It seems teachers identified both traumatic events as well as

traumatic experiences within the context of stressful living situations as impactful on students' functioning.

Community environment. Related to issues of poverty and instability in living situations is the broader context of the community. These elements are intertwined as individuals without resources are more likely to live in dangerous neighborhoods with fewer resources. When asked about community violence exposure, separate from issues of domestic violence or child maltreatment, participants tended to initially deny or minimize violence in the community, but then go on to provide instances of such violence. In fact, most participants identified examples of an unsafe community environment (*n* = 9).

As noted, individuals tended to downplay the violence by comparing their city to other places known for violence or in comparison to previous years in the school's community. For example, one teacher responded:

> I mean, like compared to Chicago? No. Compared to other areas in XXXX (the school's community)? A little more, Yeah. Does that make sense?...I mean, yes there are gangs, but 15 years ago, you'd hear about drive-bys all the time. It's not like that anymore. I mean there is a lot of violence. I mean, literally, two years ago, my kids were walking home from school and found a dead body in an alley. (P02)

Even though participants perceived their students' communities as relatively safe, they were aware of the difficult community environments these students were required to navigate. Several instances of their students witnessing violence or murder were noted. As one teacher explained, "On a weekend, you know, I always tell them be safe, be safe. We just recently had a girl that was missing. We have had three or four, four kids go missing from our school, one we have not found" (P07). A participant shared a traumatic

story of one of her students. “She was in this street with her grandfather, and he was shot, and she had to keep running so she wouldn’t be shot” (P09). Unfortunately, these were not isolated incidences. Another noted, “I can tell you there is a second grader who watched her aunt get murdered last year” (P05). Further reported, a student “saw her dad get killed right in front of her. Yeah, kind of gang type thing” (P06). A fifth relevant example, “I had a student whose dad was shot in the stomach from a gang a related activity, so he was in a chair” (P03). Additionally, participants shared about police presence at students’ apartment complexes, and gang and crime activity. One teacher shared,

> I’d say maybe, two or three times in the last school year there was like random violence in the neighborhood that causes the school to be put, like, on lockdown where kids couldn't go outside because something was happening in the neighborhood. (P02)

Teachers demonstrated a realization of the difficult community environments in which their students resided. Overall, the teachers appeared to have an impressive awareness of trauma and the realization that trauma comes from a variety of sources.

Recognizing and Responding

When working with students who have had traumatic experiences, participants reported that *recognizing students’ signs, triggers, and experiences* related to trauma was important to be able to respond to those needs ($N = 11$). One teacher said, “you know their ticks and you know where they are at and you know what’s going on” and “you have to pick up on those small things” (P08). Another participant spoke to how she recognizes trauma in her students:

> What I pick up on really quickly is the volume, because I think if you've gone through trauma and you, or you've been in a house where there's been a lot of shouting and that's how you communicate, it comes into the classroom. Because it's learned behavior. (P09)

The teacher communicated an understanding that the student's learned responses to his traumatic experiences at home, shaped his responses in the classroom. The yelling often made it difficult for this student to communicate with the teacher and peers appropriately, leading to physical fights with other students and increased stress in the classroom. Additionally, a teacher shared, "I'm always, you know, trying to make sure that I'm taking into account all their, other things that have happened to them, how they act, being sensitive to their needs, things like that" (P03). This increased awareness seemed to enable teachers to provide an appropriate response.

Participants emphasized the importance of recognizing the unique and individual needs of each student. They recognized that there are different trauma responses, different levels of trauma healing, and what presents can vary year to year for the teachers. They also had the awareness to tailor their response based on individual student needs. A participant spoke to the unique needs of students regarding what might work for one student will not necessarily work for another (P03). Another teacher remarked:

> I think a lot of times a teacher with a kid who they knew is in trouble, like either emotionally or academically, we want to have them spill their guts and tell us everything, so we can fix it. And, that's not always what the kid needs. That's not always what I can do so I'm much better now about asking for permission for a lot of the things I do. (P02)

Participants recognized the variation of the impact of trauma. One teacher commented on the variation from year to year and student to student. She reported that in some years, the students had learned to deal with the trauma and had developed strong coping skills

(P11). With varying trauma responses, it can be difficult to recognize and respond to students' needs.

Participants noted that once the need was identified, they tried to provide the most appropriate response to support these needs. One common consideration was when to refer to mental health services. One participant stated, "The role of the teacher is to be in tune to students' behaviors, students' moods, to be prepared to recognize changes in behaviors, in moods. To, you know, to track any kind of issues and then to seek out whatever support we possibly can" (P04). Teachers discussed how sometimes the students' needs cannot be addressed in the classroom or by the teacher and need more specialized mental health support. Participants also discussed how they responded in the classroom to meet the need. A teacher said:

> I've learned how to really look at the kids' needs and kind of become a little bit proactive where, it's like OK, I can see where he's starting to get antsy, I kind of know what his triggers are, so we're going to try to do something else to divert those tendencies so he doesn't erupt. (P06)

Some spoke about how HEARTS has helped them be creative when responding to students' needs. She stated, "If there's not a door, look for a window. Looking for different ways to reach kids that don't respond instead of giving up on them" (P11). A special education teacher noted how the HEARTS program helped teachers know how to respond differently after completing this training. She said:

> Teachers have a better understanding of how to deal with those difficult kids… because it always used to be where the difficult kid would act up, they call the office and the kid would get removed. Now, the teachers are actually using the strategies from HEARTS. (P06)

Overall, participants communicated that they were able to recognize and respond appropriately to students' needs, but they also discussed the difficulty of this task.

Teachers shared that one of the challenges of working with youth impacted by trauma is the difficulty in identifying and recognizing the need, because there is so much *unknown* (*n* = 9) about the student and their experiences. One teacher said, "As much as you think that you know about somebody's mental health or their trauma experiences there's always parts you don't know. You can't predict and can't understand" (P01). Another participant shared if she does not know a student well it is difficult to know what triggered them and how to best comfort them (P03). A teacher discussed knowing something was happening but not quite being able to recognize the issue as trauma related until more information was provided. She said, "It was just kinda like watching someone just circle the drain and had to find out what was going on to trigger what was happening to him" (P07). This lack of knowing likely made it difficult to effectively respond.

One teacher brainstormed a solution to unknown variables working with traumatized students. She said:

> So, I understand that there's some things we need to keep private, but I do really wish, whatever they do at the elementary level and then whatever worked, we start one year, like that there was confidential file that traveled with students, who experience a lot of trauma and who had difficulties, that we could access [the file] once we had them in class. Like, similar to an IEP because I feel like every year, it's like oh, I have this new student who is struggling with those, and then oh, what a minute, there's trauma in his life. (P10)

There was a sense that additional information could help teachers feel more informed and help build on what has previously been done rather than starting from square one.

Understanding impact. Not only did participants view recognizing trauma responses and students' needs as important but understanding the impact (*n* = 7) on behavioral and mood changes, impact on the brain, and the impact on others' learning

was also of importance. The teachers mentioned how learning about the impact of trauma on the brain significantly changed their approach to working with students. One participant noted that she shares her knowledge of trauma and the brain with her students:

> We talk about our brain a lot. And talk about how when we are you know when we are learning all of your energy is in the front of our brain, but when we get either extremely upset or really mad or even just or anything in the extremes we lose that learning in the front of our brain and we go down in our lizard brain. We just talk about a lot of that kind of thing. (P11)

Another teacher commented on understanding that "this student's brain is really not in a learning place right now" (P09). Furthermore, some participants recognized the impact of students' trauma responses on others' learning (n = 3). One teacher said, "kids may act out and that that can cause an unsafe or unequitable environment for other kids" (P02), and another remarked the importance of preventing "that child from getting to that point where they become that tornado in your classroom and then disrupt the entire classroom" (P06). There seemed to be a recognition that trauma could impact a person deeply and on many levels. Furthermore, that their own inability to self-regulate could negatively affect those around them.

Recognizing trauma responses. The teachers interviewed were able to view their students' behavior in the classroom through a trauma-informed lens. Every participant provided examples of how trauma responses manifested in the classroom (N = 11). Participants identified *internalizing behaviors* (n = 9) and *externalizing behaviors* (N = 11) as manifestations of trauma. Teachers recognized that the behaviors and reactions were student specific. For example, one participant said:

> Depending on the kid, sometimes it goes into like, the student goes into complete shut down and it's really hard to reach the student. They don't want to do anything, they're not really a behavior [problem], or they don't act out, but they're students who just shut down and just don't want to do anything. Or, they do the minimal. (P03)

Internalizing behaviors observed by the teachers included students covering or hiding their trauma, withdrawing, or engaging in self-harming behaviors such as cutting. One teacher said, "I've seen it where kids have just completely shut down and withdraw and they just don't want to talk" (P06). Another shared an increase in self-harming behaviors and said, "It really makes me nervous that these little girls are cutting themselves" (P02). Despite these numerous examples of internalizing behaviors, participants believed externalizing behaviors were more noticeable and may be presented in combination with internalizing behaviors.

Externalizing behaviors observed included acting out, jumpy or edginess, difficulty focusing, aggression and anger, oppositional defiance, attention seeking, shouting, and poor school attendance. One participant remarked, "they're not catching the material, or they are wandering around the room, or they are messing with things, or lying on the floor, or getting a drink of water" (P08). Another teacher mentioned, that students can go to the "extreme where if you just ask them to write their name on the paper, then they blow up at you because they just don't want to do that simple task for whatever reason" (P03). Relevant to extreme behavior changes, one participant told the following story about a student:

> For a while she kind of did a lot of the acting out and wanting that attention from people. So, we had a lot of issues of her kind of eating things she shouldn't have been eating, doing things that she shouldn't have been doing, hiding under the tables, the chairs, and sometimes just flat out to the point where she would break down and just cry and scream and yell and then shut down. (P06)

Overlapping with internalizing and externalizing behaviors, many participants provided examples of *emotionality* (n=8) such as crying, depression, and extreme emotions being displayed in the classroom. Teachers discussed how emotionality stood out distinctly from behaviors mentioned above. One participant mentioned that a student would "just burst into tears that seemed like for no reason" (P11), and another remarked about a student "her first days in school she cried every day about her brother" (P08). One teacher noticed a "kind of that tension that they're feeling" (P10), and another noticed "aching nervousness" (P02). One participant told the story, "Monday mornings he is just sad. There is no other description than just sad; shoulders down, frown, sad. It takes me a good half day to get him back to a smile and relaxed shoulders" (P05). Teachers were able to provide extensive examples of trauma-related behavior manifestations and emotional reactions. They also discussed how viewing these behaviors through a trauma-informed lens, they were able to engage in specific behaviors to provide appropriate interventions.

Teacher Behavior

Participants provided specific behaviors (N = 11) they engage in when delivering trauma-informed care including how their behavior changed after participating in the HEARTS training. Teachers recognized that they were more *mindful and aware* of their students' needs (n = 9), they became more *proactive* (n = 4), and they were more *inquisitive* (n = 6) by asking their students questions rather than assuming they understood or knew their experience. Participants discussed how they were more mindful of their own behavior such as their voice level and not getting too close to a student without their permission. Teachers spoke about being more reflective regarding their

actions and thoughts to increase their awareness. One teacher spoke about her increased awareness saying:

> I have been very careful, I am a teacher who does a lot of coming close to kids and pats them on the back, but I have become more cognizant of not doing that. Like I don't approach their space as much as I used to I try to come in a little bit more slowly and see how they act and if they are acting okay about it I will come in a little closer. I try not to be as invasive of their space. (P07)

Another teacher mentioned, "I felt just a more a sense of not, not shaming the student and not being so judgmental" (P09). One stated the training "helped me look for what I've learned through a new lens" (P06). Another teacher shared:

> I pay way more attention to my voice level. I'm kind of loud and gregarious. Just watch their personal space. And, I do a lot of checking in. Like, I'll say to a kid, you know, is this ok? Can I sit next to you? Can I talk to you for a minute? Like, it's me asking permission to do, to have interaction with this kid. (P02)

Participants discussed how this increased mindfulness has improved the culture in their classroom and enhanced understanding of their students. For some, it has created a calmer atmosphere and has enriched student-teacher relationships.

Teachers spoke about being more proactive and less reactive following the HEARTS training. They discussed anticipating behaviors and intervening before it becomes an issue and setting the environment up for success. Speaking to being more proactive and less reactive, one teacher said, "They could be doing something that is completely just, make you drop your jaw, but you can't respond to that. You just have to stay calm and non-reactive. Before they get to that point, you have to be proactive, so nothing happens" (P07). Preempting problematic behavior via recognizing and interviewing was important. One teacher spoke about recognizing triggers and using breathing techniques to help a child deescalate to help contain the situation (P06).

Participants talked about reducing their tendency to assume and instead behave more inquisitively by asking students questions, observing more openly, and seeking out additional information. To decrease assumptions, one teacher spoke about how she now explores students' experiences following the training. She said, "I think it's kind of opened me up to, you know…trying to investigate before I make assumptions about why kids are behaving a certain way" (P10). Not only were participants aware in the shifts in their own behavior, but they also recognized the need to be flexible in a system of trauma-informed care.

Flexible. Most participants spoke about being flexible (n = 8) in their personal approach, the environment, and their expectations. Regarding flexibility in delivering instruction, one teacher said she asks herself, "Are they getting the connection, or do I need to present it a different way" (P08). Others discussed being flexible in the environment and how students use that environment. One teacher said, "I've got one kid now who, the only way he feels comfortable enough to relax and focus is if he is literally laying across a table" (P04), and another commented:

> I have learned how to kind of gradually release my, how should say, my power to where in the past sometimes I would get the power struggle from kids and I've learned to go, OK, wait, I'm not going to argue. If this child wants to stand, then he can stand as long as he is not disrupting anybody. He can stand at the back of the room. Or, this child might have, might need, he might not want to sit on the floor, so he can sit at a table and do what he needs to do. (P06)

Two participants spoke about being flexible while still holding students accountable. One said:

> I have expectations for all students, but one day it's just not a good day for me to push that day, and just to know what their signs are and go, OK, I going to expect this but not necessarily today, or not necessarily in the next five minutes. Just kind of knowing, knowing them. (P03)

Another remarked, “Okay, like I understand you’ve gone through this and this is how you might be feeling, and it’s okay. You can take a little break, but we do have to come to work” (P09). Being flexible is also an important component in creating positive student-teacher relationships and being able to balance the demands of a teacher.

Balancing act. Participants spoke about engaging in a balancing act (n = 9) when working with students impacted by trauma. Specifically, participants discussed balancing students’ academic needs with both behavioral and basic needs. One participant stated:

> You’re basically constantly, constantly navigating what some days feels like an emotional mine field in the classroom. You’re constantly problem solving, constantly comforting students, and then, you know, our primary job is educators. So, you are trying to balance that with, with, maintaining a learning environment. And, I’ve worked in schools that don’t deal with the degree of trauma that we do, and you know, it’s, it’s to me, a completely different job working in a school like this. (P04)

One teacher noted the struggle to balance behavioral needs. She said:

> So, I don’t necessarily have the time to, let them blow up and calm down and, you know, come back later, and come and visit what they’re doing. I think it’s very much for me it’s the time constraints because I have groups back to back to back and I have to get my next group and things like that. (P03)

Additionally, one participant commented that she is “trying to meet academic needs, but sometimes you're also trying to meet those basic needs” (P02). The role of a teacher is a complex one and requires an awareness and flexibility to help balance and respond to the needs of students impacted by trauma. Participants recognized how the training specifically altered their approach to working with traumatized youth in the schools. Similarly, they discussed the importance of developing relationships with these students.

Developing Relationships

All participants spoke to the importance of *developing relationships* when working with students impacted by trauma (N = 11). Three main subthemes were evident regarding relationships including *building safe and secure relationships* (*n* = 10), *creating a sense of community* (*N* = 11) in the classroom, and *empowering students* (*n* = 10). Teachers discussed how their competency in building relationships with students improved following the HEARTS training. One said, "What the relationship gives me, and that's the only thing I can pinpoint as far as what this extreme difference in my class following HEARTS, compared to the craziness at the beginning of the year" (P08). The understanding of the crucial role of relationships was evident as participants discussed developing safe relationships and establishing meaningful connections.

Safe and secure relationships. To create *safe and secure relationships*, participants spoke to the importance of fostering loving, caring, and warm student-teacher relationships through understanding and patience, as well as through providing stability and consistency. Furthermore, participants discussed the importance of forgiveness in maintaining positive relationships. One participant said, "I see my role is to be another adult in a child's life that they trust enough that when they can't go to mom or dad or caregiver, they feel secure enough to talk to me" (P05). Another mentioned the responsibility of providing a safe "space where, you know, they can stop worrying about any other trauma that's going on at home, or they can just go take a break" (P10). Teachers recognized preparing students to learn by first fostering a sense of safety. One participant remarked, "if kids don't feel like their safe and trusted and cared for, they're

never going to learn anything. It always comes back to that" (P02). Another teacher said:

> In developing the relationship with each child is how I find out their story. So, if you know if they feel comfortable and are able to take risks with me and they know I care about them and that I get excited for them when they get a new puppy, or you know those different things kids…Then they are just more open, and we can talk about things that are scary. (P11)

Participants spoke about the importance of patience and the need for consistency for traumatized youth, because these students are often guarded and want to keep adults at arm's length. A teacher commented:

> It's like they can be as nasty to you as they possibly can to make you want to leave them and then say "now we see you won't leave us, we have already treated you as mean as we can and now that we see that you aren't going anywhere, now we can like you." And that was the hardest part for me teaching in this school. But once they figured out you weren't going to leave them, then all of a sudden, it's like you've got a new best friend. (P07)

When creating safe and secure relationships, forgiveness of self and others was vital. Teachers emphasized forgiving mistakes they make in student interactions and allowing students to be forgiven for misbehavior. The forgiveness demonstrated love which seemed to strengthen the relationship. One teacher shared:

> Often times, I'll tell my students, you know you were mad at me today, we didn't get along, we didn't see eye to eye, but tomorrow, I'm still going to love you the same as I did when you walked in the door today. My love for you doesn't go away. My love for you doesn't go away. So, I think that's really important that, that it's not contingent based. (P09)

And one teacher shared how she asks her students for forgiveness. She stated:

> There will be instances I react in a way that afterwards I'm like I wish I wouldn't do that. I am always the first one to go apologize to a kid. I am sorry I reacted that way, I didn't mean to, something else was distracting me and I really apologize for my behavior. If I had to do it again, I wouldn't have said it that way or done it,

> will you forgive me? And my students are always really, really touched by those moments, you can tell. They're like oh okay, we know her better than that…We all make mistakes and forgive each other. (P01)

This example speaks to recognizing the bidirectionality of the relationship and the importance of modeling of adaptive behavior. Participants highlighted the fundamental need to build meaningful and supportive relationships with their students. Establishing strong student-teacher relationships helped foster a sense of community in the classroom.

Creating a sense of community. Creating a *sense of community*, helping making connections, and taking the time to listen was viewed as fostering a sense of belonging for students. One teacher explained the importance of community circles, a component of the HEARTS program to help establish connections. "We have community circles; so, we open every day by building community. So, students build relationships through something fun. That's team related so that they start to build those interpersonal skills, those social skills" (P11). Another teacher spoke about going beyond the role of an academic teacher to foster community by "being there to help them get through their issues and their problems. And being there for them when they need someone to talk to, or just need someone to listen" (P06). And another teacher mentioned, "being there to support them and being an ear for them too and a shoulder to cry on and somebody to be honest with and be understood" (P01).

Participants spoke about the need for being genuine and honest to establish meaningful connections. One teacher shared that a member from the HEARTS team came in her classroom and modeled how to share genuinely from the "heart." This teacher appreciated this and instructs her students when sharing during community circle

to share "with your truth" (P09). When a culture of safety, honesty, and belonging is established, teachers are equipped to empower students.

Empowering students. The participants mentioned ways they *empower students* (*n* = 10) by identifying and fostering resilience and strength and helping students find their voice. One teacher articulated the strengths of her students as follows:

> Kids with trauma are worth it, you just have to have the patience and the time and have the effort to work through it. They are some of the greatest kids you will ever be lucky enough to work with… They are exceptional kids and exceptional human beings and they want to learn and grow. (P07)

One teacher shared that she tries to get students to "see themselves successful in the future" (P10), and another stated "I think that if I can get my students closer to knowing how to advocate for help for themselves then I feel like I'm doing better" (P01). One teacher commented on how the training helped her empower her students. She said, "I really do like the HEARTS training. I mean, focusing on my kids' assets and constantly trying to find assets of the student, you know and make them rise to that and highlight those, even in front of the classroom too" (P09). When providing trauma-informed care, teachers highlighted the importance of being strength-focused to support students' growth. Following the HEARTS training, participants were not only aware of the need of an asset-based approach, but they also identified an improved sense of capability.

Self-efficacy

Most participants mentioned a sense of self-efficacy (*n* = 10) as it relates to teaching students with trauma histories. Many teachers discussed *feelings related to preparedness* (*n* = 8) following the HEARTS training, and they explained the importance of *asking for help* when needed (*n* = 7). Some participants had simultaneous feelings of being ill equipped to meet students' needs as well as feeling prepared to work with

trauma-impacted students following the HEARTS training. Regarding increased preparedness among teachers, one participant commented that she had seen a decrease in the number of students being sent to the office or being suspended. She attributed this decline to teachers and staff "becoming more aware of what trauma looks like, kind of what to look for, and what you can do" (P06). A participant noted feeling comfortable providing trauma-informed care based on her prior preparation as well as the HEARTS training. When asked about challenges regarding teaching traumatized youth, she said, "And then of course, with HEARTS training, I feel like I have an extra piece to help me out as well…it has helped to kind of bring down the pressure you feel in the classroom" (P07). One teacher shared a significant story of improving her level of preparedness. When asked about the benefit of the HEARTS training, she said:

> Um, yeah, let me see if I can even describe. I think coming into this environment my first year, I had no idea what to expect and what I saw and what I had in my classroom really threw me. I did not know how to prepare for the next day. I was exhausted and emotionally and I did not know what resources to pull from to handle that situation again the next day. Every day I would go home and say, "how could I do that differently?" With HEARTS, I feel like I have a toolbox now where I might still go home and ask myself, how could I have done better, how could I have handled that differently, but at least now I feel like I have other things I can pull out and do it differently the next day. (P05)

On the other hand, a few teachers had feelings of being ill equipped to meet students' needs. For example, one participant expressed that the need at times seems too big. She said, "I just think in general I just get disheartened because it seems like the volume of types of students is not decreasing but going up a different direction. And so that is just incredibly disheartening" (P05). Another participant expressed some doubt regarding her ability. For example, she would provide information on how she would respond to a student and then say something to the effect "I'm not sure if this is correct"

and “I probably check” with the HEARTS team regarding correct implementation. Although some doubt was present, she seemed to be reflective and proactive in ensuring that she was providing the best trauma-informed care possible. Even with some feelings of uncertainty, many teachers were able to identify when the need was too big for the classroom and when to make appropriate referrals.

Many participants commented on how the training shifted their perspective related to *asking for help* when needed. One teacher commented on her change of view saying she felt the “freedom to ask for help. The first year I kind of felt like if I was seeking help it was a weakness and now I realize it’s not” (P05). Another shared that “sometimes you might not want help because you might think people might think, oh, she couldn't handle it. She doesn't know how to deal with it. But, it’s okay to ask for help. It's okay to say, hey, I’m stuck, I don’t know what to do and go to other people” (P06). Several participants discussed the importance of seeking help from mental health providers when students’ needs become too large to be met in the classroom alone. With this freedom to ask for help, teachers seemed to feel better able to provide appropriate support. Perhaps this improved sense of self-efficacy allotted more time for teachers to address their self-care needs.

Self-Care

All participants discussed the personal impact of teaching traumatized youth and the importance of self-care (N = 11). Of note, four participants mentioned that they had personal histories of trauma. Many participants provided stories regarding the *emotional toll* (n = 9) working with populations impacted by trauma. They also discussed trying to *make themselves a priority* (n = 9) by recognizing their personal feelings and responses,

and the need to take care of themselves before they were able to take care of their students. Teachers articulated how their perspective changed regarding student behavior and learned to *not take it personally* (*n* = 5) following the HEARTS training. Finally, participants expressed *gratitude* (*n* = 5) for working with youth with trauma histories.

Emotional toll. Teachers described the significant impact and emotional toll of working with these students. One teacher commented, “It's exhausting. It’s like, it can be like, really physically and mentally, emotionally exhausting in that we are working with kids. I often leave school feeling like more of a social worker than a teacher” (P04). And another discussed the challenge of not taking the work home, and “just constantly worrying about what my students are going through. So, I would say that's the biggest challenge” (P10). One participant shared a poignant story about one student. She said:

> He was a student, highly, highly impacted from trauma but he would just shout all day long. Shout at me, shout at other students. He got in a fist fight in the hallway. And, by 1:30 in the afternoon, I would be shaking. I would try to write, I would try to write on my chart paper, and if I showed the class, I said this shaking, look at my lines. They are all wavy because I was shaking when I wrote this. I would really start to shake. So that, that part of it really impacts and impacts my, just my energy level when I go home. I'm like, wiped out. Every day. (P09)

Teachers recognized the personal cost of working with youth impacted by trauma. Relatedly, about half of the participants expressed their frustration with staff turnover. With high teacher and staff turnover, such as a new administration every year, and years when over half the teachers and staff left, participants shared the difficulty in providing efficient trauma-informed care. Considering the personal emotional toll, teachers realized the importance of taking time for themselves.

Making self a priority. Participants mentioned the need for recognizing their own responses to working with this population and how to engage in self-regulation methods. One teacher said:

> When I myself am feeling stress out and going into my own lizard brain; being able to calm myself down first before I help a kiddo if it is really agitating or destructive behavior sometimes it's hard for a teacher to stay calm [laugh]. So just finding those strategies for myself. (P11)

Another remarked, "I've learned a lot on how to handle the situation, how to make time for myself so that I'm not getting burned out half-way through the day" (P06). Additionally, a participant spoke about having reasonable expectations for herself. She said, "I think the biggest challenge for me is to remember I am a human too; that I can't always be exactly what they need and there's always room to grow and learn" (P01). Participants also discussed how their perspective of self-care changed following the HEARTS training. Many realized that caring for themselves first was necessary to best help their students. One teacher stated:

> Taking care of yourself is really important. And the things we do to take care of ourselves are not necessarily always taking care of ourselves. So, having good self-care is important. If we can't take care of ourselves, we for sure can't take care of our kiddos. (P11)

Another commented, "I kind of realized through HEARTS that, if I don't take care of myself, it's not helping anybody" (P06). Teachers clearly understood that as a provider they must address their own needs first to be ready to help their students.

It's not personal. One way teachers engaged in self-care following the training, was via shifting their perspective regarding student behaviors and not taking it personally. One participant shared the importance of remembering, "I am the adult in the room, I am the leader in the room, I'm the teacher. Like, I have to be sure that I act

accordingly, and I have to remember to really not take things personally" (P09). Another noted, "I also can't take that personally when a kid turns and says, I hate you and I don't like you" (P06). Another teacher articulated how her experience has helped her not take student behaviors to heart. She said, "I have learned over the years how to kind of how to distance and how to analyze things to know that, "Oh, it probably wasn't my fault that the kid just threw a pencil across the room"" (P03). The participants acknowledged the training helped reframe students' behaviors and help lessen the toll these behaviors can take.

Gratitude. Finally, participants discussed their love and gratitude for working with students impacted by trauma. This gratitude can help the teachers feel good about what they do and motivate them to continue. Participants expressed, "You do it because you love it and you love the kids" (P07), and "It has definitely made me more grateful for my life" (P10). A teacher shared the joy she receives when her hard work pays off. She shared:

> Then on the other side it allows me to see that sparkle in the student's eye, or when I see them come around from that place from not learning to coming around to trying again and getting back on task. That makes me feel good too, because I know I'm doing, I'm doing what I need to be doing to help them. (P09)

Finally, one participant shared a powerful perspective when working with students impacted by trauma compared to those who had not been. She stated:

> I'm such a better teacher than I was. I had taught second graders before I came here but I don't really think I was a teacher until after my first year here…I am much more fulfilled teaching these kids that have such major challenges. Fulfills me a lot more, hard work but more fulfilling. (P05)

Self-care was recognized as a vital skill related to supporting the needs of students who have experienced trauma.

Healthy Environments and Response to Trauma in Schools (HEARTS) toolbox

In addition to the more encompassing concepts (e.g., relationships) related to providing trauma-informed care, participants discussed concrete HEARTS strategies they have implemented in the classroom including creating *peace corners* (*n* = 8), implementing *community circles* (*n* = 4), and *utilizing tangibles* (*n* = 3) such as stress balls. A teacher responded:

> The peace corner is such a relief for me…they go in there when they are like "I can't go on, I can't continue to do my work." I watch them back there with having just a moment of play and a moment of being in themselves and being in their head. Sometimes I have had quite a few tired kiddos take naps or sick kids take naps back there. And then they just reenter our learning community and it is really healthy for them. How could you never have a peace corner? Just so that they can have an area to escape and not be, you know, surrounded by a ton of other kids…take some mental space. Be by yourself for a minute. It's used overall really well. I mean there's days where they all want it. They all want to be there but having that is very healthy. It's awesome. (P08)

One participant shared that the peace corner "didn't particularly work" for her (P04), but she does offer and allow breaks in her classroom when requested. Other participants used community circles to make connections and allow students voice as discussed previously. Some teachers use things such as stress balls and blankets in their classroom. One person said, "I have a really squishy blanket they can go cuddle up in if they are upset" (P11). One teacher talked about the challenges of using these tangibles:

> Some of the things that didn't work out so well were the stress balls and the fidgets because they would get thrown across the classroom. And, I mean I've tried it some many different ways teaching the students how to use them and where to be, where they should be kept and, so that has been kind of problematic…I guess I kind of struggle with holding kids accountable for how things are used, and how they're treated." (P09)

The tool box techniques provided by the HEARTS training were experimented with, changed, and adapted to fit the teaching styles of the participants, and many found them to be valuable tools in the classroom.

Systemic Support

Teachers discussed the support they received at the building-level, support from the HEARTS team, their desire to have more time to provide care, and wanting more access to mental health professionals. Many participants felt supported by their *administration* (n = 5) and two teachers mentioned restorative justice as a discipline system in their school. Teachers also shared their desire for more *time* (n = 7) to complete expected instruction, to build relationships, and to provide social-emotional learning opportunities. Participants also expressed the desire and need for additional *mental health professionals* (n = 6), particularly for the general education students. According to the teachers, the school psychologists are often relegated to special education services, leaving a void in the universal student population; there is often a lack of counselors available to meet the demands of students impacted by trauma.

Most participants commented on the *HEARTS team's responsiveness* to their needs (n = 8). They enjoyed the open communication between the team and the teachers which provided opportunities to get questions answered and problems solved. Participants discussed how the team would provide direct support in their classroom such as helping them set-up peace corners, attend community circles, and offering feedback after observing students. Regarding this feedback, one participant shared that the HEARTS team would "push in or watch a kid and talk to the teacher about, this is kind of what I'm seeing, or this might be the trigger and you might try X, Y and Z. That's really

helpful because lots of times teachers are afraid to let people in their rooms because you would be a part of their evaluation, but with the HEARTS people, it's totally not that way because they obviously are not evaluating you" (P02).

Participants provided some constructive feedback related to the HEARTS training. First, teachers shared that the timing of the training is very important. Some thought having trainings after school often left teachers too burned out to be able to fully participate. Others thought it would be important to provide the full dose of the training all at once and then offer booster session a couple times during the year, rather than taking the training in bits and pieces. Second, some participants recommended smaller groups during the training to allow for vulnerability and more discussion. Third, some participants believed that some of the self-care opportunities offered were not realistic. For example, the HEARTS team and school administration sometimes supply substitute teachers to permit teachers to take short breaks during the day. Some participants indicated that this interfered too much with the groove of their teaching day. Overall, participants found the HEARTS training extremely beneficial.

Results Integration

There were similarities between the quantitative and qualitative results. Since the small sample size for the quantitative strand may have prevented other variables from reaching significance, the similarities among all quantitative variables and the themes are discussed. This is not to suggest that these apparent consistencies with the themes make these variables significant; they are presented to elucidate potential similarities between trauma-informed attitudes and the practices of trained teachers engaging in TIC in the classroom.

Overall, participant interviewees (those who had participated in the HEARTS training) tended to be communicating attitudes more favorable to trauma-informed care as defined by the Attitudes Related to Trauma-Informed Care (ARTIC; Baker et al., 2016) scale, than their peers who had not completed the training. Further, the themes expressed by participants seemed to align with the subscales on this instrument, suggesting the relevance of these constructs to their practice in the classroom. Since the ARTIC was developed using trauma-informed principles (Baker et al., 2016) the importance of the alignment is indicated. For example, the themes of *realizing the impact of trauma* and *recognizing trauma responses* were similar to Underlying Causes of Problem Behavior and Symptoms from the ARTIC. Responses to Problem Behavior and Symptoms includes endorsing attitudes such as focusing on creating healing relationships and taking a flexible approach to supporting students, both reflected in the themes of *developing relationships* and *flexibility*. The themes of *self-care* and *freedom to ask for help* related to Reactions to the Work where favorable attitudes were related to taking care of oneself to be able to take care of others and seeking support to avoid burnout.

The themes of *self-efficacy* and *it's not personal* were related to Self-efficacy at Work (i.e., feeling equipped to support trauma-impacted students, understanding that difficulties are part of the job, and to not take it personally) had a more complicated alignment because it was not necessarily training, but personal experience that seemed most relevant, at least in the quantitative strand. Favorable attitudes consisting of creating healthy relationships to improve student outcomes and taking responsibility for mistakes (i.e., On-the-Job Behavior) seemed to be related to the themes of *developing relationships* and *forgiveness*.

Some themes emerged that were not necessarily reflected in the quantitative strand. The qualitative strand deepened the knowledge regarding how TIC changes teaching practice. In particular, teacher behavior (i.e., mindful and aware, proactive, inquisitive, and balancing act), gratitude, empowering students, and the not knowing emerged. This seems reasonable, since the quantitative results reflected attitudes and the interviewees discussed not only attitudes and perceptions related to trauma-informed care, but specific ways they provide this care. Moreover, the quantitative data did not account for the challenges teachers faced when working with students impacted by trauma. During the interviews, teachers were able to articulate real-world challenges such as balancing academic and behavioral needs and providing support for students when they did not have all relevant information. Finally, as the Self-Efficacy variable was significant for teachers with reported personal history of trauma, it was interesting that four of the qualitative participants mentioned being impacted by trauma.

Based on the quantitative results, participation in the HEARTS training explained the variance in teachers' attitudes related to the trauma-informed understanding of Underlying Causes of Problem Behavior and Symptoms, regardless of personal history of trauma. Regarding the qualitative results, teachers clearly perceived the HEARTS training as beneficial in helping them respond to students who have experienced trauma. Moreover, teachers believed they were well supported by their administration and the HEARTS team. Some of the barriers they faced were not having enough time to implement trauma-informed care in the classroom and not knowing who their trauma-impacted students were. Finally, based on teachers' discussion during interviews, they demonstrated the realization of the impact of trauma and recognizing trauma responses

consistent with the significant finding related to the Underlying Causes of Problem Behavior and Symptoms variable.

CHAPTER V

DISCUSSION

Exposure to violence and aversive events is all too common for children and adolescents in the United States (Felitti et al., 1998; Finkelhor et al., 2013; Hamblen & Barnett, 2014; Ridgard et al., 2015). Evidence regarding school preparedness and ability to respond to students' chronic exposure to community violence is lacking (Ridgard et al., 2015). The main purpose of this mixed methods study was to evaluate the relationship between trauma-informed training and teachers' attitudes related to trauma-informed care. More specifically, qualitative interviews were used to explore Healthy Environments and Response to Trauma in the Schools (HEARTS) trained teachers' perceptions of their daily practice with youth impacted by trauma.

Does Trauma-Informed Care Training Matter?

For this sample, there was a significant difference between HEARTS trained and non-trained teachers related to the underlying causes of students' problem behavior and symptoms. The trained teachers were more likely to attribute students' learning and behavior problems to a student's history of difficult life events rather than to fixed internal characteristics. These teachers tended to view students' problems through a more trauma-informed lens; meaning that they had a greater understanding that experiencing trauma can lead to problematic behavior and that all students want to learn but may need additional support in the classroom. This is related to the key component

of the HEARTS training of understanding trauma and stress. This includes "understanding how trauma and stress can affect individuals, relationships, organizations, health and work can help to reframe otherwise confusing or aggravating behavior" (Dorado et al., 2016, p. 167). This understanding helps teachers more effectively recognize the impact of trauma and respond in a way that fosters healing (Dorado et al., 2016). In fact, HEARTS trained teachers' mean attitudes trended in the direction of more favorable viewpoints related to TIC compared to the non-HEARTS group in all areas except for attitudes related to Self-Efficacy. The most influential factor of teachers feeling more able to meet the demands of working with students impacted by trauma (i.e., Self-Efficacy) was a personal history of trauma.

Perhaps, and not explored in this study, these personal experiences made teachers feel better equipped to help these youths due to increased empathy or a specific understanding of the impact and how to heal and move on from trauma. A related concept that could lend itself to further explanation of this, may be Posttraumatic growth (PTG), an individual's growth following traumatic experiences (Tedeschi & Calhoun, 2004). Personal history of trauma is an interesting, although still not entirely understood, variable. For example, a prior study found some teachers with trauma experiences found it overwhelming to work with traumatized youth while others found their prior experiences as a motivator to support these students (Alisic, 2012). For this study, qualitative participants, both with and without a reported trauma history. expressed gratitude working with trauma-impacted students. For the quantitative sample, teachers with a personal history of trauma, mean attitudes across domains trended higher compared to teachers with no reported trauma history. Relatedly, although based on a

smaller sample, there was a higher percentage of teachers with a trauma history who had completed the HEARTS training than those who had not. Perhaps teachers with personal traumatic experiences are more likely to self-select to participant in TIC trainings. Moreover, being HEARTS trained in conjunction with having a personal history of trauma appeared to create more favorable attitudes related to on-the-job behavior, such as being empathy-focused (e.g., "it's okay that my students are upset"), rather than control-focused behaviors. This relationship may reflect the possible influence of personal experiences related to increased empathy for students due to prior experiences.

On-the-job behavior failed to differ significantly between groups above and beyond prior trauma history. However, this may have been due to the relatively small sample size, because the difference did approach significance. Furthermore, from speaking with teachers who had participated in the HEARTS training, it was clear that they were using a variety of specific techniques related to the training, as well as making changes to their own interactions in more subtle ways (e.g., being aware of space and touching students, apologizing when appropriate, modifying loudness of voice). Future studies should explore potential differences in on-the-job behavior with a larger sample and continue to explore the influence of personal trauma experiences related to trauma-informed care.

Based on this study, length of teaching experience did not seem to matter regarding attitudes related to trauma-informed care with a relatively comparable distribution of years of experience between the two groups (i.e., HEARTS trained and untrained). Interestingly, teachers who volunteered for the interviews tended to be experienced with an average of 12.5 years (range 1-24 years). Many of these experienced

teachers expressed frustration with teachers leaving the school too soon. They discussed high staff turnover as disruptive to implementing continuous, widespread trauma-informed care consistently across the school setting. Staff turnover, particularly in urban schools, for teachers newer to the profession, has been found to be problematic (McKinney et al., 2005; Voke, 2002). In fact, younger and less experienced providers and those with no specific trauma training have reported greater levels of burnout, a symptom related to compassion fatigue (Craig & Sprang, 2010). The Reactions to the Work, the subscale most closely related to self-care, had problematic internal consistency. More research is needed regarding years of experience and variables such as self-care.

Trauma-Informed Care and Health Environments and Response to Trauma in Schools (HEARTS) Overlay

Not only were there were clear similarities between the content of the quantitative variables and the themes that arose from teacher interviews, the themes also had a clear overlay with SAMHSA's trauma-informed framework and the goals and core guiding principles of HEARTS. Displayed in Figure 4 are the relationships among these three elements. The bidirectional arrows in the figure represent a relationship between the components but are not intended to denote causality or directionality.

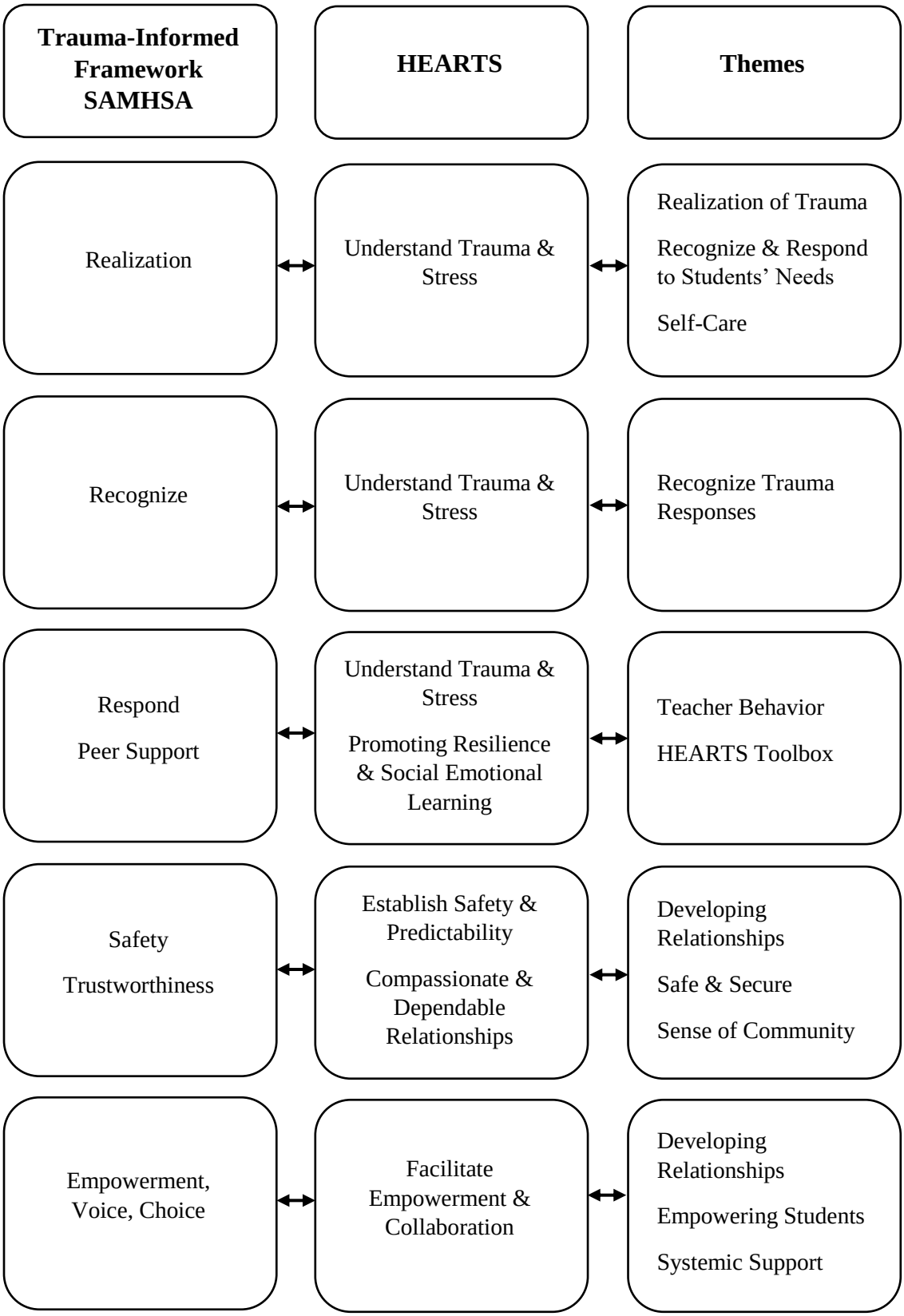

Figure 4. Commonalities among SAMHSA's trauma informed framework, the goals and guiding principles of HEARTS, and this study's qualitative themes

A key assumption of a trauma-informed framework is realization, which involves having a basic understanding of the impact of trauma and viewing behavior within the context of developed coping strategies created to "survive" traumatic experiences (SAMHSA, 2014, p.9). A related HEARTS principle is helping school staff understand trauma and stress and its impact on students (Dorado et al., 2016). The participants in this study clearly demonstrated a realization of trauma through definitions and identifying their students' traumatic experiences. Teachers provided clear examples of potentially traumatizing events consistent with prior research including homelessness, exposure to community violence, child maltreatment, immigrant status, domestic violence, and death of a loved one (Felitti et al., 1998; Rossen & Cowan, 2013). Additionally, participants were able to accurately articulate that trauma responses were individual specific (Rossen & Cowan, 2013).

Although most participants understood that difficult life experiences (e.g., increased responsibilities, lack of attention in the home) may not be traumatic in of themselves, some did begin to blur trauma experiences with challenging life circumstances. Alternatively, teachers may have been demonstrating a good level of understanding that traumatic events in the context of stressful living situations may make it more difficult for students to overcome their trauma experiences. It was not possible to determine whether teachers were viewing student behavior in the context of trauma and challenging life circumstances, or whether they were overapplying a trauma lens to events such as moving, being responsible for younger siblings, or other situations that could be difficult and stressful, but not traumatic. Although empathy for a student's life

experiences is important, applying the term trauma to any negative experience may make the concept of trauma less clear and lead to inappropriate identification and interventions.

Realization also involves an understanding of the impact of working with trauma-affected populations including emotional distress (SAMHSA, 2014). At each tier of service delivery of the HEARTS intervention, there is a focus on self-care including first training school staff around "addressing stress, burnout, and secondary trauma," and then providing wellness support as secondary and tertiary interventions (Dorado et al., 2016, p. 165). Teachers in this study not only recognized the necessity of taking care of themselves before they would be equipped to support their students, they also realized the emotional toll they experience when working with trauma-impacted students. Teachers also understood that student misbehavior is not a personal attack, but rather a potential manifestation of the child's exposure to aversive events. In conjunction with trauma-informed training and experience working with a trauma-impacted population, educators may be better equipped to engage in self-care (Crosby et al., 2015). Experiencing compassion fatigue can impair functioning when working with youth affected by trauma (Figley, 2001; Ray et al., 2013). The discussion of the emotional impact of working with these youths and balancing self-care needs was consistent with previous research (Alisic, 2012; Alisic et al., 2012).

Recognizing the signs of trauma and responding in a trauma-informed way, as well as reframing student misbehavior as reactions to trauma, are important parts of TIC and HEARTS (Dorado et al., 2016; SAMHSA, 2014). Teacher participants were able to recognize a broad range of trauma responses and how those responses manifested in the classroom consistent with research findings of emotional and behavioral expressions of

trauma and violence exposure (e.g., Benhorin & McMahon, 2008; Gaylord-Harden et al., 2011; Zetlin et al., 2012). Although they were better able to provide examples of more outward behaviors, they recognized a variety of both internal and external behavioral expressions. The examples provided were quite similar to those of Bell et al. (2013) who outlined how trauma symptoms might present in the classroom. For example, teachers discussed students being "jumpy" as a sign of trauma; this might correspond with what Bell et al. (2013) considered to be hypervigilance, a trauma symptom. The teachers in the current study were able to understand the behavioral and emotional domains of symptoms including social isolation, attention-seeking, increased aggression such as yelling, and difficulty regulating emotions, as well as some cognitive symptomology including difficulty concentrating (Bell et al., 2013). Teachers trained in trauma-informed practices understanding and addressing of externalizing behaviors in the classroom was consistent with the findings of Crosby et al. (2015). A common trauma response in children, which teachers in this study generally did not mention, are recurring physical complaints such as students complaining of stomachaches or headaches. Prior research found youth exposed to community violence in urban areas exhibited high rates of somatic symptoms such as headaches, muscle pain, and stomach pain (Hart et al., 2013; White & Farrell, 2006). More training regarding trauma and somatic symptoms may be necessary so that teachers can include this in their identification of trauma-related responses.

Participants' discussion of teacher behavior and the HEARTS tool box is associated with SAMHSA's assumption of responding in a trauma-informed manner and the related HEARTS principles of understanding trauma and stress and promoting

resilience and social emotional learning (Dorado et al., 2016; SAMHSA, 2014). Through the HEARTS training, teachers developed a better understanding of trauma, and they were able to respond using appropriate trauma-informed practices. Teachers did this by being mindful of their own behavior and seeking answers from their students to understand their experiences. Moreover, teachers discussed being more proactive and taking a flexible approach to managing trauma-related behavior. Being proactive to support traumatized youth is consistent with prior research (e.g., Clunies-Ross et al., 2008; Shook, 2012). In their recent work, Crosby et al. (2015) found that by completing trauma-informed training, teachers were flexible in their approach to academic instruction to help meet the needs of their students. Teacher behavior of being mindful and aware, proactive, and inquisitive and balancing student needs are aligned with trauma-informed principles. Perhaps the HEARTS training gave teachers permission to be more flexible rather than engaging in power struggles with students and only focusing on academics. These themes need additional research and exploration in how to measure behavioral changes rather than just attitude changes.

Related to the toolbox, implementing resources, such as peace corners, is related to HEARTS principle of promoting wellness practices and helping foster self-regulation skills (Dorado et al., 2016). Peace corners are intended to help students recognize when they need a break and utilize that break to adjust and return to the learning environment. Also, holding community circles in the classroom not only relates to responding in a trauma-informed manner, but also to the principle of peer support. Peer support helps build trust through the sharing of similar experiences (SAMHSA, 2014). Several

teachers in this study spoke about implementing community circles to promote a culture of sharing and support.

A cornerstone of discussion among the teachers in this study was the importance of developing safe and secure relationships and creating a sense of community. The teachers worked with trauma-affected students through establishment of loving, warm, caring relationships and through understanding, patience, and providing consistency and stability. Teachers also demonstrated forgiveness by allowing students to have a fresh start following misbehavior. Teachers discussed fostering connections in the classroom through community circles and taking the time to listen to their students. Safety and trustworthiness are principles of trauma-informed care (SAMHSA, 2014). Relatedly, establishing safety and predictability, and fostering compassionate and dependable relationships are core principles of HEARTS (Dorado et al., 2016). Developing positive-teacher-student relationships with trauma-impacted youth was consistent with prior research demonstrating trauma-informed trained teachers feelings of increased capability in creating these relationships (Crosby et al., 2015). Although research related to student-teacher relationships serving as a protective factor for students exposed to community violence is limited, it builds on a larger body of research related to the importance of supportive adult buffering against various risk factors (e.g., Fowler et al., 2008; Hardaway et al., 2012; Ludwig & Warren, 2009; Pisani et al., 2013; Troop-Gordon & Kopp, 2011).

Another important part of relationship building is teachers' empowerment of their students by identifying and fostering resilience and strengths, and helping students find their voice. Facilitating empowerment and collaboration by providing "meaningful

opportunities to have voice and choice" and empowerment, voice, and choice are key principles of HEARTS and SAMHSA's TIC respectively (Dorado et al., 2016, p. 167; SAMHSA, 2014). Additionally, staff should be empowered via organizational support (Dorado et al., 2016; SAMHSA, 2014). In general, qualitative participants felt supported by their administration and the HEARTS team helped empower them to provide trauma-inform care. A sense of trust between the trainers and the teachers seemed to be invaluable since most teachers expressed the need to be vulnerable in order to learn and grow. For example, teachers were comfortable with the HEARTS team coming into the classroom to support them in creating a trauma-informed environment. Although teachers felt fully supported by the training team, they also expressed desire to have more time to provide TIC interventions and more widely available access to mental` health professionals for their students.

A goal of HEARTS is to "build staff and school system capacities to support trauma-impacted students by increasing knowledge and practice of trauma-informed classroom and school-wide strategies" (Dorado et al., 2016, p. 164). This objective was apparent in participants' reports of viewing themselves as capable to work with trauma-impacted students (i.e., Self-Efficacy). Many teachers felt prepared to meet the needs of their students, while other expressed feeling unprepared due to the magnitude of the need. Teachers described their willingness to ask for help and their perspective on seeking help as having shifted following the HEARTS training. Teachers described themselves as more comfortable seeking additional help in delivering TIC, and they recognized the importance of asking for assistance from mental health providers when the students' needs exceeded the classroom capabilities. Self-efficacy is not only related to teacher

knowledge and effective skills, but it also likely assists teachers in being more proactive in the classroom and in managing the emotional toll of working with trauma-impacted students (Bandura, 1993; Heller et al., 2011). Because self-efficacy in the quantitative portion was only associated with a personal history of trauma, this area needs further exploration to understand its relationship with seeking out trauma training as well as trauma-informed service delivery.

Gratitude, defined in this study as the love for working with trauma-impacted students, feeling fulfilled, and feeling good when behavior change occurred, emerged as a noteworthy theme. Gratitude research, as it relates specifically to teacher wellbeing and self-care, is relatively scarce in the United States; the association between gratitude and teachers providing trauma-informed care in the schools is absent. McCullough, Emmons, and Tsang (2002) reported a positive association between gratitude (i.e., a lasting quality of thankfulness), hope, and optimism, and a negative relationship with symptoms such as depression and anxiety. Another quantitative study carried out in Hong Kong assessed how teachers managed stress and burnout to be able to successfully meet the learning and social emotional needs of their students. Chan (2013) found a connection, along with other variables (i.e., forgiveness and orientations to happiness) to teachers' subjective well-being (e.g., life satisfaction, positive affect) Additionally, a qualitative study conducted in Australia with pre-service teachers found that practicing gratitude strengthened relationships and teachers discussed that "practicing gratitude increased student engagement, improved class/school atmosphere, and made them feel like a better teacher" (Howells & Cumming, 2012, p.83). Howells and Cumming (2012) discussed how the practice gratitude can be individual specific and an individual's perception of

gratitude. Teachers in their study, practiced gratitude in varying ways such as thanking others. The teachers also kept a "gratitude journal" allowing them to reflect daily on the effects of practicing gratitude (Howells & Cumming, 2012, p. 78). Gratitude and its role in trauma-informed care in the schools needs additional exploration to understand its relationship to teacher, secondary traumatic stress, self-care and working with trauma-impacted students. If practicing gratitude does indeed relate to teacher well-being, perhaps fostering gratitude could be incorporated as a part of trauma-informed training.

Although it was not a specific focus of this study, adaptations to providing trauma-informed care based on students' cultural factors was not discussed by the interview participants. A key principle of TIC is considering cultural, historical, and gender issues, and viewing student behavior through a culturally informed lens (Chafouleas et al., 2016; SAMHSA, 2014). A guiding principle of HEARTS is practicing cultural humility and responsiveness (Dorado et al., 2016). This may not have been elicited in the conversation; however, training in this area may be needed, particularly given the relatively homogenous sample that work with the culturally diverse student population characteristic of the district where HEARTS was being implemented.

Limitations

The current sample was not particularly diverse, with 80% of the quantitative and 81% of the qualitative sample identifying themselves as White/Caucasian, and 96%, and 100%, of the quantitative and qualitative sample respectively identified as female. Given that the students in the participating district represent 131 different countries and 133 different languages (Kailin et al., n.d.), there may be potential barriers in teachers' ability to recognize the need to consider culture in their conceptualization of trauma. In addition

to the relatively homogeneous sample, random sampling was not utilized which limited the generalizability and transferability of the results. Although the survey was meant to be completed by teachers, the sampling procedures may have mistakenly caused individuals other than teachers, such as school psychologists, to be sampled. This may have confounded the results because certain individuals may have had more experience with trauma-informed care due to the nature of their role. Additionally, participants may have participated in another form of trauma-informed training besides HEARTS.

Due to the sampling procedures and the interview participants coming from only three schools, sampling bias may have been present. Additionally, reasons for participation in the HEARTS training may have varied. For example, teachers who self-selected for the HEARTS training may have already held more favorable attitudes related to trauma-informed care than those teachers who did not volunteer. And those whose administration required them to participate may have been less invested in the training, and therefore, less likely to engage in attitude change. It is unknown if having more education (e.g., MA) and a history of personal trauma or both, in addition to HEARTS, influences trauma-informed attitudes. Or, are these variables more likely to lead a teacher to self-select to participant in trauma-informed training? Systemic factors may have influenced the results. For example, variables such dosage of HEARTS intervention, prior training in social-emotional interventions, and other systemic interventions being implemented (such as restorative justice) may have confounded these results.

Since the school district offered different training delivery formats, it was unclear the dosage participants received. The survey simply asked yes or no if they had participated and some qualitative participants indicated that they had taken “pieces” of

the training. Therefore, it is difficult to draw conclusions between the training and the findings. Additionally, 19 HEARTS trained teachers indicated on the survey that they had participated in consultation sessions with the HEARTS team range form 1-10 consultation sessions.

The self-efficacy variable violated the normality assumption. The quantitative sample was relatively small and did not meet recommended power. Considering that some variables approached significance (i.e., <0.10 alpha), some relevant variables may have been overlooked, committing possible Type II error. Although the ARTIC scale had generally acceptable reliability, the reliability for the Reactions to the Work subscale was questionable for this sample. Even though the consistency for the qualitative results was acceptable (80% agreement), additional intercoder reliability could strengthen the consistency standard. More extensive training and discussion of the code book may have yielded higher percentage of agreement across more raters. Even given these limitations, due to the lack of research on the effective implementation of trauma-informed frameworks in the schools (Overstreet & Chafouleas, 2016), this exploratory study adds to a much-needed area of research.

Implications and Recommendations

The results of the current study have several implications for trauma-informed care in the schools. Considering certain teachers may be more prone to self-select, it may be necessary to make HEARTS, or other trauma-informed training, mandatory for all school staff. Also, developing trusting working relationships between training teams and teachers would be helpful in supporting teachers' growth and efficiency in delivering TIC. In addition, building in time for teachers to foster safe and secure relationships with

students would be beneficial to support teachers in not only meeting academic expectations, but also the mental health needs of their students. The teachers in this study voiced their beliefs that for learning to take place, mental health needs had to be addressed first; a position consistent with the work of Greene et al. (2014). Relatedly, additional mental health professionals in the schools, such as school psychologists and counselors, need to be provided for the entire student population, not just those who have been identified as having specific disabilities. This increase in mental health personnel would not only support teachers delivering TIC in the classroom, but also help students when the need became too great for the teacher alone.

To provide quality trauma-informed care, communication is important. For example, it likely would be helpful to have a confidential file that travels with the student, from grade to grade, once that student is identified as having been impacted by trauma. The file could include a summary of the trauma experiences; more importantly, it could outline the students' triggers and behavior manifestations, as well as what interventions have been tried and which have worked best. This could help teachers to be prepared for students' needs, understand the strategies that have been most successful, and most importantly, help ease students' transitions to a new setting where they are not forced to "tell their story" again. However, confidentiality concerns need to be considered such as what is included in the file and who can access the file. Parent or guardian permission would likely be needed to document sensitive information related to trauma-experiences in a school record.

Some teachers conceptualized trauma quite broadly, and therefore, additional clarification may be needed. However, it is unclear what the impact of teachers viewing

difficult life events, such as responsibilities at home (e.g., taking care of siblings) and lack of attention from parents, would be. Since being flexible when addressing trauma-affected students' needs was important to the HEARTS trained teachers, incorporating this idea of flexibility in the primary training, as well as additional trainings, may be valuable. Flexibility in TIC implementation may help teachers navigate the real-world challenges that arise when working with this population. Of course, this is an area for additional research. It would be important for HEARTS to provide training related to culturally responsive implementation of TIC and encourage school staff to view student behavior through both a trauma-informed and culturally-informed lens.

Overall, interview participants believed the HEARTS training was beneficial and that the HEARTS team was supportive. Teachers suggested that the timing of the training would be important, such as having it in the mornings or an all-day training, not afternoons following a day of teaching. They also suggested the importance of taking the full training in one all-day dose, rather than in segmented parts at different times. They also recommended having a few additional trainings, or booster sessions, throughout the year. To increase discussion and practice, it may be helpful to keep the training groups small as some participants expressed wanting to dive deeper into the material and be able to express vulnerability. Whether implementing the HEARTS program, or another type of trauma-informed training for teachers, these insights may prove helpful to school leaders in developing their programming.

Future Directions

Due to the exploratory nature of this study and the relative newness of trauma-informed care service delivery in the schools, there are many areas for potential future

research. Overall, this research establishes a starting place to build upon for TIC in the schools. Teachers' personal history of trauma could be explored further to examine its relationship with trauma-informed service delivery and the role posttraumatic growth may play. The qualitative themes demonstrated potential areas for future exploration; for example, gratitude, flexibility, and relationships. Although the ARTIC is a helpful measure to assess trauma-informed related attitudes, additional exploration of measuring behavioral changes could be beneficial. The likely critical variable, not specifically part of this study, of tailoring trauma-informed care within the context of students' cultural backgrounds should be studied further. For example, how might cultural responsiveness be integrated into TIC trainings? Additionally, research in the area of TIC and student results has mostly focused on reduction of office discipline referrals and suspensions. How TIC benefits students and improves student outcomes, such as reduction of psychological symptoms or improved resilience, is a much needed area of exploration.

Since HEARTS and trauma-informed care are intended to be another layer of support (Chafouleas et al., 2016), what other programming (e.g., restorative discipline practices) contribute to its success? Additional research is needed to parse out the complexity of trauma-informed service delivery in the schools and the relevant elements for effective implementation and sustainability (Overstreet & Chafouleas, 2016). Additional research is needed to explore translating trauma-informed training into practice.

Conclusion

The findings of this mixed methods study begin to paint a picture of important trauma-informed related variables. Results suggested that teachers trained in trauma-

informed care (i.e., HEARTS), were more likely to view students' learning and behavior problems through a trauma-informed lens. HEARTS trained teachers demonstrated knowledge and understanding of trauma and how those behaviors may manifest in the classroom. An essential identified component of working with students with trauma experiences was developing safe and secure student-teacher relationships. Also, similar to putting your oxygen mask on first before assisting others on a plane, teachers recognized the need to care for themselves before they can care for their students. In general, the Healthy Environments and Response to Trauma in Schools (HEARTS) training seemed to successfully support teachers in delivering trauma-informed care in their schools. Teachers are first responders to students' academic and social-emotional needs. Trauma-informed training could support teachers in working with trauma-impacted students. This is a burgeoning area of research, and there is much left to be discovered. Teachers will not always know whether their students have been impacted by trauma. Thus, creating a system responsive to the needs of all trauma-impacted students and supporting school staff in the incredible work they do may be the most effective approach to preparing children and adolescents to learn and thrive.

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APPENDIX A

INTERVIEW PROTOCOL

Interview Questions

1) How do you see your role as it relates to attending to students' mental health needs?
2) What are some challenges you face when asked to recognize and intervene in the mental health of your students?
3) How would you define trauma?
4) What traumatic events have your students experienced that you are aware of?
5) What are your thoughts regarding violence as it relates to the community in which your school is situated?
6) What signs and/or behaviors do you notice in the classroom that alerts you to the fact that a child may have or is being impacted by trauma?
7) What learned strategies from the HEARTS training are you implementing in the classroom? Provide examples.
8) What barriers to implementing learned strategies do you face?
9) What were the most helpful aspects of the training as it relates to your role?
10) What could be improved regarding the training?
11) What supports do you have in implementing TIC? What additional supports do you wish you had?

Examples of additional questions which arose through the interview process:

1) What changes have you noticed in your classroom compared to before and after you completed the HEARTS training?
2) How does working with students with trauma experiences impact you?

APPENDIX B

INSTITUTIONAL REVIEW BOARD APPROVAL

UNIVERSITY OF
NORTHERN COLORADO

Institutional Review Board

DATE:	February 14, 2017
TO:	Destiny Waggoner, M.Ed., M.A.
FROM:	University of Northern Colorado (UNCO) IRB
PROJECT TITLE:	[991421-2] Responding to Students Exposed to Community Violence: A Mixed Methods Study of Teachers' Perceptions of Trauma-Informed Service Delivery
SUBMISSION TYPE:	Amendment/Modification
ACTION:	APPROVED
APPROVAL DATE:	February 14, 2017
EXPIRATION DATE:	February 14, 2018
REVIEW TYPE:	Expedited Review

Thank you for your submission of Amendment/Modification materials for this project. The University of Northern Colorado (UNCO) IRB has APPROVED your submission. All research must be conducted in accordance with this approved submission.

This submission has received Expedited Review based on applicable federal regulations.

Please remember that informed consent is a process beginning with a description of the project and insurance of participant understanding. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require that each participant receives a copy of the consent document.

Please note that any revision to previously approved materials must be approved by this committee prior to initiation. Please use the appropriate revision forms for this procedure.

All UNANTICIPATED PROBLEMS involving risks to subjects or others and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office.

All NON-COMPLIANCE issues or COMPLAINTS regarding this project must be reported promptly to this office.

Based on the risks, this project requires continuing review by this committee on an annual basis. Please use the appropriate forms for this procedure. Your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date of February 14, 2018.

Please note that all research records must be retained for a minimum of three years after the completion of the project.

If you have any questions, please contact Sherry May at 970-351-1910 or Sherry.May@unco.edu. Please include your project title and reference number in all correspondence with this committee.

APPENDIX C

CONSENT FORMS

CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH UNIVERSITY OF NORTHERN COLORADO

Project Title: Responding to Students Exposed to Community Violence: A Mixed Methods Study of Teachers' Perceptions of Trauma-Informed Service Delivery

Researcher: Destiny Waggoner, M.Ed., M.A., School Psychology Doctoral Student
Research Advisor: Robyn Hess, Ph.D.

Purpose and Description: The purpose of this study is to explore teachers' and school staff's perceptions related to trauma-informed care in the schools and their work with students impacted by trauma. You will be asked to complete a demographic questionnaire and a survey called Attitudes Related to Trauma-Informed Care (ARTIC) scale. It will take approximately 10-15 minutes to complete, and you will not be required to provide your name. Data will be kept in a password protected electronic account and any associated paperwork will be kept in a locked cabinet on UNC's campus. The researcher will strive to protect the confidentiality of your responses. Numerical identifiers will be used to link demographic data to survey responses. It is unlikely that your demographic information will identify you since the information collected is broader in nature (e.g., years of experience, gender), and will be reported in aggregate form. You will be asked to provide the name of the school you work at; however, this will not be reported and will be used solely to gain school demographic information such as discipline policies and student body demographics. Any remaining, potentially identifying data will be destroyed after three years.

Potential risks to you are minimal. Some questions may trigger an emotional response. Therefore, to help mitigate this potential risk, you may feel free to take a break and revisit the question at a later time or choose to exit the survey and not participate in the study. It is possible that you will indirectly benefit from the study by adding to the research base regarding trauma informed approaches and trainings in the schools, and you may be able to use the recommendations the results yield. If you choose to provide your email address, you will be entered into a raffle for a one of several $20 gift cards. The email addresses will not be linked to responses and emails will be destroyed promptly after the drawing is held.

Participation is voluntary. You may decide not to participant in this study and if you begin participation you may decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please click on the link below and complete the questionnaire and survey if you would like to participate. By completing the questionnaire and survey, you certify that you give us permission for your participation. You are encouraged
to print a copy of this form for future reference. If you have any concerns about your selection or treatment as a research participant, please contact Sherry May, IRB Administrator, Office of Sponsored Programs, 25 Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-1910.

UNIVERSITY OF NORTHERN COLORADO

CONSENT FORM FOR HUMAN PARTICIPANTS IN RESEARCH UNIVERSITY OF NORTHERN COLORADO

Project Title: Responding to Students Exposed to Community Violence: A Mixed Methods Study of Teachers' Perceptions of Trauma-Informed Service Delivery

Researcher: Destiny Waggoner, M.Ed., M.A., School Psychology Doctoral Student
Research Advisor: Robyn Hess, Ph.D.

Purpose and Description: The purpose of this study is to explore teachers' and school staff's perceptions related to trauma-informed care in the schools and their work with students impacted by trauma. You will be asked to participate in individual interviews lasting approximately 30 minutes. Follow-up interviews may or may not be needed to gather more information. The interview questions will be open-ended and audio recorded and then transcribed. The transcribed interviews will be analyzed to gain insight into your personal experiences related to the trauma-informed training (i.e., HEARTS) and working with students impacted by trauma as well as for similarities and differences amongst other participants.

The researcher will take every precaution in order to protect the confidentiality. You will be assigned a numerical ID for data reporting purposes. The name of the school you work at and other demographic information will not be linked to your responses when reported. Data collected and analyzed for this study will be kept on a password protected computer or locked in a cabinet at UNC, which only the researcher and research advisor will have access to. After the audio recordings have been transcribed, the recordings will be destroyed. Any remaining, potentially identifying data will be destroyed after three years.

Potential risks to you are minimal. Some questions may trigger an emotional response. Therefore, to help mitigate this potential risk, you may feel free to take a break during the interviews at any time or choose to revoke your participation in the interviews. It is possible that you will indirectly benefit from the study by adding to the research base regarding trauma informed approaches and trainings in the schools, and you may be able to use the recommendations the results yield.

Participation is voluntary. You may decide not to participant in this study and if you begin participation you may decide to stop and withdraw at any time. Your decision will be respected and will not result in loss of benefits to which you are otherwise entitled. Having read the above and having had an opportunity to ask any questions, please sign below if you would like to participate in this research. If you have any concerns about your selection or treatment as a research participant, please contact Sherry May, IRB Administrator, Office of Sponsored Programs, 25 Kepner Hall, University of Northern Colorado Greeley, CO 80639; 970-351-1910.

_____ _____

Participant's Signature Date

_____ _____

Researcher's Signature Date