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Examining Role Breadth, Efficacy, and Attitudes Toward Trauma-Informed Care in Elementary

School Educators

by

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A thesis submitted in partial fulfillment
of the requirements for the degree of
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Abstract

Children growing up below the poverty line are at heightened risk for developing complex symptoms of trauma caused by repeated exposures to a variety of traumatic events. The detrimental effects of repeated traumatic exposures on developing children living in low-income environments are now considered a public health concern (APA Presidential Task Force on Posttraumatic Stress Disorder and Trauma in Children and Adolescents, 2008; Crosby, Howell, & Thomas, 2018). Increased awareness of the negative effects of trauma early in life and the need for combative care has accelerated the movement for educators to become trauma-informed, which can be demonstrated through altered teaching practices, improved school climate and relationships, and ongoing trauma-related professional development (Crosby, 2015; Thomas, Crosby, & Vanderhaar, 2019). This study investigated the preparedness of teachers working in Title 1 schools to address the mental health needs of students in the classroom, including teachers beliefs regarding their perceived role breadth as an educator, their self-efficacy in addressing student mental health needs within the school setting, and their attitudes towards trauma-informed care principles and ideals through a secondary analysis of pre-existing quantitative data that were gathered in collaboration with the Harmony Project. The Harmony Project is a trauma-informed care training that was designed to promote the understanding of trauma-informed care amongst school staff using a train-the-trainers model with the intentions of positively impacting school culture, and the academic, behavioral, and emotional outcomes of students. The data were gathered from educational staff ($N = 299$; $n = 199$ teachers, $n = 49$

school mental health staff, $n = 51$ other) employed by eight different Title 1 public schools within one district in Western-Central Florida. Findings indicate that teachers within this sample believe that their role as a teacher includes responsibility for not only student learning, but also some responsibility for attending to the mental health and overall, well-being of their students. Additionally, results indicate that educators within this sample have some confidence in addressing the mental health needs of their students within Title 1 schools, but the majority of educators within this sample exhibited room for improvement in perceived preparedness. While all educators reported highest levels of efficacy in relation to activities that involved student-teacher relationships and collaboration with other teachers, low levels of efficacy were reported for actions related to discussing student mental health concerns with parents, collaborating with parents to support student mental and emotional health, recognizing signs of mental health issues in students, and connecting students with supports and resources they may need. Findings also indicated that educators had generally positive attitudes related to trauma-informed care and comparisons of attitudes between teachers and those with other roles at the schools indicated no significant differences in attitudes related to trauma-informed care based on professional role. Furthermore, results of a multiple linear regression analysis indicated that about 23% of the variance in educators' attitudes toward trauma-informed care were explained by largely role breadth and self-efficacy. Implications for school-level trauma initiatives and school psychologists are discussed.

Chapter I: Introduction

Statement of the Problem

Trauma is a widespread, harmful and costly public health concern. Trauma occurs as a result of violence, abuse, loss, neglect, natural disasters, and other emotionally harmful events and individuals of all ages, genders, races, socioeconomic levels can experience trauma. According to the Substance Abuse and Mental Health Services Administration (SAMHSA) "Trauma results from 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. 2). For generations, schools, teachers, and students have been dealing with trauma's lasting impact within the classroom setting. The number of students who have experienced trauma in their lifetime is increasing at tremendous rates, and educators are more aware than ever of the high prevalence of trauma. The movement towards trauma-informed care practices has demanded a shift in thinking for educators surrounding how students who have experienced trauma should be taught. Guided by research that indicates heightened positive outcomes for students in the areas of behavioral and emotional health, social competency, academic performance (increased standardized test scores, attendance, grade point averages) when they are provided with school mental health programs, administrators and educators have become increasingly motivated to implement trauma-informed care policies and practices within their schools (Jaycox et al., 2016).

Although the research base related to trauma-informed care applied in schools is small, there is growing support for utilizing trauma-informed care practices in schools as a tool for addressing the public health epidemic associated with the mental health needs of youth and the prevalence of students who have experienced trauma. Because of the push for schools to address the mental health needs of students and the recent movement towards trauma-informed care to help address those needs, many schools have made strides towards developing trauma-sensitive frameworks within their mental health infrastructures by providing trauma-informed care workshops, training, and professional development to their staff. Professional development is a first step in promoting a culture shift in schools by building the capacity of the school staff to know how to respond to students who have experienced trauma, thereby creating expertise within the schools. Teachers must first learn what trauma is, the impact of trauma on learning, and interventions that apply trauma-informed care practices before they can implement trauma-informed care in their classrooms. One major barrier in creating trauma-sensitive schools is establishing teacher commitment and buy-in for implementing trauma-informed care practices.

Accordingly, the present study entails a secondary analysis of quantitative data gathered in collaboration with the Harmony Project, a trauma-informed care training that was designed to promote the understanding of trauma-informed care amongst school staff using a train-the-trainers model with the intentions of positively impacting school culture, and the academic, behavioral, and emotional outcomes of students. The data were gathered from instructional staff employed by eight different Title 1 elementary schools within one district in Western-Central Florida. The current study examined the degree to which teachers in Title 1 schools believe they should take responsibility for addressing students' mental health needs, the level of confidence

teachers in Title 1 schools feel in addressing the mental health needs of their students, and their attitudes towards trauma-sensitive ideals.

Purpose of the Study

The purpose of the current study was to investigate the preparedness of teachers in high needs schools to address the mental health needs of students in the classroom, specifically their beliefs regarding their responsibility for addressing the mental health needs of their students as a part of their role as an educator, their confidence in addressing student mental health needs, and their attitudes towards trauma-informed care principles. Along with identifying teachers' perceived role breadth and self-efficacy beliefs towards addressing the mental health needs of their students and their attitudes towards trauma-sensitive ideals, the researcher also investigated whether there were differences in attitudes towards trauma-informed care between teachers and other educators such as student support staff, instructional aids, and administrators, as well as evaluate the degree to which variables including role breadth, self-efficacy, school, and position explain the variance in attitudes towards trauma-informed care.

Teacher role breadth, self-efficacy beliefs, and attitudes towards trauma-informed care were variables selected by the researcher for the study based on previous research from the mental health and education fields that highlight the contribution of teachers' perceptions of their roles, their self-efficacy beliefs, and attitudes in teacher behaviors and engagement within the classroom. It is important to not only understand the impact of trauma on students and the impact mental health promotion has on student outcomes, but also the preparedness and attitudes of teachers pertinent to addressing the mental health needs of students in high needs schools. The findings of the study contribute to the literature on school-based mental health systems, trauma-

informed care training, and professional development related to promoting the social, emotional, and behavioral well-being of students.

Guiding Frameworks

Multiple guiding frameworks help to explain the importance of understanding teacher beliefs regarding self-efficacy, role breadth, and utilizing trauma-sensitive approaches within the classroom setting. The theoretical frameworks listed below (social learning theory and the trauma-informed sanctuary model) provide a rationale for the present study.

Social Learning Theory. While trauma theory focuses on the psychological and neurobiological effects of experiencing traumatic and life-threatening events, social learning theory explains how learning to identify, treat, and use coping mechanisms to work through trauma-related thoughts and defense mechanisms to regulate emotional and behavioral responses are vital to recovery and to creating effective trauma interventions (Cahill & Foa, 2007; Collins et al., 2010; Monson & Friedman, 2006). Educators need to understand how experiencing trauma can impact the lives of students and feel efficacious in providing supports to mediate symptoms related to experiencing trauma and challenging behaviors exhibited in the classroom setting related to trauma.

Trauma-informed Sanctuary Model (Bloom, 1997). The trauma-informed sanctuary model established by Bloom (1997) is an organizational intervention that emphasizes a commitment to non-violent and safe environments, creating processes for communication and decision-making that use democratic approaches, validation of the varying views of stakeholders involved with the school setting (including teachers, staff, students, and family members), and creating a place in which emotional intelligence, social learning, and the approach of acting for the benefit of the whole school is valued (Blitz, Anderson, & Saastamoinen, 2016). The main

goal of the trauma-informed sanctuary model is to improve school culture by training school staff on the impacts of trauma and stress on behavior, which should in turn change the lens of school staff from believing that children who exhibit challenging and withdrawn behaviors have something inherently wrong with them to a lens where school staff take into account that a child may be engaging in a certain behavior because of a past experience that caused them to respond in a challenging way (Etaki et al., 2013). This model not only emphasizes a shift in the understanding of trauma but also promotes the use of trauma-sensitive tools and approaches to positively alter individual student and group behavior. As done in the Harmony Project, the trauma-informed sanctuary model focuses on improving the training of staff to improve the quality of trauma-informed and mental health services being delivered, which will ultimately improve the outcomes of staff and students (Etaki et al., 2013).

Overview of Methodology

This study is quantitative in nature. The study answered the research questions by quantifying the observable phenomenon and then using statistical analyses and procedures. The researcher analyzed survey data gathered from instructional staff from eight different schools in one district in Western-Central Florida to investigate the degree to which educators in Title 1 schools believe they should take responsibility for addressing students' mental health needs, how confident educators in Title 1 schools feel in addressing the mental health needs across students, and the attitudes of educators in Title 1 schools towards a trauma-informed lens. The researcher also investigated differences in educator beliefs between teachers and other professionals at the schools and evaluated the how much of the variance in attitudes towards trauma-informed care could be explained by various variables including self-efficacy, role breadth, school, and position at school.

Definition of Key Terms

Trauma. The present study utilized the American Psychological Association's (APA, 2008) definition of trauma, which describes trauma as an emotional response to an extremely adverse event. Shock and denial are typical symptoms following a traumatic event. Longer-term reactions of traumatic events can include unpredictable emotions, flashbacks, relational challenges, and physical symptoms.

Traumatic Event. Traumatic events are defined as "exposure to actual or threatened death, serious injury, or sexual violence" in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013).

Mental Health. Mental health encompasses the presence of positive indicators of psychological functioning and few symptoms of psychological disorders/psychopathology (Suldo & Shaffer, 2008). Mental health is assessed both in terms of symptoms of psychopathology (i.e., internalizing and externalizing problems) and the presence of indicators of emotional flourishing such as subjective well-being (i.e., life satisfaction, positive and negative affect).

Mental Health Disorders. Mental Health Disorders are defined by the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition by the American Psychiatric Association as "a syndrome characterized by clinically significant disturbance in an individual's cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning" (American Psychiatric Association, 2013, p. 20). Externalizing and internalizing symptoms are types of psychopathology that are features of one's mental health.

Externalizing Symptoms. Externalizing symptoms are a group of symptomologies that are visible to others and are generally disruptive. These symptoms can also indicate the presence of a greater mental health disorder including disorders exhibiting antisocial behaviors, conduct disorder, addictions, and disorders related to impaired impulse control (American Psychiatric Association, 2013).

Internalizing Symptoms. Internalizing symptoms refer to the group of symptoms that impact the internal state of an individual and may not be visible to others. Exhibiting these symptoms may indicate that an individual may be dealing with a mental health disorder that is characterized by depressed mood, anxiety, and related physiological and cognitive symptoms (American Psychiatric Association, 2013).

School-Based Mental Health. In the school context, mental health services refer to the many types of programs and practices offered within the school setting that are aimed at promoting mental health, as well as preventing and treating emotional and behavioral problems. School-based mental health services include universal, tertiary, and individual level supports. These services aimed at students can also involve teachers, administrators, families, and whole systems (Christner, Mennuti, & Whitaker, 2009).

Adverse Childhood Experiences (ACEs). Adverse Childhood Experiences refer to the multitude of events that can be experienced before the age of 18 that leads to stress and can result in trauma and chronic stress responses. Experiencing multiple adverse events as a child can impact the developing brain and trauma has been associated with engaging in high-risk behaviors, and the development of chronic diseases and negative health outcomes in adulthood.

Trauma-Informed Care. This study defines trauma-informed care as a framework that considers the prevalence of trauma in the general population and the impact of trauma, and the

complex paths toward recovery in organizational culture (i.e., "the underlying beliefs, assumptions, values and ways of interacting that contribute to the unique social and psychological environment of an organization" (Belfied & Davey, 2018, p. 4). Trauma-informed care encompasses three levels of systems-level focus, including (1) addressing policy and procedures, (2) creating ways for organizing and delivering services, and (3) providing specific programs or interventions for children and families. This study aligns with the six major principles outlined by the federal agency Substance Abuse and Mental Health Services Administration (SAMHSA) for trauma-informed care: (1) creating a culture of physical and psychological safety for staff and the people they serve; (2) building and maintaining trustworthiness and transparency among staff, clients and others involved with the organization; (3) utilizing peer support to promote healing and recovery; (4) leveling the power differences between staff and clients and among staff to foster collaboration and mutuality; (5) cultivating a culture of empowerment, voice and choice that recognizes individual strengths, resilience and an ability to heal from past trauma; and (6) recognizing and responding to the cultural, historical and gender roots of trauma. The foundational definition of TIC is consistent throughout the literature, but its operationalization varies considerably across schools and various settings.

Burnout. Burnout is defined in a manner consistent with the factors assessed in the Maslach Burnout Inventory-Educator's Scale (MBI-ES; Maslach & Jackson, 1981). Burnout is a psychological syndrome that can occur among those who work and serve other people in various capacities. Burnout is comprised of emotional exhaustion, depersonalization, and reduced personal accomplishment. Those experiencing burnout have increased feelings of emotional depletion, and that they are unable to give any more of themselves to those that they work with. Depersonalization can lead to negative feelings and perceptions of their clients. When

experiencing burnout feelings of reduced personal accomplishment is also common. This concept refers to having negative perceptions of oneself and having feelings of dissatisfaction of accomplishments related to their work. Burnout syndrome can lead to job turnover, absenteeism, and a decline in the quality of care provided by the person dealing with burnout syndrome (Maslach, Jackson, & Leiter, 1996).

Role Breadth. Teacher role breadth is defined by Phillipo and Stone (2013) as "the extent to which teachers include the social and emotional support of students in their definition of their professional responsibilities" (p. 359).

Teacher Efficacy. This study recognizes teacher efficacy as a teachers' confidence about their ability to work with students and their perceived effect on the outcomes of their students. Teacher's self-efficacy is positively correlated with teacher engagement, which impacts their instructional behaviors and in turn affects student outcomes. The teachers with higher self-efficacy are more likely to feel that they can be effective with even the most challenging students. Teachers with high self-efficacy are also more likely to collaborate with other school personnel, feel responsible for the success of their students, and are more willing to implement novel programs in their classroom. Efficacy in teachers also appears to be a protective factor that moderates the relationship between student misbehavior and teacher burn-out (Ross, Romer, & Horner, 2012).

Title 1 Schools. Title 1 schools are those that receive Title 1 grants. Title 1 grants fund programs intended to improve learning for students at risk of educational failure. The U.S. Department of Education allocates Title I funds to local education agencies (LEAs), states, U.S. territories, and other educational agencies. Each year the department of education determines the distribution of Title I funds, or the allocations of the various Title I grants. Schools that are

identified as eligible to receive Title 1 funds receive supplemental funds to assist in meeting students' educational goals (National Center for Education Statistics, 2016).

Differentiated Accountability (DA). Differentiated Accountability is a statewide network of strategic support provided to schools and districts, differentiated by need. Non-charter schools and districts fall under the category of differentiated accountability if they are identified for accelerated interventions, resources, and progress-monitoring based on school grade history. Differentiated accountability schools are those that have been identified as low-performing, and in need of additional intervention and support to improve student academic performance. Schools identified as DA receive additional state funding and are required to implement intervention and support strategies prescribed in Florida Statutes (FLDOE, 2015). One of the eight schools that are a part of the current study has received the title of a differentiated accountability school.

The Harmony Project. The Harmony Project is a trauma-informed training that focuses on developing trauma sensitive school environments for educators, students, and families. The Harmony Project was developed by two practitioners, Wendy Belfield, MSW and Kelly Davey, Ed.D. The co-developers went through a two-year process of developing the Harmony Project intervention by adapting components from pre-existing trauma-informed approaches. The dataset to be analyzed in this study is from the initial implementation of the Harmony Project in Pasco County Public Schools. The Harmony Project training utilizes a combination of ongoing professional development, strategic planning, and customized coaching with the goal of creating harmony between academic improvement and success for all students and the need to also improve the overall well-being of school communities. The Harmony Project training provides school staff with the opportunity to develop and implement trauma sensitive strategies across all

aspects of the educational experience, from schoolwide infrastructure to individual problem-solving. The main goals of the Harmony Project are to support schools in the creation of an environment within which all stakeholders feel safe, supported, and welcomed; and where addressing trauma's impact on learning is a community-wide commitment. Specifically, the Harmony Project was developed to improve student and teacher engagement, and to increase student achievement through universal means.

The Harmony Project training has seven modules and is broken down into three phases. Phase one involves training a small group of school staff who will model trauma-informed beliefs and practices within their schools and co-facilitate targeted pieces of training to fellow teachers and school staff. Phase two involves training all other instructional staff. Phase three aims to educate students, families, and community members about the prevalence and impact of trauma by implementing mentoring programs and mindfulness activities (Belfied & Davey, 2018).

Research Questions

This study aimed to answer the following questions:

1. To what degree do teachers in Title 1 schools believe they should take responsibility for addressing students' mental health needs? (Role Breadth)

2. How confident do teachers in Title 1 schools feel in addressing the mental health needs of their students? (Self-efficacy)

3. What are the attitudes of educators towards trauma-informed care ideals in Title 1 schools? (Attitudes Related to Trauma-Informed Care)

    a. Is there a significant difference between teachers and other professional roles at the school?

b. To what extent do school, position, perceived role breadth, and self-efficacy account for the variance in educator attitudes towards trauma-informed care?

The researcher hypothesized that teachers with broader role breadth which includes supporting the mental health of students as well as educators with higher levels of self-efficacy in addressing the mental health needs of students would report more positive scores related to trauma-informed care. It was anticipated that the present study would help to inform educational professionals and administrators about the preparedness of teachers in Title 1 schools to address the mental health needs of students and their attitudes regarding trauma-informed care practices and ideals.

Contributions to the Literature

There is a vast amount of research that supports the development and implementation of tiered school-based mental systems to promote positive social-emotional and academic outcomes in students. One way that schools are addressing the mental health needs of their students is through trauma-sensitive frameworks (Overstreet & Chafouleas, 2016). Much of the literature regarding trauma-informed care and trauma-sensitive schools focus on the interventions and frameworks that have been developed within various schools and organizations to implement trauma-informed care principles and practices (Chafouleas, Johnson, Overstreet, & Santos, 2016). Although the findings of these studies support the delivery of mental health services in schools and the implementation of trauma-informed care principles within school settings to address the mental health needs of youth, there is little known about teacher beliefs regarding their growing responsibilities in addressing mental health needs in their students, their confidence in doing so, or their attitudes towards the trauma-sensitive ideals that they are being asked to adopt. A known barrier to addressing student mental health needs and implementing

trauma-informed care in schools is the variability in the quality of the services and interventions that are provided across schools and educators (Langley et al., 2010).

There is currently a significant gap in the literature regarding what variables relate to the commitment, efficacy, and desire of instructional staff to implement trauma-informed care practices in the classroom. Understanding teachers' perceived role in addressing student mental health concerns, their efficacy beliefs in providing those supports, and their attitudes towards providing those services to their students may assist school administrators in tailoring trauma-informed care training and professional development to facilitate a school climate in which trauma-informed care principles are encouraged, valued, and implemented with fidelity. Although results of this study are not sufficient in the way of making causal claims, the findings of the current study may be considered to enhance the content and possibly shift or broaden the focus of trauma-informed care training and professional development.

Chapter II: Review of the Literature

The trauma-informed care (TIC) movement, specifically concerning schools, has mainly focused on the impact that TIC will have on students. However, focusing only on the students does not provide a complete understanding of the trauma-informed care implementation process. Past literature has investigated the prevalence of ACEs among students and the impact of experiencing trauma on learning and development, outcomes of students who attend trauma-sensitive schools, and the barriers related to developing trauma-informed care frameworks within the school setting. Past studies have also examined the effects of teachers' sense of efficacy and burnout levels on teacher behaviors and practices. This chapter provides an overview of that literature, a rationale for promoting the emotional well-being of students in schools, the use of trauma-informed care in schools to address mental health needs of students in high needs schools, and the components of a trauma-sensitive school. This chapter will provide a rationale for better understanding teachers' perceptions of their role breadth, their self-efficacy in providing mental health supports to their students, and their attitudes towards utilizing a trauma-informed care lens with their students. Finally, a summary of gaps in the literature that were addressed in the current study will be presented.

Prevalence Rates of Students with Mental Health Concerns

Studies indicate that between 17% and 26% of youth are dealing with mental health difficulties (Avenevoli et al., 2013; Brown, Riley, & Wissow, 2007; Costello et al., 2005; Roberts, Roberts, & Xing, 2007). According to Costello and colleagues (2005), 26% of youth between the ages of 5 and 17 years meet the necessary criteria for a psychological disorder, and

12% of students between the ages of 5 and 17 years have been found to have a serious

psychiatric disorder. Youth in the United States are faced with high rates of adverse experiences

at home including abuse, neglect, exposure to violence, bullying, extreme poverty, immigration,

homelessness, and family issues such as family violence, substance abuse, parental incarceration,

mental illness, and death of a loved one (National Association of School Psychologists, 2015).

These adverse experiences (detailed in subsequent paragraphs) put children and adolescents at

greater risk for trauma and the development of a psychological disorder (Centers for Disease

Control and Prevention, 2014).

Child abuse and neglect. The Institute of Medicine and the National Research Council

(2014) reported that there are greater than three million referrals linked to over six million

children each year related to child abuse and neglect in the United States. In 2013, approximately

679,000 youth experienced abuse and neglect in 2013 and these rates are rising (National

Association of School Psychologists, 2015; U.S. Department of Health and Human Services,

2015). In 2012, adolescents between the ages of 12 and 18 years old were victims of 749,200

violent crimes and assaults and 61% of children below the age of 17 reported exposure to

violence at home, at school, or in their community in the past year (National Association of

School Psychologists, 2015; Robers, Kemp, Rathbun, & Morgan, 2014; Sickmund, &

Puzzanchera, 2014).

Peer victimization. Robers and colleagues (2014) found that 23% of public schools in

the United States reported that bullying[1] was a persistent and daily occurrence during the 2009-

2010 school year. Data from the 2007 National Survey of Children's Health (NSCH) showed

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[1] Bullying was not listed as an ACE in the original studies, but it is included throughout the
literature as a potentially trauma-inducing issue that impacts children and adolescents

that 15.2% of children ages six to 17 years of age in the United States were identified as bullies by their guardian (Turcotte, Vivie, & Gjelsvik, 2015). Over 20% of high school students reported being bullied on school property in the past year on a nationwide survey (Centers for Disease Control and Prevention, 2012). With the rise of cyberbullying and increased rates of school violence, bullying is thought to be a major public health problem and a common experience for school-aged children and adolescents.

Homelessness. Each year, over 1.6 million children in the U.S. experience homelessness and the homelessness rates among students in the 2008-09 school year nearly doubled since 2007 to approximately 956,914 homeless school-aged children (National Center for Homeless Education, 2010; National Center on Family Homelessness, 2011). In 2013, over one in five children in the United States lacked reliable access to a sufficient quantity of nutritious food (National Association of School Psychologists, 2015; ETS Center for Research on Human Capital and Education, 2013), and 21% of U.S. students lived below the poverty line (Kena et al., 2015).

Immigration. In 2013 7,255,000 immigrant children lived in the United States (Kids Count Data Center, 2015). Rates of unaccompanied children coming into the United States skyrocketed between 2011-2014 from roughly 6,000 children to 60,000 children with those rates still rising (U.S. Department of Health and Human Services, Administration for Children and Families, Office of Refugee Resettlement, n.d.). Educators must be sensitive to the varying experiences of these students and aware of the possible impacts of the stress and adversity they have faced in their previous homeland and upon entering a foreign country.

Parental stressors. Parental issues such as parental incarceration and having one or more parents deployed in the military are also highly prevalent stressors among U.S. children. The

Correctional Association of New York (2009) reported that roughly 8.3 million children in the United States have one or more parents either in prison, in jail, on parole, or probation. According to the American Psychological Association Presidential Task Force on Military Deployment Services for Youth, Families, and Service Members, (2007) over 700,000 children in 2007 were reported to have one or more parents in the military who were deployed. In sum, the frequency of major environmental stressors places a growing number of students at increased risk for developing a psychological disorder associated with exposure to a potentially traumatic event(s).

Trauma

Trauma can be defined as an emotional response to an extremely adverse event. Shock and denial are typical symptoms following a traumatic event, and longer-term reactions of traumatic events can include unpredictable emotions, flashbacks, relational challenges, and physical symptoms. The American Psychological Association (APA; 2015) states that complex trauma can have detrimental effects on emotion regulation, relationships, and anxiety levels. The original "ACEs study" (i.e., identification and examination of adverse childhood experiences [ACE]), conducted between 1995 and 1997 by Kaiser Permanente and the Centers for Disease Control (Felitti et al., 1998), brought to light the prevalence of experiencing traumatic events in our society. In this study, there were two waves of data collection. The researchers distributed a questionnaire about ACEs by mail to 13,494 adults who had completed a standardized medical evaluation at a large health maintenance organization, and 9,508 responded. The questionnaire assessed seven categories of ACEs: (1) psychological abuse, (2) physical abuse, or (3) sexual abuse; (4) violence against mother; or living with household members who were (5) substance abusers, (6) mentally ill or suicidal, or (7) ever imprisoned. The number of categories an

individual respondent endorsed having had occur (i.e., ACE sum score) was then compared to measures of adult risk behavior, health status, and disease (Felitti et al., 1998). The findings of the ACE study indicated that experiencing trauma has negative lasting effects across the lifespan. Over 50% of respondents reported at least one, and one-fourth reported at least two, categories of childhood exposures. A positive relationship was found between the number of ACEs and the leading causes of early death in adults such as diabetes, ischemic heart disease, cancer, chronic lung disease, stroke, and liver disease (Felitti et al., 1998). Those with multiple categories of ACEs were significantly more likely to have multiple health risk factors later in life. Children's exposure to adverse experiences were also found to be predictive of rates of risky behaviors associated with mental health problems, such as smoking, or addictions to drugs and alcohol, and higher rates of depression (Terrasi, 2016).

Burke and colleagues (2011) investigated adverse childhood experiences in 701 youth between the ages of 0 and 20.9 years old from a low-income, urban community. The relationships between the prevalence of ACE categories and learning and behavior problems and obesity were examined. Participants in the study resided in and around the Bayview Hunters Point community, which is known for high violence and crime rates. Regarding the demographic features of this sample, 45.7% were male (54.3% female); 58% of participants identified as African American, 14.5% Hispanic, 12.5% Pacific Islander, 8.1% multiracial, 2.6% Asian, <1% Native American, and 1.8% classified as unknown or other; and the median household income was $37,146. Data were collected through a retrospective medical chart review for pediatric patients receiving services at the Bayview Child Health Center from 2007 to 2009 in San Francisco, CA. Like the original ACE Study conducted by Felitti and colleagues (1998), this study added a Trauma Screen form that was included in the confidential section of each

participant's chart in order to collect data on the nine total categories of adverse childhood experiences including: recurrent physical abuse; recurrent emotional abuse; contact sexual abuse (i.e., touching a child's genitals for sexual purposes or making a child touch someone else's genitals; in contrast to non-contact abuse such as showing pornography to a child or photographing a child in sexual positions); living with an alcohol and/or drug abuser; having an incarcerated household member; living with someone who is chronically depressed, mentally ill, institutionalized, or suicidal; having a mother treated violently; having one or no parents; and emotional or physical neglect. In addition to ACEs, documentation of learning and behavior problems and obesity were taken from each participant's chart. Within the study population, the prevalence of each ACE category varied from 3.6% to 62.2%. Results of the study revealed that 67.2% of participants were exposed to 1 or more adverse childhood experiences. Further, having four or more ACEs was associated with a greater likelihood for learning and/or behavior problems and obesity; of the participants who had experienced at least 4 ACEs, 51.2% also reported learning and/or behavior problems whereas only 3% of participants who had experienced 0-3 ACEs reported learning and/or behavior problems. The results reported by Burke and colleagues (2011) highlight a clear need for screening of ACEs in youth from low-income, urban areas. Furthermore, the results of the study point to a need to better understand the potential effects of experiencing ACEs to inform prevention and intervention services for these students (Burke et al., 2011).

Link Between Poverty and Trauma

In schools located in impoverished communities, there is growing awareness that many of the students have experienced trauma, which leads this researcher to wonder if teachers are taking on a trauma-informed lens with this particular population especially concerning

problematic student behaviors in the classroom. According to Child Trends (2019), children

living below the poverty line are more likely to have experienced greater than three adverse

childhood experiences. In 2016, the results of the National Survey of Children's Health showed

that 13 percent of poor children had experienced three or more adverse childhood experiences in

comparison to the five percent of children from families living above the poverty line (Child

Trends, 2019). Experiencing chronic trauma in the context of poverty has negative impacts on all

members of the family unit (Kiser & Black, 2005). Poverty in urban communities also increases

the likelihood of higher instances of trauma exposures and intensifies the distress caused by daily

living responsibilities and burdens (Collins et al., 2010). Families lacking in resources more

often experience troubling familial relationships and lower family functioning in areas such as

the provision of basic needs, adaptability, and protection from harm (Clark, Barrett, & Kolvin,

2000; Collins et al., 2010). Alarmingly, between 70-100% of children living in high poverty

inner-city neighborhoods experience exposure to trauma (Dempsey, Overstreet, & Moely, 2000).

Children living in low SES areas are at higher risk for seeing and experiencing participation in

violent crimes, gang violence, drug use, incarceration of friends and family members, violence at

home, and early deaths of friends and family members (Collins et al., 2010; Dempsey, 2002).

Due to the increased risk of witnessing and experiencing these adverse events, children growing

up below the poverty line are at heightened risk for developing complex symptoms of trauma

caused by repeated exposures to a variety of traumatic events. The detrimental effects of

repeated traumatic exposures on developing children living in low-income environments are

considered a public health concern (APA Presidential Task Force on Posttraumatic Stress

Disorder and Trauma in Children and Adolescents, 2008; Crosby, Howell, & Thomas, 2018).

While youth experiencing traumatic events are at heightened risk for a variety of negative

outcomes, children can grow and thrive following traumatic experiences with the right support, services, and other protective factors. Unfortunately, the majority of the children in need of psychological services and supports for trauma either do not receive those services or receive treatments that may lack effectiveness or supporting research (APA Presidential Task Force on Posttraumatic Stress Disorder and Trauma in Children and Adolescents, 2008). This is particularly relevant for students from ethnic and racial minority groups and for recent immigrants, who often have less access to mental health services (von der Embse, Rutherford, Mankin, & Jenkins, 2019). While the field has made progress in understanding the possible negative consequences of experiencing trauma and specifically repeated traumas in children overall and high poverty populations, there is still a gap in the literature regarding evidence-based assessment tools and interventions for students who are displaying negative symptoms related to trauma exposure (APA Presidential Task Force on Posttraumatic Stress Disorder and Trauma in Children and Adolescents, 2008).

Trauma and School Performance

Due to the findings of the original and subsequent ACE studies, students' exposure to family violence is now considered a public health epidemic (Osofsky & Osofsky, 1999). The national child traumatic stress network (NCTSN) reported that one out of every two children seen by NCTSN counselors has experienced trauma such as psychological maltreatment, traumatic loss, or domestic violence (National Child Traumatic Stress Network, 2008). The effects of experiencing trauma also play a significant role in students' academic growth. Exposure to violence changes children's stress response in ways that make it difficult to attend to classroom instruction. Attention is selective and prioritizes survival and safety needs. If a child's basic needs are not being met, it is difficult to pay attention to what they are supposed to in the

classroom. In school, children are not only expected to direct their attention to many different tasks throughout the day but to also sustain their attention until each task is complete. This is an extremely difficult requirement to meet students who have experienced trauma. Consistently experiencing stress across long periods can lead to hyperarousal of the body's stress response. Hyperarousal is caused by a neurological shift in brain functioning that causes neural pathways in the brain to be over-responsive to environmental stressors and perceptions of danger. Exposure to violence changes the structure and chemistry of the brain. Children exposed to violence often view neutral stimuli as threatening and in doing so, their attention is constantly focused on their "fight or flight" reflex. This compromises the ability to attend to academic instruction, retain new information, engage in positive social interactions (Craig, 2008).

Students who have experienced trauma are oftentimes conceptualized as unmotivated or defiant and are more likely to display chronic absenteeism (Perry & Daniels, 2016). Delaney-Black and colleagues (2002) examined the relationship between childhood exposure to trauma and performance on standardized tests in 299 urban first-grade students. All students were between the ages of 6 and 7 years old and identified as African American. The final sample consisted of 157 boys and 142 girls, with a mean age of 6.9 years old. Each student also had a caregiver who provided interview and standardized data to the study. Overall, participants fell within a moderately low socioeconomic status, with just under 50% of the caregivers reporting a total annual family income of less than $15,000 and 69% of the primary caregivers reported obtaining either a high school diploma or reported receiving their General Educational Development (GED) diploma. The measures used within the study included The Things I Have Seen and Heard scale (20 item assessment of the frequency of children's exposure to violence) and the Levonn Scale (29 item measure of children's trauma-related distress). Child participant

reading ability was determined using the Test of Early Reading Ability, second edition. The IQ

of each child participant was assessed using the Wechsler Preschool and Primary Scale of

Intelligence–Revised. Caregivers provided information regarding socioeconomic status, as well

as prenatal alcohol and marijuana use; caregiver intellectual ability was assessed through the

performance subscale of the Wechsler Adult Intelligence Scale-Revised. The analyses completed

revealed that violence exposure accounted for significant variance in students' IQ ($p < .05$), with

higher violence exposure associated with lower IQ scores, but trauma-related distress was not

significantly related to IQ. When the researchers examined community violence exposure and

distress related to experiencing trauma as predictors of student reading ability, both variables

accounted for significant variance in reading ability across students, with higher scores on

trauma related to lower scores on the reading assessment. These findings suggest that community

exposure to violence in children shows similar associations with cognitive outcomes such as IQ

and reading achievement as other types of trauma. Implications of these results point to a need

for more preventative efforts such as screening to identify the children at highest risk for

experiencing community violence and implementing interventions that to help reduce the

prevalence of witnessing community violence in urban children and interventions for targeting

children who display symptoms of trauma exposure (Delaney-Black et al., 2002).

 Because of the prevalence of trauma in our society and in turn among students, all

educators should expect to work with children who have experienced complex trauma or adverse

experiences, and should have an in-depth understanding of the effect of trauma on a student's

developing brain and their social, emotional, and academic growth (Terrasi, 2016). The known

prevalence and negative impacts of trauma and adverse childhood experiences on outcomes

throughout the lifespan, highlight the need for schools to become trauma-informed to potentially combat this epidemic.

Trauma-Sensitive Schools and Associated Outcomes

To ensure the success of all students, schools must lend priority to addressing mental health concerns and promoting emotional wellness within students. Educators and student support staff are crucial for providing mental health services within schools (Burns et al., 1995; Center for Mental Health in Schools at UCLA, 2005). Schools are an ideal place to provide mental health interventions and prevention services due to educators direct and consistent access to students (Doll, Cummings, & Capla, 2014), and the potential to reduce costs for providing students services in outpatient community settings (Center for Mental Health in Schools, 2005). Research has also consistently shown that mental health promotion has been linked to academic improvements. Vidair and colleagues' (2014) review of 23 studies of school mental health interventions showed 91% of the interventions produced significant gains in academic outcomes. Mental health intervention and assessment within a Multi-Tiered System of Support (MTSS) delivery system includes prevention at Tier 1 (universal) level, more specific and intensive interventions fit students' needs at Tiers 2 and 3, progress monitoring, and screening (Kilgus, Reinke, & Jimerson, 2015).

There are various types of school-based mental health supports that have been shown to be effective for improving social, emotional, and behavioral health among students including positive behavior interventions and supports (PBIS), social and emotional learning (SEL) curricula, and reducing stigma about mental health care through professional trainings such as Youth Mental Health First Aid (Hess, Pearrow, Hazel, Sander, & Willie, 2017; Kitchner & Jorm, 2008). Trauma-informed care is often embedded in already existing frameworks and school

practices rather than a separate entity. Most commonly, trauma-sensitive practices are intertwined with SEL curricula, PBIS, school safety procedures, and school discipline procedures (Thomas, Crosby, & Vanderhaar, 2019).

The possible long-term consequences of trauma have become a focus of interest among agencies that serve children. Mental health services and supports are considered protective factors which can play an important role in promoting resilience in children who have experienced trauma and can aid in the recovery of children and can prevent future re-traumatization (NCTSN Core Curriculum on Childhood Trauma Task Force, 2012). Increased awareness of the effects of trauma early in life and the need for combative care has accelerated the movement in schools to alter teaching practices, improve school climate and relationships, and provide trauma-related professional development (Crosby, 2015; Thomas, Crosby, & Vanderhaar, 2019). As noted previously, the extensive amount of time students spends in school make educational settings an ideal setting for providing mental health supports and interventions. Given the direct access that educators have to students, teachers and school leaders need to invoke trauma-informed practices. Priorities of trauma-informed school are not only aimed at academic outcomes, but focus on minimizing student exposure to traumatic experiences, specifically those commonly experienced in the home environment (e.g., physical abuse, sexual abuse, neglect) while also promoting resilience and recovery in students through various supports and interventions (Herrenkohl, Hong, & Verbugge, 2019).

Trauma-informed schools use a continuum of strategies to facilitate a system-wide approach to addressing the various needs of students who have trauma histories (Chafouleas, et al., 2016). Educational programs that embody a trauma-informed framework utilize different approaches including individual and group-based interventions, classroom-based interventions,

and school-wide systems (Chafouleas et al., 2019). Herrenkohl, Hong, and Verbugge's (2019)

recent review of existing trauma-informed school programs found that individual and group level

programs are most effective, but classroom-based and schoolwide interventions show greater

promise for sustainability. The majority of trauma-informed programs are considered multi-

component and typically include some form of psychoeducation for students, professional

development for staff, and more targeted interventions and supports for individual or groups of

students who have experienced trauma. Because the majority of schools considered to be trauma-

sensitive operationalize the core components of trauma-informed care differently across systems,

the generalizability of empirical data is limited. Current evidence for each level of services

within a trauma-informed school is provided below.

    Staff professional development. A teacher's initial or post-graduate training may prepare

him or her to be better able to identify students experiencing mental health concerns or who have

experienced trauma. Unfortunately, very few pre-service teacher training programs cover topics

and skills related to informing future teachers on best practices for identifying, supporting, and

teaching students who have experienced trauma (Wong, 2008). Educator professional

development specific to understanding and identifying the symptoms of mental illness and how

to promote wellness in students has been shown to improve teacher efficacy for understanding

and interpreting student behaviors, build positive relationships with students and families, and

collaborate with students, parents, and other school staff to create beneficial school environments

for all students (Askell-Williams & Murray-Harvey, 2013; Jorm, et al., 2010; Moor, et al.,

2007).

    Massachusetts is one state that has made large-scale efforts to create trauma-informed

systems within schools to support the safety and well-being of children who have experienced

maltreatment and trauma (Bartlett et al., 2010). One Massachusetts trauma-informed care (TIC) program specifically developed for education systems with the goal of increasing educator capacity to identify, intervene, and support students and faculty who have experienced trauma is The Supportive Trauma Interventions for Educators (STRIVE). STRIVE was developed in collaboration with the Boston Medical Center Child Witness to Violence Project, Boston Public Schools, and Vital Village Network. The STRIVE Program is delivered at the universal level with all students and staff, and preliminary findings have suggested positive impacts on school climate and relationships among both students and staff (McConnico, Boynton-Jarrett, Bailey, & Nandi, 2016). The main objectives of STRIVE are threefold: (1) increase the understanding and awareness of school staff regarding common kinds of trauma experienced by children and the ways in which trauma exposure can potentially impact child development and performance in school; (2) arm educators with practical and feasible strategies and interventions for use in the classroom to aid students needing additional support and improve challenging behaviors; and (3) create encouraging school environments where students feel safe and empowered to learn (McConnico, Boynton-Jarrett, Bailey, & Nandi, 2016). Each aspect of the intervention incorporates five different components believed to be critical in the healing and growth of students who have experienced trauma including healthy attachment, safety, building trust, control over self, and staff reflection. The intervention begins with a 10-hour training for early childhood and elementary school teachers, focusing on building resilience in students, how to intervene with students who need extra social-emotional and behavioral supports, psychoeducation on the potential impacts of trauma, common behaviors and symptoms of children who have experienced trauma, possible triggers that should be avoided, and resources to help manage behaviors using both preventative and reactive measures. All educators received the

STRIVE Toolkit which contains tools students can use to help self-regulate their emotions and behaviors and strategies for teachers to use within the classroom. The second component of the STRIVE initiative is the use of ongoing consultation and coaching to promote continuous growth, support, and direction for using the strategies and TIC interventions they had been taught in the initial training (McConnico, Boynton-Jarrett, Bailey, & Nandi, 2016).

A pilot study conducted to evaluate the efficacy of STRIVE included 12 teachers from 12 elementary classrooms. The majority of participants were women (81%) and between the ages of 25-34 years old (68%). STRIVE program was evaluated using a series of measures pre- and post-intervention including the Classroom Assessment Scoring System (CLASS; Pianta, La Paro, & Hamre, 2008) and teacher questionnaires to assess teacher knowledge and understanding about the impacts of trauma, use of trauma-informed strategies from the STRIVE toolkit, their efficacy in utilizing the strategies, educator perceptions of their own self-efficacy in behavior management, identifying students who have experienced trauma, and intervening with their students (McConnico, Boynton-Jarrett, Bailey, & Nandi, 2016). Teacher participants were also asked about their perceptions of school-level efficacy to meet the needs of students needing additional support for trauma symptoms and their perceptions of the STRIVE training, consultation, and coaching, and provided a toolkit. Trained observed completed CLASS observations for each of the 12 classrooms once before the intervention and once post-intervention. Teacher questionnaires were administered both pre- and post-training (McConnico, Boynton-Jarrett, Bailey, & Nandi, 2016). While the small sample size is a limitation of this initial study, the study results suggest that providing teachers with education surrounding trauma-informed care practices, available resources, and classroom strategies may be beneficial to help meet the needs of students living with trauma (McConnico, Boynton-Jarrett, Bailey, &

Nandi, 2016). Specifically, McConnico et al. (2016) found an increase in knowledge among educators related to the impacts of trauma on child development, and an increase in beliefs that they were aware of the effects of trauma on child behavior, but no change in knowledge of resources available to the school and within the community. Results also revealed an increase in teacher self-efficacy and confidence to assist students who have experienced trauma. At post, 70% of educators reported feeling the STRIVE training and toolkit were important, and 60% believed that using the classroom toolkit within their classroom assisted students with managing and regulating emotions and behaviors. McConnico et al. also saw significant improvements in CLASS scores in the areas of Respect for Student Perspective, Classroom Climate, and Productivity.

While many trauma-informed care initiatives have multiple components and levels of implementation, all programs are grounded in increasing the knowledge and understanding of school staff regarding trauma, how it can impact students and educators, and strategies for working with students who have experienced traumatic events. A common practice for introducing newly adapted initiatives is through foundational professional development (FPD). Foundational professional development involves training an entire school or district staff on the rationale, mission, and objectives of system-wide plans (McIntyre, Baker, & Overstreet, 2019). In relation to TIC specifically, FPD consists of laying the foundation for school staff to increase their knowledge of the prevalence of trauma in youth, outcomes for students who experience adverse and traumatic events, and interventions for supporting students who experiencing trauma symptoms or are at risk for mental health difficulties (McIntyre et al., 2019). McIntyre et al. (2019) analyzed archival data from a two-day FPD training in trauma-informed practices to evaluate the use of FPD training for building educational staff knowledge and acceptability of

TIC strategies. Participants in the FPD included 210 primary and secondary teachers across six charter schools in New Orleans in 2015; a subset of 183 teachers had pre- and post-training data (McIntyre, Baker, & Overstreet, 2019). Demographic information regarding school level, gender, and age was collected from all training participants. Also, at pre- and post-training, participants completed a 14-item knowledge test of trauma-informed approaches that evaluated educator knowledge of prevalence of trauma, impact of experiencing trauma, perceived need for additional supports for students who have been exposed to trauma, understanding of the key principles of TIC approaches, and prevalence of secondary trauma in educators. Teachers also completed the acceptability and system climate scales extracted from the Usage Rating Profile-Intervention Revised (URP-IR; Briesch, Chafouleas, Neugebauer, & Riley-Tillman, 2013) to assess teachers perceived fit of TIC approaches within their context and the acceptability of said approaches (McIntyre et al., 2019).

Knowledge growth of teachers from pre- to post- FPD training was assessed using a paired-samples *t-test* which showed that educator knowledge following the FPD training ($M =$ 11.91, $SD = 1.74$) significantly increased from pre-training ($M = 7.10$, $SD = 3.49$), $t(182) = -20.51$, $p < .01$, and demonstrated a large effect size $d = 1.52$. The pre-training completion of the knowledge survey indicated 20% of teachers as reaching mastery level but increased to 70% of educators reaching mastery after the FPD training (McIntyre, Baker, & Overstreet, 2019). A moderated multiple regression analysis was run to assess whether system fit moderated the association between knowledge growth in educators and their acceptability ratings of TIC approaches. Teacher pre-training scores, teacher age, gender, and school level (primary or secondary) were included as control variables within the multiple regression analysis. The researchers evaluated whether knowledge growth would be positively associated with teacher

ratings of acceptability for TIC strategies and that teacher perceived fit for their context would moderate the correlation. McIntyre et al. reported significant correlations between knowledge at pre- and post-FPD and acceptability. Growth in scores on the knowledge measure were associated with higher acceptability ratings in contexts where teachers perceived a better fit with TIC strategies; for educators who recognized less fit, greater knowledge growth was linked with lower acceptability. Findings from the analysis found teacher gender and knowledge levels at pre-training to be significant predictors of acceptability ($b = .26$, $p < .01$, and $b = .27$, $p < .01$, respectively); female educators and participants who exhibited larger scores at pre-training also had greater acceptability ratings. Teachers' knowledge growth was not associated with acceptability ratings ($b = -.06$, ns), but educator perceptions of fit predicted acceptability ratings ($b = .62$, $p < .01$), and there was a significant knowledge growth X system fit interaction ($b = .20$, $p < .01$) that accounted for 3.7% of the variance in acceptability ratings. In sum, this study provided some support for the effectiveness of FPD training, which is a primary aspect of most school-based trauma-informed care initiatives. Findings shed light on the way many educators understand the information presented through FPD through relation to the perceived system and context standards. The researchers recommend that administrators and initiative leaders involve educators in initiative planning and review with stakeholders how TIC approaches relate to the mission and vision of the school to promote system alignment, acceptability, and fidelity (McIntyre, Baker, & Overstreet, 2019).

The Harmony Project is a trauma-informed training that was first rolled out in selected Western Florida schools during the 2017-2018 school year. The Harmony Project was developed by two practitioners, Wendy Belfield, MSW and Kelly Davey, Ed.D. Driven by their work with students within foster care and familiarity with the possible detrimental impacts of trauma on

students within schools, Belfield and Davey created a trauma-informed care intervention to be utilized within schools. The co-developers went through a two-year process of developing the Harmony Project intervention by adapting components from pre-existing trauma-informed approaches, such as from social-emotional curricula and trauma-informed care frameworks being utilized within Washington and Massachusetts. The Harmony Project training revolves around ten trauma-informed care tenets adapted from Elliot and colleagues (2005) which are (1) recognize the impact of violence and victimization on development and coping strategies, (2) identify recovery from trauma as a primary goal, (3) employ an empowerment mode, (4) strive to maximize individual choices and control over their recover, (5) are based on relational collaboration, (6) create an atmosphere that is respectful of survivors' need for safety, respect and acceptance, (7) emphasize individual's strengths, highlighting adaptations over symptoms, resilience over pathology, (8) minimize the possibilities of re-traumatization, (9) strive to be culturally competent and to understand each person in the context of their life experiences and cultural background, and (10) solicit consumer input and involve consumers in designing and evaluating services. In addition, the training utilizes a top-down approach focusing first on school staff and funneling down towards students. The Harmony Project is designed to help school staff learn how to create safe, supportive learning environments for students through education about trauma-informed care. Given that school staff working in high needs schools often experience adverse working conditions (Johnson, Kraft, & Papay, 2012) and that adults are often more effective in implementing positive climate change when their wellness is addressed first (Cohen, Cardillo, & Pickerall, 2011), The Harmony Project training begins with a primary focus on creating a safe, supportive climate among adults in the school building. This is followed

by outreach to families and wellness initiatives for students including a universal mindfulness training intervention.

The staff training for school staff consists of seven modules including (1) team building, (2) introduction to trauma-informed care, (3) the importance of self-care, (4) safety at school, (5) encouraging transparency and predictability, (6) introducing the concepts of voice and choice as methods for encouraging peer support and empowering staff, and (7) introducing restorative practices within the trauma-informed framework. The training is broken down into three different phases. Phase one involves training a small coalition of staff who the project coins "campus champions" who will model trauma-informed beliefs and practices within their schools and co-facilitate targeted pieces of training to fellow teachers and instructional staff. Phase two involves training all other instructional staff with the help of the campus champions. Finally, phase three aims to increase knowledge of trauma for students and families by implementing mentoring programs and mindfulness activities and educating families and communities on trauma-informed care. The overarching goal of the Harmony Project is to gather and use empirical data regarding the outcomes of adopting and implementing a trauma-informed care framework within schools (Belfied & Davey, 2018).

A preliminary analysis of the impact of the Harmony Project on staff knowledge of trauma-informed care, personal engagement in self-care practices, attitudes related to trauma-informed care, feelings of safety and support at school, perceived role breadth, and confidence in meeting the mental health needs of students was conducted in 2018 by Dr. Linda Raffaele Mendez and her research team at the University of South Florida (Raffaele Mendez & Reynolds, 2019). Four high needs schools within one large suburban-rural school district in Western Florida were selected in the Summer of 2017 to receive The Harmony Project training. Each

school selected 10-12 staff members to be trainers at their schools. They received training by The Harmony Project creators in the Fall of 2017. Four other schools with similar demographic features were then selected as control schools. One of these schools did not complete the post-test measures, leaving three control schools. In total, four treatment and three control schools similar in number of employees, student socioeconomic status, and school grade participated in the study. A total of 246 (treatment n=118; control n=134) school employees completed a 55-item survey consisting of six measures including (1) Knowledge of Trauma-Informed Care (Raffaele Mendez, 2018); (2) Self-Care Assessment for Psychologists (Dorociak, Rupert, Bryan, & Zahniser, 2017); (3) Attitudes Related to Trauma-Informed Care (Baker, Brown, Wilcox, Overstreet, & Arora, 2016); (4) Safety and Support in the Workplace (Raffaele Mendez, 2018); (5) Teacher Role Breadth Scale (Phillipo & Stone, 2013); and (6)Teacher Self-Efficacy Scale (Phillipo & Stone, 2013). The dataset to be analyzed in the current study is from this initial implementation of the Harmony Project in Pasco County Public Schools but focuses solely on pre-intervention data rather than changes in pre- and post-intervention data which is reported in the next paragraph.

In late January and early February of 2018, pre-tests measures were administered at all schools. One week after the pretest, intervention implementation began at the four treatment schools. The Harmony Project training was conducted in small groups at each treatment school between February-May 2018. At most schools, training included all staff at the school (e.g., teachers, aides, administrators, administrative assistants, etc.). Post-test measures were completed at all schools in late May (i.e., just before the end of the school year). Preliminary analysis of pre-posttest differences between treatment and control schools showed that, in comparison to demographically similar control schools, staff at treatment schools showed

significant increases in staff knowledge of trauma-informed care, self-care practices, and self-efficacy in meeting students' mental health needs.

      Schoolwide initiatives. One schoolwide program developed for utilization within a multi-tiered system of supports is the Healthy Environments and Response to Trauma in Schools (HEARTS). HEARTS is a school-wide, prevention and intervention program developed to promote safe and supportive school environments with three levels of supports within each tier. Each tier consists of supports aimed at students, adults (e.g., staff and caregivers), and the systems in which students, staff, and caregivers operate within. At the Tier 1 level of HEARTS, students are provided classroom training on ways to cope with stress, and school staff receive training and coaching related to trauma-sensitive practices, strategies for addressing stress, burnout, and secondary trauma. At Tier 2, students receive psychoeducational interventions aimed at building new skills and preventing further problems for at-risk students in small groups, while staff and caregivers receive wellness supports to help address feelings of stress, burnout, and secondary trauma; schools are given consultation to reboot ineffective discipline practices, and develop alternative methods that keep students in class. Targeted and Intensive supports at Tier 3 consist of individualized and trauma-specific therapeutic services for students experiencing trauma symptoms that adversely impact their ability to function and thrive at school, and consultation geared towards students related to IEP assessments and services when justifiable. Tier 3 supports for adults come in the form of crisis support for school staff affected by trauma, referrals for ongoing and more intensive supports, and including and supporting families in student therapy sessions and progress. Systems such as school districts receive a consultation at Tier 3 on how to improve school-based mental health services district-wide.

The HEARTS program was developed in the San Francisco Unified School District (SFUSD) after a multi-year plan was proposed in 2008 to combat what is known as the "school to prison pipeline" and to address the disproportionate numbers of students of color experiencing exclusionary discipline methods in comparison to their White counterparts (Dorado, Martinez, McArthur, & Leibovitz, 2016). During the initial implementation of HEARTS in 2009, African American students were being suspended 6.5 times more often than white students within SFUSD. Major goals of the HEARTS initiative are to create a shift in all SFUSD schools from handling problem behaviors from a lens of "What is wrong with you?" to "What happened to you?", improve student overall wellness and school outcomes, educate school staff on the effects of trauma and provide educators with classroom and schoolwide TIC strategies, improve staff wellbeing, and infuse a culturally sensitive lens into a trauma-informed framework with the hopes of decreasing the disproportionate rates of suspensions and expulsions of students of color (Dorado, Martinez, McArthur, & Leibovitz, 2016). Evaluation of the HEARTS effectiveness within the SFUSD consisted of examining whether school personnel exhibited an increase in knowledge regarding trauma and trauma-informed practices, whether there was increased school engagement, whether there was a decrease in challenging behaviors and punitive disciplinary measures used, and whether there was a decrease in symptoms related to trauma in students who participated in the HEARTS program at the individual level (Dorado, Martinez, McArthur, & Leibovitz, 2016).

The evaluation sample consisted of four schools with 1243 students, a subsample of 46 students who participated in HEARTS individual therapy, and 175 school personnel. To evaluate changes in personnel knowledge and use of TIC practices, and perceptions of change in student engagement in class the nine-item HEARTS Program Evaluation Survey was administered at the

end of every school year that HEARTS was fully implemented (Dorado et al.). Information from "before HEARTS" and "as a result of HEARTS" was collected simultaneously. Each item (e.g., *My understanding about how to help traumatized children learn in school before the HEARTS program…*; *My understanding about how to help traumatized children learn in school currently, as a result of the HEARTS program…*) was rated on a 5-point scale ranging from Poor to Excellent. To evaluate the amount of class time lost for students due to disciplinary procedures, researchers examined the change in office discipline referrals (ODRs) and suspension data from one elementary school from the year prior to HEARTS implementation and from the final HEARTS implementation year. To investigate the effects of individualized and trauma-specific psychotherapy provided to students by HEARTS clinicians, clients completed the Child, and Adolescent Needs and Strengths (CANS) scale at intake, regular intervals, and at the termination of treatment. Scores for each CANS item at intake and the end of treatment were extracted and lower scores on the CANS at the end of treatment than at the start indicated positive progress (Dorado, Martinez, McArthur, & Leibovitz, 2016).

Analyses of the HEARTS Program Evaluation survey indicated significant changes within school personnel from before HEARTS to after HEARTS for the following indicators of knowledge and practice: knowledge about trauma and its effects on children = 57% increase (t = 21.86, $p < .001$), understanding about how to help traumatized children learn in school = 61% increase (t = 20.16, $p < .001$), knowledge about trauma-sensitive practices = 68% increase (t = 21.85, $p < .001$), knowledge about burnout and vicarious traumatization = 65% increase (t = 18.69, $p < .001$) and use of trauma-sensitive practices = 49% increase (t = 16.09, $p < .001$) (Dorado et al., 2016). To examine whether student engagement improved throughout HEARTS implementation, a within-subjects paired T test was used to examine the item responses on the

HEARTS Program Evaluation Survey related to staff perceptions of student engagement. Findings showed significant improvements for the four student engagement items: students' ability to learn = 28% increase ($t = 11.06$, $p < .001$), students' time on task in the classroom = 27% improvement ($t = 10.57$, $p < .001$), students' time spent within the class = 36% increase ($t = 12.43$, $p < .001$), and student attendance = 34% increase ($t = 6.67$, $p < .001$).

A Chi-square analysis was conducted to investigate whether there was a decrease in ODRs, physically aggressive student referrals, and suspensions from the year before HEARTS implementation to the final year of HEARTS implementation at one elementary school. Findings indicated an 87% decrease in total ODRs, an 86% decrease in physically aggressive student referrals, and a 95% decrease in suspensions from the year prior to implementation to the final year of program implementation (5 years) (Dorado et al., 2016). Within-subjects paired T-test used to compare pre-treatment and post-treatment CANS scores for students receiving individualized and trauma-specific HEARTS therapy indicated significant positive changes in all five trauma module items including adjustment to trauma, affect regulation, intrusions, attachment, and dissociation.

Limitations of the study include the lack of a comparison condition, use of a retrospective pre-post design for evaluating changes in knowledge and trauma-informed care practices and change in engagement, the use of a clinician self-report measure to determine changes in students receiving HEARTS individualized therapy (CANS), and data from only one school was utilized to determine changes in disciplinary measures and student referrals. Despite these limitations, preliminary findings support the use of the HEARTS program within a multi-tiered system of supports to build knowledge and understanding in school personnel regarding trauma-informed care, to decrease challenging behaviors and the use of punitive disciplinary actions, and

to decrease symptoms brought on by trauma in students (Dorado, Martinez, McArthur, & Leibovitz, 2016). Results of this program evaluation highlight the need for TIC programs to be aligned with existing initiatives and built off of frameworks already being utilized within school districts to promote ease and acceptability of implementation.

        Individual and group interventions. Herrenkohl, Hong, and Verbrugge's (2019) review of a trauma-informed initiative implemented within schools included the current practices in school-based TIC efforts and the evidence-base supporting the various TIC approaches at the individual and group levels, such as Trauma-Focused Cognitive Behavioral Therapy (TF-CBT). Hansel et al. (2010) examined a low-income rural district in Louisiana with students in 1st through 12th grade. Participating students received individualized therapy (TF-CBT) each week during school outside of the classroom setting and over the summer. Student participants received therapy for 1-38 months depending on need. A total of 115 of 157 participating students completed standardized assessments to measure outcomes at baseline and post-treatment including the University of California Los Angeles Post Traumatic Stress Disorder Index for Diagnostic and Statistical Manual IV (Rodriquez, Steinberg, & Pynoos, 1999) and the Trauma Symptom Checklist for Children (Briere, 1996) for measuring trauma symptoms of participating students before treatment and at treatment end. Results of paired sample *t*-tests revealed significant decreases in self-reported symptoms of PTSD including intrusion, avoidance, arousal, depression symptoms, and anxiety symptoms (Hansel et al., 2010; Herrenkohl et al., 2019).

        Another study included in Herrenkohl, Hong, and Verbrugge's (2019) review evaluated the use of the RAP Club intervention, which is a trauma-focused treatment developed for adolescents who have experienced chronic stress and trauma. Mendelson et al. (2015) assessed the effectiveness of the RAP club with a group of 49 7th and 8th-grade students within the

Baltimore City Public School District. The RAP club intervention in this study used a combination of psychoeducation, cognitive-behavioral therapy (CBT), and various evidence-based mindfulness activities with a total of 29 students. Those randomly assigned to the intervention participated in 45-minute RAP club sessions across 6 weeks facilitated by a mental health professional and a local employment training program employee from the community. The 20 students assigned to the control group did not partake in the RAP Club intervention and instead attended their resource period activities (Mendelson et al., 2015). The measures used to assess RAP Club participation outcomes included the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997), the Academic Competence Evaluation Scales (ACES; DiPerna & Elliott, 1999), the Social Competence Scale (SCS; Werthamer-Larsson, Kellam, & Wheeler, 1991), the Student Internalizing Symptoms (Achenbach, 1991), the Short Mood and Feelings Questionnaire-Child Version (SMFQ; Angold et al., 1995), the Adolescent Self-Regulatory Inventory (Moilanen, 2007), the Children's Coping Strategies Checklist (CCSC; Ayers, Sandler, West, & Roosa, 1996), and the Emotional Awareness Questionnaire (Rieffe et al., 2007) (Mendelson et al., 2015). Results of t-tests and ANOVAs indicated significant improvements in teachers' reports of student abilities to regulate emotions, and improvements in social and academic performance, for students within the intervention condition. Higher doses of session attendance were connected to better academic and behavioral outcomes for students in the intervention group. The two groups of students did not differ on self-reports of functioning. Findings displayed demonstrated that even the students with low baseline depression levels showed improvement, as indicated by the teacher, reported academic, social, and emotional outcomes. Taken together, these findings provide preliminary support for using the RAP Club intervention model as a universal approach to mitigating trauma exposure within the student

population without selecting students for the intervention based on reports of previous trauma or mental health difficulties (Mendelson et al., 2015).

Cognitive Behavioral Intervention for Trauma in Schools (CBITS) is another targeted trauma intervention that has demonstrated positive effects on reducing students' Post Traumatic Stress Disorder (PTSD) symptoms, depressive symptoms, and academic outcomes with diverse populations (Kataoka et al, 2011; Ngo et al., 2008; Stein, Jaycox, et al., 2003). The state of Connecticut has made statewide efforts to implement CBITS to expand the availability of trauma supports and interventions within schools and in community agencies where children are served to address inequalities in relation to accessing services and to improve school-based mental health services in all schools (Hoover et al., 2018). The main objectives of Hoover et al.'s (2018) study were to evaluate the foundational implementation impacts including what services were provided and levels of fidelity as well as initial child-level outcomes from pre- to post-treatment. The implementation of CBITS in Connecticut developed out of a partnership with the Connecticut Department of Children and Families and Child Health and Development Institute (CHDI). CBITS trainers assisted school professionals in providing the CBITS intervention and completed self-report fidelity measures across the 3-month intervention period. A total of 350 students participated in the statewide CBITS intervention; a subset of 312 students completed the Child PTSD Symptom Scale (CPSS) to evaluate PTSD symptoms and overall trauma symptoms and 289 completed the Ohio Scales to measure the severity of internalizing and externalizing behaviors at pre- and post-treatment (Hoover et al., 2008; Herrenkohl et al., 2019. Findings from the intake and discharge measures showed a significant reductions in PTSD symptoms and trauma symptoms severity for students who completed the CBITS program $t(311)$ 15.5, $p < .001$

(42% reduction; Cohen's *d* = 0.878) and child problem severity, *t*(288) 6.65, *p* < .001 (25%

reduction; Cohen's *d* = 0.396) respectively (Hoover et al., 2008).

Support for Students Exposed to Trauma (SSET) is a program adapted from CBITS that

was developed to be implemented and monitored by teachers, school counselors, and other

qualified school staff to create a more sustainable system within school systems. The SSET

intervention includes 10 lessons for reducing PTSD and internalizing symptoms for middle

school students who have trauma histories (Jaycox et al., 2009). The 10 lessons utilize

psychoeducation, relaxation exercises, exposure exercises, summarizing trauma stories, and

problem-solving skill-building exercises. Each 45-minute session consists of a lesson plan for the

facilitator, review of what was covered in the prior session, a new lesson activity, and application

activities (Jaycox et al., 2009). Jaycox et al.'s (2009) pilot study took place in two middle

schools in the Los Angeles Unified School District (LAUSD) with 76 students who were

randomized into an intervention group and a wait-list control group across two years. All

sessions were recorded to assess intervention fidelity. The measures used to evaluate student

outcomes were the Modified Life Experiences Survey to evaluate violence exposure, the Child

PTSD Symptom Scale (CPSS) to evaluate PTSD symptoms, the Children's Depression Inventory

(CDI) to assess depressive symptoms, and the SDQ-Parent Report and SDQ-Teacher Report to

assess problem and prosocial behaviors in students (Jaycox et al., 2009). From baseline to the

first treatment post-intervention, PTSD symptoms decreased (treated ES = -.39, control ES = -

.16, difference ES = -.23) as did depressive symptoms (treated ES = -.25, control ES = .07,

difference ES = -.32). While changes in parent reports were not significant (treated ES = -.39,

control E = -.28, difference ES = -.10), teacher reports revealed a small effect size (treated ES =

.006, control ES = .28, difference ES = -.28) (Jaycox et al., 2009). Results of this pilot study

indicated high levels of acceptance from educators, parents, and children. Findings suggested that SSET is a feasible trauma intervention for use within low-income, urban, school settings to offset violence-related PTSD and depressive symptoms (Jaycox et al., 2009).

Efficacy and Burnout and Their Impact on Teacher Engagement

To date, little research has been done to determine what variables impact teacher attitudes toward trauma-informed care, but previous research has shown that some teachers experience high levels of burnout and in turn low levels of self-efficacy. Because teachers are often the ones delivering tier 1 and tier 2 interventions, it is important to understand their confidence levels in providing those mental health interventions to their students. Based on the current literature surrounding teacher efficacy and burnout levels and their impact on teacher engagement, the current researcher hypothesizes that these variables may be significant contributing factors to the variance in teacher attitudes related to trauma-informed care.

Efficacy. Teacher efficacy or teachers' beliefs about their abilities to positively impact and promote student learning can determine teacher behavior and practices in the classroom. Teachers with low self-efficacy tend to have lower levels of personal accomplishment, which can lead to reduced job satisfaction, and attrition (Martin, Sass, & Schmitt, 2012). Teacher efficacy has also been found to be related to student engagement (Tschannen-Moran & Woolfolk Hoy, 2001). Teachers who have high levels of perceived efficacy see themselves as having the ability to motivate students and promote learning in even the most challenging students. This concept relates to students that have experienced trauma because many of said students are reported to have difficulties with behavior and social skills. Many educators go into the teaching profession to help students learn and to make a difference in their lives, so when students are defiant, seem uninterested and unmotivated in the classroom, and do not attend to required tasks, teacher self-

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efficacy may deteriorate. Various research studies have also revealed that there is a significant inverse relationship between teacher efficacy and instructional management (Henson, 2003; Martin & Sass, 2010; Martin, Yin, & Mayall, 2007). An overall lack of confidence or low feelings of efficacy may interfere with a teacher's ability to be effective in meeting the mental health needs of students. A study conducted by Pas, Bradshaw, Hershfeldt, and Leaf (2010) uncovered that educators with low levels of perceived efficacy in their profession were less likely to make student referrals for evaluations or additional supports or accommodations (Herman, Hickmon-Rosa, & Reinke, 2018). Teachers with higher levels of self-efficacy are also more willing and increasingly motivated to try novel instructional approaches and strategies in their classrooms. These results indicate that student behaviors and engagement levels impact teachers' instructional practices. Because self-efficacy has been found to be connected to the likelihood of educators utilizing new and innovative approaches and strategies in the classroom, it may be possible that self-efficacy could also be related to the likelihood or desire of teachers to implement new trauma-informed practices in the classroom, especially if teachers believe that implementing these strategies are a part of their role.

Although teachers have direct access to student support staff and have the ability to refer students in need of additional supports early on, the majority of educators have not been trained to identify students at-risk for mental health difficulties or have not been prepared to provide direct mental health supports to their students (Johnson, Eva, Johnson, & Walker, 2011; Stephan, Sugai, Lever, & Conners, 2015). Many educators have also noted a lack of confidence and preparation for managing and addressing mental health needs in the students whom they serve (Mazzer & Rickwood, 2013; Walter, Gouze, & Lim, 2006). Williams and colleagues (2007) conducted two focus groups involving 19 educators from two different schools, to evaluate

educator beliefs and previous experiences with providing mental health supports and interventions to students. Focus group findings indicated that educators felt moderately comfortable identifying students at-risk for mental health difficulties, but when asked to identify mental health issues that they have seen in their students, the majority of teachers identified various externalizing behaviors. Overall, teachers reported the ongoing stressor of behavior management within the classroom as a barrier to identifying mental health disorders in students and identifying and referring students to student support staff (Williams et al., 2007). Results of the study conducted by Williams et al. (2007) provided important information regarding teacher reported strengths and weaknesses regarding mental health difficulties in students.

Rothi, Leavey, and Best (2008) completed a qualitative study of teachers that investigated teachers' thoughts concerning their training and skills to identify students with mental health issues. Interviews conducted by the researchers of 30 teachers uncovered that the did not feel prepared or competent to refer students at-risk for mental health problems without training in that skill area. They conducted semi-structured interviews also revealed that teachers found students with externalizing, as opposed to internalizing, symptoms easier to identify. Similarly, results of a needs assessment survey completed by a total of 119 teachers from six urban elementary schools indicated that teachers do not feel efficacious in identifying and directly addressing the mental health difficulties of their students within the classroom setting (Walter, Gouze, & Lim, 2006). Fifty percent of those interviewed reported that disruptive and externalizing behavior problems to be the most common mental health difficulty in their student population. In answering a variety of questions about mental health problems and corresponding symptoms, teachers lacked knowledge and understanding of a wide range of mental health diagnoses (Walter, Gouze, & Lim, 2006). Overall, participating educators reported low levels of self-

efficacy in identifying students at-risk for mental health problems, particularly those with internalizing disorders, and reported their lack of confidence to be in part caused by a lack of training on recognizing and helping students with a variety of mental health problems (Walter, Gouze, & Lim, 2006).

Perceived self-efficacy is a commonly researched construct across the literature and the research base has grown related to teacher self-efficacy and teacher classroom behavior and effectiveness. Teachers perceived self-efficacy is determined by the teacher's analysis of the teaching task and their assessment of their competence in the classroom (Heneman et al., 2006). Those who are employed by educational institutions oftentimes spend much of their days working in stressful and intense environments and situations. Solutions for student problems are not always obvious or obtainable, which can leave educators feeling emotionally exhausted and frustrated. This kind of continuous stress can lead to burnout in educators.

Burnout. Teaching is widely regarded as a stressful profession with lower levels of job satisfaction, higher levels of emotional exhaustion, and high rates of professional burnout (Herman, Hickmon-Rosa, & Reinke, 2018). High levels of stress and feelings of burnout can have compounding negative impacts on personal well-being, weakened performance, and poor relationships with co-workers and students (Herman et al., 2018; Wentzel, 2010). Although teachers' job quality largely improves throughout the first three years in the profession (Henry, Bastian, & Fortner, 2011), 17% of teachers in the United States. leave their teaching career within the first five years (Gray, Wilcox, & Nordstokke, 2017). This problem is increasingly prevalent for teachers in schools lacking funding, support, and other vital resources while serving high percentages of students from low-income households, English Language Learners (ELL), and minority students (Marinell & Coca, 2013). Burnout is a syndrome that is common amongst

those that work in helping professions such as education, social work, or healthcare, and can result in emotional depletion, loss of motivation, and negative feelings towards self-accomplishments. Maslach, Jackson, and Leiter (1996) identified three key features of burnout: emotional exhaustion, depersonalization, and reduced personal accomplishment. Emotional exhaustion refers to feeling as though you have nothing left of yourself to give. When teachers describe burnout, they oftentimes describe themselves as being exhausted and feeling as though there is nothing more they can do to better instruct and/or assist their students.

Teachers who experience burnout are also more likely to develop negative feelings towards those they assist—their students. Depersonalization in teachers can cause jaded negativity towards their students, which can result in cold and detached relationships with students (Chang, 2009). Depersonalization can become increasingly problematic when teachers are working with students who have experienced trauma. Externalizing behaviors exhibited by students with high numbers of ACEs can be seen by a teacher experiencing burnout as purposeful defiance instead of a symptom of past trauma. Studies have shown that teacher stress caused by student misbehavior is the primary antecedent of teacher burnout (Chang, 2013; Tsouloupas et al., 2010). The third component of burnout is reduced feelings of personal accomplishment. Due to student misbehavior and instructional requirements related to high-stakes testing, teachers are forced to constantly change instructional practices. In response to increased efforts to control instruction, teachers are especially susceptible to a diminished feeling of personal accomplishment. Over time, low levels of personal accomplishment lead to low levels of job satisfaction (Martin, Sass, & Schmitt, 2012).

Considering the links between high educator stress, low efficacy, burnout, and low implementation fidelity of systemwide programs (e.g., PBIS, TIC), it is necessary for school

systems to find effective approaches to build teacher efficacy, promote healthy coping strategies in teachers, to reduce teacher burnout and in turn support successful implementation of schoolwide programs that impact students (Reinke et al., 2013). Thus, efforts such as The Harmony Project which are developed to inform staff, build capacity, improve self-efficacy and confidence in providing direct mental health services to students can serve as a point of entry for potentially reducing teacher stress and burnout while improving student outcomes (Herman et al., 2018).

Teacher Role Breadth

Due to the increasing emphasis on supporting student mental health and well-being in schools, teachers are now expected to be responsive to a large array of student needs including mental health intervention and promotion (Graham, Phelps, Maddison, & Fitzgerald, 2011). Although research has not yet been conducted regarding teacher attitudes towards implementing trauma-informed care practices and their perceived role in that area, some research exists related to teachers' views of their role in promoting their students' mental health. Case in point, Roeser and Midgley (1997) addressed the concept of role incongruity by examining educators' views concerning the social-emotional needs of their students concerning their roles as teachers or whether they felt other stakeholders such as counselors or parents carried the responsibility of promoting mental health in students. The study also explored educators' feelings of burden with the mental health needs of the students they serve. The surveys completed by 192 elementary teachers related to teachers' beliefs about students' mental health indicated that 99% of the teachers agreed that student mental health concerns were "somewhat" to "very much" a part of their role as an educator (Roeser & Midgley, 1997). Findings also indicated that teachers who believe they can make a difference in their students' lives in relation to academic achievement

also believe that they need to be aware of the mental health needs of their students, which implies that teachers with higher levels of self-efficacy related to their jobs as educators are more likely to value a role in addressing the socio-emotional needs of their students to best promote their learning. These results further indicate that school mental health initiatives that account for regular classroom teachers' concerns may help to alleviate feelings of burden and increase teachers' self-efficacy about students' social-emotional needs (Phillippo & Stone, 2013).

Graham, Phelps, Maddison, and Fitzgerald (2011) examined the views and perceptions held by educators in Australia related to confidence in implementing mental health initiatives, confidence in addressing mental health concerns with students, self-efficacy in addressing mental health concerns outside of the classroom, willingness to be involved in mental health initiatives both in and outside of the classroom context, and their perceptions of how mental health can affect student behavior and academic success. Graham and colleagues (2011) distributed a Likert scale survey with open and closed response questions to 2220 primary and high school teachers. A total of 508 surveys were returned; 24% were completed by male teachers (75% completed by female teachers), 44% of participating teachers reported being in the 41-50 age group, and the majority of the population had been teaching for 21-30 years. Survey results found that the majority of teachers (45%) reported that they perceived mental health literacy as very important or extremely important (44%). Additionally, 70% of teachers reported being either very confident or quite confident in implementing mental health initiatives at their school, but 25% of teachers reported being only a little confident or not confident at all. When asked about how confident they felt to deal with the impact of student life events in the classroom setting, teachers reported being most confident in dealing with divorce, family breakups, and school transitions, but less than half of teachers reported being confident in addressing life situations such as

physical, sexual, or emotional abuse and/or family violence at home. A total of 70% of teachers reported that they would be willing to be involved in targeted mental health education programs. Reasons for willingness included the prevalence of mental health issues at their specific school, a lack of services outside of school due to being in a rural area, and if there were additional resources or time provided to assist with those services. The teachers who reported not being willing to be involved in mental health interventions outside of the classroom listed reasons including having a lack of training, low confidence in expertise, lack of time and resources, the emotional toll being involved could take on teachers, and fear of legal implications (Graham et al., 2011).

Graham et al. (2011) also reported themes derived from comments on the survey written by 64% of survey respondents. Themes that emerged throughout the qualitative comments included confusion and frustration toward the prevalence of mental health concerns within their students but a lack of training to address the needs of their students, the difficulty teachers experience when trying to balance so many roles within their job, a lack of support and resources from their schools to more effectively provide mental health services to students, a need for teachers to also receive supports for their mental well-being, and a minority of teachers expressed strong beliefs that addressing the mental health of their students is not a part of their role as teachers. The findings of this study highlighted that while many of the teachers were willing to be involved in addressing the mental health needs of students, many teachers experience difficultly balancing their many roles. These results suggest that efforts must be taken to help diffuse the tension between educators who recognize the need for mental health and well-being initiatives in schools, and the lack of training, experience, and resources needed to provide these mental health services. Special attention should be given to developing teacher training,

make ongoing professional development opportunities available to all school staff, and prioritize the mental health and well-being of teachers as well as students (Graham, Phelps, Maddison, & Fitzgerald, 2011). Similarly, Mazzer and Rickwood (2015a) found that the majority of both preservice and in-service teachers in Australia viewed themselves to play a role in identifying and preventing mental health difficulties in students and providing mental health promotion interventions. Conversely, both preservice and in-service teachers reported that they were not confident in their abilities to identify, prevent, and address mental health concerns, which prevented them from tapping into that part of their role (Mazzer & Rickwood, 2015a).

With the goals of better understanding teacher perceptions of prevalence of mental health needs in the educational system, their knowledge and expertise related to mental health services, professional development experience related to mental health, perceived training needs, perceived roles in supporting the mental health of their students, and barriers they see to providing mental health supports in schools, Reinke et al. (2011) surveyed 292 early childhood and elementary school teachers across five districts. Survey items consisted of demographic information of participants and their specific schools; perceptions and attitudes toward their role in meeting the mental health needs of students; and participant knowledge, perceptions, and attitudes toward evidence-based mental health practices within educational settings (Reinke et al., 2011). The majority of respondents agreed that schools should be involved in addressing the mental health difficulties of students; the top five such concerns reported included behavior problems, hyperactivity and inattention problems, students with difficult home environments, social skills difficulties, and depression. In response to the item "*I feel that I have the level of knowledge required to meet the mental health needs of the children with whom I work*," only 28% of teachers either strongly agreed or agreed, whereas 72% of teachers responded with

"neutral," "disagree," or "strongly disagree." Using an open-ended answer format, teachers were asked to list the areas in which they believed they needed the most professional development related to mental health and the three areas identified included approaches for addressing externalizing behaviors in students, recognizing and understanding mental health issues in students, and training in classroom management (Reinke et al., 2011). The top three barriers teachers reported as preventing them from meeting the mental health needs of all students included: (a) an insufficient number of staff trained in providing mental health services, (b) a lack of training for school staff in addressing mental health needs of students, and (c) a lack of funding and resources necessary for providing school-based mental health services. The results of this study further indicate that while many educators view mental health services as an important role of the school, educators also feel unequipped to manage internalizing and externalizing behaviors in the classroom, and the majority of teachers do not feel as though they have the knowledge, skills, or resources to support the mental health needs of their students (Reinke et al., 2011).

Summary and Gaps in the Literature

Relationships between trauma and student learning are well-established. Initial work has supported a positive impact of trauma-sensitive schools on student outcomes, although not all widely used interventions have been subjected to rigorous evaluation. Teacher perceptions of self-efficacy and role breadth have been assessed in the current literature, but less is known about the variables that relate to teacher attitudes towards implementing trauma-informed practices in the classroom. This study addressed this gap in the literature by investigating educators' sense of efficacy, and perceptions of role breadth, as well as school and job position as potential variables

that contribute to the variance in attitudes among teachers regarding trauma-informed care

practices and trainings within low-income schools.

Chapter III: Method

This study used a correlational design to analyze data that were collected from instructional staff who were employed by eight different schools within Western Florida. The researcher examined the relationship between teacher variables such as school, position, perceived role breadth, sense of efficacy, and educator attitudes towards trauma-informed care. This chapter describes the participants in the study, the data collection procedures, and the various measures available for use to evaluate the variables of interest. An overview of data analysis procedures is also outlined for each research question, and lastly ethical considerations are explored.

Participants

The current study is a secondary analysis of pre-existing data that were collected from instructional staff from eight different schools during the 2017-2018 school year. Participants were recruited from eight elementary schools from a district in Western Florida. Only schools that requested (treatment) or agreed (control) to participate in the project were included.

Schools. The schools that participated in the Harmony Project trauma-informed care training and thus also this study include: four elementary schools that served as treatment schools, and four elementary schools that served as control schools. The treatment schools were recruited through word-of-mouth about the Harmony Project. The principals of these schools requested to have their staff receive the Harmony Project trauma-informed care training. The control schools were selected to "match" the experimental schools based on the number of

students who received free or reduced-price lunch and school grades. The control schools agreed to receive the training in the 2018-2019 school year. All eight of the schools were classified as Title 1 schools. During the 2017-2018 school year, six of the schools had grades of C, one school had a grade of D, and one school had a grade of B.

Title 1 schools are eligible for Title 1 funds to be used for schoolwide programs that serve all children in the school. Differentiated accountability (DA) is when non-charter schools and their districts are identified for accelerated interventions, resources, and progress-monitoring based on school grade history. Schools are identified for DA support annually by the state of Florida after school grades are released and then the identified schools stay on the support list for the entire following school year. There are three different DA categories; focus schools received a "D" grade in the most recent grades released, priority schools received a grade of "F" and former F schools are those that improved from a grade of "F" within the past three years and are still being monitored (FLDOE, 2015).

Treatment school one was a Title 1 elementary school with a school grade of C, had approximately 104 employees at the time of the study, and the demographic makeup of the student population was 66% White, 22% Hispanic, 6% Black, and 5% multiracial. At school one, 84% of students received free or reduced-price lunch. Treatment school two was a Title 1 elementary school with a school grade of C and 73 employees. The student ethnicity breakout at the school was 61% White, 24% Hispanic, 4% Black, 3% Asian, and 7% of students were multiracial. A total of 81% of students enrolled at the elementary received free lunch and 6% received reduced price lunch. Treatment school three was also a Title 1 and DA elementary school with a school grade of D that had approximately 91 employees. The student population at treatment school three was 50% White, 26% Hispanic, 4% Black, and 3% Asian and 79% of

students were receiving free or reduced-price lunches. Treatment school four was a Title 1 elementary school with a school grade of C that employed approximately 110 people. The student population at school four was made up of 56% White students, 21% Hispanic students, 14% Black students, 7% multiracial students, and 2% Asian. At treatment school four, 87% of students received free or reduced-price lunch.

Control school one was a Title 1 elementary school with a school grade of C with approximately 70 employees. A total of 83% of the student population received free or reduced-price lunch, 58% of students were White, 23% identified as Hispanic, 8% identified as Black, 2% identified as Asian, and 9% of students identified as multiracial. The second control school was a Title 1 elementary school with a school grade of B, that employed 54 staff members. The racial and ethnic makeup of the student population at the school was 76% White, 16% Hispanic, 5% Multiracial, and 2% Black. Control school 3 was also a Title 1 elementary with a school grade of C, that employed approximately 110 employees. The student population consisted of 57% White students, 28% Hispanic, 7% Black, and 5% of students were Multiracial. Lastly, the fourth control school was a Title 1 elementary school with a school grade of C and 85% of students received free or reduced-price lunches. Control school four employed 117 staff members at the time of data collection. The student race and ethnicity makeup at the school consisted of 57% of students were White, 25% of students were Hispanic, 10% were Black, and 7% of students were Multiracial. All school demographic information and early warning systems data are represented in Table 1 below.

Each school had collected Early Warning Systems data to identify at-risk students who are likely to experience adverse outcomes early enough to alter student trajectories and success. New Early Warning Systems indicators in the district deem students at the elementary level as

"off-track" by meeting one or more indicators that include failing one or more classes (receiving a grade of "U" Unsatisfactory), 10% or more absences within a year, four office discipline referrals (ODR's) per year or two office discipline referrals per year.

At treatment school one, 41% of students were considered off-track, 40% were at-risk, and 14% of students were on-track at the time of data collection. Early Warning Systems data from treatment school two showed that 43% of their students were off-track, 39% were at-risk, and 17% were on-track. Treatment school three reported having 36% of students off-track, 41% at-risk, and 18% of students were considered on-track. Early Warning Systems data collected at treatment school four showed that 43% of their students were off-track, 36% were at-risk, and 12% were classified as on-track.

Early Warning Systems data for control school one showed 42% of students as off-track, 44% of students were at-risk, and 13% were considered on track. Control school two showed 29% of students as off-track, 54% as at-risk, and 17% of students were on-track. Control school three reported 34% of the student population as off-track, 46% as at-risk, and 19% as on-track. Lastly, EWS data for control school four showed 39% of the student population as off-track, 31% at-risk, and 8% on-track.

Table 1

School Demographic Information & Early Warning Systems Data

School	White	Black	Hispanic	Asian	Multiracial	% Free or Reduced-Price Lunch	School Grade	DA	% On Track	% At-Risk	% Off Track
			Race								
1	66%	6%	22%		5%	84%	C	N	14%	40%	41%
2	61%	4%	24%	3%	7%	87%	C	N	17%	39%	43%
3	50%	4%	26%	3%		79%	D	Y	18%	41%	36%
4	56%	14%	21%	2%	7%	87%	C	N	12%	36%	43%
5	58%	8%	23%	2%	9%	83%	C	N	13%	44%	42%
6	76%	2%	16%	2%	5%	70%	B	N	17%	54%	29%
7	57%	7%	28%		5%	83%	C	N	19%	45%	34%
8	57%	10%	25%		7%	85%	C	N	8%	31%	39%

Note. DA = Differentiated Accountability; All information was retrieved from the MyPascoConnect platform.

*All 8 schools were identified as Title 1

Instructional Staff. In the current study, The Harmony Project training took place in two phases. In Phase I, "Campus Champions" (i.e., those who agreed to serve as leaders at the school in implementing trauma-informed care) were trained by The Harmony Project developers or others who have already undergone training. In Phase II, the "Campus Champions" trained all other staff at the school (i.e., the "Classroom Champions."). Phase I at the treatment schools was completed in Fall 2017 and was not a part of this research project. Phase II took place in Spring 2018. Prior to the Phase II training, the pre-intervention measures were collected at all treatment and control schools described in Table 1. Approximately one week after completing pre-intervention measures, the treatment schools began the phase II training. At the treatment schools, all instructional staff who had not yet received the Harmony Project training completed the packet of measures (the "pre" time point). They then received the Harmony Project training. Following the training, they completed another packet of the same measures (the "post" time point, approximately 3 months after pre). At the control schools, all instructional staff completed the pre and post measures but did not receive the training during the Spring of 2018. Analyses in the current study were limited to data collected at the "pre" time point.

The dataset analyzed included data from a total of 299 participants. The sample of participants included 199 teachers and 93 other educational staff holding non-teaching positions such as student support staff ($n = 49$), instructional aides ($n = 32$), administrative assistants ($n = 7$), and a few administrators ($n = 3$). A total of seven participants did not list their position at their school.

The vast majority of the sample identified as female (91%) and White (94.3%). All demographic characteristics of the participants including, participant sex, race, and position are detailed in Table 2.

Table 2

Demographic Characteristics of Study Participants (N = 299)

Variable	N	%
Sex		
Female	272	91
Male	25	8.4
Missing	2	0.7
Race		
White	282	94.3
Black	4	1.3
Asian	2	0.7
Multiracial	2	0.7
American Indian or	1	0.3
Alaskan Native	1	0.3
Missing	7	2.3
Position		
Teacher	199	66.6
Instructional Aide	32	10.7
Administrator	3	1
Student Support Staff	49	16.4
Administrative Assistant	7	2.3
Custodial Worker	1	0.3
Cafeteria Worker	1	0.3
Missing	7	2.3

Measures

A survey comprised of a demographics form, the Attitudes Related to Trauma-informed Care (ARTIC-10), a role breadth measure and a self-efficacy measure were administered to all participants at both control and treatment schools. Prior to survey administration, the university research team which included Dr. Linda Raffaele-Mendez (principal investigator; PI) and Dr. Robert Dedrick (measurement and statistics expert) reviewed all items from each survey to

determine the content validity of the survey. The developers of the Harmony Project also reviewed all items of the survey to ensure high perceived acceptability to the population that would be completing the survey. The committee decided on revisions that were made to the survey (detailed in subsequent sections of this document) and finalized which items were included in the survey completed by teachers and school personnel at the two aforementioned time points.

Demographic information form. All staff filled out a demographic rating form that was developed by the research team. On this form, participants listed their unique participant ID number, and their designated school number. The demographic form included questions about sex, race and ethnicity, highest degree obtained, years of teaching experience, and number of years employed by their current school. In addition, the first page of the survey packet (demographic forms) included a 1 item rating on a 1 (*no knowledge*) to 10 (*expert*) scale of how much they felt they knew about trauma-informed care in educational settings (see Appendix B).

Attitudes Related to Trauma-informed Care (ARTIC). One barrier to implementing and adopting a trauma-informed care framework within schools is that there are not many psychometrically robust instruments available for use to evaluate trauma-informed care programs or procedures or that determine whether trauma-informed care is being practiced effectively. To address this concern, the Attitudes Related to Trauma-informed Care Scale (ARTIC) was developed collaboratively by the Traumatic Stress Institute of Klingberg Family Centers and R. Courtney Baker at Tulane University (Baker et al., 2016). The ARTIC is a measure of professionals' attitudes (both favorable and unfavorable) toward trauma-informed care.

There are three versions of the ARTIC for educational settings. The current project utilized the ARTIC-10, which is a 10-item survey that takes 2-3 minutes to complete and yields

one total score (see Appendix C). The measure was developed to be used for educational settings that either have or have not yet implemented trauma-informed care. The 10-item version was chosen due to time limitations that made using the ARTIC-45 and the ARTIC-35 not feasible. The 10-item version of the ARTIC can be used to determine the attitudes of personnel towards trauma-informed care, and to identify those who may need extra training or supervision to ensure that they are effectively implementing trauma-informed care. The ARTIC-10 is a 10-item short form that results in one total score. The ARTIC-10 includes items related to attitudes relevant to trauma-informed care implementation including underlying causes of problem behavior and symptoms, the impact of trauma, responses to problem behavior and symptoms, on-the-job behavior, self-efficacy at work, and reactions to the work. All 10 items use a seven-point bipolar scale, and items are written as pairs characterizing a favorable attitude toward trauma-informed care and an unfavorable attitude regarding trauma-informed care. There are two steps to scoring the ARTIC-10. First, reverse scores items 2, 4, 6, 8, 9. Second, average scores for all items. The mean score can range from 1-7. Higher average total scores on the ARTIC-10 reflect more positive attitudes towards trauma-informed care principles and practices.

Baker and colleagues (2016) evaluated the ARTIC in a sample of 760 service providers, including a purposive subsample of 165 participants who worked in schools. Internal consistency reliability was found to be high for the ARTIC-10 ($\alpha = .82$), which provides evidence that the ARTIC-10 produces reliable measures of attitudes related to trauma-informed care. Test-retest reliabilities were also found to be sufficient using the Pearson's product moment correlation with a correlation of .82 for the ARTIC-10 for ≤ 120 days (Baker et al., 2016). The study also analyzed the construct and criterion-related validity of the ARTIC-10 and found that ARTIC-10 composite scores were strongly related to personal familiarity with trauma-informed care ($r =$

.38) and staff-level indicators of trauma-informed care implementation (r = .51; Baker et al., 2016).

Role Breadth Measure. Only those participants who identified themselves as Teachers working at their schools were asked to fill out a six-item measure related to their perceived role breadth (see Appendix D). The items were chosen from a survey developed by Kate Phillipo and Susan Stone from Loyola University Chicago and University of California, Berkeley respectively. Phillipo and Stone (2013) developed a 33-item teacher survey for their study on teacher role breadth and its relationship to student-reported teacher support. Their teacher survey focused on three variables including role breadth, efficacy perceptions, and supports related to carrying out student support responsibilities, and teacher background, preparation, and experience (Phillippo & Stone, 2013). The role breadth items included in their survey were adapted from Roeser and Midgley's (1997) study of teacher's views on mental health problems amongst their students. The survey items used in the current study followed a similar format to the survey developed by Phillipo and Stone (2013) wherein teachers rated each statement (e.g., "I believe I must be both a teacher and a counselor to my students") on a five-point Likert scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The original 14 role breadth items from the Phillipo and Stone (2013) survey were reduced to six items for use within the current study to fit the study aims and time constraints. Of the six, two items (items 2 and 3) are reverse scored so that higher scores reflect a broader perceived role breadth that includes addressing the mental health needs of students. All six item responses are summed and averaged resulting in one total score ranging from 1-5.

Efficacy Measure. The final measure that was analyzed within the current study is a measure of teachers' sense of efficacy at tasks that involve supporting and addressing mental

health among their students. This measure was also adapted from the Phillippo and Stone's

(2013) study on teacher role breadth and its relationship to student-reported teacher support. This

measure was developed to gauge a teacher's confidence in fulfilling their roles and

responsibilities related to the mental and emotional needs of their students (Phillippo & Stone,

2013). The original 16-item composite was shortened to 13 items for the current project (see

Appendix E). Participants rated their confidence using a 4-point Likert scale ranging from 1 (*Not

at all confident*) to 4 (*Highly Confident*) in performing different tasks that may fall within their

role (e.g., "build relationships with individual students at this school" and "Start conversations

with students at this school when you are concerned about their well-being"). All 13-item

responses are summed and averaged to create one total score ranging from 1-4. Higher scores on

the shortened Teacher Self-Efficacy Scale indicate higher levels of self-efficacy in addressing

mental health among students.

Data Collection Procedures

Data collection. Approval to conduct the study was received from the USF Institutional

Review Board (IRB) in January of 2018 (study: *Educator Training in Trauma-Informed Care,*

#Pro00033467). The District's Department of Assessment and Accountability also approved the

study procedures prior to data collection. The author of this thesis served as an approved member

of the research team. All pre-survey data were collected in late January and early February of

2018.

Teacher survey administration. The survey was designed to be completed by teachers

and school personnel before receiving the Harmony Project intervention and after the

intervention had been completed. The survey was administered by graduate student research

assistants in the school psychology program at USF who were approved members of the research

team. Research assistants administered the survey to participants in person, at their schools via paper and pencil before or after school hours. All instructional and support staff were invited to participate in the study and those who wanted to participant came to the pre-determined meeting area at their school to complete the survey. Each participant received a paper copy of the consent letter that described the study, what they were asked to do, that their responses would be anonymous, and who would have access to the aggregate data (see Appendix A). All staff at each school were invited to participate in the study, but 52% of those invited actually attended the meetings, agreed to participate, signed consent, and completed the survey. A total of 629 school staff members were invited to complete the survey; 330 of the recruited adults decided not to participate, indicating a 47% participation rate. Consent forms and survey materials were distributed simultaneously. Research assistants provided a brief scripted overview as well as directions for completing the survey before the participants completed the survey independently. The administration and completion of the survey required approximately 30 minutes. Participants were made aware of their rights to confidentiality and were not asked to write their names on the surveys but instead were asked to write a unique participant code on the first page of their survey packet. The participant code consisted of the first initial of their mothers' name, the first initial of their father's name, the day of their birth, and the first three letters of the make of their car at the date of data collection. If participants were unaware of their mother or father's name, they were instructed to write an "X" as a placeholder.

Upon completion of the survey packet, participants returned their materials to the USF research assistant who then placed all surveys in the appropriate envelope designated for that school site. Study staff answered any questions that arose during data collection. They also scanned each completed survey upon receiving them to ensure that all questions had been

answered. When all surveys were received, the envelope was then sealed and returned to the PI. As each envelope was returned, they were then placed in a locked file cabinet stored within the PI's office. Raw data were entered into a Google Sheets spreadsheet by graduate students assisting with the research study. All input data were verified for accuracy through visual checking. Access to the spreadsheet was limited to study staff only.

Data Analysis Plan

This researcher used SPSS to first conduct preliminary analyses and then the primary analyses to answer each research question.

Missing data. It was expected that the rates of missing data within the data set would be low due to the specific data collection procedures wherein members of the research team reviewed and scanned each survey for completion during the in-person data collection meetings.

Preliminary analyses. This researcher calculated descriptive statistics to investigate whether any violations of assumptions were present. Inter-correlations among teacher variables were also analyzed to check for multicollinearity between variables. The researcher also examined the dimensionality and internal consistency of each measure, as well as investigating the model fit of the one-factor ARTIC-10 using a confirmatory factor analysis. After the preliminary analyses were completed, this researcher conducted further statistical analyses in relation to the following research questions:

1. *To what degree do teachers in Title 1 schools believe they should take responsibility for addressing students' mental health needs?*

To determine the descriptive characteristics of teacher beliefs regarding their responsibility for addressing students' mental health needs within this sample, means, standard

deviations, and additional descriptive data (e.g., skew, kurtosis) for the composite variable from the Teacher Role Breadth Scale (Phillipo & Stone, 2013) were calculated.

2. *How confident do teachers in Title 1 schools feel in addressing the mental health needs of their students?*

To determine the descriptive characteristics of teacher confidence in addressing the mental health needs of their students within a Title 1 school within this sample, means, standard deviations, and additional descriptive data (e.g., skew, kurtosis) were calculated for the composite variable from the Teacher Self-Efficacy Scale (Phillipo & Stone, 2013).

3. *What are the attitudes of educators towards trauma-informed care ideals in Title 1 schools?*

    a.   *Is there a significant difference between teachers and other professional roles at the school?*

    b.   *To what extent do school, position, perceived role breadth, and self-efficacy account for the variance in educator attitudes towards trauma-informed care?*

To determine the descriptive characteristics of teacher attitudes towards trauma-informed care ideals and practices in Title 1 schools within this sample, means, standard deviations, and additional descriptive data (e.g., skew, kurtosis) were calculated for the composite variable from the ARTIC-10 (Baker, Brown, Wilcox, Overstreet, & Arora, 2016). Because almost 100 participants who completed the ARTIC-10 had professions other than that of a teacher, a comparison between teachers and other supporting roles was made.

Relationship between teacher variables and teacher attitudes related to Trauma-Informed Care (TIC). The present study utilized a correlational design. Bivariate correlations between each teacher variable (perceived role breadth and self-efficacy) and the outcome

variable of teacher attitudes towards trauma-informed care principles and practices (Attitudes Related to Trauma-informed Care survey) were examined to establish the relationship strength and direction for each individual pair of variables. The predictor variables were also entered into a simultaneous multiple linear regression equation to determine the extent to which a model including school, position, role breadth, and self-efficacy, account for the variance in the outcome (teacher attitudes related to trauma-informed care). The researcher examined the beta weights of each variable, to inform which variables are the strongest predictors of educator attitudes related to trauma-informed care.

Ethical Considerations

Prior to the start of any data collection, the University of South Florida Institutional Review Board (IRB) and the participating district's Department of Assessment and accountability granted approval for the data collection procedures that yielded the dataset to be analyzed in the study. All participants provided written consent. The consent forms that were signed by participants described the study purpose and potential risks and benefits related to participating in the study. The participants in the study were reminded of their right to discontinue their participation at any point of data collection. All data collected from each participant was confidential, linked through the use of a unique code created for each participant.

Chapter IV: Results

This chapter presents the results of the statistical analyses conducted to answer the three major research questions. First, handling of missing data is discussed, followed by results of descriptive analyses of measures used in the current study, and finally, results from the multiple regression analyses examining the relationship between teacher variables (e.g., role breadth and self-efficacy), professional role, school, and attitudes related to trauma-informed care.

Data Screening

All raw data (teacher responses on measures) were entered into a Google Sheets spreadsheet by graduate students who were assisting Dr. Raffaele Mendez with the larger research project (i.e., pre- post-intervention evaluation). All input data were verified for accuracy through visual checking. These data were then exported to SPSS and checked for additional systemic errors (e.g., out of-range participant responses).

Missing Data

To minimize missing data, survey packets were checked by a research team member for any skipped items during data collection meetings immediately following participant completion of the survey packets. For missing data identified after data entry, listwise deletion was used to handle missing data for each of the analyses evaluating answers on the teacher role breadth scale, the self-efficacy scale, and the ARTIC-10. A total of 292 surveys were included in the analysis evaluating all participants' answers on the self-efficacy scale; data from seven participants' surveys were excluded due to missing data. In addition, a subset of ($n = 197$) responses from

teachers on the self-efficacy scale were analyzed; data from two participants were excluded due to missing data. Participants who did not have an instructional role at the school were asked to skip the Teacher Role Breadth Scale. For that teacher role breadth scale, a total of 250 surveys completed by both teacher and non-teacher participants were included in the analyses whereas 49 surveys were excluded due to missing data. In analyses evaluating the responses of a subset consisting of only teachers, 197 surveys were included, and two surveys were excluded. A total of 286 surveys were included and 13 were excluded in the analyses evaluating answers on the ARTIC-10.

Measure Reliability

All scales utilized within the current study (Teacher Role Breadth Scale, Teacher Self-Efficacy Scale, ARTIC-10) were analyzed to assess the internal consistency of each measure within the sample of participants. The 6-item Teacher Role Breadth Scale measured teacher beliefs regarding their responsibility for addressing students' mental health needs. In the sample of 250 participants who answered the items on the Teacher Role Breadth Scale, the internal consistency was sufficient with a coefficient alpha of .76. To measure teacher confidence in addressing the mental health needs of their students, the Teacher Self-Efficacy Scale was utilized. The internal consistency of the 13-item Teacher Self-Efficacy Scale for a sample of 292 participants was found to be excellent with an alpha value of .91. Finally, within the sample of 286 the ARTIC-10 used to measure the attitudes of teachers regarding trauma-informed care practices and principles was found to have relatively low internal consistency with an alpha coefficient of .69. Mplus was used to conduct a one-factor confirmatory factor analysis for the ARTIC-10 measure. The results indicate that $\chi2 = 136.39$, d$F = 35$, $p < 0.001$, CFI $= 0.774$, TLI $= 0.709$, RMSEA $= 0.098$ with 90% CI of 0.081 to 0.116, SRM$R = 0.064$. The determination of

model fit was based on a comparison of the fit indices obtained from the CFA and the suggested cutoff values frequently cited in the literature for the CFI, RMSEA, and SRMR indices (Steiger & Lind, 1980; Bentler, 1990). The one-factor model for the ARTIC-10 was categorized as having "marginal" model-data fit.

Descriptive Analyses

The researcher utilized the Statistical Package for the Social Sciences (SPSS) 25 software to conduct all preliminary analyses. Descriptive statistics, including means, standard deviations, range, skewness, and kurtosis, of each of the dependent variables of interest were calculated and are presented in Table 3. All of the variables used in the study have an approximately normal distribution (i.e., skew and kurtosis between -2.0 and +2.0).

Table 3

Descriptive Statistics for Role breadth, Self-Efficacy, and ARTIC-10

Scale	# of items	Cronbach's alpha	*n*	*M*	*SD*	Skewness	Kurtosis
Teacher Role breadth	6	.75	250	4.31	0.53	-1.06	1.02
Self-efficacy	13	.92	292	3.08	0.55	-0.37	-0.40
ARTIC-10	10	.69	299	5.01	0.76	-0.07	1.02

Note. The potential ranges in scores for the scales listed above were from 1 (*strongly disagree*) to 5 (*strongly agree*), 1 (*not at all confident*) to 4 (*highly confident*), and a seven-point bipolar scale respectively.

Correlational Analyses

In order to investigate the relationships between teachers' perceived role breadth, teacher self-efficacy in addressing the mental health of students, and attitudes related to trauma-informed care within the current sample of educational staff, Pearson product-moment correlation coefficients were calculated for all of the continuous variables in the study (see Table 4). An alpha level of .05 was used to determine statistical significance in this study. All correlations

between variables were statistically significant at the ($p < .05$) level. Attitudes related to trauma-informed care were positively correlated with role breadth ($r = .39$, $p < .05$) and self-efficacy ($r = .36$, $p < .05$). The correlation between role breath and self-efficacy was moderate ($r = .43$, $p < .05$). The correlations between the three variables suggest relationships without being too strongly related to one another indicating that multicollinearity is not present.

Table 4

Correlations between Key Variables in Study

	ARTIC	Role Breadth	Self-Efficacy
ARTIC	1.0		
Role Breadth	.39	1.0	
Self-Efficacy	.36	.43	1.0

Note. ARTIC = Attitudes Related to Trauma-informed Care Scale
ARTIC *(N = 299).* Role Breadth *(N = 250).* Self-Efficacy *(N = 292).*

*p < .05.

Research Question 1

To what degree do teachers in Title 1 schools believe they should take responsibility for addressing students' mental health needs? Scores on the Teacher Role Breadth Scale (Phillip & Stone, 2013) were used to determine the descriptive characteristics of educator beliefs regarding their responsibility for addressing students' mental health needs within this sample. First, descriptive statistics summarizing responses from all participants who completed the survey (both teachers and non-teachers) are presented in Table 5, including sample size (*N*), mean *(M),* and standard deviation *(SD)* for the individual items on the Teacher Role breadth Scale. The descriptive statistics for a subset of the total sample including only teachers are presented in Table 6. Participants were asked to rate each of the six items on a five-point Likert scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Of the six, two items (items 2 and 3) were reverse scored so that higher scores reflect a broader perceived role breadth that includes

addressing the mental health needs of students. In addition to descriptive statistics of individual items, total scale statistics were examined. The summated total scale score for the Teacher Role Breadth Scale (Phillip & Stone, 2013) for the sample including teachers and non-teachers ($N =$ 250) was 25.88 with a standard deviation of 3.16. Similarly, an examination of summated total scale scores for the subset including solely teacher participants resulted in a mean of 25.89 and a standard deviation of 3.16.

Table 5

Item-Level Descriptive Statistics for Role Breadth

Scale (alpha)	Measure Item	*N*	*M*	*SD*
Role Breadth (alpha =.75)				
	1. I believe I must be both a teacher and a counselor to my students.	250	4.50	0.70
	2. My primary role is to teach students, not to attend to their feelings or emotions.	250	4.33*	0.86
	3. I think professionals other than me, such as school counselors and social workers, should take primary responsibility for my students' mental health and well-being.	250	3.62*	1.08
	4. I cannot teach my students effectively unless I also consider their social and emotional needs.	250	4.45	0.69
	5. I play an important role not only in my students' learning, but also in the way they feel about themselves and life in general.	250	4.58	0.60
	6. I frequently think about my students' mental health and well-being.	250	4.40	0.72

Note. Items on the Teacher Role Breadth scale range from 1 (*strongly disagree*) to 5 (*strongly agree*).
*Items on the measure which were reverse scored for ease of interpretation such that higher scores for each item reflect a larger role breadth which includes responsibilities related to supporting student mental health.

As shown in Table 5, on average participants endorsed relatively high scores for all 6 items on the Teacher Role Breadth Scale indicating that the sample reported a relatively broad perceived role breadth that included addressing the mental health needs of their students within their job role. Item three *"I think professionals other than me, such as school counselors and social workers, should take primary responsibility for my students' mental health and well-being"* had the lowest mean score of 3.62 (after it was reverse-scored), whereas item five *"I play an important role not only in my students' learning, but also in the way they feel about themselves and life in general"* had the highest mean score of 4.58.

Table 6

Item-Level Descriptive Statistics for Role Breadth (Subset of Teachers Only)

Scale (alpha)	Measure Item	*N*	*M*	*SD*
Role Breadth (alpha =.75)				
	1. I believe I must be both a teacher and a counselor to my students.	197	4.51	0.70
	2. My primary role is to teach students, not to attend to their feelings or emotions.	198	4.32*	0.88
	3. I think professionals other than me, such as school counselors and social workers, should take primary responsibility for my students' mental health and well-being.	198	3.65*	1.06
	4. I cannot teach my students effectively unless I also consider their social and emotional needs.	198	4.47	0.68
	5. I play an important role not only in my students' learning, but also in the way they feel about themselves and life in general.	198	4.58	0.60
	6. I frequently think about my students' mental health and well-being.	198	4.38	0.74

Note. Items on the Teacher Role Breadth scale range from 1 (*strongly disagree*) to 5 (*strongly agree*).

*Items on the measure which were reverse scored for ease of interpretation such that higher scores for each item reflect a larger role breadth which includes responsibilities related to supporting student mental health.

An evaluation of the subset of teacher responses on the teacher role breadth scale (Table 6) showed that on average, teachers endorsed relatively high scores for all 6 items on the Teacher Role Breadth Scale indicating that the sample reported a relatively broad perceived role breadth that included addressing the mental health needs of their students within their job role. Item three also had the lowest mean score within this subset of teachers ($M = 3.65$) (after it was reverse scored), and item five again had the highest mean score of 4.58.

Research Question 2

How confident do teachers in Title 1 schools feel in addressing the mental health needs of their students? Scores on the Teacher Self-efficacy Scale (Phillipo & Stone, 2013) were analyzed to determine the descriptive characteristics of participant confidence in addressing the mental health needs of students within a Title 1 school. First, descriptive statistics summarizing responses from all participants who completed the survey (both teachers and non-teachers) are presented, including sample size (N), mean *(M),* and standard deviation *(SD)* for the individual items on the Teacher Self-efficacy Scale in Table 7. The descriptive statistics for a subset of the total sample including only teachers are presented in Table 8. On each of the 13 items, participants rated their confidence using a 4-point scale ranging from 1 (*Not at all confident*) to 4 (*Highly Confident*) in performing different tasks that may fall within their role. Higher scores on the shortened Teacher Self-Efficacy Scale indicated higher levels of self-efficacy in addressing mental health among students. An examination of summated total scale scores for all participants found a mean of 40.15 and a standard deviation of 7.11. An examination of summated total scale

scores for the subset of teacher participants found a mean of 39.49 and a standard deviation of

6.66.

Table 7

Item-Level Descriptive Statistics for Self-Efficacy

Scale (alpha)	Measure Item	*N*	*M*	*SD*
Self-efficacy (alpha = .92)				
	1. Build relationships with individual students at this school.	292	3.41	0.66
	2. Notice social-emotional troubles in your students at this school.	292	3.16	0.66
	3. Start conversations with students at this school when you are concerned about their well-being.	292	3.32	0.74
	4. Recognize signs of mental health issues (e.g., depression, anxiety, trauma) among students at this school.	292	2.88	0.77
	5. Respond to students at this school when they misbehave.	292	3.06	0.74
	6. Respond to students at this school when they tell you about their troubles.	292	3.22	0.73
	7. Respond to students at this school when they are experiencing a crisis.	292	2.92	0.85
	8. Connect students at this school with support or resources they might need.	292	2.87	0.83
	9. Share concerns about the wellbeing of students at this school with their parents/guardians.	292	2.82	0.85
	10. Collaborate with other teachers at this school in order to support students.	292	3.33	0.72
	11. Collaborate with administrators at this school in order to support students.	292	3.15	0.79
	12. Collaborate with support staff (counselor, social worker) in order to support students at this school.	292	3.20	0.79
	13. Collaborate with parents at this school in order to support students.	292	2.80	0.88

Note. Items on the Teacher Self-efficacy scale range from 1 (*Not at all confident*) to 4 (*Highly Confident*), and higher mean scores for each item reflect higher levels of self-efficacy in addressing student mental health concerns.

As shown in Table 7, participants including teachers and other staff endorsed moderate

scores on average for all 13 items on the Teacher Self-Efficacy Scale indicating that the sample

reported some confidence in addressing the mental health needs of their students within Title 1 schools. Items one *"Build relationships with individual students at this school"*, three *"Start conversations with students at this school when you are concerned about their well-being",* and ten *"Collaborate with other teachers at this school in order to support students"* resulted in the highest ratings of confidence with mean scores of 3.44, 3.32, and 3.33, respectively. Items with the lowest mean ratings for all participants included item 13 "Collaborate with parents at this school in order to support students" ($M = 2.80$), item 9 "Share concerns about the wellbeing of students at this school with their parents/guardians" ($M = 2.82$), and item 8 "Connect students at this school with support or resources they might need" ($M = 2.87$).

Table 8

Item-Level Descriptive Statistics for Self-Efficacy (Subset of Teachers Only)

Scale (alpha) Measure Item	*N*	*M*	*SD*
Self-efficacy (alpha = .90)			
1. Build relationships with individual students at this school.	197	3.37	0.67
2. Notice social-emotional troubles in your students at this school.	197	3.12	0.64
3. Start conversations with students at this school when you are concerned about their well-being.	197	3.27	0.75
4. Recognize signs of mental health issues (e.g., depression, anxiety, trauma) among students at this school.	197	2.83	0.74
5. Respond to students at this school when they misbehave.	197	3.02	0.74
6. Respond to students at this school when they tell you about their troubles.	197	3.15	0.73
7. Respond to students at this school when they are experiencing a crisis.	197	2.84	0.85
8. Connect students at this school with support or resources they might need.	197	2.75	0.79
9. Share concerns about the wellbeing of students at this school with their parents/guardians.	197	2.81	0.82

Table 8 (Continued)

10. Collaborate with other teachers at this school in order to support students.	197	3.31	0.70
11. Collaborate with administrators at this school in order to support students.	197	3.09	0.79
12. Collaborate with support staff (counselor, social worker) in order to support students at this school.	197	3.16	0.76
13. Collaborate with parents at this school in order to support students.	197	2.77	0.85

Note. Items on the Teacher Self-efficacy scale range from 1 (*Not at all confident*) to 4 (*Highly Confident*), and higher mean scores for each item reflect higher levels of self-efficacy in addressing student mental health concerns.

As shown in Table 8, the subset of participants including only teachers also endorsed moderate scores on average for all 13 items on the Teacher Self-Efficacy Scale indicating that the sample reported some confidence in addressing the mental health needs of their students within Title 1 schools. Similarly, items one, three, and ten also resulted in the highest ratings of confidence from teachers with mean scores of 3.37, 3.27, and 3.31, respectively. Items thirteen, nine, and eight, were also found to have the lowest mean ratings for teachers with mean scores of 2.77, 2.81, and 2.75 respectively.

Research Question 3

What are the attitudes of educators towards trauma-informed care ideals in Title 1 schools?

   a. *Is there a significant difference between teachers and other professional roles at the school?*

   b. *To what extent do school, position, perceived role breadth, and self-efficacy account for the variance in educator attitudes towards trauma-informed care?*

Research question three examined whether there was a significant difference between teachers and other professional roles at the school. To determine the attitudes towards trauma-informed care ideals and practices in Title 1 schools within this sample, means and standard deviations were calculated (see Table 9) for the composite variable from the ARTIC-10 (Baker, Brown, Wilcox, Overstreet, & Arora, 2016). Because a sizeable number of participants who completed the ARTIC-10 had professions other than that of a teacher, comparisons between teachers and those with other job titles at the schools were made. The predictor variables were also entered into a simultaneous multiple linear regression equation to determine the extent to which a model including school, position (teacher vs. non-teacher), role breadth, and self-efficacy, accounts for the variance in the outcome (teacher attitudes related to trauma-informed care). Participants were asked to rate all 10 items on the ARTIC-10 using a seven-point bipolar scale where items are written as pairs characterizing a favorable attitude toward trauma-informed care and an unfavorable attitude regarding trauma-informed care. Items two, four, six, eight, and nine are reverse scored so that higher total scores on the ARTIC-10 reflect more positive attitudes towards trauma-informed care principles and practices. The second step in scoring the ARTIC-10 requires averaging the scores for all items to create a mean score that ranges from 1-7. An examination of total scale scores found a mean summated scale score of 50.48 and a standard deviation of 7.50, resulting in an average total score of 5.05.

Table 9

Item-Level Descriptive Statistics for Attitudes Related to Trauma-Informed Care

Scale (alpha) Item	*N*	*M*	*SD*
ARTIC (alpha = .69)			
ARTIC1	286	4.60	1.42

Table 9 (Continued)

ARTIC2R*	286	4.81	1.30
ARTIC3	286	5.34	1.49
ARTIC4R*	286	5.00	1.58
ARTIC5	286	5.16	1.46
ARTIC6R*	286	4.61	1.41
ARTIC7	286	4.65	1.43
ARTIC8R*	286	5.86	1.09
ARTIC9R*	286	5.20	1.86
ARTIC10	286	5.25	1.41

Note. Items on the ARTIC-10 use a seven-point bipolar scale.
*Items on the ARTIC-10 that were reverse scored for ease of interpretation such that higher scores for each item reflect more positive attitudes.

Items for which participants rated the lowest attitudes towards trauma-informed care practices and principles when asked to select the circle along the dimension between the two options that best represented their personal belief during the past two months at their job included items 1 and 6R with the highest scores indicating higher alignment with that trauma-informed care principle.

Table 10

Descriptive Statistics for Attitudes Related to Trauma-Informed Care Across Groups

Subset	Cronbach's alpha	*n*	*M*	SD
Student Services	.69	49	5.31	0.68
Teachers	.68	199	4.96	0.73
Other	.69	44	4.95	0.92

Note. The "Student Services" subset includes school psychologists, social workers, school counselors, speech and language pathologists, and behavior specialists. The "Other" subset

includes instructional aides, administrative assistants, administrators, janitorial staff, and cafeteria workers.

In order to evaluate whether the differences in mean scores across the three subgroups (i.e., teachers, student services staff, other staff) on the ARTIC-10 were significant, a one-way ANOVA was run. Table 11 below shows the results of the one-way ANOVA. The value of F is 4.41, which reaches significance with a *p*-value of <.001 which is less than the .05 alpha level. Results indicate a significant difference between the three levels (i.e., Teachers, Student Services, Other) of the position variable in mean scores on the ARTIC-10.

Table 11

Descriptive Statistics for One-Way ANOVA

ANOVA					
Artic Mean Scores					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	14.257	6	2.376	4.413*	.000
Within Groups	153.471	285	.538		
Total	167.728	291			

Note. *p < .05.

Regression analysis. In order to investigate whether various factors such as school, role at school (teacher or non-teacher), role breadth, and self-efficacy were related to attitudes towards trauma-informed care practices and principles, a simultaneous multiple linear regression analysis was conducted. Once the model was run, a visual analysis of the scatterplot and histogram of the residuals indicated no serious departures from normality and that there were no substantial violations of the assumptions underlying the multiple linear regression analysis.

Results from regression analysis. A multiple linear regression examined the relationship between school (represented by seven dummy variables), position (teacher or non-teacher), role breadth, and self-efficacy in supporting student mental health needs and participants' scores on

the ARTIC-10. The model explained 22.9% of the variance and that the model was a significant predictor of scores on the ARTIC-10, $F(10, 232) = 6.872$, $p = .000$). Table 12 summarizes the results; role breadth (B = .423, $p = .000$) and self-efficacy (B = .285, $p = .002$) significantly contributed to the model. More positive attitudes toward role breath and self-efficacy uniquely predicted more positive attitudes toward trauma-informed care. The position variable (being a teacher or not a teacher) did not meet conventional thresholds for significance (B = -0.215, $p = .056$), but did indicate a negative relationship between being a teacher and having higher scores on the ARTIC-10. Participant school was also found to be insignificant with the exception of school 3 (B = .352, $p = .020$). The standardized residuals had a minimum value of -3.701 and a maximum value of 2.194. The residual plot showed a fairly random pattern which indicates that a linear model provided a reasonable fit to the data.

Table 12

Descriptive Statistics of Multiple Regression Analysis

	ARTIC-10 Scores				
Variable	*B*	*SE B*		*t*	*p*
School 1	0.26	0.20	0.08	1.27	.207
School 2	0.20	0.22	0.06	0.92	.358
School 3	0.35	0.15	0.17*	2.33	.020
School 4	-0.02	0.19	-0.01	-0.13	.896
School 5	0.18	0.17	0.08	1.07	.286
School 6	0.24	0.14	0.14	1.75	.082
School 7	0.24	0.15	0.12	1.59	.112
Teacher position	-0.22	0.11	-0.11	-1.92	.056

Table 12 (Continued)

Role breadth	0.42	0.09	0.30**	4.63	.000
Self-efficacy	0.29	0.09	0.20**	3.17	.002

Note. The effect of school was represented by seven dummy variables. School 8 was the reference category. Teacher position (Teacher = 1, Other Professionals = 0). R^2 = .229.
*p < .05. **p < .01.

Chapter V: Discussion

The purpose of this study was to investigate the preparedness of teachers in Title 1 schools to address the mental health needs of students in the classroom, specifically their beliefs regarding whether their role as an educator includes a responsibility for addressing the mental health needs of their students, their confidence in addressing student mental health needs, and their attitudes towards trauma-informed care practices and ideas. This study analyzed existing data from a survey completed by educators within eight different elementary schools in Western Florida. The survey included measures of educators' perceived role breadth and self-efficacy beliefs towards addressing the mental health needs of their students, and attitudes towards trauma-sensitive ideals. Analyses examined the degree to which variables including role breadth, self-efficacy, and professional position (teachers or other professional role at school) explain variance in attitudes towards trauma-informed care. This chapter provides an interpretation of each of the three research questions reported in the Chapter IV, as well as provides a discussion of implications for schools and educators, limitations of the study, contributions to the literature and possible directions for future research.

Research Question 1: Perceived Role breadth

Findings from this study indicate that the majority of teachers within this sample believe that their role as a teacher includes responsibility for not only student learning, but also some responsibility for attending to the mental health and overall well-being of their students. These results were similar to findings reported by Roeser and Midgley (1997) who previously examined educators' views concerning whether the social-emotional needs of their students were

a part of their roles as teachers or whether they felt other stakeholders such as counselors or parents carried the responsibility of promoting mental health in students. Out of the 192 surveys completed by elementary teachers, 99% of them agreed that student mental health concerns were "somewhat" to "very much" a part of their role as an educator (Roeser & Midgley, 1997). Similarly, Mazzer and Rickwood (2015a) found the majority of both preservice and in-service teachers in Australia viewed themselves as playing a role in identifying and preventing mental health difficulties in students and providing mental health promotion interventions.

Taken together, these findings suggest that teachers see value in supporting the mental and emotional needs of their students. Educators who view their role as a teacher in a lens that also includes supporting the mental health of their students may have ready buy-in to professional development related to best practices in supporting students with mental health concerns and trauma-informed care trainings.

Research Question 2: Efficacy in Addressing Mental Health Concerns

It is important to not only understand educators' perceived roles in addressing student mental health concerns, but also the preparedness and attitudes of teachers pertinent to addressing the mental health needs of students in high needs schools. Results of the current study found that teachers within this sample endorsed low-moderate to moderate scores on average for all 13 items on a measure of teacher self-efficacy in addressing student mental health concerns, indicating that the sample reported some confidence in addressing the mental health needs of their students within Title 1 schools, but also indicated that the majority of educators also have room to improve in their perceived preparedness in various aspects related to addressing and supporting student mental health concerns and needs. While all educators reported highest levels of efficacy in relation to activities that involved student-teacher relationships and collaboration

with other teachers, low levels of self-efficacy were reported for actions related to discussing student mental health concerns with parents, collaborating with parents to support student mental and emotional health, recognizing signs of mental health issues in students, and connecting students with supports and resources they may need.

These results are consistent with findings from other studies investigating teacher confidence in identifying students with mental health concerns and providing mental health supports (Mazzer & Rickwood, 2013; Rothi, Leavey, & Best, 2008). Results of a needs assessment survey completed by 119 teachers from six urban elementary schools indicated that teachers do not feel efficacious in identifying and directly addressing the mental health difficulties of their students within the classroom setting (Walter, Gouze, & Lim, 2016). In addition, participating educators reported low levels of self-efficacy in identifying students at-risk for mental health problems, particularly those with internalizing disorders, and reported their lack of confidence to be in part caused by a lack of training on recognizing and helping students with a variety of mental health problems (Walter et al., 2006). The findings from the current study are consistent with past studies related to teacher beliefs and self-efficacy in supporting the mental and emotional well-being of students within a school setting and further highlight the areas in which educators have room for growth in self- efficacy including: recognizing the signs of mental health problems, connecting students with necessary mental health supports and resources, and collaborating with families to best support the mental health of students.

Research Question 3: Educator Attitudes Related to Trauma-Informed Care

Findings from this study suggested that educators within this sample had generally positive attitudes related to trauma-informed care but did not completely align with the trauma-informed care ideals and practices highlighted on the ARTIC-10. Comparisons of attitudes

between teachers and those with other job titles at the schools through the linear multiple regression indicated insignificant differences in attitudes related to trauma-informed care based on professional role (i.e., being a teacher or holding another position at school), but findings from the one-way ANOVA indicated a significant difference between three groups (i.e., Teachers, Student Services, Other) with student services staff having the most positive attitudes towards trauma-informed care. Attitudes toward trauma-informed care were also similar across schools (with the exception of school 3). The results of a multiple linear regression analysis indicated that about 23% of the variance in attitudes toward trauma-informed care was explained by largely role breadth and self-efficacy. The research base regarding educator beliefs regarding trauma-informed care and variables that impact those beliefs is scarce, but these findings are consistent with the researcher's hypothesis that teachers who view themselves as having some responsibility in supporting the mental health of their students and those who feel efficacious in doing so would have more positive feelings towards a trauma-informed framework and practices aligned with trauma-informed care.

It is notable that 77% of the variance in scores on a measure of attitudes relevant to trauma-informed work is still unexplained by the variables examined in this study. Further investigation of variables accounting for the variance in attitudes related to trauma-informed care are important to conduct, to inform trauma-informed care trainings, ongoing professional development, and school initiatives.

Implications of Findings

The results of this study emphasize the need for training educators in best practices in addressing mental health concerns in their students. Although most teachers within this study perceived their role to include supporting their students' mental health and well-being, many

teachers (41.6%) reported being "not at all confident" or only "somewhat confident" when asked about their self-efficacy in engaging in activities that would address the mental health of their students. The following sections discuss the practice and research implications that follow from the current study.

      Implications for School-Level Trauma Initiatives. Understanding teachers' perceived role in addressing student mental health concerns, their self-efficacy beliefs in providing those supports, and their attitudes towards providing those services to their students may assist school administrators in tailoring trauma-informed care training and professional development to facilitate a school climate in which trauma-informed care principles are encouraged, valued, and implemented with fidelity. The findings of the present study suggest that the majority of educators within this sample view supporting the mental health and well-being of students as a responsibility within their professional role, but many teachers rated their self-efficacy in addressing the mental health needs of students as just somewhat or moderately efficacious. Results of this study also showed that both role breadth and self-efficacy in addressing mental health needs were highly relevant to attitudes towards trauma-informed care. These findings suggest that an understanding of perceived role breadth of educators and an understanding of teacher confidence in providing mental health supports may be valuable information to gather and monitor when planning and developing professional development related to school-based mental health supports and trainings related to trauma-informed care. Tailoring trainings to meet educators where they are at and to target areas of addressing mental health needs of students where educators report low efficacy may shift attitudes related to trauma-informed care practices and principles in a positive direction.

Implications for School Psychologists. Because school psychologists play a lead role in supporting the mental health needs of students within schools as well as collaborating and consulting with teachers and other key stakeholders regarding how to best support students academically, behaviorally, and emotionally, the findings of the current study are relevant to school psychologists and allied student support staff such as school counselors and social workers. The findings of this study related to teacher self-efficacy in addressing the mental health needs of students points out clear areas where school psychologists can assist in building the efficacy of teachers in addressing these concerns in students. Specifically, school psychologists have extensive expertise in recognizing signs and symptoms of mental health concerns and recognizing students who are at-risk for mental health difficulties. In addition, school psychologists are educated in interventions, supports, and resources that can be beneficial for students with mental health challenges. School psychologists are in a unique position to build capacity within the school setting in regard to these efficacy deficits. These findings highlight that collaboration and communication between teachers and school psychologists regarding the mental health and well-being of students is essential.

School psychologists could provide educators evidence-based trainings and professional development regarding youth mental health and how to address the mental health needs of students within schools. For example, school psychologists could facilitate staff trainings such as Youth Mental Health First Aid (YMHFA) or Question, Persuade, and Refer (QPR) in order to increase knowledge of mental health problems in youth and help to increase the self-efficacy of teachers in addressing mental health issues at school. Youth Mental Health First Aid is a manualized training program that was developed to teach the public about common mental health issues and psychological disorders among youth in addition to how those problems may

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present in youth and helpful actions and tools that can be taken or used to assist young people who may be experiencing emotional distress (Kelly et al., 2011). Evaluations of the YMHFA training program have shown improvements in participants' knowledge related to mental health and signs and symptoms of emotional distress, attitudes towards mental health issues, increases in the use of the central YMHFA helping strategies, and increases in confidence and likelihood of helping youth in crisis (Aakre, Lucksted, & Browning-McNee, 2016; Kelly et al., 2011). The Question, Persuade, and Refer gatekeeper training takes a public health approach to teach participants to recognize the warning signs of suicidality, know how to offer hope to those who may be exhibiting warning signs of suicide, and increase understanding of how to help in order to save the lives of those considering suicide (Quinnett, 2007). Evaluations of the QPR within school settings and for adults working in youth-serving community agencies have found increased knowledge of risk factors of suicide, demonstrations of suicide prevention behavior gains, and a reduction in the creation of no-harm contracts within schools (Hangartner et al., 2019; Tompkins, Witt, & Abraibesh, 2010; Reis & Cornell, 2008).

Delimitations and Limitations

The current study is limited by its correlational design; the researcher is unable to make causal claims about the results of the study. Also, this study has some sampling limitations. The various partnering schools were selected by the developers of the Harmony Project using convenience sampling. The administrators of all eight schools expressed interest in learning more about trauma-informed care and having the training implemented at their schools. Only schools that requested (treatment) or agreed (control) to participate in the project were included, reflecting a quasi-experimental design to the larger efficacy study. In addition, the data collected came from an extremely homogenous sample in regard to both sex and race. The participants in

this sample were largely white (94.3%) and female (91%). In contrast, the student populations within the eight schools where participants were recruited from were more heterogeneous with the majority of the students at each school being white (>50%), but then included sizable numbers of Hispanic, Black, and multiracial students. Another foreseen limitation of the study is that causal inferences were not able to be made regarding the directionality of the relationship between teacher variables and teacher attitudes regarding trauma-informed care due to the study being of correlational design.

Because the present study was developed in collaboration with the developers of The Harmony Project, the current researcher is limited to the variables that the developers of The Harmony Project were mutually interested in investigating. For this reason, some variables that would have been of interest to the researcher to examine such as the amount of conflict in interpersonal relations amongst instructional staff and support from other sources at school (e.g., administrators or district leaders) are not included in the data set. Similarly, the study is confined to data from staff from the eight schools in Western Florida that were chosen by the Harmony Project as pilot and comparison schools for their trauma-informed care training. For this reason, it is unknown if the findings are generalizable to staff employed by different districts or non-suburban settings. Another delimitation that should be noted is that teachers' attitudes were collected using self-report questionnaires that may be subject to social desirability responding. The final limitation that this researcher has acknowledged is the somewhat low internal consistency of the ARTIC-10, which was used to measure the attitudes of educators regarding trauma-informed care practices and principles and which also served as the outcome variable for the simultaneous multiple regression. It should also be noted that participants reported during and after pre-survey administration that the ARTIC-10 was difficult, time

consuming, and confusing to complete. Many participants required an explanation of how to complete the ARTIC-10 beyond the listed directions. While the internal consistency reliability of the ARTIC-10 abbreviated scale was found to be very good (α = .82) by Baker and colleagues (2015), the internal consistency was .69 in the current study. The researcher is not surprised by these findings due to the reported difficulty of the measure by participants following the survey administration meetings. Despite these limitations, the current study has implications for educators and researchers regarding the relationship between role breadth, self-efficacy, and attitudes towards trauma-informed care.

Contributions to the Literature and Future Directions

The findings of many studies related to trauma-informed care interventions and frameworks support the delivery of mental health services in schools and the implementation of trauma-informed care principles within school settings to address the mental health needs of youth. To date, there has been little research completed that focused on teacher beliefs regarding their growing responsibilities in addressing mental health needs in their students, their confidence in doing so, or their attitudes towards the trauma-sensitive ideals that they are being asked to adopt, which is a gap that this study sought to fill. The current study has contributed to the literature base on trauma-informed care in schools by examining a sample of teachers, student support staff, instructional aides and administrators in Western Florida from 8 different elementary schools to analyze educator beliefs regarding trauma-informed care, role breadth, and self-efficacy in addressing mental health issues in students. Due to this study, more is known about the extent to which educators view supporting the mental health of students as a part of their role at their school, how prepared they feel in taking action and assisting in addressing the mental health needs of their students within a Title 1 school setting, and how positively they

view trauma-informed care core principles and practices. The results of this study also revealed significant correlations between perceived role breadth, self-efficacy, and attitudes related to trauma-informed care. Additionally, the current study provided information regarding the extent to which factors including role breadth, self-efficacy, school, and position accounted for the variance in educators' attitudes towards trauma-informed care ideals.

Future research should extend this study by gathering data from more diverse populations from urban and rural areas. Future research studies should also include qualitative interviews with teachers and other educators to further understand perceived role breadth, self-efficacy in supporting the mental and emotional health of students, and attitudes towards trauma-informed care practices. While the closed-ended format of the survey items analyzed in this study allowed the researcher to collect a general understanding of the beliefs of teachers and other school staff within the study population, an open format of questioning would allow educators to elaborate and share additional valid information including their relationships with other student support staff such as the school psychologist at their school, whether they have participated in other trainings related to supporting the mental health needs of students or trauma-informed care practices, and what types of professional development or supports would assist in building their self-efficacy in providing students with mental health supports. The results of this study warrant further investigation into how educators can be best supported in engaging in activities related to supporting the mental health of students. Additional information regarding school relationships and climate, and collaboration between teachers and other student support staff in addressing mental health concerns of students may offer insights into how to create effective professional development and staff trainings in this arena and in turn improve school-based mental health systems and interventions.

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Appendices

Appendix A: Informed Consent Form

Informed Consent to Participate in Research
Information to Consider Before Taking Part in this Research Study

Study Title: _____ **Pro** # _____

Overview:

You are being asked to take part in a research study. The information in this document should help you to decide whether you would like to participate. The sections in this Overview provide the basic information about the study. More detailed information may be provided in the remainder of the document.

Study Staff:

This study is being led by Dr. Linda Raffaele-Mendez, who is an associate professor in the school psychology program at the University of South Florida. This person is called the Principal Investigator.

Study Details:

We are planning the study in cooperation with the creators of The Harmony Project, and the administration of your elementary school to make sure that the study provides information that will be useful to the project and to the school. The purpose of the study is to investigate the relationship between teacher variables (i.e., demographics, perceived role breadth, perceived efficacy, and self-care practices) and participant attitudes regarding trauma-informed care practices. Along with identifying which teacher variables are related to attitudes towards trauma-informed care, the proposed study is interested in finding out which teacher variables are most highly related to teachers' attitudes towards trauma-informed care. The findings of the proposed study will inform trauma-informed care trainings and professional development. The researcher also hopes that the results of the proposed study will assist in identifying possible areas of trauma-informed care trainings and professional development that can be improved to encourage teacher commitment and positive attitudes toward the utilization of trauma-informed care within schools.

Your participation will require two sessions lasting a total of one hour of your time. The survey is designed to be completed by participants before receiving the intervention and after the intervention has been completed. The survey will be distributed by graduate students in the school psychology program at USF to participants via paper and pencil. A brief scripted

overview and directions for completing the survey will be given before participants are asked to complete the survey. Upon completion of the survey packet, participants will return their materials to the USF graduate student present who will then place all surveys in the appropriate envelope designated for that school site. When all surveys have been received, the envelope will be sealed and returned to the principal investigator. As each envelope is returned it will be placed in a locked file cabinet stored within the principal investigator's office.

Participants:

This study is being conducted as part of The Harmony Project. You are being asked to participate in this project because you are a classroom teacher or faculty member at an elementary school that has agreed to take part in the research project. The data gathered by this study will provide districts and schools information necessary for improving trauma-informed care training programs and implementation within their district and schools. You are being asked to participate in this study to contribute to the knowledge base regarding how trauma-informed care in schools impacts outcomes for teachers and school personnel. Additionally, participants will have the opportunity to learn skills that may contribute to the creation of a more positive work climate for themselves, their peers, and their students.

Voluntary Participation:

Your participation is voluntary. You do not have to participate and may stop your participation at any time. If you decide not to participate or stop your participation, there will be no penalties or loss of benefits or opportunities.

Your decision to participate or not to participate will not affect your job status, employment record, employee evaluations, or advancement opportunities.

Benefits, Risk, and Compensation:

We do not know if you will receive any benefit from your participation. There is no cost to participate. You will not be compensated for your participation. This research is considered to be minimal risk. Minimum risk means that study risks are the same as the risks you face in daily life. We will not collect any identifying information and we are asking about knowledge, attitudes, efficacy, and teacher perceptions of roles to gain information on how to improve trauma-informed care trainings and how to support the implementation of trauma-informed care

practices in the school setting. Surveys administered to evaluate skills, attitudes, and perceptions for the purpose of professional development is part of normal educational practice.

Risks
This research is considered minimal risk.
Privacy and Confidentiality
There is minimal risk for participating in this research. Your privacy and research records will be kept confidential to the extent of the law. Authorized research personnel, the USF Institutional Review Board (IRB) and its staff, and other individuals acting on behalf of USF may inspect the records from this research project, but your individual responses will not be shared with school system personnel or anyone other than the USF research team. Your completed survey packet will be assigned a code number to protect the confidentiality of your responses. Only the USF

research team will have access to the locked file cabinet stored at USF that will contain all research records. Even if we publish the findings from this study, we will keep your study information private and confidential. Anyone with the authority to look at your records must keep them confidential

Contact Information

If you have any questions about your rights as a research participant, please contact the USF IRB at (813) 974-5638 or by email at RSCH-IRB@usf.edu. If you have questions regarding the research, please contact the Principal Investigator at (813) 974-1255 or by email at Raffaele@usf.edu .

We may publish what we learn from this study. If we do, we will not let anyone know your name. We will not publish anything that would let people know who you are. You have been given a copy of this consent form for your records.

To participate in this study, please sign the attached consent form.

Consent to Take Part in this Research Study

I freely give my permission to take part in this study. I understand that this is research. I have received a copy of this letter and consent form for my records.

_____   _____   _____
Signature of teacher   Printed name of teacher   Date

Statement of Person Obtaining Informed Consent

I certify that participants have been provided with an informed consent form that has been approved by the University of South Florida's Institutional Review Board and that explains the nature, demands, risks, and benefits involved in participating in this study. I further certify that a phone number has been provided in the event of additional questions.

_____   _____   _____
Signature of person   Printed name of person   Date
obtaining consent   obtaining consent

Appendix B: Demographics Survey

School #_____
Participant #: _____
Date: _____

Section 1: BACKGROUND INFORMATION
Instructions: Please read each question and circle or write in your response.

Question	Your Response
1. What is your sex?	A. Male B. Female
2. In what month and year did you first begin working at <u>this</u> school?	Month_____Year_____
3. What is your position at this school (e.g., teacher, guidance counselor)?	Your position at this school:_____
4. In what year did you <u>first begin</u> working in education in the position you have now (e.g., teacher, guidance counselor)?	First year working <u>in education</u> in your current position_____ Note: Please write one year only (e.g., 2010). Do not include practicum or internship experiences.
5. Are you of Hispanic or Latino origin?	A. Yes B. No
6. What is your race?	A. White B. Black C. Asian D. Multiracial E. American Indian or Alaskan Native F. Native Hawaiian or Pacific Islander
7. What is your highest level of education?	A. High school diploma B. Associate's (2-year) degree C. Bachelor's (4-year) degree D. Master's degree E. Higher than a master's degree
8. If you are a teacher, is one or more of your degrees in education?	A. Yes B. No
9. If you are a teacher, what grade(s) do you teach at this school?	Grade(s) taught at this school:_____ (If you are not a teacher, leave this item blank.)
10. On a scale of 1-10 (1 is low, 10 is high), how much would you say you know about trauma-informed care in educational settings?	Circle one number: 1 2 3 4 5 6 7 8 9 10 No Expert Knowledge

Appendix C: Attitudes Related to Trauma-Informed Care Scale (ARTIC-10)

Section 3: ATTITUDES RELATED TO TRAUMA-INFORMED CARE

People who work in education have a wide variety of beliefs about their students, their jobs, and themselves.

Instructions: For each item, select the circle along the dimension between the two options that best represents your personal belief during the past two months at your job.

Sample

Ice cream is delicious.	1	(2)	3	4	5	6	7	Ice cream is disgusting.

Note: *In this SAMPLE ITEM, the respondent is reporting that he/she believes that ice cream is much more delicious than disgusting.*

I believe that…

1. Students could act better if they really wanted to.	1	2	3	4	5	6	7	Students are doing the best they can with the skills they have.
2. Focusing on developing healthy, healing relationships is the best approach when working with people with trauma histories.	1	2	3	4	5	6	7	Rules and consequences are the best approach when working with people with trauma histories.
3. If students say or do disrespectful things to me, it makes me look like a fool in front of others.	1	2	3	4	5	6	7	If students say or do disrespectful things to me, it doesn't reflect badly on me.
4. The ups and downs are part of the work so I don't take it personally.	1	2	3	4	5	6	7	The unpredictability and intensity of work makes me think I'm not fit for this job.
5. It's best not to tell others if I have strong feelings about the work because they will think I am not cut out for this job.	1	2	3	4	5	6	7	It's best if I talk with others about my strong feelings about the work so I don't have to hold it alone.
6. Students do the right thing one day but not the next. This shows that they are doing the best they can at any particular time.	1	2	3	4	5	6	7	Students do the right thing one day but not the next. This shows that they could control their behavior if they really wanted to.
7. Students need to experience real life consequences in order to function in the real world.	1	2	3	4	5	6	7	Students need to experience healing relationships in order to function in the real world.
8. I realize that students may not be able to apologize to me after they act out.	1	2	3	4	5	6	7	If students don't apologize to me after they act out, I look like a fool in front of others.
9. I feel able to do my best each day to help my students.	1	2	3	4	5	6	7	I'm just not up to helping my students anymore.
10. The most effective helpers find ways to toughen up – to screen out the pain – and not care so much about the work.	1	2	3	4	5	6	7	The most effective helpers allow themselves to be affected by the work – to feel and manage the pain – and to keep caring about the work.

Appendix D: Teacher Role Breadth Scale

Section 5: YOUR ROLE AT THIS SCHOOL

Instructions: **IF YOU ARE A TEACHER**, please CIRCLE ONE NUMBER per item to best reflect your beliefs. **IF YOU ARE NOT A TEACHER**, please skip to Section 7.

Item	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I believe I must be both a teacher and a counselor to my students.	1	2	3	4	5
2. My primary role is to teach students, not to attend to their feelings or emotions.	1	2	3	4	5
3. I think professionals other than me, such as school counselors and social workers, should take primary responsibility for my students' mental health and well-being.	1	2	3	4	5
4. I cannot teach my students effectively unless I also consider their social and emotional needs.	1	2	3	4	5
5. I play an important role not only in my students' learning, but also in the way they feel about themselves and life in general.	1	2	3	4	5
6. I frequently think about my students' mental health and well-being.	1	2	3	4	5

Appendix E: Teacher Self-Efficacy Scale

Section 6: CONFIDENCE IN ADDRESSING MENTAL HEALTH AMONG STUDENTS
Instructions: Please rate **how confident** you are in doing each of the activities listed below by circling one number for each item.

	Not at all confident	Somewhat confident	Moderately confident	Highly confident
1. Build relationships with individual students at this school.	1	2	3	4
2. Notice social-emotional troubles in your students at this school.	1	2	3	4
3. Start conversations with students at this school when you are concerned about their well-being.	1	2	3	4
4. Recognize signs of mental health issues (e.g., depression, anxiety, trauma) among students at this school.	1	2	3	4
5. Respond to students at this school when they misbehave.	1	2	3	4
6. Respond to students at this school when they tell you about their troubles.	1	2	3	4
7. Respond to students at this school when they are experiencing a crisis.	1	2	3	4
8. Connect students at this school with support or resources they might need.	1	2	3	4
9. Share concerns about the wellbeing of students at this school with their parents/guardians.	1	2	3	4
10. Collaborate with other teachers at this school in order to support students.	1	2	3	4
11. Collaborate with administrators at this school in order to support students.	1	2	3	4
12. Collaborate with support staff (counselor, social worker) in order to support students at this school.	1	2	3	4
13. Collaborate with parents at this school in order to support students.	1	2	3	4