Implementation and Sustainability of Trauma-Informed Care Via Multi-Tiered System of Support (MTSS)

Aisha Larie Elloie Brice

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IMPLEMENTATION AND SUSTAINABILITY OF TRAUMA-INFORMED CARE VIA MULTI-TIERED SYSTEM OF SUPPORT (MTSS)

By

Aisha Larie Elloie Brice

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IMPLEMENTATION AND SUSTAINABILITY OF TRAUMA-INFORMED CARE VIA MULTI-TIERED SYSTEM OF SUPPORT (MTSS)

By

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IMPLEMENTATION AND SUSTAINABILITY OF TRAUMA-INFORMED CARE VIA MULTI-TIERED SYSTEM OF SUPPORT (MTSS)

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By

Aisha Larie Elloie Brice
DEDICATION

I am my ancestors’ wildest dream! I am because of them. I would like to dedicate my dissertation to my paternal grandparents, Joseph Elloie and Audrey Williams; my maternal grandparents, Powell and Dorothy Mae White; and my parents, Joseph and Delores Elloie.

I also dedicate this evaluation to my children, Brelynn, Dakari, and Zaidon, because they are the future. May your future aspirations take you further than I could ever imagine.
ACKNOWLEDGMENTS

Words cannot express how grateful I am for my village, which guided, encouraged, and supported me along my dissertation journey. I would not have been able to cross the finish line without God’s grace and mercy.

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Although I had family to fill in the gaps, the mommy guilt consumed me. My children’s understanding comments—such as “It’s okay, Mom” and “Be quiet, Mom is doing her homework”—helped me understand that the guilt was just a distraction. I had to keep pushing because I was setting the educational bar. I must give a special shout-out to my son Dakari for being my tech support. He helped me with all the technical issues along the journey.

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 IMPLEMENTATION AND SUSTAINABILITY OF TRAUMA-INFORMED CARE VIA MULTI-TIERED SYSTEM OF SUPPORT (MTSS)

Abstract

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2022

Trauma-informed care is a relatively new construct in K-12 education, and districts across the United States are seeking avenues to meet the needs of their students. The COVID-19 pandemic elevated the need for districts to develop appropriate supports to address student and adult trauma. Traumatic events can affect a child’s mental, physical, social-emotional, and/or spiritual well-being (Substance Abuse and Mental Health Service Administration, 2011). Furthermore, children with an elevated risk of trauma may not be able to access these supports outside of the school setting (Baweja et al., 2015). Therefore, educational systems need to develop trauma-informed care models for schools that furnish a sense of safety and community so that students receive the necessary support. This evaluation aimed to identify how the moderating factors of district administrators, site administrators, climate and culture, and teacher capacity affect trauma-informed care via a multi-tiered system of support (MTSS) framework. It included a specific focus on Tier 1, universal access, to improve timely support for students.

This formative program evaluation explored the impact of the moderating factors through the viewpoint of a newly created conceptual framework. I used qualitative and quantitative data sources to explore the multiple aspects of the phenomenon. The ARTIC-45 provided descriptive statistics about educators’ attitudes toward trauma-informed care. The observational data and
analysis of the Panorama Education social-emotional learning (SEL) survey that assessed 3rd-12th students social-emotional well-being provided character to the evaluation.

The data analysis yielded inconsistent results. The observational data strongly indicated a trauma-informed environment in which students were given clear expectations and engaged in positive reciprocal interactions with peers and adults. The ARTIC-45 data showed that administrators, teachers, and support staff responded favorably to trauma-informed care approaches. Though statistical significance could not be obtained due to the sample size constraint of being too small, the data provided context to the other data sources. For example, teacher capacity could not be quantified, but the data provided context to the overall staff capacity. The review of the archival and current SEL survey data showed that favorability among domains varied by site and grade level. The variations in students’ social-emotional favorability can be related to their lived experiences and it is important to track over time to monitor how experiences, expressions, and feelings change over time. Students' perspectives regarding themselves and their environment differed from the observational data. This indicates that educators should not solely rely on observational data to determine students’ social-emotional well-being. Furthermore, an SEL survey can be used as a tool to understand students’ well-being and thus provide them with timely support.

The evaluation determined that district administration, site administration, climate and culture and staff capacity can positively impact a multi-tiered, trauma-informed care environment. In these settings, student behavior and social-emotional well-being is viewed in a healing-centered manner. Districts can create a multi-tiered, trauma-sensitive culture and provide support to enhance teachers’ capacity to implement trauma-informed care, take
advantage of administrative influence, develop community partnerships, and create a culture that is open to systematic change.

*Keywords*: adverse childhood experience (ACE), trauma-informed care (TIC), multi-tiered system of supports (MTSS), moderating factors, district administrators, site administrators, staff capacity, school climate and culture, theory of change, fidelity of implementation (FOI)
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CHAPTER 1: INTRODUCTION

Although Daniel has been at Alpha Elementary for a few short weeks, he has become the talk of the teachers’ lounge. One teacher commented, “I can’t believe Daniel cleared the cafeteria because he didn’t like any of the meal choices.” The librarian chimed in and said, “Daniel has a temper. While waiting to check out his book, he cleared an entire bookshelf and called me a bitch.” Another teacher said, “I agree; he has a temper. Did you hear that he got kicked off the bus for cussing out the bus driver and pushing a peer?”

Daniel also has a reputation in the office: the secretary has his guardian’s number on speed dial. However, the staff did not know that Daniel was recently removed from his California Bay Area home and placed in the Central Valley of the State with a foster family that did not reflect his cultural or ethnic identity. Daniel’s story echoes the profile of a student who has experienced adverse childhood experiences (ACEs) and copes with the trauma by exhibiting aggressive behaviors. Instead of making Daniel the topic of conversation, the school should support students like him in a trauma-sensitive manner.

According to the 2008 National Survey of Children’s Exposure to Violence, 61% of adolescents aged 17 and younger have been exposed to violence in the past year. Over one-third of children have experienced two or more direct victimizations, and 11% have experienced five or more direct victimizations (McInerney & McKlindon, 2014). These events can be characterized as ACEs. A broader definition of ACEs includes experiences that can be grouped into three categories: abuse, neglect, and household dysfunction (Cavanaugh, 2016). According to the ACEs study, 22% of the population has experienced three or more ACEs (Cavanaugh,
ACEs are prevalent and the school can support students who found those events to be traumatic.

The COVID-19 pandemic has amplified ACEs through job loss, school closures, and other stressors. First, the pandemic may have increased intra-familial adversity by exposing children to increased parental anxieties, especially those associated with job loss, food insecurity, and housing insecurity. Secondly, children experienced social isolation due to school closures. The increase in family adversity may impair child brain development, particularly during the early years, by amplifying toxic stress. The pandemic’s indirect social and economic impacts on family stress may linger for months or years. Taken together, the indirect effects of the pandemic response could heighten each of the common ACEs in children’s lives (Sanders, 2020). It is important for schools to create a supportive environment to help students who have experienced ACEs.

A child who has experienced any of the aforementioned forms of adversity can perceive that event as traumatic. According to McInerney and McKlindon (2014), one-half to two-thirds of children have experienced trauma. Traumatic events can affect a child’s mental, physical, social, emotional, and spiritual well-being (Substance Abuse and Mental Health Service Administration, 2011). For example, the Center on the Developing Child at Harvard University (2007) stated that trauma could immensely impact and hinder brain development, resulting in cognitive losses, physical, emotional, and social delays, all of which can impact learning outcomes. Streeck-Fischer and Van Der Kolk (2000) found that children who have experienced trauma may have difficulty sustaining attention and processing new information. Some children may develop sensory processing difficulties, which can contribute to writing and reading problems. The roots of academic difficulties may be explored, but “regardless of the root of the
trauma, those working in a capacity to support children can benefit from gaining a deeper understanding of how trauma affects child development and what intervention efforts have been effective in helping children heal” (Walkey & Cox, 2013, p. 123). Therefore, those who work with children should learn about the effects of trauma so they can support children who have experienced trauma.

In addition to trauma, adversity can affect a child’s educational setting and outcomes. Porche et al. (2016) concluded that family adversity affects school engagement, grade retention, and qualification for an Individual Education Plan (IEP) due to mental health diagnoses. Children with a higher prevalence of adverse family experiences were more likely to have mental health diagnoses and were more likely to be retained or have an IEP. Some students who qualify for special education services due to emotional disturbance (ED) may cope with their trauma by exhibiting internalizing and externalizing behavior. Internalizing behaviors may include anxiety and depression. Externalizing behaviors may consist of disruptive actions such as noncompliance and physical aggression (Overstreet & Matthews, 2011). If the school does not perceive the behaviors as trauma-induced or approach them in a trauma-sensitive manner, those students may end up being educated in a more restrictive environment, outside of a public education setting. Students who are at risk for mental health diagnoses, behavioral challenges, or poor academic performance need the support of schools.

The United States educational system can utilize trauma-informed care to build a sense of safety and community for some of its neediest students. Students who are members of populations at high risk for ACEs may not otherwise have access to these supports because they often lack access to community resources that can aid with processing trauma. They are also more likely to live in environments where family adversity is probable (Baweja et al., 2015). It
may be beneficial for students to receive support to help them process ACEs as soon as the trauma presents itself. Since students spend a substantial portion of the day in the school setting, it is the optimal place for them to receive support. Schools play a crucial role in enhancing the educational outcomes of youth who have experienced trauma (Crosby, 2015). Schools can create a trauma-informed environment by creating a space where students feel safe and connected to the community, regulate their behavior in productive ways, and have a sense of competence and achievement (Herriford, 2019). A trauma-informed environment can help students increase their seat time, lessen behavioral outbursts, and improve school climates and teacher satisfaction (Crosby, 2015). It is an ideal setting to minimize the need for more restrictive environments for students who can succeed in general education with universal support.

Schools cannot ignore the potentially harmful effects of trauma, and they should implement a collaborative system to mediate adverse outcomes (Alisic et al., 2012; Anderson et al., 2015; Baweja et al., 2015; Blitz & Mulcahy, 2017; Perry & Daniels, 2016; Record-Lemon & Buchanan, 2017; Yohannan & Carlson, 2018). In addition, adults in schools must be trauma-informed so that their students will receive the necessary support to minimize long-term harmful effects and to help students heal.

**Background**

The idea of implementing support for students as soon as an issue arises within the school system is not new and has been supported by the federal government. Federal guidance started in 1975, when “President Gerald Ford signed into law the Education for All Handicapped Children Act (Public Law 94-142), now known as the Individuals with Disabilities Education Act (IDEA)” (US Department of Education, 2021, para. 7). IDEA ensured that all children with
a disability had access to a free appropriate public education (FAPE) in the least restrictive environment. The reauthorization of IDEA in 2004 included a provision establishing response to intervention (RTI; Sullivan & Castro-Villarreal, 2013). Proponents of a RTI system argue that it permits students to receive support as soon as academic difficulties are brought to the attention of the school, thus resulting in fewer students needing special education services (Maier et al., 2016). Wiener and Soodak (2008) acknowledged that federal legislators who wrote the reauthorization of IDEA mandated that RTI be written into state regulations but did not regulate its use. States were given the freedom to define and develop implementation guidelines for RTI, but provisions were not put in place to measure fidelity (Castillo et al., 2016; Maier et al., 2016). Each state can determine how to implement RTI; therefore, fidelity cannot be accurately measured. For example, the California Department of Education (2009) defined RTI as response to instruction and intervention (RTI²), which provides an opportunity to enhance the performance of struggling students before their educational difficulties increase in intensity and special education appears to be the only option.

The federal government expanded the premise of RTI when the Every Student Succeeds Act of 2015 incorporated a provision for schools to provide mental health services rooted in evidence-based and trauma-informed practices (Reinbergs & Fefer, 2017). The Every Student Succeeds Act outlined specific trauma-informed approaches to support students’ social-emotional well-being and academic enrichment. It also required training for school personnel (Prewitt, 2016). Despite federal guidelines being implemented, only 17 states have created trauma-informed schools at various levels: clusters of schools, district-wide, and statewide (Overstreet & Chafouleas, 2016). Despite low implementation in schools, the trauma-informed care movement has gained momentum due to growing awareness of the prevalence of
youth trauma exposure; the increasing impact of trauma on biological, psychological, and social adaptations (Hamoudi et al., 2015); and evidence of effective school-based trauma-specific treatments (Rolfsnes & Idoes, 2011). The momentum has challenged districts across the country to implement approaches to support students, including a system that builds on their existing RTI and positive behavior and interventions and supports (PBIS) system by creating a multi-tiered system of support (MTSS). The MTSS framework fuses tiered models of academic, behavioral, and mental health service delivery (Barrett et al., 2009; Sugai & Horner, 2009). A multi-tiered, trauma-informed care school is cognizant of trauma and can recognize and respond to students who have been impacted by trauma in a non-stigmatizing and non-punitive manner.

When implementing trauma-informed care, it is critical that schools use an established framework because it helps align trauma-informed approaches with current educational practices. This amalgamation can help the school community understand and accept the integration of mental health programs within a school setting (Overstreet & Chafouleas, 2016). A systematic approach creates support as a natural part of the school environment when each element of trauma-informed care is incorporated into the MTSS framework. The National Child Traumatic Stress Network (2018) outlined the Seven Key Elements of Trauma-Informed Systems:

1. Screen routinely for trauma exposure and symptoms.
2. Implement culturally appropriate, evidence-based assessments and treatments for traumatic stress and symptoms.
3. Provide resources to children, families, and providers about trauma, its impact, and treatment options.
4. Build on the strengths of children and families impacted by trauma.
5. Address parent and caregiver trauma.
6. Collaborate across child-serving systems to coordinate care.

7. Support staff by minimizing and treating secondary traumatic stress, which can lead to burnout.

The elements of a trauma-informed system can be incorporated within an MTSS framework. The framework can be implemented across three tiers of support, as seen in Figure 1. Tier 1 includes universal screenings to gather needs assessment information, which is critical to accurately identifying who may need more intensive support. Tier 2 includes more targeted assessments to understand the student’s concerns better. Once the concerns are pinpointed, social skills, behavioral, and/or academic instruction can be provided. Tier 3 includes intensive and individualized academic and counseling support for students who continue to struggle. Additionally, Tier 3 can consist of non-school personnel, such as clinical therapists and social workers (Reinbergs & Fefer, 2017). Each tier addresses specific needs and can provide the support students need.
The MTSS framework should be utilized to implement trauma-informed care because it focuses on establishing universal support promptly and strategically while providing additional support for those in need. To implement a trauma-informed framework, the school culture, district level support, site leadership style, and staff capacity need to be considered.

**Description of the Problem of Practice**

The U.S. Attorney General’s National Task Force on Children Exposed to Violence (2012) recommends that “every school in our country should have trauma-informed staff and consultants providing school-based trauma-specific treatment.” Schools can implement trauma-
informed approaches when the adults in the building can address trauma through a trauma-sensitive lens. Every student has the right to be educated in a trauma-sensitive environment, but neither the federal nor the state government furnish specific provisions for implementing trauma-informed care.

Research shows that, to respond to this recommendation, several states have embraced the idea of providing trauma-informed care via a tiered system of support. McInerney and McKlindon (2014) reviewed various trauma-informed models that have been utilized in several states, but none of the models were used in California. However, Reinbergs and Fefer (2017) analyzed studies that included California and concluded that there are gaps in studies' assessment of implementation with fidelity, thus encouraging further research that targets fidelity.

Dusenbury et al. (2003) defined fidelity as the degree to which program implementation aligns with the program developers' intentions.

Examining program implementation can provide insight into how well a program is doing, fidelity indicators, and whether it can be replicated in other environments and be sustainable. It is essential to analyze implementation fidelity more closely because it will allow researchers, evaluators, and practitioners to gain insight into how and why interventions work and how they can be improved (Carroll et al., 2007). This approach needs to be explored because Brickman et al.'s (2009) review of the literature found that educational interventions were consistently not implemented with fidelity. Lack of fidelity is likely to occur because the effectiveness of a program cannot be sufficiently measured if the program does not strictly follow the theoretical model and program benchmarks (Brickman et al., 2009). It is important for schools to follow the program guidelines so that fidelity can be measured.
The guidelines need to include “objective knowledge of the implementation process and rigorous evidence” (Overstreet & Chafoules, 2016, p. 2) so that the effectiveness of trauma-informed care can be replicated across school settings. This suggestion is echoed by Kerner et al. (2005), who claimed there is an increased need to create practical and valid strategies for overseeing implementation fidelity. Developing an accurate fidelity measure can aid the effectiveness of a trauma-informed care model (Breitenstein et al., 2010). Studies should examine districts’ MTSS models and address how implementation with fidelity can be measured at a macro level across school systems to become sustainable.

Though there is emphasis on the overall system, it is beneficial to focus on early intervention. Walkey and Cox (2013) endorsed the need for early interventions because they are essential considerations for programs designed to help children who have been exposed to trauma. When an educational institution focuses on Tier 1 support (universal access), it allows a school to address problems as soon as they arise. A universal approach can maximize the detection of adverse student outcomes so the school can respond quickly to minimize their negative affect (Overstreet & Chafouleas, 2016). This evaluation focused on Tier 1 to identify how the moderating factors; district administrators, site administrators, climate and culture, and staff capacity contribute to timely support to students in need.

**Problem Statement**

Adverse childhood experiences (ACEs) are a prevalent problem that our educational system can proactively mitigate. Schools can address ACEs by establishing a framework for trauma-informed care. Though some districts and schools have developed frameworks to address ACEs, there is a lack of literature to support implementation with fidelity. Ahlers et al. (2016) highlighted “an alarming lack of literature on documented approaches to dealing with
trauma within a three-tiered system of supports” (p. 24). This gap exists because the IDEA does not provide specific guidelines for implementing trauma-informed care. It is important to identify key characteristics that may impact the success of a tiered system approach so that schools and districts can ensure fidelity and sustainability. Leadership style and support, staff capacity, culture, and climate are key characteristics that might contribute to the initiative’s effectiveness. Implementation with fidelity guidelines that are research based and provide consistency may aid districts and schools in adopting trauma-informed practices so that students can access the support they need.

**Purpose Statement**

Growing evidence illustrates the prevalence of ACEs and their negative educational consequences and has led to a national focus on how school sites can address this issue (McIntyre et al., 2016). Since trauma-informed care is a relatively new framework in school environments and lacks specific federal or state guidelines, districts may find it challenging to implement such systems. McIntyre et al. (2016) call attention to studies examining districts that have successfully implemented trauma-informed care frameworks, but without specific guidelines, it is arduous to replicate these frameworks in other schools or districts. The scope of this evaluation did not include the outcomes in the traditional sense but rather used qualitative and quantitative data sources to see how the moderating factors affected the implementation of a multi-tiered, trauma-informed care system based on the short-term outcomes of a district’s MTSS pilot.
Inquiry Questions

This evaluation will answer the following questions:

1. To what extent do administrators, teachers, and non-teaching staff express support for and the capacity to implement multi-tiered, trauma-informed care practices?

2. To what extent do the attitudes expressed, and behaviors exhibited by administrators, teachers, non-teaching staff, and students indicate a climate/culture favorable to multi-tiered, trauma-informed care practices?

3. To what extent are the attitudes expressed by administrators, teachers, and non-teaching staff regarding multi-tiered, trauma-informed care practices impacted by their capacity?
   a. Do those attitudes vary by the role of the district employee?
   b. Do those attitudes vary by years of service in education?

Significance of the Inquiry

This evaluation contributes to the systematic and effective implementation of trauma-informed care through an MTSS framework. The data illustrates that when students are in an environment that is trauma-sensitive, it will strengthen their social-emotional skills, positively address behavior, and seek to uncover underlying causes of behavioral challenges. A comprehensive Tier 1 will decrease the need for Tier 2 and 3 supports.

Evaluation Design

To measure the effectiveness of local schools’ approaches to trauma-informed care, a cross-sectional design was used to analyze quantitative and qualitative data. This design was selected to assess the “current attitudes, beliefs, opinions, or [and] practices” of teachers, non-teaching staff, administrators, and students within the evaluation’s population (Creswell & Gutterman, 2019). It is important to see how attitudes and beliefs vary among school sites to identify elements of fidelity and sustainability.

The quantitative data source was a survey administered to staff to determine their understanding of and attitudes toward trauma-informed care. A nationally normed universal
screening was administered to third- through 12th-grade students at nine school sites to assess the need for trauma-informed care. The screener data was used to measure the pervasiveness of ACEs at the school site and to provide guidance regarding which students will need Tier 2 and 3 support. Observations were conducted in a minimum of three settings at each of the nine sites within the evaluation. The goal of collecting observational data was to assess the school’s culture, climate, and staff capacity.

Theoretical Framework

To understand current scholarly perspectives of trauma-informed care, the literature was reviewed, which revealed that many researchers approach trauma-informed care implementation via a constructivist lens. Those studies focused closely on the “views, values, beliefs, feelings, assumptions, and ideologies of individuals” rather than examining trauma-informed care from a system perspective (Creswell & Gutterman, 2019, p. 441).

The purpose of this evaluation is to investigate assumptions and stereotypes that surround the implementation fidelity of trauma-informed care systems. Bhattacharya (2017) states that a researcher can deconstruct a system by unraveling the implementation process and highlighting how the system is built on assumptions that maintain stereotypes, then reconfigure it to build a more stable structure. The evaluation focused on unraveling the implementation process to increase understanding of the factors that contribute to an initiative’s positive and negative outcomes (Kalolo et al., 2015). The reconfiguration should be carried out by the people who are impacted by the phenomenon. The process of breaking apart inequitable practices allows them to be reconfigured in alternative ways by the marginalized group (Bhattacharya, 2017). Once district leaders process the way the district implements trauma-informed care, then they can
examine the components of the implementation and reconfigure its approach so that students receive timely support, and the district can sustain its efforts over time.

Deconstructivist approaches can be supported by good theories. “Good theories that help people generate more plausible explanations of their experiences and increase the scope for effective action are important additions to their knowledge rather than theoreticians’ abstractions” (Friedman & Rogers, 2009, p. 37). Critical theories align with this approach to the construction of knowledge because it focuses on the role that social structures of oppression play in the lived experiences of marginalized people (Bhattacharya, 2017). The primary premise of critical race theory (CRT) is that racism is ingrained in American culture, and through social change, the imbalance of power can be corrected. This evaluation examined the culture of schools, how they treat students who have experienced trauma, and how schools can implement trauma-informed approaches that are timely and equitable. It brought awareness to how staff capacity, district administration, site administration, and climate/culture affect trauma-informed approaches in hopes of creating transformational system change so that schools can implement systems with fidelity and sustainability.

**Conceptual Framework**

Multiple theories support the inquiry into the implementation fidelity and sustainability of a multi-tiered, trauma-informed care system. I recognized the intersectionality of those theories that allowed for the reconstruction of systems that will bring timely support to those who have experienced trauma. The conceptual framework (Figure 2) was constructed by compiling five theories (Weiss’s change theory, Fullan’s change theory, Bronfenbrenner’s ecological systems theory, Roger’s diffusion of innovation theory, and Carroll et al.’s fidelity of implementation framework [FOI]). The broad exploration of theories allowed me to develop my
perspective on the implementation and sustainability of initiatives within K-12 education. Vital components of the theories were combined to emphasize the human capital that drives student-centered change and to analyze how those factors lead to the sustainability of an initiative.

The amalgamation of various theories complied into a modified framework was to ensure that the evaluation was effective and could be replicated in other K-12 settings. Effectiveness studies and evaluations follow a specific format to measure fidelity of implementation (Strains &

Figure 2. Modified conceptual framework for implementation fidelity. Adapted from Carroll et al. (2007) and Perez et al. (2016).
Vickrey, 2017), consisting of five steps. The first step is to identify the moderating factors, of which this evaluation has five: (1) district administrators, (2) school site administrators, (3) school climate, (4) school culture, and (5) teacher capacity. The moderating factors fuel the implementation process of adaptation, leading to sustainability. For this evaluation, adaptation refers to the priming of the environment for the change. Implementation includes the Panorama universal screener, SEL survey that were administered as intended. Sustainability is the extent to which a new initiative is maintained within a setting with stable operations (Kalolo et al., 2015 p. 5). The second step is to develop a tool that will provide valid and reliable measures of potential moderating variables. This evaluation used the Attitudes Related to Trauma-Informed Care (ARCTIC-45) to measure the impact of the moderating factors. The third step is to measure and analyze the relationships between critical components, adaptations that occurred, moderating variables, and desired intervention outcomes (Strains & Vickrey, 2017). This evaluation used observational data to analyze the relationships between critical components and moderating variables. The fourth step is to identify implementation types and the necessary context for replication and sustainability. I noted themes that emerged and compared school sites within the sample population.

Another element of implementation is sustainability. Wiek et al. (2011) synthesized the literature to develop the following sustainability competencies:

- **systems thinking**: the ability to analyze complex systems across multiple domains (e.g., environment, society, economy) and different scales (e.g., local to global)

- **anticipatory competency**: the ability to formulate drafts of the future related to sustainability

- **normative competency**: the ability to map and apply sustainability values, principles, and goals
• **strategic competency:** the ability to design and implement intervention strategies that lead to sustainability

• **interpersonal competency:** the ability to motivate and facilitate collaborative and participatory sustainability research

• **meta competency:** the meaningful use and integration of the other five competencies

This evaluation focused on strategic competencies using a theory-based evaluation to determine the factors that impact the implementation of trauma-informed care so that students receive timely support.

**Delimitations**

The evaluation was conducted at school sites in a Northern California school district that had similar demographics and were comparable in size. Only school sites that met the selection criteria were included in the evaluation. The criteria for selection were schools within the district that were a part of the district’s MTSS implementation pilot. The sample consisted of nine school sites: seven elementary schools, one middle school, and one high school. Those surveyed included volunteer district administrators, site administrators, teachers, and support staff.

Student perspectives was gathered from the social-emotional learning universal screener survey. The sample consisted of was third- through 12th-grade students at the pilot sites whose parents’ provided permission for them to participate; only their screening data was analyzed.

**Chapter Summary**

The prevalence of students who have experienced trauma is alarming. Research has shown how trauma can affect a student’s cognitive development. If trauma is not addressed, it can lead to behavioral and academic challenges that could steer students to qualify for special education services although they could be adequately served in a trauma-informed environment.
Since students spend most of their time in schools and may lack outside support, schools should address trauma.

Schools can create a trauma-informed environment so that students can receive support as soon as an issue arises. This evaluation explored the moderating factors that can impact program effectiveness and sustainability through a theory-based evaluation. The theories used to construct the modified theoretical framework consisted of Weiss’s and Fullan’s theories of change, Bronfenbrenner’s ecological systems theory, Roger’s diffusion of innovation theory, and the conceptual framework of FOI. The evaluation’s outcomes show how trauma-informed care can be implemented effectively and sustained across K-12 school settings.

Chapter 2 will explore the elements of trauma-informed care. The literature examines how trauma can affect students and how adults within the school building can support them. Development of a trauma-informed school starts with a cultural shift that includes a change in thinking about the needs of educators so that they can obtain the skills they need to view their practices through a trauma-informed lens and to establish a trauma-informed climate.

When educators embrace a trauma-informed environment, it can be modified to meet their specific needs. The literature also explores how MTSS can be a successful framework for implementing trauma-informed care. When schools have a strong Tier 1, they can provide timely support to students who have experienced trauma.
Definitions of Key Terms

The provided list includes operational definitions that will be used in this evaluation.

**Adverse Childhood Experiences (ACEs):** “includes ten different experiences grouped into three categories: abuse, neglect, and household dysfunction” (Cavanaugh, 2016, p. 41).

**District Administration/Leadership:** in this evaluation, *district administration* and *district leadership* synonymously describe individuals who work at the district office and have decision-making power.

**Evidence-Based Interventions:** interventions “that are empirically supported and sustained with research findings that demonstrate beneficial and predictable outcomes” (Forman et al., 2009, p. 26).

**Fidelity of Implementation:** in this evaluation, *implementation with fidelity* and *fidelity of implementation* synonymously “refer to the degree to which an intervention is delivered as intended; it is critical to successful translation of evidence-based interventions into practice” (Carroll et al., 2007; Mihalic, 2004).

**Healing-Centered Engagement:** care that is a holistic view that involves “culture, spirituality, civic action and collective healing” (Ginwright, 2018, p. 3).

**Leadership:** actions from the district administration and established leadership teams that can include but are not limited to district- and site-level administration, site and district staff, community stakeholder groups, and board members (O’Connor & Freeman, 2012).

**Moderating Factor:** factors that can positively or negatively affect “the degree of fidelity with which an intervention is implemented” (Carroll et al., 2007).

**Multi-Tiered System of Support (MTSS):** an approach “often used as an overarching construct for Positive Behavior Interventions and Supports (PBIS) and Response to Intervention (RTI) . . ."
a schoolwide, three-tiered approach for providing academic, behavioral and social supports to all students based on their needs and skills” (Ziomek-Daigle et al., 2016, p. 221).

Positive Behavioral Interventions and Supports (PBIS): a multi-tiered system designed to integrate schoolwide approaches that aid schools in promoting a positive school climate, classroom and schoolwide behavior management, and specific supports for students who exhibit social, emotional, and/or behavioral challenges (National Education Association, 2014).

Response to Intervention (RTI): “a series of strategies used to screen students within the general curriculum, develop tiered instruction, closely monitor student progress, and make informed decisions concerning the next step for that student” (Daves & Walker, 2012, p. 68).

School Capacity: the infrastructure and resources schools have available to address student needs (Waldron & McLeskey, 2010).

Site Administration/Leader: in this evaluation, site administration and site leader synonymously describe a person and/or people who function as the instructional leader(s) of a school site.

Teacher Capacity: the perceived abilities, skills, and expertise of teachers in a school or district, or their ability to progress and improve (Glossary of Education Reform, 2014).

Tiered System of Support for Trauma-Informed Care: supports for students who have experienced trauma that are organized into three levels. Tier 1 includes universal screening measures, which are critical to accurately identifying who may need more intensive support. Tier 2 has more targeted assessments to better understand the student’s concerns. Once the concerns are pinpointed, social skills instruction can be provided. Tier 3 includes more intensive and individualized support for students who continue to struggle. Additionally, Tier 3 can
include non-school personnel, such as clinical therapists and/or social workers (Reinbergs & Fefer, 2017).

**Trauma:** “an event or series of events or set of circumstances experienced by an individual as physically or emotionally harmful or life-threatening with lasting adverse effects on the individual’s functioning and mental, physical, social-emotional, or spiritual well-being” (Substance Abuse and Mental Health Services Administration, 2011, p. 1).

**Trauma-Informed Care (TIC):** “a strengths-based framework that is grounded in an understanding of and responsiveness to the impact of trauma, that emphasizes physical, psychological, and emotional safety for both providers and survivors, and that creates opportunities for survivors to rebuild a sense of control and empowerment” (Hopper et al., 2010, p. 131).

**Trauma-Informed School:** a school that recognizes how trauma can impact its students, creates responses that encourage resiliency, and modifies teaching strategies to engage students who have emotional challenges (Blitz & Mulcahy, 2017).

**Trauma-Informed Systems Approach:** a method of analyzing and improving the educational process that shapes schools to be more trauma-sensitive in their work with children (McInerney & McKlindon, 2014).

**Universal Screening:** a system used to identify students at risk of social-emotional and/or poor learning (Center on Response to Intervention, 2019).
Daniel, a youth who had been removed from his family and placed in a foster home that did not reflect his cultural identity, is just one of many children whose life’s experiences and trauma has impacted their interactions in the school environment. The medical community was the first to pick up on the phenomenon of how trauma can affect people’s health and social interactions. As early as the 1950s, researchers like James Robertson, a psychiatric social worker, recognized the distress children experienced in a hospital setting when separated from their caregivers (Coffey, 2019). As science has evolved, so have inquiries into the effects of trauma on children. The first significant study on the impact of adverse childhood experiences that gained notoriety was conducted by Kaiser Permanente.

**Adverse Childhood Experiences (ACEs)**

The first adverse childhood experience (ACE) study, conducted from 1995 to 1997, provided a foundational example of how epidemiological and neurobiological evidence on childhood trauma are connected. Of its respondents, 64% reported having at least one adverse childhood experience (Anda et al., 2006). Since this study, ACEs have captured the attention of the medical and treatment community. In 2013, the Federal Partners Committee on Women and Trauma stated that ACEs and trauma are so pervasive that they have become a public health epidemic (Baker et al., 2015). A more recent study conducted in 2017 by the National Survey on Children’s Health found that nearly 47% of all children in the United States have experienced at least one ACE, such as abuse or neglect, death of a parent, or witnessed community violence. In comparison, 22% have experienced two or more ACEs (Acosta Price & Ellis, 2018).

A child who has experienced adversity can perceive those incidents as traumatic, but this perception depends on the individual. The Substance Abuse and Mental Health Services
Administration (SAMHSA) defines trauma as “an event or series of events or set of circumstances experienced by an individual as physically or emotionally harmful or life-threatening with lasting adverse effects on the individual’s functioning and mental, physical, social-emotional, or spiritual well-being” (2020). Hooper et al. (2010) clarified the definition: “Trauma refers to an experience that creates a sense of fear, helplessness, or horror and overwhelms a person’s resources for coping” (p. 131). The Centers for Disease Control and Prevention (CDC) indicate that ACEs resulting in trauma can happen to children across all races, income levels, and education levels. The effect of trauma is boundless and may affect students to varying degrees.

Some students who have experienced ACEs may need mental health support, but unfortunately most of those students do not receive services (Kataoka et al., 2002). Among those who do receive such services, about 75% receive them at school (Farmer et al., 2003). Though not all students who have experienced an ACE will need mental health support, schools are the cornerstone of trauma-informed care support.

Findings by Hopper et al. (2010) led them to develop a consensus-based definition of trauma-informed care:

Trauma-informed care is a strengths-based framework that is grounded in an understanding of and responsiveness to the impact of trauma, which emphasizes physical, psychological, and emotional safety for both providers and survivors, and that creates opportunities for survivors to rebuild a sense of control and empowerment. (p. 133)

A trauma-informed approach generates an environment where students can build and sustain meaningful, healthy relationships with peers and school staff (Perry & Daniels, 2016). Schools are at the center of the community and provide a natural environment for students to gain support as they process and cope with traumatic events. A multi-tiered, school-based, trauma-informed care model is one in which a school is cognizant of trauma and can recognize and respond to
students who have been impacted in a non-stigmatizing and non-punitive manner. Students receive clear expectations, tools to identify their triggers, and strategies that support them through stressful situations. The overall goal of a trauma-informed care model is to provide students with coping strategies, social-emotional learning opportunities, and a culture of support and respect. Our educational system needs trauma-informed care to build a sense of safety and community for students in need.

Trauma-informed practices need to be implemented to build students' social-emotional skills and address the possible adverse academic outcomes for students who are at risk of internalizing and/or externalizing behaviors. Internalizing behaviors may include symptoms associated with anxiety and depression, while externalizing behaviors may include a wide range of disruptive behaviors that go against social norms or standards (Overstreet & Matthews, 2011). For example, a student who may be physically violent is considered to display externalizing behaviors. It is important to identify adverse behaviors that students display in the school setting (McIntyre et al., 2019; Rosenbaum-Nordoft, 2018) because those behaviors can be disruptive to the learning environment. Researchers have found a correlation between trauma-informed interventions and a decrease in post-traumatic behaviors (Anderson et al., 2015; Frydman & Mayor, 2017; Record-Lemon & Buchanan, 2017). Therefore, trauma-informed care can improve behavior outcomes and the social-emotional well-being of students who have experienced trauma but who may not have received support outside of the school setting. To maximize the benefits of trauma-informed care approaches, schools need to ensure they employ implementation practices that produce fidelity. This evaluation will closely examine the moderating factors of a multi-tiered, trauma-informed model based on the theory of change principles in Tier 1.
**Trauma-Informed Care**

Trauma-informed care can help individuals affected by trauma to feel safe, recover from trauma, and regain developmental milestones (SAMHSA, 2014). In addition, trauma-informed care can positively impact student outcomes by boosting self-esteem, improving relationships, and increasing safety (Hooper et al., 2010). A trauma-informed school acknowledges that trauma affects staff, students, families, communities, and systems. Thus organizational support, partnerships, and capacity-building are essential in a trauma-sensitive environment (National Child Traumatic Stress Network, 2022).

Research has shown the benefits of trauma-informed care in schools, but the results are hard to generalize. The main reason is that there are numerous definitions and measurements, which leads to disparities in how it is implemented. The review of the literature revealed trauma-informed care themes focused on trauma awareness, emphasis on safety, opportunities to rebuild control, and a strengths-based approach.

Many factors support the success of trauma-informed care implementation. Hooper et al. (2009) identified six essential steps to implementing trauma-informed care:

1. Obtain buy-in from multiple stakeholder groups.
2. Conduct a needs assessment to identify areas that need to be modified.
3. Align the environment and procedures with trauma-informed practices.
4. Provide training.
5. Provide ongoing support.
6. Provide access to interventions.

Similarly, trauma-informed systems provide 10 essential elements (see Figure 3).
**Essential Elements of a Trauma-Informed School System**

1. Identifying and assessing traumatic stress.
3. Teaching trauma, education, and awareness.
4. Having partnerships with students and families.
5. Creating a trauma-informed learning environment (social/emotional skills and wellness).
9. Evaluating and revising school discipline policies and practices.
10. Collaborating across systems and establishing community partnerships.

Figure 3. Essential elements of a trauma-informed school system. From the National Child Traumatic Stress Network (2022).

The above-mentioned approaches to setting up trauma-informed care systems articulate multiple avenues for creating a system of care. Both methods address the need to gain support from stakeholders, including students, families, and community partners. They also focus on creating an environment where training and support are provided. There is overlap between the two examples, while differences emerge. The essential elements of a trauma-informed school system expand the ideals of Hopper et al. (2009) by addressing the cultural and discipline paradigm of the school. Though the two approaches have subtle differences, educators and school officials need to adopt practices that benefit student outcomes.

Stevens (2012) concluded that students who attend a trauma-informed school might have fewer suspensions, expulsions, and disciplinary referrals. To see the positive behavioral impact of trauma-informed care, schools need to establish a systematic framework that is trauma-sensitive and a culture in which adults are aware of how trauma can impact students’ social-emotional, behavioral, and academic functioning (Ahlers et al., 2016). When this occurs, staff can identify signs of ACEs and support the student accordingly rather than addressing the
behavior punitively. Non-punitive supports include schoolwide initiatives rooted in social-emotional well-being and access to a school counselor and mental health clinician for those who are highly impacted. These supports should be provided as soon as the trauma has been identified. Timely academic and social-emotional support can occur when student outcomes are monitored through specific data points by teachers and staff (Maier et al., 2016). Providing these supports via a strategic and scaffolded framework can aid students in receiving timely, targeted support.

A trauma-informed environment is present when the adults in the school are informed, meaning they understand the ways “in which violence, victimization, and other traumatic experiences may have influenced the lives of the student and apply that understanding to create a space of healing and discovery” (Carello & Butler, 2015, p. 264). Based on this understanding, adults can provide the three basic principles of a trauma-informed environment: making sure students have a feeling of safety, a sense of belonging, and a sense of competence and achievement (Herriford, 2019). Students should be given routines, boundaries, and consistent expectations and should be “frontloaded” before a change in the environment and/or expectations occurs. Adults should take the time to listen to, acknowledge, and affirm their students’ feelings. A trauma-informed environment is a foundation for implementing trauma-informed care systems.

**Healing Center Engagement**

Ginwright (2018) challenged the idea of a trauma-informed care and environment because it is framed within a deficit model that does not consider fostering students’ well-being. Trauma-informed care focuses on the individual’s harm and neglects to see how it can be collective. Ellis and Dietz (2017) offered a visual representation of how trauma can be tied to
collective environmental factors (Figure 4) that effectively illustrated Ginwright’s approach. Environmental factors such as neighborhoods, natural disasters, families, and schools can help explain the root cause of student trauma (Ginwright, 2018; Middleton et al., 2019). Without this perspective, we fail to address the toxic systems, policies, and practices that may be at the root of the trauma.

![Figure 4. Pair of ACEs tree image for developing community resilience. From Ellis & Dietz (2017).](image)

Due to the limitations of trauma-informed care, Ginwright (2018) offered an alternative perspective: healing center engagement (HCE). Healing-centered care is a holistic view involving culture, spirituality, civic action and collective healing” (p. 3). This is a shift in the way trauma is viewed and its causes and interventions. The question becomes “What is right with you?” (p. 3). Those exposed to trauma can be a part of their own healing and well-being. Healing-centered engagement is founded on an awareness of the conditions that created the
trauma, is culturally grounded, and is focused on restoring the individual's well-being. It also acknowledges the need to provide support for the adult providers in their own healing (Ginwright, 2018).

For this evaluation, a trauma-sensitive environment encompasses ideals and practices of healing-centered engagement. The term *healing-centered engagement* is not used in this evaluation because the literature and the district utilize the term *trauma-informed care*. Instead, the evaluation honored the positive connotation of *healing-centered engagement* while using the language that the district utilizes.

**Structure to Implement Trauma-Informed Care**

A trauma-informed care environment can thrive when it is established on a framework that allows for consistency and structure. A framework that provides the specific structure and stability needed to create a trauma-sensitive environment is a multi-tiered system of support (MTSS).

**Origins of MTSS**

A MTSS can be the foundation of a successful trauma-informed care model. The MTSS framework was developed in response to federal special education mandates. The foundational legislation was the Individuals with Disabilities Education Act (IDEA), which required school districts in the United States to identify students with disabilities and to supply them with services and supports to ensure a free and appropriate education (Cartledge et al., 2016; Daves & Walker, 2012; Garcia & Ortiz, 2008; Maier et al., 2016; Sullivan & Castro-Villarreal, 2013). IDEA has been reauthorized several times since its inception to meet the needs of educational systems.
The reauthorization of IDEA 1997 provided a grant to institute a national Center on Positive Behavioral Interventions and Supports, which provides technical assistance to schools to improve their use of evidence-based behavioral strategies (Sugai & Simonsen, 2012). George Sugai and Rob Horner, researchers at the University of Oregon, developed what is now known as PBIS. Their work has supported districts across the country in addressing student behavior in a positive manner. PBIS is a framework designed to positively impact behavior within a tiered approach and based on behavioral, social-learning, and organizational principles. Its goal is to prevent disruptive behavior and bolster the school’s climate by creating and sustaining extensive behavioral support (Bradshaw et al., 2008). The study by Sugai and Horner (2009) illustrated that to maximize the positive impact of PBIS, schools need to invest in high-quality training so that the framework can be implemented with fidelity. Though PBIS has started to make a positive impact in schools, the federal government continues to adjust IDEA.

The reauthorization of IDEA in 2004 mandated that states develop an alternative process to the discrepancy model, which looked at the difference between a student’s intellectual ability and his or her academic achievement skills to qualify a student with a specific learning disability (Maier et al., 2016; Sullivan & Castro-Villarreal, 2013). Critics of the discrepancy model stated that the model was contingent on a deficit in a student’s achievement compared to peers before interventions were implemented (Maier et al., 2016; Sullivan & Castro-Villarreal, 2013). Response to intervention (RTI) was introduced because the former discrepancy model was not initiated until a student was performing significantly behind peers. Proponents of an RTI system claim that it allows students to receive interventions as soon as the teachers and/or parents notice academic difficulty, resulting in fewer students needing special education services (Maier et al.,
Districts across the country have utilized RTI to provide students timely access to interventions and to decrease the number of students who qualify for special education.

Although the reauthorization of IDEA gave districts the right to use RTI as an alternative to the discrepancy model, it did not give states specific mandates for implementation (Castillo et al., 2016; Maier et al., 2016). Each state was given the freedom to define and develop implementation guidelines for RTI, but provisions were not put in place to measure fidelity (Castillo et al., 2016; Maier et al., 2016). As a result, states saw varying levels of success with RTI.

The federal government wanted to improve equitable outcomes for students by passing the Elementary and Secondary Education/Every Student Succeeds Act (ESEA/ESSA; 2015). Section 8101(33) of the act defines a multi-tiered system of supports as “a comprehensive continuum of evidence-based, systemic practices to support a rapid response to students’ needs, with regular observation to facilitate data-based instructional decision making.” MTSS is a proactive and preventative framework that utilizes data and instruction to help school personnel identify students’ academic, behavioral, and social-emotional strengths and needs and provide differentiated support (Branching Minds, 2021; Center for Multi-Tiered System of Supports, 2021). A MTSS framework allows school personnel to provide targeted support based on data.

Differentiated support is possible because MTSS aligns all school initiatives, supports, and resources to enhance children’s behavioral, social-emotional, and academic goals (Averill & Rinaldi, 2011). When all aspects of learning and social-emotional development are linked, school personnel can respond promptly to areas of need. Branching Minds’ research (2021) concluded that MTSS is one of the most effective ways to provide an “equitable educational experience because it leverages collective knowledge and expertise to help teachers understand
their learners’ needs and make informed and strategic decisions that best support them” (Branching Minds MTSS Guide, 2021, p. 3). MTSS encompasses four key components: (a) screening that is generally conducted three times a year, (b) a multi-level prevention system with a tiered level of support based on student need, (c) progress monitoring of students’ needs, and (d) decisions based on data. These components are present at each tier.

Tiered supports are broken into three levels. Tier 1 is universal interventions for all students and is the primary responsibility of general education teachers. According to Cartledge et al. (2016), Garcia & Ortiz (2008), and Montalvo et al. (2014), 80% of students’ needs should be met within Tier 1. MTSS addresses a child’s needs as they arise, and if the student does not respond to the interventions at that level, as shown by data, then another tier of support is provided. Students who do not respond to Tier 1 intervention, 15% of the student population, are then moved to Tier 2, where they are provided small group evidence-based instructional strategies by general education and special education teachers and support staff. Five percent of the student population will need further support; Tier 3 offers one-to-one intensive support that may be provided by non-general education personnel. If a child does not respond to Tier 3 interventions, then screening for special education services could be provided (Cartledge et al., 2016; Garcia & Ortiz, 2008; Montalvo et al., 2014).

**Tier 1**

Tier 1 is the entry point where support for all students is provided promptly, and data is collected and reviewed to determine intervening support for students who need additional support. With timely identification of difficulties, evidence-based interventions can be used within the least restrictive environment (LRE; Maier et al., 2016; Sindelar et al., 2006). Due to
the prevalence of ACEs, it is beneficial to ensure that support is provided in the general education environment and becomes a part of the school culture.

**A Systematic Trauma-Sensitive Approach: Universal Screener**

The use of a universal screener that focuses on social-emotional domains can aid school staff with identifying students’ state of social-emotional functioning. Analysis of the universal screener data can identify individual students who may need targeted support. Schools should be thoughtful and intentional about the screening tool they use. Stakeholders may be apprehensive about using a universal screener because the data may reveal student needs that they may not be prepared or equipped to address due to a lack of adequate resources (Hooper et al., 2010). The apprehension may be mitigated if the site leadership cultivates a trauma-sensitive culture, provides opportunities to increase staff capacity, and partners with service providers.

**Change Within Systems**

Multiple theories support the inquiry into the implementation fidelity and sustainability of a multi-tiered trauma-informed care system. Recognizing the intersectionality of those theories is vital in reconstructing a system that will provide timely support to students who have experienced trauma. The conceptual framework was drawn from five theories (Bronfenbrenner’s ecological systems theory, Weiss’s change theory, Fullan’s change theory, Roger’s diffusion of innovation theory, and the fidelity of implementation framework [FOI] by Carroll et al.). The broad exploration of theories allows for the investigation of implementation and sustainability within local school districts. The theories were combined to emphasize the human capital that drives student-centered change and to analyze how those factors lead to the sustainability of an initiative.
Bronfenbrenner’s Ecological Systems Theory

Bronfenbrenner’s (1979) ecological systems theory provides a lens through which to view and analyze human capital as layers of relationships. There are five relationship systems: microsystem, mesosystem, exosystem, macrosystem, and chronosystem. The microsystem is the interactions and relationships a child has with his or her contiguous influences (Beck, 2000). Mesosystem practices examine the adults’ overall relationships with students who have experienced trauma and how those relationships can be extended to support staff. This is achieved when teachers utilize social-emotional learning opportunities that incorporate appropriate interpersonal boundaries, social skills, and know-how to address negative peer interactions (Crosby, 2015). Exosystem practices focus on how school climate, professional development, school policies, and school culture affect students who have experienced trauma (Crosby, 2015). Macrosystem practices examine the adults’ cultural biases and other assumptions in the school building and how they can affect adults’ interactions with students (Wolpow et al., 2009). The chronosystem encompasses the internal and external dimensions of time related to a child’s environment (Paquette & Ryan, 2001). Figure 5 provides a visual representation of factors that should be considered.
Among these factors, the first to consider is a child’s direct relationships with teachers, administrators, and other school staff. These relationships depend on how attuned the adults are to students’ verbal and nonverbal cues that indicate their level of engagement (Perry, 2009). Teachers need to allow students the opportunity to share control over their learning (Wolpow et al., 2009). Those relationships are at the heart of the microsystem practices (Crosby, 2015).

Now that ecological perspectives are considered, change theories can be applied to help unpack the phenomenon.

**Weiss’s Change Theory**

To provide context to Bronfenbrenner’s ecological systems, Weiss’s theory of change was applied. Weiss (1972) provided the purpose of an evaluation: “to measure the effects of a
program against the goals as a means to improve future programming.” An evaluation provides direction to policy and practice and justifies preexisting preferences and activities as well as new generalizations, ideas, and concepts. Evaluations can influence decision-making to improve future programming. To conduct a good program evaluation, there needs to be a clear understanding of the program’s components and the design accurately assesses those components (Weiss, 2011). The evaluation process starts with clearly outlining incremental steps needed to achieve the long-term outcome. This process is shown through a visual map (see Figure 6) that outlines the relationships between original strategies and premeditated results (van Es et al., 2015).

*Figure 6. Model of Weiss’s theory of change. From Weiss (2011).*
Msila and Setlhako (2013) expounded on Weiss’s foundational approach and provided a clear systematic process that a program evaluation should follow: (a) identify the problem, (b) evaluate what resources will be needed to implement the change, (c) identify what actions must be taken to activate the change, (d) review outcomes based on data, and (e) revise as needed for improvement and sustainability. A systematic approach to implementation may increase the reliability and validity of a program’s change. Following these steps will be vital in establishing components that directly affect implementation fidelity.

Weiss’s theory of change is a practical and effective way for communities to engage in transformation efforts (Msila & Sethako, 2013). The theory is a road map for implementing change and can also be known as a logic model that guides individuals involved in the change process (Msila & Sethako, 2013). Following a systematic approach to change may positively impact the creation of a multi-tiered, trauma-informed care model so that students receive opportune support.

**Fullan’s Change Theory**

Change theory illustrates how schools can create a multi-tiered approach to trauma-informed care. Fullan (2006) concluded that change theory could be an immensely powerful tool to bring about productive educational reform when individuals deeply understand how the factors in question operate dynamically to get specific results. The critical component is the striving by the drivers of change to reach the next level to make their theory of action explicit. Explicit action is achievable when those in power push themselves to the next stage of progress and make their initiative actionable and collaborative.

Fullan (2006) indicates that there are seven premises: (a) a focus on motivation, (b) capacity building, (c) learning in context, (d) changing context, (e) a bias for reflective action,
(f) tri-level engagement, and (g) persistence and flexibility will bring about productive reform. The first premise focuses on motivation from all involved in the change. Motivation is built from peer and leadership support, availability of resources, and moral purpose. The second premise is capacity building, “a strategy that increases the collective effectiveness of a group to raise the bar and close the gap of student learning” (p. 9). Leaders have the influence and resources to ensure that their staff has opportunities to increase their capacity. The third premise is learning in context, where the culture is understanding of students’ needs. The fourth premise is changing context, in which knowledge flows fluidly throughout the organization. The flow of knowledge creates an opportunity to clearly communicate a shared vision and create ownership. The fifth premise is a bias for reflective action. People learn best through doing, inquiring, and reflecting. The sixth premise is tri-level engagement, in which there is engagement with schools and community, districts, and the state, thus creating a mutual interaction and influence across the three levels. The last premise is persistence and flexibility in the change process. These elements focus on the influence of district leaders, site leaders, teachers, and staff’s ability to implement trauma-informed care.

School districts need to examine leadership at all levels and explore the school’s culture and teachers’ capacity to handle secondary trauma (Hopper et al., 2009). For districts to implement a fundamental change, they must clearly communicate the goals of the change. Elmore (2004) emphasized that cultures do not change by mandate but by displacing existing norms, structures, and processes. Modeling change is done by district administration, site administration, leadership styles, staff capacity, culture and climate, a partnership between service providers, and meaningful professional development. These elements need to be examined so that fidelity of implementation can be assessed.
Fidelity of Implementation Theory

The fidelity of implementation (FOI) approach is a type of evaluation that focuses on determining whether the given program has been implemented as intended. Secondly, it highlights additional factors that could contribute to intervention outcomes. Finally, it can help to avoid type III errors, looking at the intervention effect rather than the weakness in its implementation (Kalolo et al., 2015). Exploring how to systematically review implementation effectiveness while minimizing type III errors will lead to a multi-tiered, trauma-informed care system design that is sustainable.

The use of FOI has started to gain recognition. However, a review of the literature by Slaughter et al. (2015) revealed that none of 72 studies included a fidelity conceptual framework or a fidelity definition. This may be attributed to the lack of shared understanding of the concept of FOI and its measurement. To achieve sustainability, there needs to be a clear definition of implementation fidelity. FOI was developed to help researchers and practitioners gain insight into how and why interventions work and how they can be improved. Carroll et al. (2007) defined it as the degree to which a program or intervention is being delivered as intended, and several other researchers have modified the framework since their initial research. Century et al. (2010) operationalized the definition by rewording it as “the extent to which the critical components of an intended program are presented when that program is enacted” (p. 202). Stains and Vickrey (2017) offered a slightly adapted definition: “the extent to which the critical components of the intended educational program, curriculum, or instructional practice are present when that program, curriculum, or practice is enacted” (p. 2). These modifications pinpoint the components that are at the core of fidelity.
There are two types of critical components: structural and process. The structural components relate to the organizational features of the intervention—for example, the materials needed for the intervention and the frequency of activities. The process components relate to how the intervention is expected to be implemented, such as the expected behaviors of those involved in the intervention process. These critical components are then broken into subcategories. The structural complement consists of the procedural component (what to do) and the educative component (what to know). An evaluator must account for the critical components of the moderating factors. Carroll et al. (2007) defined moderating factors as the components that can influence the degree of fidelity of an intervention. Kalolo et al. (2015) added that the degree of fidelity can be positive or negative. All factors that can potentially influence fidelity should be considered.

**Fidelity Criteria**

A review of the literature by Brickman et al. (2009) revealed that fidelity criteria could be placed into five categories for measurement: “(a) adherence to the program, (b) dose (the amount of the program delivered), (c) quality of the program delivery, (d) participant responsiveness, and (e) program differentiation” (p. 76). Adherence to the program means it is being delivered as it was intended. The dose is the frequency and duration of the intervention. Quality of delivery is the effectiveness with which a teacher or staff member delivers the intervention. Participants’ responsiveness measures how a person responds to or engages with the intervention. Program differentiation is the presence of unique aspects of the program. This evaluation looked at adherence to the program and participant responsiveness.

The Behavior Change Consortium (BCC) suggests five categories of treatment strategies. The first three are study design, provider training, and treatment delivery, focusing on the
provider. The last two categories are receipt and treatment use, which focus on the patient. This evaluation focused on providers, teachers, and staff capacity based on their exposure to professional learning regarding trauma-informed care (Slaughter et al., 2015).

Perez et al. (2016) modified Carroll and colleagues’ concept of implementation fidelity to account for adaptation. “Adaptation is the process of implementers or users bringing changes to the original design of an intervention” (p.1). There is no consensus in the literature on a definition of adaptation and no clear description of operationalizing these concepts, but they supported the idea that fidelity and adaptation coexist (Perez et al., 2016). Adaptation can either improve or threaten the interventions’ underlying theory of change (Hernandez & Hodges, 2003). Educational change efforts need to account for adaptation due to district leadership, site leadership, culture and climate, and teacher capacity. Accounting for adaptation is vital when measuring the implementation effectiveness of a multi-tiered, trauma-informed care model with a focus at the Tier 1 level.

**Application to the Evaluation**

This evaluation “focused on unraveling the implementation process to enhance understanding of what factors contribute to the success or failure of initiatives” (Kalolo et al., 2015, p.2). In particular, it examined the factors of district administration, site administration, culture and climate, and teacher capacity. Therefore, the development of FOI measures is a secondary focus of an evaluation design based on specific contexts and programs (Century et al., 2010). This evaluation used the overall conceptual framework of FOI to construct a framework that embodies the essence of implementation evaluation of an educational initiative.

The evaluation did not measure or account for treatment effects but rather show how external factors may affect prompt support of trauma-informed care. Before looking at the
externalizing factors, it is crucial to identify the program’s theoretical model and guidelines. Some strategies can be utilized to help understand the degree to which programs are implemented as intended. The strategies link program theory to teacher training and support, assessing training quality, quality of program implementation, and teachers’ attitudes toward implementation (Domitrovich & Greenberg, 2000). This evaluation explored staff capacity and perceptions of trauma-informed care.

**Diffusion of Innovation Theory**

Roger’s (2003) diffusion of innovation theory weaves together central concepts and issues regarding universal implementation, such as dissemination, replication, and sustainability. It looks at innovation through four phases: dissemination, adoption, implementation, and sustainability. The specific type of adaptation or the level of intervention that is changed or modified happens at the implementation phase, leading to faster and more sustainable adoption of the innovation. Kalolo et al. (2015) define sustainability as the extent to which a newly implemented initiative is maintained within a setting with stable operating conditions. Sustainability occurs when a human capital focused initiative has been implemented with fidelity. A program can be successfully replicated when the implementation strategy’s adherence, dose, and participant responsiveness are documented and reported adequately (Slaughter et al., 2015). “Reporting data on fidelity could reduce the replication of unsuccessful strategies” (p. 9). Monitoring fidelity can increase the use of successful strategies.

When implementation strategies are clearly defined, it will lead to optimal outcomes, more accurate replication, and more successful transfers to practice. For this formative evaluation, the sustainability phase of short-term objectives were examined in hopes of making trauma-informed care sustainable within the district and in other districts across the country.
Theory-Based Program Evaluation

A theory-based evaluation “focuses on indicators related to the logic underlying a program to guide evaluation” (Giancola, 2021, p. 22). Theory-based evaluations should name the explicit or implicit theories that comprise the measurement tool to identify all the assumptions and sub-assumptions present in the program. The evaluator then constructs data collection and analysis methods to track the assumptions. The overall goal is to show which and where assumptions break down and which theories are best supported by the evidence (Weiss, 2011). When the goal is achieved, it will lead to program improvement. Null evaluation results should not lead to programs being discontinued but to improvements in programs. They can also present an opportunity to retool the evaluation so that stakeholders have greater confidence in its results (Msilà & Sethako, 2013). The evaluation outcomes can help stakeholders make the necessary adjustments to maximize effectiveness.

A shared understanding of the theories allows the evaluator and stakeholders to identify meaningful evaluation questions. Possible guiding questions can be “How is the program supposed to work?” and “What are the assumptions underlying the program’s development and implementation?” (Russ-Eft & Preskill, 2009). From there, a logic model can be developed. A logic model is a graphical representation of the program’s activities and outcomes. Assumptions are included to strengthen the logic model (Russ-Eft & Preskill, 2009). When using this practice in an educational system, the evaluator should clearly understand how students relate to the school’s environment and how they can impact the program’s effectiveness.

Moderating Factors

To access the fidelity of a multi-tiered, trauma-informed environment all factors that can impact students’ ability to receive timely support should be explored. This evaluation reviewed
the following moderating factors: district administration, site leadership, climate and culture and teacher capacity.

**District Administration**

District administration is the foundational pillar for successful implementation of a multi-tiered, trauma-informed care initiative. Blitz and Mulcahy (2017) noted that schools depend heavily on district administration to implement trauma-informed initiatives. District administrators drive the decision-making process and deliberately influence student achievement decisions (O’Connor & Freeman, 2012). Researchers have beckoned district administrators to ensure that there are systems in place with implementation guidelines for collecting and analyzing data to drive student outcomes (Obiakor et al., 2006; Wiener & Soodak, 2008). Administrators’ decisions must be rooted in field-based research and report data that is clearly communicated so that improvement efforts will not lose their momentum (O’Connor & Freeman, 2012). Ongoing support is needed to continue the momentum of trauma-informed care. District administrators need to clearly articulate the district’s goals, recruit staff members who exemplify the culture of change, allocate the necessary resources, and provide site administrators with the skills needed to implement change (Bean & Lillenstein, 2012). It is essential for district administration to strategically plan the implementation process of a multi-tiered, trauma-informed care model because schools will need their guidance and support as they build out their frameworks.

District administrators also need to consider the sustainability of trauma-informed care by analyzing and evaluating who works in the district and their community partners. They need to recruit and hire diverse administrators and teachers who fully understand how to meet the needs of diverse learners, are trained in trauma-informed approaches, and will carry out the district’s
shared vision (O’Connor & Freeman, 2012). Further, they need to collaborate with community partners who can work with diverse student populations and are well-versed in trauma-informed strategies. These partners may offer guidance in conjunction with site leaders.

**Site Leadership**

Obiakor et al. (2006) proclaimed that site administration plays a significant role in the trauma-informed care implementation process. Site administrators who are proactive and pay specific attention to system change and procedures can reduce implementation barriers (National Implementation Research Network [NIRN], 2018). Proactive administrators guide their school’s practices to help teachers and staff understand how trauma may impact students and guide staff to implement effective interventions (Brunzell, 2019). They can do this by prioritizing improvements in teachers’ pedagogical practices to increase their capacity to provide students social-emotional support (Brunzell et al., 2016). In addition, administrators need to use data to make informed decisions and actively communicate with stakeholders (Multi-Tiered System of Support Blueprint for MA, 2018). Data should drive administrators’ decision-making practices and serve as a foundation of the school’s culture.

Site administrators are the innovators of a positive school environment where students and teachers feel supported, so they are open to receiving and providing support (Anderson et al., 2015; Bitz & Mulcahy, 2017; Yohannan & Carlson, 2019). McIntyre et al. (2019) confirmed that administrators who created safe spaces for teachers to implement trauma-informed strategies saw a more significant gain in teacher knowledge and application. A safe space is formed when teachers and staff have time to collaborate within the school day, build their shared leadership roles, and create opportunities to lead (Bean & Lillenstein, 2012; Mahdavi & Beebe-
Frankenberger, 2009). Effective collaboration and distributed leadership support the implementation and sustainability of trauma-informed care.

**Culturally Responsive Leadership**

Additionally, culturally responsive administrators can enhance trauma-informed care implementation and sustainability because they ensure that all students receive a high-quality education that prepares them for the 21st-century workforce and address their social-emotional needs. A culturally responsive administrator effectively communicates goals, provides positive and critical feedback to others, praises student and teacher outcomes, collaborates with all stakeholders, values teacher input, supports decisions with data, and focuses on student learning (Bean & Lillenstein, 2012; O’Connor & Freeman, 2012). Secondly, influential administrators provide staff with ample professional development opportunities related to evidence-based intervention to ensure they are accessible to all students (Waldron & McLeskey, 2010). The approach to culturally responsive leadership is related to the administrator’s leadership style.

**Leadership Styles**

Maier et al. (2016) discovered that site administrators positively influence student achievement. Therefore, the site leader’s leadership style can significantly affect the implementation of RTI systems (Bean & Lillenstein, 2012). This assertion can also be applied to MTSS because it is constructed on a similar framework. Avolio and Bass (2009) developed the full range leadership (FRL) model, which includes three leadership styles: transformational, transactional, and passive/avoidant. Transformational leaders influence others with their charisma and their expressed values and beliefs. They earn respect from staff, inspire others to do more, and work toward collective goals. Transactional leaders provide rewards to employees for desired results; they correct employee behavior when it deviates from previously set
expectations. Passive/avoidant leaders act only after something is brought to their attention and leave employees to deal with problems without support or intervention until the situation becomes dire. Understanding an administrator’s leadership style can help determine how they will implement, support, and sustain change at their school.

The sites with leaders who exhibited a passive/avoidant style had less developed RTI and MTSS systems (Maier et al., 2016; Valentine & Prater, 2011). Passive/avoidant leaders may have an underdeveloped MTSS framework because they tend to wait until a problem arises rather than proactively establishing systematic support for students. Administrators who use transformational leadership skills have the most positive effect on student achievement (Avolio & Bass, 2009). Sinderlar et al. (2006) found that leaders who were committed to change and who devoted time and resources to reform were more likely to succeed. Nealy-Oparah and Scruggs-Hussein (2018) stated that transformational leaders are those willing to work from the “inside out” to help heal adult trauma and develop social-emotional intelligence. An inside-out approach is obtainable because the leader is focused on changing adult behaviors to provide students with a trauma-sensitive environment. Administrators who are committed to change and devote time and resources to reform can create a successful trauma-informed care environment.

**School Capacity and Climate**

Transforming a school into a trauma-informed environment requires a culture and climate that is committed to creating a safe and supportive learning environment for all students (Stokes & Brunzell, 2020; Murphey & Sacks, 2019). A trauma-informed climate can be achieved when schools focus on social-emotional skills such as empathy, self-regulation, and self-efficacy (Murphey & Sacks, 2019). A trauma-informed culture can reduce the use of practices that may cause the retraumatization of children and induce secondary trauma for staff. A reduction in
retraumatization is achieved when site administrators focus on the school’s capacity. Waldron and McLeskey (2010) referred to school capacity as the “concrete and tangible elements such as finances, personnel, and scheduling as well as intangible elements such as school climate and vision” (p. 69). A school’s capacity provides the framework to address student need. Further, Bean and Lillenstein (2012) noted that the school’s climate must be open and inviting for capacity building to occur. Anderson et al. (2015) suggested a caring and safe environment where teachers feel free to collaborate with colleagues and develop their capacity to freely implement trauma-informed care without fear of repercussions. Mahdavi and Beebe-Frankenberger (2009) added that it is important to devote a significant amount of time to establish a shared vision that includes all stakeholders’ common principles, values, and goals. A school’s capacity and shared vision can positively impact its climate and culture.

Researchers found that when a school’s climate and culture are collaborative and nurturing, they can impact a teacher’s understanding and willingness to implement trauma-informed practices (Anderson et al., 2015; Blitz & Mulcahy, 2017; Yohannan & Carlson, 2019). Teachers are more likely to support trauma-informed care implementation when they feel comfortable collaborating with colleagues about their capacity. The greater takeaway is that the increase in trauma-informed practice knowledge is important only if the teacher works in a school environment with administrative and collegial support to implement the elements of system change. It is important to provide teachers with the background and research on how trauma-informed approaches align with the school’s mission and school plan. If this is done, there will be greater gains in teacher knowledge (McIntyre et al., 2019). Once teachers have the necessary skills and support to implement trauma-informed care, school administrators can focus
on what support is needed and how to provide appropriate trauma-informed care. Increasing teacher capacity enhances the climate and culture, thus positively impacts student outcomes.

Researchers have emphasized that once a collaborative climate is developed, there will be a decrease in depressive behaviors and an increase in self-esteem for students who have experienced trauma (Reddy et al., 2003). Baweja et al. (2015) noted that teachers saw the social-emotional benefits for students who participated in Cognitive Behavioral Intervention for Trauma in Schools (CBITS), a program that has been utilized in schools across the United States. Record-Lemon and Buchanan’s (2017) review of literature discovered that when teachers are furnished with proper training in employing trauma-informed strategies, it positively impacts student outcomes. For example, students who received well-executed interventions saw an improvement in symptoms of depression and post-traumatic stress disorder (PTSD). While Yohannan and Carlson’s (2019) review of the literature referenced the positive impact on behavior, they also noted the need for further research to replicate these studies and examine rates of feasibility and acceptability. Although the effectiveness results vary across research studies, it is important to recognize that positive gains could not have happened without collaboration. A collaborative culture evolves from a site administrator’s ability to build the school capacity and foster a positive and an inclusive climate.

An inviting climate creates a space where students feel safe, and their needs are met by allowing them to develop supportive self-regulation skills (Herriford, 2019). Students are more likely to address their trauma and develop appropriate behavioral skills in a safe environment. Record-Lemon and Buchanan (2017) emphasized that the school’s climate can influence how a child may positively cope with trauma. Their review of the literature also illustrated how non-
inviting environments might trigger student behavior. Thus, student behavior is tied to the school’s culture and should be considered from both student and adult perspectives.

**School Culture**

The school’s culture sets the tone for students to develop personal relationships with teachers and staff (Blitz & Mulcahy, 2017). “A school culture may be defined as the guiding beliefs and expectations evident in the way a school operates” (Fullan, 2007, p. 59). The site administrator mobilizes the school culture and climate by “establishing norms for collaboration and facilitating shared responsibility and accountability” (Bean & Lillenstein, 2012). All people who work at a school must be allowed to collaborate to enhance their understanding of their role in a trauma-informed care system.

Alisic et al. (2012) and Perry and Daniels (2016) emphasized the need for teachers, administrators, school personnel, parents, and community stakeholders to have opportunities for collaboration. Blitz and Mulcahy (2017) highlighted the importance of including parents and community partners in the collaborative culture when establishing a trauma-informed care program because their perspectives can enhance student outcomes.

To create true collaboration, the school needs to be “re-cultured” (Waldron & McLeskey, 2010). The school needs to take a close look at the beliefs its adults hold about teaching and learning and be willing to participate in a change process that can shift their beliefs and values (Waldron & McLeskey, 2010). There also needs to be opportunities for reciprocal communication. Practitioners can provide insight into the teacher’s perception of the intervention and analysis of data to support interventions (Yohannan & Carlson, 2019). Teachers can communicate with the team regarding how children are responding to interventions and trauma-informed strategies.
This shift can occur when the school fosters relationships and uses systematic approaches for service providers in the school, for instance, school psychologists, nurses, and mental health clinicians. There needs to be collaboration among community members and mental health service providers (Alisic, et al., 2012; Baweja et al., 2015; Perry & Daniels, 2016; Yohannan & Carlson, 2019). Trauma-informed care cannot be effectively implemented without a collaborative approach.

Frydman and Mayor (2017) acknowledged that social workers are essential members of a trauma-informed care team. Non-teaching school employees, such as school psychologists and counselors, can also be valued members of the trauma-informed care team because they can assist teachers and staff in understanding their role in the system and provide more intensive support to students who need it (Reddy et al., 2003). The expertise of non-teaching school employees can be employed when teachers are attuned to student needs. Teachers and staff have direct contact with children and are key to developing relationships and providing emotional support, structure, and stability to those who may have difficulty processing trauma. Teachers and staff are on the front line to identify students who may need additional support and are essential members of the trauma-informed care team. Baweja et al. (2016) noted that teachers wanted opportunities to work directly with other service providers to strengthen their understanding of trauma-informed care and implementation strategies. Such opportunities give teachers the skills they need to refer students who may need additional support to the necessary providers.

Once a collaborative culture is established, site administrators need to allocate resources and create opportunities for staff to effectively collaborate during the school day and to build their shared leadership roles (Bean & Lillenstein, 2012; Mahdavi & Beebe-Frankenberger,
School members can better share leadership opportunities if they feel it is safe to share ideas and are given the opportunities to increase their skill sets via professional development (Waldron & McLeskey, 2010).

**Professional Development**

Professional development (PD) is a principal component of trauma-informed care implementation (Hooper et al., 2009). A collaborative culture flourishes when teachers are permitted to increase their capacity for trauma-informed practices. Anderson et al. (2015) emphasized that teachers are “vital members of school communities who often work closely with students with the highest needs, but they are typically not provided with professional development opportunities to develop skills for social-emotional learning intervention” (p. 113). Teachers play an integral part in supporting children’s recovery after trauma, but a recent study suggested that educators lack clarity about their role in effectively helping students who have experienced trauma (Alisic et al., 2012). Therefore, there needs to be a cultural shift in how teachers build their capacity to respond to trauma in an informed manner (Perry & Daniels, 2016). Teachers need opportunities to develop their capacity about the effects of trauma and trauma-informed practices.

Baweja et al. (2016) declared that teachers wanted more trauma education, specifically on how to respond to students who have experienced trauma. The research pointed out that after teachers received knowledge of trauma-informed practices, they were better equipped to support students (Alisic et al., 2012; Anderson et al., 2015). Teachers also needed time to interact with other support providers and to discuss trauma-informed strategies (Perry & Daniels, 2016). Dedicated time to collaborate and review the effectiveness of strategies is invaluable when new strategies are introduced. Waldron and McLeskey (2010) emphasized that school members can
better share leadership opportunities if they feel safe to share ideas and are given the opportunities to increase their skill sets.

PD opportunities need to address how to engage with students who have experienced trauma, how to recognize externalizing or internalizing behaviors in students, and where to refer students and families to get further support (Alisic et al., 2012). Once teachers and school leaders can identify the function of behavior, they can appropriately support students who have experienced trauma (Rosenbaum-Nordoft, 2018).

For PD to be viable, it needs to be grounded in evidence-based strategies to support students who have experienced trauma and be implemented with fidelity in a cyclical pattern that is supported and fully funded by the school administration (Alisic et al., 2012; Taub et al., 2014). Ongoing PD is a critical component of developing and maintaining a multi-tiered, trauma-informed model (Anderson et al., 2015). However, Champine et al. (2019) argued that it is difficult to determine the overall success of PD opportunities due to weaknesses in previous project design across the United States and abroad. Nonetheless, it is important for teachers to be provided with PD opportunities.

**Traditional Professional Development**

Wiener and Soodak’s (2008) research unpacked the varying modes of PD and illustrated which modes are more effective. Their PD examples included in-school workshops, training from an expert, study groups, and they declared that book and journal studies were the least effective. Those examples are usually presented in a large group where teachers are viewed as “passive recipients” (Waldron & McLeskey, 2010, p. 63). A passive approach does not support the work needed for effective trauma-informed care implementation because implementers need in-depth knowledge and procedural skills so that they know how to effectively use strategies to
support students (Alisic et al., 2012; Wiener & Soodak, 2008). Traditional PD assumes that teachers and staff will apply and reproduce information exactly as intended with little or no attention to the environmental context or follow-up support (Waldron & McLeskey, 2010). PD is not effective unless teachers and staff are given ongoing opportunities to actively engage with the material and have access to follow-up support (Anderson et al., 2015). It is important that staff receive effective PD to internalize the knowledge they are given and use it effectively in the school setting.

**Effective Professional Development**

Effective PD embraces a collaborative and culturally responsive approach in which teachers and staff are fully involved in the development, execution, and reflection process (Waldron & McLeskey, 2010). Yohannan and Carlson’s (2019) review of literature highlighted the need for PD and intervention strategies to be culturally relevant. Although teachers may perceive culturally responsive PD differently, it can positively impact student outcomes. Students who experience trauma come from diverse backgrounds, and adults need to understand how to intervene in a culturally responsive manner. Stokes and Turnbull (2016) emphasized that the greatest impact on student outcomes occurs when school leaders actively participate in professional learning alongside teachers.

**Impact of Implementation Fidelity on Change**

To ensure a change process yields a transformed school culture and climate as well as increased teacher capacity, time and resources must be allocated to the change. School leaders need to examine the factors that support implementation fidelity to improve academic, behavioral, and social-emotional outcomes. Supporting students’ social-emotional well-being is even more important following the COVID-19 pandemic. Though COVID-19 is foremost a
health problem, countries were faced with closing schools to stop the spread of the virus and save lives. School closures forced schools to transition to online learning abruptly. Online learning had short-term and long-term effects on academic performance and likely increased inequality (Burgess & Sievertsen, 2020). Some students lacked access to online learning due to broadband connectivity. Students also faced social isolation due to the lack of regular peer interactions. The pandemic brought about stress and trauma due to the deaths of loved ones, food and housing insecurities. Federal and local governments recognized the negative impact of the pandemic and have increased initiatives to support individuals who have experienced trauma.

**Legal Component**

State and federal legislatures recognize how improving social-emotional well-being and addressing trauma can positively impact student outcomes. This awareness is tied to funding. For example, Student Support and Academic Enrichment Grants (SSAE) provide formula funding to schools and students in high-need districts. The aid includes “comprehensive school-based mental health services and supports and staff development for school and community personnel working in schools that are based on trauma-informed practices that are evidence-based” (Prewitt, 2016, p. 2). Funding has also been allocated for staff training and the hiring of highly qualified support staff to ensure effective and trauma-informed practices. The Every Student Succeeds Act (ESSA) has the potential to accelerate the movement toward trauma-informed schools across the United States and allows states and local districts to facilitate those reforms (Prewitt, 2016). Despite federal, state, and local governments increasing mandates for trauma-informed care by requiring schools and services to demonstrate their use of trauma-informed care strategies but have been provided little guidance on how to do so (Traumatic Stress Institute, 2020). However, some guidance has come from grants that require applicants to
address how they plan to provide trauma-informed services, and bills at the state level propose mandating trauma-informed care in schools (Cole et al., 2013). Additional clarity came from COVID-19 related funding awarded to districts across the United States.

In March 2020, the U.S. Congress signed the Coronavirus Aid, Relief, and Economic Security (CARES) Act. The relief package gave states funds to respond to the COVID-19 pandemic. It included $30.75 billion in emergency education funding (CDC, CA.gov). For example, the California Department of Education (CDE) recently posted the Elementary and Secondary School Relief (ESSER) III Expenditure Plan template and instructions on the CDE’s website. The framework for California’s plan is in Section 2001(e) of the American Rescue Plan (ARP) Act and requires each local educational agency (LEA) that receives ARP ESSER funds, also referred to as ESSER III funds, to develop a plan that addresses the social-emotional and academic impact of COVID-19. These mandates are laying the foundation for multi-tiered, trauma-informed models, but the regulations and current research fail to provide a systematic approach to implementation fidelity. This evaluation fills in a gap in current literature by using the elements of Fullan’s (2006) theory of change to highlight the key components of trauma-informed care implementation and using a quality tool to measure implementation and sustainability.

**Conclusion**

**Findings**

The review of literature provided a rich understanding of how the world is addressing trauma-informed care in educational systems. It also provided context as to how current approaches may be enhanced to support students around the world. The current literature was primarily based on research conducted in the Midwestern and Southern United States and in
other countries. Research based in California was difficult to locate, which may impact the ability to replicate current research studies. Researchers were able to identify gaps in the literature and provide suggestions to improve trauma-informed care research. Few studies focused on diverse populations; therefore, the literature was unable to support generalizability across ethnic groups. Since most measures were not clearly defined, it was hard to evaluate the impact of a program or make correlations between measures. It is recommended that a unified framework be established (Champine et al., 2019) for evaluating trauma-informed care models that can be replicated and sustained.

Despite the lack of generalizability, several studies illustrated the benefits of trauma-informed care in supporting students who have experienced trauma. The success of trauma-informed care can be attributed to district administration, site administration, a collaborative school climate and culture, and effective PD opportunities. PD provided awareness for teachers about how to respond to their students who have experienced trauma (Anderson et al., 2015). Teachers found it valuable to have time to freely discuss stressors they faced. Without that time, it is doubtful that a trauma-informed environment would thrive (Perry & Daniels, 2016).

Record-Lemon and Buchanan (2017) found that when teachers were given proper training in trauma-informed intervention strategies, interventions positively impacted students’ symptoms/behaviors. As previously described, Yohannan and Carlson (2018) similarly concluded that when a collaborative environment is developed, there is a decrease in negative behaviors among students who have experienced trauma. Collaboration and PD efforts are possible when the district and site leadership create a collaborative culture (Bean & Lillenstein, 2012; Mahdavi & Beebe-Frankenberger, 2009).
Limitations

A limitation that the research has revealed is that many of the studies had small sample sizes and their findings could not be generalized to other school settings due to the limited populations included in the analyses (Yohannan & Carlson, 2019; Record-Lemon & Buchanan, 2017). Many of the studies’ data points focused on post-test questionnaires/surveys, which posed bias because one cannot determine whether the increase in knowledge is valid or is related to how the measurement tool emphasized the training material (Champine et al., 2019). The recent COVID-19 pandemic may affect the outcomes of the research.

Recommendations for Future Study

According to Baker and Brown (2016) and Hooper et al. (2009), there is currently little empirical evidence for trauma-informed care. There is a lack of objective tools to measure trauma-informed care, and current tools are impractical for practice settings. The review of the literature revealed that many of the measures used in the trauma-informed care-related studies varied in quality and validity, which leads to important questions for further research. Champine et al. (2019) contended that conscientious and psychometrically valid and reliable measures at multiple levels of intervention will improve the quality of trauma-informed approaches. Record-Lemon and Buchanan (2017) identified a need for randomized control and replication studies that examine specific programs and interventions. The second area of future research is to conduct a California study that examines trauma-informed implementation fidelity due to the state’s variation in educational laws.

Summary

The review of the literature revealed that though trauma-informed care has become a phenomenon in education and some studies highlight its success, there is little evidence of
implementation fidelity across settings. This evaluation utilized a conceptual framework that accounted for the intersectionality of multiple change theories to establish how the moderating factors impact the implementation fidelity and sustainability of a multi-tiered, trauma-informed system. This formative evaluation is timely and may be used as foundational evidence for how districts can support students after the COVID-19 pandemic.
Evaluation Model

The purpose of a formative evaluation is to examine how and whether a program is working as intended by evaluating the program’s operations to determine whether the target population is being served (Russ-Eft & Preskill, 2009; Bowie & Bronte-Tinkew, 2008). A formative evaluation can be constructed using a theory-based design. Theory-based evaluations should name the explicit or implicit theories that comprise the measurement tool to identify how the inputs and activities impact the program’s outcomes. The evaluator then constructs data collection and analysis methods to track activities and outcomes to measure the extent to which program theories are upheld. Null evaluation results should not lead to program discontinuation but to program improvements. They can also offer an opportunity to retool the evaluation so that stakeholders have greater confidence in its results (Msilà & Sethako, 2013).

This evaluation used a theory-driven approach that focused on program logic to determine whether the needs of students at the nine MTSS pilot sites are being met. Program logic is an outcome-based description of the assumptions as to why a program should work, as outlined in the logic model in Table 1 (Giancola, 2021). The modified conceptual framework provided the foundation to examine how a multi-tiered, trauma-informed care model can be implemented. Stakeholders are committed to knowing what is needed to implement a sustainable initiative. This evaluation was achieved through a mixed-methods approach. Qualitative data was collected by reviewing Panorama SEL data that recorded evidentiary data regarding social-emotional well-being. Though SEL data is presented in the quantitative manner, I used the values to indicate favorability of the domains to qualitatively analyze social-emotional well-being. An additional qualitative data source was observations to assess the
culture and climate. The quantitative data was gathered from staff responses to the Attitudes Related to Trauma-Informed Care (ARTIC)-45 scale, a self-reporting tool used to ascertain educators’ attitudes toward trauma-informed care.

**Evaluation Purpose**

The purpose of this evaluation was to examine how a multi-tiered, trauma-informed care system can be implemented with integrity and sustainability. This format was selected to determine how the MTSS rollout impacted the district’s SEL and trauma-informed initiatives at the nine pilot sites. The commonalities among the sites, culture, climate, teacher capacity, and leadership were analyzed to make recommendations for ensuring the sustainability of a trauma-informed model.

**Evaluation Background**

The evaluand is a Northern California district’s nine pilot MTSS sites. The pilot consists of seven elementary schools, one middle school, and one high school located across the district’s 350 square miles. All the sites receive additional funding and support under Title 1, a federally funded program authorized under the Elementary and Secondary Education Act (ESEA) of 1965 and reauthorized by the ESSA of 2015. Funding is allocated by the state educational agency (SEA) and awarded to diverse local educational agencies (LEAs) that the state has identified for comprehensive and targeted support and improvement plans (California Department of Education, 2022). The purpose of these allocations is to ensure all children have a fair and equitable opportunity to procure a high-quality education and reach minimum proficiency (California Department of Education, 2022). Title 1 sites were given the opportunity to participate in the MTSS pilot because they have additional financial and human resources.
Of the 25 Title 1 schools within the district, nine administrators volunteered to be in Cohort 1 of MTSS implementation. The MTSS implementation is under the guidance of Novak Educational Consulting. The district contracted with Novak Educational Consulting because it is renowned for providing high-quality, evidence-based professional development in universal design for learning (UDL), multi-tiered systems of support (MTSS), evidence-based tiered interventions, inclusive practices, and effective leadership practices. Novak Educational Consulting supported the pilot sites in creating an MTSS framework that fosters an environment where all students have equitable opportunities to thrive and meet high expectations.

The MTSS environment consists of academic screeners, discipline, attendance, and social-emotional data to determine what scaffolding is needed to support students. The district partnered with Panorama Education to administer a social-emotional learning (SEL) survey to assess students’ needs. The survey gathered information about students’ sense of belonging, self-efficacy, emotional regulation, and positive and challenging feelings, which is used to inform the site’s approach to provide social-emotional support.

These sites were evaluated to determine how the MTSS framework impacts the implementation of trauma-informed care. The moderating factors the district wanted explored are district administration, site administration, culture and climate, and teacher capacity.

**Context**

The district consists of 50 school sites spread out over 350 square miles and serves over 25,000 students. The sites within the evaluation receive monthly MTSS support from Novak Educational Consulting to develop an MTSS environment that utilizes UDL and focuses on the use of data to provide students with the necessary support. The sites also have access to the
Panorama Student Success Tracker, which allows them to monitor and analyze academic, attendance, behavior, and social-emotional well-being data.

**Stakeholders**

The partners are the associate superintendent of curriculum and the educational supports coordinator. The program end-users are students. Various levels of stakeholders may be impacted by this evaluation.

The primary stakeholders include teachers, staff, and students. The staff and teachers interact directly with students by providing direct instruction and trauma-informed support. They can use the SEL survey results to determine how to adjust instructional practices and identify supports needed to provide trauma-informed care effectively. Students are the recipients of social-emotional support and are directly impacted by the level of support received. Their participation in the evaluation can shed light on how they perceive their environment and the support being provided to them. Students will be affected by the evaluation results because they will directly benefit from the trauma-informed care environment, thus improving their social-emotional well-being.

The secondary stakeholders are district administration. They include the associate superintendents of elementary and secondary education, director of elementary education, and Title 1 coordinator. They provide district-level guidance for sites and are integral in prioritizing district initiatives. Site administrators are also secondary stakeholders because they set the tone and provide direction for their school sites. The evaluation data can be used to strengthen their site culture and support for teachers and staff to implement trauma-informed care.

The tertiary stakeholders include the board of education and the superintendent of schools. The board of education oversees, reviews, and approves initiatives brought forth by the
superintendent. If an initiative incurs a financial obligation, they approve the funding source. The superintendent provides goals, direction, and oversight for initiatives that will be presented to the board for approval. The board establishes district goals that drive the work of district program coordinators who are responsible for daily management of initiatives. District coordinators hope to use this evaluation to drive district-wide multi-tiered, trauma-informed care. The results from the evaluation could be used to improve social-emotional outcomes among the district’s diverse student population and those in surrounding districts within Northern California.

**Inquiry Questions**

1. To what extent do administrators, teachers, and non-teaching staff express support for and the capacity to implement multi-tiered, trauma-informed care practices?

2. To what extent do the attitudes expressed, and behaviors exhibited by administrators, teachers, non-teaching staff, and students indicate a climate/culture favorable to multi-tiered, trauma-informed care practices?

3. To what extent are the attitudes expressed by administrators, teachers, and non-teaching staff regarding multi-tiered, trauma-informed care practices impacted by their capacity?
   a. Do those attitudes vary by the role of the district employee?
   b. Do those attitudes vary by years of service in education?

**Logic Model**

In a theory-driven approach, the focus is on indicators related to the logic that constructs the initiative. A logic model is a visual representation of the theories that frame the initiative and explains how the initiative works (Giancola, 2021). The program theory framework takes the initiative’s strategies and translates that into the initiative’s long- and short-term goals. The development of the logic model is a co-constructed process that fosters shared ownership of the plan and encourages sustainability (Giancola, 2021). The evaluation’s logic model was developed in conjunction with district-level staff so that contextual conditions and influences...
were taken into account. I met with the Title 1 coordinator to discuss short-term and long-term goals of the MTSS pilot. Based on that discussion, I drafted a logic model for the Title 1 coordinator and associate superintendent to review. The draft was then finalized based on their feedback.

Table 1 provides a graphic representation of the co-constructed initiative’s assumptions, resources, activities, outputs, short-term outcomes, and long-term outcomes for this evaluation. The evaluator and stakeholders list their assumptions about how trauma-informed care can be implemented. The resources are the items needed to implement a trauma-informed model. The activities drive the model; they will provide valuable information about the implementation plan. The output column shows who will be impacted by the implementation plan. The short- and long-term outcomes are what the evaluator and stakeholders would like to see so that a multi-tiered, trauma-informed care model can be sustained.
<table>
<thead>
<tr>
<th>Assumptions</th>
<th>Resources/inputs</th>
<th>Activities</th>
<th>Outputs</th>
<th>Short-term outcomes</th>
<th>Long-term outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admins are open to gaining buy-in for the universal screener (SEL survey)</td>
<td>Faculty: Admins, program coordinator, teachers, non-teaching staff, counselor</td>
<td>Student SEL assignments: Discussions Presentations Reflections</td>
<td>Number of students who take the universal screener, SEL survey</td>
<td>Teachers will utilize skills they learned in trauma-informed care PD opportunities to strengthen collaboration and future leadership roles</td>
<td>Integrating trauma-informed care practices throughout the district</td>
</tr>
<tr>
<td>Teachers are open to utilizing instructional time to administer the universal screener, SEL survey</td>
<td>Assessments: Universal screener, SEL survey</td>
<td>Teacher capacity preparation in trauma-informed care: Professional development (PD) opportunities Coaching Collaboration</td>
<td>Number of teachers who felt comfortable proctoring the universal screener, SEL survey</td>
<td>Teachers will develop and refine their instructional practices through a trauma-informed lens</td>
<td>Teachers and staff will increase their capacity to implement trauma-informed care strategies</td>
</tr>
<tr>
<td>Teachers have the resources, time, and training to implement trauma-informed care approaches</td>
<td>SEL curriculum: PATHS Caring School Communities</td>
<td></td>
<td>Number of teachers and staff who participated in trauma-informed care PD opportunities</td>
<td></td>
<td>Inform how the district implements district initiatives</td>
</tr>
<tr>
<td>Teachers feel comfortable proctoring the universal screener, SEL survey and answering questions regarding the screener</td>
<td>Consultant: Novak Educational Consulting Inc.</td>
<td>Program coordinator and assoc. superintendent: Review universal screener, SEL survey data Provide opportunities for admins, teachers, and non-teaching staff to increase their trauma-informed capacity</td>
<td>Number of admins who have a created trauma-informed campus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students will be willing to take the universal screener, SEL survey and respond truthfully</td>
<td>Funding: Comprehensive Coordinated Early Intervening Services (CCEIS) Fund</td>
<td></td>
<td></td>
<td>Admins will foster a trauma-informed care culture</td>
<td></td>
</tr>
<tr>
<td>Students are seeking support as they address their trauma</td>
<td>Elementary and Secondary School Emergency Relief (ESSER) Fund</td>
<td></td>
<td></td>
<td>Admins and counselors will utilize universal screening data to make informed decisions</td>
<td></td>
</tr>
<tr>
<td>Admins, teachers, staff, and program coordinator will acknowledge their biases to embrace trauma-informed care pedagogy</td>
<td>Facilities: The nine MTSS pilot sites</td>
<td></td>
<td></td>
<td>Students will receive timely support for social-emotional needs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Recipients: 3rd–12th grade students</td>
<td></td>
<td></td>
<td>Teachers will collaborate with other instructors to develop innovative trauma-informed care lessons</td>
<td></td>
</tr>
</tbody>
</table>
(Table 1 Continued)

<table>
<thead>
<tr>
<th>External factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Parents/guardians can opt their child out of the SEL survey</td>
</tr>
<tr>
<td>• Admins, teachers, and non-teaching staff's explicit and implicit biases may impact how they receive and implement trauma-informed care strategies</td>
</tr>
<tr>
<td>• Admins, teachers, and non-teaching staff's explicit and implicit biases may impact how they receive an MTSS framework</td>
</tr>
<tr>
<td>• Changes in student enrollment</td>
</tr>
<tr>
<td>• Staffing shortages</td>
</tr>
<tr>
<td>• Change in faculty (admins/teachers/staff) at the MTSS pilot sites</td>
</tr>
<tr>
<td>• Change in district priorities over time</td>
</tr>
<tr>
<td>• Change in the Panorama partnership</td>
</tr>
<tr>
<td>• Students' ability to read and understand survey questions</td>
</tr>
<tr>
<td>• Student attendance</td>
</tr>
<tr>
<td>• Change in the format of the universal screener, SEL survey (domains assessed)</td>
</tr>
<tr>
<td>• Sites at varying stages of SEL curriculum implementation</td>
</tr>
</tbody>
</table>
The above-mentioned logic model provided an overall framework for the evaluation. Due to the district’s request to examine how the moderating factors influenced the implementation of a multi-tiered, trauma-informed care model, a modified logic model (Table 2) was drafted. The model identifies the activities and short- and long-term outcomes for each of the moderating factors. The scope of evaluation did not include the outcomes in the traditional sense but rather used qualitative and quantitative data see how the moderating factors affected the implementation of a multi-tiered, trauma-informed care system. The evaluation focused on the short-term outcomes of the mini logic model (Table 2) so that the district can use data to ensure sustainable initiatives.
### Mini Logic Model Based on Moderating Factors

<table>
<thead>
<tr>
<th>Inputs</th>
<th>District admin</th>
<th>Site admin</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Moderating factors</strong></td>
<td>Communicate the why to the board and community</td>
<td>Communicate the why to staff, students, families</td>
</tr>
<tr>
<td></td>
<td>Support trauma-informed care financially</td>
<td>Display transformational leadership skills</td>
</tr>
<tr>
<td></td>
<td>Provide implementation guidance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Make the trauma-informed care a priority</td>
<td></td>
</tr>
<tr>
<td><strong>Activities</strong></td>
<td>Number of site admins who attend the Novak Educational consulting training sessions</td>
<td>Number of students who take the universal screener (SEL survey)</td>
</tr>
<tr>
<td></td>
<td>Number of community members who understand what multi-tiered, trauma-informed care is</td>
<td>Number of teachers who felt comfortable proctoring the universal screener (SEL survey)</td>
</tr>
<tr>
<td></td>
<td>Number of teachers and staff who participated in trauma-informed care professional development (PD) opportunities</td>
<td>Number of teachers and staff who participated in trauma-informed care PD opportunities</td>
</tr>
<tr>
<td><strong>Outputs</strong></td>
<td>Number of admins who have a created trauma-informed campus</td>
<td></td>
</tr>
<tr>
<td><strong>Short-term outcomes</strong></td>
<td>Contract with Novak Educational Consulting Inc.</td>
<td>Attend Novak Educational Consulting sessions on how to build a MTSS framework</td>
</tr>
<tr>
<td></td>
<td>Secure funding for consulting work</td>
<td>Encourage staff to develop and support students' social-emotional well-being</td>
</tr>
<tr>
<td></td>
<td>Set expectations for implementation</td>
<td>Provide opportunities for shared leadership</td>
</tr>
<tr>
<td><strong>Long-term outcomes</strong></td>
<td>Continue to provide PD opportunities focused on trauma-informed care</td>
<td>Guide and support teachers, staff, students, and families</td>
</tr>
<tr>
<td></td>
<td>Scale up multi-tiered, trauma-informed care implementation at all school sites</td>
<td>Foster a trauma-informed environment</td>
</tr>
<tr>
<td></td>
<td>Implement processes and communicate expectations that lead to sustainability</td>
<td>Provide shared leadership opportunities</td>
</tr>
<tr>
<td></td>
<td>Use data to make informed decisions</td>
<td>Use data to make informed decisions</td>
</tr>
<tr>
<td></td>
<td>Continue to fund multi-tiered, trauma-informed care practices</td>
<td></td>
</tr>
<tr>
<td><strong>Inquiry question(s)/data</strong></td>
<td>Q1, Q2, &amp; Q3: ARTIC-45; see Appendix D for subscales</td>
<td>Q1, Q2, &amp; 3: ARTIC-45; see Appendix D for subscales</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Q1, Q2, &amp; Q3: Observation data</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Q1, Q2, &amp; Q3: Archival and current SEL survey data</td>
</tr>
</tbody>
</table>
(Table 2 Continued)

<table>
<thead>
<tr>
<th>Site admin (cont.)</th>
<th>Number of admins who have a created trauma-informed campus</th>
<th>Continue to increase capacity for and use of transformative leadership skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture/climate</td>
<td>Evidence of a trauma-informed environment</td>
<td></td>
</tr>
<tr>
<td>Admin exhibits</td>
<td>Number of students who take the universal screener (SEL survey)</td>
<td>Students feel safe</td>
</tr>
<tr>
<td>transformational</td>
<td>Number of teachers who felt comfortable proctoring the universal screener (SEL survey)</td>
<td>Teachers feel free to ask for support</td>
</tr>
<tr>
<td>leadership skills</td>
<td>Number of teachers and staff who participated in trauma-informed care PD opportunities</td>
<td>Shared leadership</td>
</tr>
<tr>
<td>Staff is open to</td>
<td>Evidence of shared leadership</td>
<td>Use the SEL survey data to provide tiered support</td>
</tr>
<tr>
<td>look past the trauma and support students behaviorally and socially-emotionally</td>
<td>Number of admins who have a created trauma-informed campus</td>
<td>Increase student engagement and academic performance</td>
</tr>
<tr>
<td>Evidence of shared leadership</td>
<td></td>
<td>Decreases number of students referred to special education due to behavior</td>
</tr>
<tr>
<td>PD on trauma-informed practices</td>
<td></td>
<td>Uses data to make informed decisions</td>
</tr>
<tr>
<td>Mentoring is available</td>
<td></td>
<td>Students receive timely support once ACEs have been revealed</td>
</tr>
<tr>
<td>Teacher capacity</td>
<td>Number of teachers who felt comfortable proctoring the universal screener (SEL survey)</td>
<td>Teachers will receive professional development on trauma-informed practices</td>
</tr>
<tr>
<td>Feel supported by admin(s) and colleagues</td>
<td>Number of teachers and staff who participated in trauma-informed care PD opportunities</td>
<td>Mentoring is available</td>
</tr>
<tr>
<td>Feel supported by admin(s) and colleagues</td>
<td>Teachers will administer the SEL survey</td>
<td>Use data to make informed decisions</td>
</tr>
</tbody>
</table>

Q1, Q2, & Q3: ARTIC-45; see Appendix D for subscales
Q2 & Q3: Observation data
Q2 & Q3: Archival and Current SEL survey data
CHAPTER 4: METHODOLOGY

The review of literature showed that school districts are trying to find ways to construct a sustainable trauma-informed care system. This evaluation expands the research by examining how trauma-informed care approaches can occur within a MTSS framework. This inquiry was conducted via a formative program evaluation of a Northern California school district.

The evaluation was designed to examine how the moderating factors can affect implementation fidelity and sustainability of a multi-tiered, trauma-informed care system. It includes a specific focus on Tier 1, universal access, to ensure that students can receive timely support. For this to happen, assumptions and stereotypes about culture and climate, administration, and staff capacity had to be investigated so the client can create structures that will lead the district to implement and sustain a multi-tiered, trauma-informed system.

**Inquiry Approach**

A formative program evaluation was selected due to my positionality as a program coordinator in the district. Formative evaluations are conducted by in-house staff and utilize a mixed-methods approach. Findings from the evaluation are used to improve program performance by refining, revising, and redeveloping the object being evaluated (Russ-Eft & Preskill, 2009). It was important for me to explore all factors that contribute to fidelity and sustainability.

**Mixed Methods**

To ensure a robust evaluation, a mixed-methods approach was used. In this type of approach, the “investigator gathers both quantitative (close-ended) and qualitative (open-ended) data, integrates the two, and then draws interpretations based on the combined strengths of both sets of data to understand research problems” (Creswell, 2014 p. 2). Mertens (2012) stated that
mixed methods furnish a total picture of the phenomenon under study that is not plausible utilizing a single method. “A qualitative approach is employed because it offers the researcher an opportunity to explore complex new areas of research in a way that brings forth the perspectives of the research participants themselves” (Chou, 2011, p. 425). On the other hand, the quantitative approach explores the probable relationship between independent and dependent variables (Creswell & Gutterman, 2019). The evaluation’s purpose is to “quantitatively measure and qualitatively understand” how school culture, teacher capacity, and leadership impact implementation fidelity and sustainability of a trauma-informed care system via an MTSS model (Muttilllo, 2019, p. 70).

Gathering both types of data through a convergent design allowed for the simultaneous collection of qualitative and quantitative. The premise of this design is that “one data collection form supplies strengths to offset the weaknesses of the other form that is a more complete understanding of a research problem” (Creswell & Gutterman, 2019, p. 551). Using this design allowed for a richer understanding of how implementation fidelity and sustainability of trauma-informed care approaches can be woven within an MTSS framework.

The quantitative component of the evaluation was the Attitudes Related to Trauma-Informed Care (ARTIC)-45 scale, completed by individuals who are directly connected to the site-level trauma-informed care implementation. The survey assessed participants’ perceptions of school site culture, teacher capacity, and leadership style. The qualitative components were observations and the analysis of the SEL survey for current and archival cycles. The data inquiry points addressed the following questions:

1. To what extent do administrators, teachers, and non-teaching staff express support for and the capacity to implement multi-tiered, trauma-informed care practices?
2. To what extent do the attitudes expressed, and behaviors exhibited by administrators, teachers, non-teaching staff, and students indicate a climate/culture favorable to multi-tiered, trauma-informed care practices?

3. To what extent are the attitudes expressed by administrators, teachers, and non-teaching staff regarding multi-tiered, trauma-informed care practices impacted by the implementation drivers (system support and capacity) in the district?
   a. Do those attitudes vary by the role of the district employee?
   b. Do those attitudes vary by years of service in education?

**The Positionality of the Evaluator**

I have over 20 years of experience in special education as a teacher and program specialist. Five years ago, I worked with students in the non-public school setting, a private, nonsectarian school that educates students with exceptional needs pursuant to their IEP (EC Section 54034). This setting can be considered a restrictive environment because all students in attendance receive special education services and minimal opportunities to be interact with non-disabled peers. While working with this demographic, I discovered that most of the students qualified for special education services due to emotional disturbance and had experienced trauma. The observation prompted me to wonder if those students would have ended up in the restrictive educational setting if they had received support in processing their trauma in a timely manner. I frame this problem through the transformative paradigm as a means of changing a district’s approach to addressing trauma.

The transformative paradigm provides a philosophical framework that focuses on ethics in terms of cultural responsiveness, recognizing those dimensions of diversity that are associated with power differences, building trusting relationships, and developing mixed methods that are conducive to social change (Mertens, 2012, p. 802). Viewing this phenomenon through the transformative paradigm allowed me to explore how social change can occur. Social change comes from the willingness to recognize and acknowledge how power is given and held based on
cultural frames and can be shifted by taking the time to build relationships. These cultural frames often result in an imbalance of power where marginalized groups are trying to seek justice (Mertens, 2012). The status quo needs to be disrupted so that marginalized groups have opportunities to access resources and support in a timely manner.

The evaluation’s transformative lens examines the district’s current approach to program implementation and transforms the way the district views and treats students who have experienced trauma. The expected outcomes illustrate steps the district can take to implement a sustainable initiative.

I am an insider due to my position as a coordinator that oversees school counselors and manages the universal screener used for this evaluation. The role also allows insight into how district-level management decides to implement initiatives and which tools they put in place to measure fidelity. With an insider perspective, I was able to identify areas in which the district is doing well and areas that need improvement. The participants may have perceived me as an outsider because I am a district-level employee.

**Methodology**

The literature illustrates a collection of case studies that examine a specific trauma-informed treatment within a set number of school sites. This evaluation expands upon that premise by incorporating quantitative and qualitative data to see how trauma-informed systems fit into an MTSS framework. When probing the elements that might impact a multi-tiered system approach to trauma-informed care, Weiss’s theory of change (1995), Fullan’s theory of change (2006), Bronfenbrenner's ecological systems theory (1979), and Carroll et al.’s (2007) FOI may provide insight into how to identify fidelity components. In comparison, Roger’s diffusion of innovation theory (1962) can highlight sustainability components of system change. Fidelity
components can be identified through a program evaluation in which the evaluator understands clearly how students relate to the school environment and how that can impact the program’s effectiveness. Based on the elevation of key components of the theories above, I created a modified conceptual framework to answer the inquiry questions.

**Figure 7.** Conceptual framework for implementation fidelity, adapted from Carroll et al. (2007) and Perez et al. (2016).
Evaluation Type and Approach

An evaluation is an effective way to assess a change system’s process. Weiss (1972) provided the purpose of an evaluation in terms of a process: “to measure the effects of a program against the goals as a means to improve future programming” (p. 97). An evaluation is used to provide direction to policy and practice and to justify preexisting preferences and actions, and new generalizations, ideas, and concepts. Evaluations can influence decision-making to improve future programming.

I conducted a formative evaluation with a theory-based design to identify existing strengths and weaknesses in the program’s implementation of trauma-informed care within an MTSS framework. The purpose of conducting a formative evaluation is to determine the current state of implementation through the analysis of archival, survey, and observation data. The analyses were used to make commendations and recommendations to the district. The findings are important specifically to the client and stakeholders to improve organizational effectiveness in implementing trauma-informed care, as evidenced by the ability to replicate it across the district.

Setting

The evaluation took place at nine schools within a Northern California school district. The evaluated sites are located across the district’s geographic region. All the participating schools receive funds under Title 1, a federally funded program authorized under the ESEA of 1965 and reauthorized by the ESSA of 2015. Funding is allocated by the SEA and awarded to diverse LEAs that are in need of comprehensive and targeted support. The purpose of these allocations is to ensure all children have a fair and equitable opportunity to procure a high-quality education and reach minimum proficiency (California Department of Education, 2022).
Because Title 1 sites have additional financial and human resources, they were given the opportunity to participate in the MTSS pilot. Seven elementary and two secondary schools volunteered to participate in the evaluation. All sites were included in the evaluation (see Table 3).

I felt it was important to include all the schools within the cohort because they represent varied grade levels and geographic regions. A cross-section of schools and grade levels from the district enhances the ability to replicate this evaluation.

Table 3
School Sites Within the Evaluation

<table>
<thead>
<tr>
<th>School</th>
<th>Pseudonym</th>
<th>School type</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>School A</td>
<td>Seahawks</td>
<td>middle school</td>
<td>579</td>
</tr>
<tr>
<td>School B</td>
<td>Cougars</td>
<td>elementary</td>
<td>376</td>
</tr>
<tr>
<td>School C</td>
<td>Huskies</td>
<td>elementary</td>
<td>575</td>
</tr>
<tr>
<td>School D</td>
<td>Rams</td>
<td>elementary</td>
<td>508</td>
</tr>
<tr>
<td>School E</td>
<td>Eagles</td>
<td>high school</td>
<td>1,891</td>
</tr>
<tr>
<td>School F</td>
<td>Sea Otters</td>
<td>elementary</td>
<td>353</td>
</tr>
<tr>
<td>School G</td>
<td>Bobcats</td>
<td>elementary</td>
<td>420</td>
</tr>
<tr>
<td>School H</td>
<td>Dolphins</td>
<td>elementary</td>
<td>468</td>
</tr>
<tr>
<td>School I</td>
<td>Otters</td>
<td>elementary</td>
<td>356</td>
</tr>
</tbody>
</table>
Participants

To get a well-rounded perspective on how trauma-informed care can be implemented with fidelity within a tiered system framework, participants represented all aspects of the school community. Counselors, administration, teachers, and non-teaching staff were asked to participate in honoring their unique role in program implementation. The potential participant pool included 31 administrators and 322 non-administrator staff.

The school counselors were included because they work directly with students who have experienced trauma and do the primary analysis of the universal screener, SEL survey results. School counselors are trained to meet with students who exhibit signs of stress, anxiety, trauma, and depression within an MTSS framework (Olsen et al., 2020). Counselors have the skill set to address students’ needs within a tiered framework at various levels. Due to their distinct perspective, counselors who work at the selected schools were asked to participate in the qualitative and quantitative portions of the evaluation.

The site administrators were also asked to participate in the qualitative and quantitative portions of the evaluation because they are essential in creating the site’s climate and culture. As school site leaders, they are responsible for setting the tone of their schools and for implementing district initiatives (Obiakor et al., 2006). Their participation enhanced the understanding of how leadership capacity influences program implementation and sustainability.

Teachers and non-teaching staff are assets in identifying and working with students who have experienced trauma. Therefore, their voices are important in understanding how Tier 1 supports, such as universal screeners and social-emotional learning curriculum, can positively impact students. To enable me to understand their role in trauma-informed care, all staff were
asked to participate in the quantitative portion of the evaluation. Their participation was voluntary and could be withdrawn at any time.

Student data was captured via preexisting qualitative data, SEL survey. During the course of the evaluation, students took the fourth cycle of the SEL survey, and I analyzed those results based on Institutional Review Board (IRB) guidelines.

**Data Collection Tools**

The data collection process was iterative in that it alternated between various data sources to produce an in-depth understanding of trauma-informed care within a tiered framework (Bhattacharya, 2019). Four data sources were selected to ensure triangulation. Data was collected throughout the six weeks of this evaluation. The iterative process started with the review of archival data, followed by the ARTIC-45 survey, observations, and a review of the current SEL survey cycle results. The observations were conducted within a two-week survey window. The ARTIC-45 survey data was collected throughout the six-week evaluation window.

**Observational Data**

Observational data was collected during the two-week SEL survey cycle window. That time frame allowed me to see how the site’s environment supported the completion of the survey cycle. Locations on campus were the playground, cafeteria, PBIS store, primary and intermediate classrooms, and main school office. Each observation lasted an hour and covered at least three locations. The observational data was captured in field notes (Bhattacharya, 2017, p. 140). It was important to authentically capture the essence of each observation. I had peripheral membership due to my insider and outsider perspectives, so it was critical that I was a passive participant and not disrupt the environment during the observation to collect accurate field notes (Dewalt & Dewalt, 2002; Bhattacharya, 2017).
Panorama Universal Screener and SEL Survey

In response to the COVID-19 pandemic, the district made a commitment to address the social-emotional needs of its students. As a result, the district contracted with Panorama to conduct an SEL survey three times a year (beginning, middle, and end). The nationally normed universal screener uses a 5-point Likert scale. The domains of the survey are sense of belonging, self-efficacy, challenging feelings, positive feelings, social awareness, and emotional regulation. The district owns the rights to all surveys generated within the platform. A copy of the Grades 3–5 survey can be found in Appendix C. The survey is completed online and can be administered in a student’s primary language. For students who may need support with reading and understanding questions, the read-aloud feature can be activated or teachers can read and clarify questions students may have.

At the beginning of the school year, parents were given the opportunity to review the survey questions and to opt their child(ren) out of all district surveys. Each site was provided with a list of their students whose parents had opted them out of the survey, and those students did not receive the survey link. The percentage of students who opted out of the survey varied by school, the range was one percent to ten percent.

Though the survey responses are quantified into percent favorable, I used the data to show students favorability towards the survey domains. Student favorability added context to the observational data and students’ social-emotional well-being over time.

Archival Data

The review of archival data provided a contextual understanding of the evaluation (Bhattacharya, 2017). Reviewing previous cycles of the SEL survey established a pattern of how students are doing socially and emotionally. The data from each domain of the survey were
analyzed from the schoolwide, grade span, and gender perspectives. The trends for each domain were documented on a client-approved documentation form found in Appendix G. Data collected from each site were compared to those from other sites within the evaluation. I was mindful of outlier data that showed elevated need during Cycle 1, when students had returned to in-person instruction due to the COVID-19 pandemic.

**Current Cycle Data**

During the scope of the evaluation, students took the SEL survey. The same protocols to review the current cycle of data. The data from each domain of the survey were analyzed from the schoolwide, grade span, and gender perspective. Each site’s data was compared to other sites data. Possible explanations for outlier data were noted.

**The Attitudes Related to Trauma-Informed Care (ARTIC)-45**

The third data source was the Attitudes Related to Trauma-Informed Care (ARTIC)-45, a self-reporting scale used to obtain teacher, non-teaching staff, and administrator perceptions of their environment, capacity, and leadership support. The scale uses a cross-sectional survey design because it examines the current attitudes, beliefs, and opinions about trauma-informed care (Creswell & Gutterman, 2019). The ARTIC-45 scale was selected because it probes educators’ perceptions about their environment, capacity, and leadership support as it relates to trauma-informed care. The scale’s publisher granted me permission to utilize the paper pencil version of the scale at no cost and the data collected is independently owned by me. The scale could be reproduced for participants to complete. I chose to reproduce the scale by converting it into a Google form to ensure anonymity.

The scale contains 45 self-reporting questions that takes approximately 20 minutes to complete. The survey contains a total of seven subscales: five core subscales that contain seven
questions each and two supplementary subscales that contains five questions. The five primary subscales include the following: Underlying Causes of Problem Behavior and Symptoms, Responses to Problem Behavior and Symptoms, On the Job Behavior, Self-Efficacy at Work, and Reactions to the Work that primarily examine self-efficacy and on the job-behavior. The two supplementary subscales, Personal Support of Trauma-Informed Care and Systemwide Support of Trauma-Informed Care, ask directly about trauma-informed care, which can be useful for systems in the initial and full implementation stages (Brown & Baker, 206; Baker et al., 2020). A copy of the redacted ARTIC-45 and demographic questions can be found in Appendix A.

Table 4
ARTIC-45 Subscales

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Attention/Significance</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underlying Causes of Problem Behavior and Symptoms</td>
<td>Emphasizes behavior and symptoms as adaptations and malleable <em>versus</em> behavior and symptoms as intentional and fixed</td>
<td>7</td>
</tr>
<tr>
<td>Responses to Problem Behavior and Symptoms</td>
<td>Emphasizes relationships, flexibility, kindness, and safety as the agent of change <em>versus</em> rules, consequences, and accountability as the agent of behavior and symptom changes.</td>
<td>7</td>
</tr>
<tr>
<td>On-the-Job Behavior</td>
<td>Endorses empathy-focused staff behavior <em>versus</em> control-focused staff behavior.</td>
<td>7</td>
</tr>
<tr>
<td>Self-Efficacy at Work</td>
<td>Endorses feeling able to meet the demands of working with a traumatized population <em>versus</em> feeling unable to meet the demands.</td>
<td>7</td>
</tr>
<tr>
<td>Reactions to the Work</td>
<td>Endorses appreciating the effects of secondary trauma/vicarious traumatization and coping by seeking support <em>versus</em> minimizing the effects of secondary trauma/vicarious traumatization and coping by ignoring or hiding the impact.</td>
<td>7</td>
</tr>
</tbody>
</table>
(Table 4 Continued)

<table>
<thead>
<tr>
<th>Personal Support of Trauma-Informed Care</th>
<th>Endorses being supportive of, and confident about, implementation of TIC versus concerns about implementing TIC.</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>System-Wide Support of Trauma-Informed Care</td>
<td>Endorses feeling system-wide support for TIC versus NOT feeling supported by colleagues, supervisors, and the administration to implement TIC.</td>
<td>5</td>
</tr>
</tbody>
</table>

*Note.* From [https://www.traumaticstressinstitute.org/what-are-the-sub scales-for-the-artic/](https://www.traumaticstressinstitute.org/what-are-the-sub scales-for-the-artic/).

**Instrument**

The ARTIC-45 utilizes a bipolar Likert scale. The first 35 questions have a possible response from 1 to 7, where respondents select between two varying options that represent what they believe. The last 10 questions use the 1 to 7 Likert scale with a “not applicable” (N/A) option for respondents who have yet to implement trauma-informed care. Higher scores indicate a more favorable attitude, while lower scores indicate a less favorable attitude.

For the two subscales with the N/A option, N/A was scored as missing. Two questions within each subscale were reverse scored. The mean was computed for each subscale as long as the respondent answered at least four of seven questions in the first five subscales and three of five questions in the last two subscales.

Psychometric evidence supports the use of the ARTIC-45 measure (Baker et al., 2016; Baker et al., 2020). In both studies by Baker and colleagues, confirmatory factor analysis (CFA) was used to investigate the factorial validity of the measure; internal consistency reliability was evaluated by Cronbach’s alpha; and test-retest reliability was assessed using Pearson correlations. In addition, construct and criterion-related validity evidence was provided by
correlating ARTIC-45 scores with indicators related to the logic model of trauma-informed care implementation.

The ARTIC-45 consists of 5 core and 2 supplementary scales, thus a 7-factor model was hypothesized to fit the data. Baker et al. (2016) provide various model fit statistics (Χ²/df; RMSEA; SRMR, CFI, NNFI) to back their claim that the 7-factor model did fit the data well. In their second study, however, it is noted that, although it fit the data well in terms of absolute fit, the 7-factor model fell short in terms of incremental fit (Baker et al., 2020, p. 5). They suggest, in their article’s implications section, that more research be conducted to improve the validity of the measure.

Internal consistency estimates for the ARTIC-45 scale were excellent according to Baker et al. studies (2016, 2020) which both reported Cronbach alpha values of .93 for the 45-item scale score. Reliability estimates were also respectable for the subscales, with alpha values ranging between .71-.81 (Baker et al., 2016) and between .71-.75 (Baker et al., 2020). The earlier study also reported test-retest reliabilities separately for various time durations between the two administrations (i.e., the test and the retest) with 120 days or less being the shortest interval and 151 through 180 days being the longest interval. For the 45-item scale score, the reliabilities ranged between .76 (for the longest interval) and .84 (for the shortest interval). Across the subscales, the test-retest reliabilities averaged .65 (for the longest interval) to .73 (for the shortest interval). Although the test-retest subscale reliabilities fell below .70 for three of the subscales (based on the shortest interval of 120 or fewer days), the reliability estimates for the ARTIC-45 score and its subscale scores were generally more than adequate for research purposes.
In the earlier article, Baker et al. (2016) report that the ARTIC-45 composite and subscale scores were related to personal familiarity with trauma-informed care, with correlations ranging between .34 and .45. Also, the scores correlated positively (.30 - .66) with staff level indicators of trauma-informed care (e.g., “Have the skills to practice trauma-informed care?” and “Use a strengths-based perspective?”). Additional construct validity was provided by Baker et al. (2020) who note that more favorable ARTIC-45 scores correlated with more trauma-informed care familiarity, knowledge about trauma-informed care, and compassion satisfaction. In contrast, and as would be theoretically expected, more favorable ARTIC-45 scores correlated with less burnout and secondary traumatic stress. Thus, this evidence of validity helps supplement that reported for the factorial structure validity based on the CFA.

**Variables**

The survey has nominal variables. The dependent variables are the attitudes of district administrators, site administrators, teachers, and non-teaching staff toward trauma-informed care. Their attitudes were measured across seven subscales: (a) Underlying Causes of Problem Behavior and Symptoms, (b) Response to Problem Behavior and Symptoms, (c) On-the-Job Behavior, (d) Self-Efficacy at Work, (e) Reactions to the Work, (f) Personal Support of Trauma-Informed Care, and (g) System-Wide Support of Trauma-Informed Care (see Table 4).

The independent variables are demographic information, including gender, years of service, and role in the district. The ARTIC-45 was converted to a Google form and appeared before the demographic questions. The Google form excluded respondents’ school site and did not record email addresses to ensure anonymity. A copy of the Google Form survey is viewable in Appendix B. Only participants who completed the survey were included in the final sample.
Table 5 provides a visual representation of the data collection plan. The plan explains how each of the three inquiry questions was assessed using qualitative and quantitative data sources. The robust plan ensured triangulation and strengthening the evaluation results. The intent was to accurately inform the client about how district administrators, site administrators, culture and climate, and teacher capacity impact the district’s initiatives. The results provide the district with commendations and recommendations to scale up their multi-tiered, trauma-informed care system to all the schools within the district. They can also share the results with neighboring districts.
<table>
<thead>
<tr>
<th>Key questions</th>
<th>Data sources</th>
<th>Justification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>To what extent do</strong></td>
<td><strong>Staff survey results</strong></td>
<td>● I need to know respondents’ level of support for trauma-Informed care</td>
<td>● I create a protocol for evaluation and present it to the client to distribute to all pilot sites</td>
</tr>
<tr>
<td>admins, teachers, and non-teaching staff express support for and the capacity to implement multi-tiered, trauma-informed care practices?</td>
<td>from the ARTIC-45 scale completed by teachers, staff, admin(s), counselor (subscale shown in Appendix D)</td>
<td></td>
<td>● Client provides access to the email addresses of all staff at the pilot sites</td>
</tr>
<tr>
<td></td>
<td><strong>Observation data</strong></td>
<td>● I need to see how admin’s leadership qualities impact the school environment</td>
<td>● Email campaign contacts admins with invitation to participate, survey protocol, and survey link</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>● I establish a protocol to analyze survey data</td>
</tr>
<tr>
<td><strong>To what extent do the attitudes expressed, and behaviors exhibited by admins, teachers, non-teaching staff, and students indicate climate/culture favorable to multi-tiered, trauma-informed care practices?</strong></td>
<td><strong>Survey results from the ARTIC-45 scale completed by teachers, staff, admin(s), and counselor (subscale shown in Appendix D)</strong></td>
<td>● I need to determine areas in which admins foster and impact the implementation of trauma-informed care</td>
<td>● I create protocol for the evaluation and present it to the client to distribute to all pilot sites</td>
</tr>
<tr>
<td></td>
<td><strong>Observation data</strong></td>
<td>● I need to see how admins’ leadership qualities impact the school environment</td>
<td>● Client provides access to the email addresses of all staff at the pilot sites</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● I need to better understand the school culture and climate</td>
<td>● Email campaign contacts admins with invitation to participate, survey protocol, and survey link</td>
</tr>
<tr>
<td></td>
<td><strong>Archival SEL survey &amp; current SEL cycle data</strong></td>
<td>● I need to see students’ perspectives of their school site culture and climate</td>
<td>● I establish a protocol to analyze and compare SEL survey data</td>
</tr>
</tbody>
</table>
To what extent are the attitudes expressed by admins, teachers, and non-teaching staff regarding multi-tiered, trauma-informed care practices impacted by implementation drivers (system support and capacity) in the district?

<table>
<thead>
<tr>
<th>Question</th>
<th>Data Source</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Do those attitudes vary by the role of the district employee?</td>
<td>Survey results from the ARTIC-45 scale completed by teachers, staff, admin(s), and counselor (subscales shown in Appendix D)</td>
<td>I need to determine how years of service impact the implementation of trauma-informed care</td>
</tr>
<tr>
<td>b. Do those attitudes vary by years of service in education?</td>
<td>Observation data</td>
<td>I need to determine how role in education impacts the implementation of trauma-informed care</td>
</tr>
<tr>
<td></td>
<td>Archival SEL survey and current SEL cycle data</td>
<td>I need to identify trends among SEL survey results</td>
</tr>
</tbody>
</table>

Survey results from the ARTIC-45 scale completed by teachers, staff, admin(s), and counselor (subscales shown in Appendix D)

- I need to determine how years of service impact the implementation of trauma-informed care
- I need to determine how role in education impacts the implementation of trauma-informed care

Observation data

- I need to see how qualities, teaching style, and capacity impact the school environment

Archival SEL survey and current SEL cycle data

- I need to identify trends among SEL survey results

Client provides access to the email addresses of all staff at the pilot sites

- Email campaign contacts admins with invitation to participate, survey protocol, and survey link
- I establish a protocol to analyze survey data

- I create a protocol for evaluation and present it to the client to distribute to all pilot sites

- I schedule a 1-hour observation with each site admin to observe at least three locations on campus

- I work with client to obtain SEL survey data for the nine pilot sites

- I develop a data collection template that looks at schoolwide and grade-specific data
Data Analysis

The qualitative data analysis of this evaluation followed modified grounded theory. I used a structured and systematic approach that compared numerous data points (Bhattacharya, 2017). Data management processes must be considered due to the volume of data collected from the four different data sources: archival SEL survey, observations, current SEL survey and the ARTIC-45 survey. Bhattacharya (2017) described data management as a process of chunking small analytic units from the broader pool of raw data for closer analysis. The inductive analysis paired data points into codes, cluster codes, and categories that were grouped and identified as themes. I used mapping to show the connections between codes, categories, and themes. The themes provided a road map to understand program implementation so it can be reconstructed to ensure fidelity and sustainability. The data analysis was a cyclical process, and each iteration informed the next level of analysis (Hien, 2009). The iterative process occurred throughout the evaluation.

The quantitative data source was the school staff survey, ARTIC-45 that was analyzed using the instrument’s established protocol. “Scoring the ARTIC is also relatively simple; after reverse scoring the indicated items, means are calculated for the composite scores and subscales. Higher scores are more favorable across all items” (Baker et al., 2016, p. 72).

The triangulation of data honored the participants within the evaluation. It allowed school and district personnel to see that they can make positive changes in their approach to addressing students who experience trauma. Friedman (2009) argued that study participants could empower practical and sustainable changes because the study created a shared theoretical knowledge (p. 44). The re-presentation of the collaboration is provided in the logic-model, field-notes from observations, and evaluation findings.
**Ethical Considerations**

I am a district-level employee who could be perceived as dominant to participants; therefore, they may be reluctant to honestly express how they feel or act naturally during observations. Some participants may perceive a district-level employee as an outsider coming to disrupt or find fault with their practices. For this reason, I was mindful of how my status could impact the participants’ responses. To decrease the perception of dominance, the survey scale was emailed to participants and their responses were submitted anonymously.

The counselors whom I asked to participate in the evaluation may have felt pressured to participate because I am their direct supervisor. To mitigate this problem, the counselors were informed that their participation was voluntary, and that data collected from the evaluation would not affect their job performance or status.

It was important to examine the survey questions to make sure they were free from bias regarding trauma-informed approaches and the characteristics and qualities needed for successful program implementation and sustainability. Survey participants remained anonymous. The presentation of the data was done neutrally to avoid bringing negative attention or connotation to a specific school site or individual participants. The data were triangulated to establish credibility.

The scope of this evaluation does not measure respondents’ susceptibility to addressing trauma by feeling the need to rescue students. I acknowledge that staff capacity can be influenced by a respondent’s desire to save students who experience trauma or suffer from victorious trauma. Nor does the evaluation explore how the district approaches trauma-informed care through the lens of a healing-centered engagement perspective.
Limitations

The theory-driven evaluation approach presented limitations that needed to be addressed. The evaluation took place over six weeks during the fourth quarter of the school year. During that quarter, sites are engaged in state testing and end-of-the-year activities. The time frame of six weeks may not capture the entire perspective of the school site’s climate and culture.

The school sites selected for the evaluation were based on the district’s first cohort of MTSS schools in which they volunteered to participate in the pilot. The cohort model does not consider the demographics and needs of the individual school sites. The effect of treatment may look different based on the school’s demographics. The culture of some school sites may be more receptive to trauma-informed care and show greater willingness to fully participate in the evaluation.

The structure of the district resources affected the number of participants at each of the nine target schools. Some schools within the evaluation had a principal and vice principal, while other schools had only a principal. Elementary school counselors were assigned to multiple sites within the district, while secondary schools had multiple counselors. The student-to-counselor ratio within the evaluation may not have reflected the district ratio.

My insider status may have affected participation despite measures to limit bias. The participants may have been hesitant to participate due to limited rapport and perception of their status within the district. Insider perspective may have under- or overvalued the school climate, culture, and leadership capacity based on my relationship with school sites within the evaluation. I chose to minimize my privilege and send the invitation to participate directly to the site administrators. The site administrators alone distributed the invitation to participate to their staff, and I could not confirm that all administrators did so.
The ARTIC-45 instrument collected self-reported data from respondents who may have elected to participate because they had a positive outlook toward trauma-informed practices. The ARTIC-45 produced a sample size \( n = 30 \) and a response rate of \( .08\% \). The inquiry question related to teacher capacity could not be fully answered due to the lack of inferential statistics. Therefore, there is no evidence of how teachers’ and non-teachers’ capacity compare and differ.

The review of archival data did not track the same students over time, which could have been impacted by grade level and site movement. Therefore, the data may contain information that may not be reflective of current trends. Staff may have been defensive regarding their instructional practices and trauma-informed approaches. Parents may have been reluctant to allow their child(ren) to take the SEL survey, decreasing the opportunity to understand all students’ self-assessment of their social-emotional well-being.

**Chapter Summary**

My transformative lens of the world led me to examine the school district’s current approach to trauma-informed care. The complexities of identifying characteristics that would allow for implementation fidelity of trauma-informed care were examined through triangulation of the quantitative and qualitative data sources. The qualitative components gave voice to the staff who implement trauma-informed care approaches, the students who are impacted by those approaches, and a deeper understanding of the culture and climate of K-12 schools. The quantitative components provided value to the moderating factors that included staff capacity, climate and culture, district administrators, and site administrators.

The next chapter will cover the data collection findings from this process: the participants’ perceptions of a multi-tiered, trauma-informed care system. The analysis of their
perceptions supported the identification of factors that support implementation fidelity and sustainability.
CHAPTER 5: FINDINGS

The formative program evaluation examined the systematic and effective implementation of a trauma-informed care system within a multi-tiered framework. The evaluation highlights how moderating factors—district administration, site administration, culture and climate, and staff capacity—can lead to fidelity and sustainability. Quantitative and qualitative data was analyzed to assess the rich context of the moderating factors.

The ARTIC-45 uses a bipolar Likert scale to evaluate district administrators, site administrators, teachers, and non-teaching staff’s attitudes toward trauma-informed care. The observational data provided context for the climate and cultural factors. The archival and current SEL data connected the perspectives, capacity, and environmental factors that positively impact educators’ prompt responses to students’ needs. The data analysis made loose connections to the moderating factors but did not make strong correlations among and between data points. The themes that emerged from the data analysis will be discussed in a manner that aligns with the conceptual framework.

The following were my inquiry questions:

1. To what extent do administrators, teachers, and non-teaching staff express support for and the capacity to implement multi-tiered, trauma-informed care practices?

2. To what extent are the attitudes expressed, and behavior exhibited by administrators, teachers, non-teaching staff, and students indicate a climate/culture favorable to multi-tiered, trauma-informed care practices?

3. To what extent are the attitudes expressed by administrators, teachers, and non-teaching staff regarding multi-tiered, trauma-informed care practices impacted by their capacity?
   a. Do those attitudes vary by the role of the district employee?
   b. Do those attitudes vary by years of service in education?
Data Collection

The program evaluation took place in a Northern California school district’s nine MTSS implementation pilot sites. Each site was given a pseudonym to protect its anonymity. The data collection period occurred during the last six weeks of the 2021–2022 school year. When IRB approval was obtained, participating administrators were sent an email that explained the evaluation’s purpose and their role in the process. The email asked administrators to provide me with a date and time for the 1-hour observation. It also asked that they forward the evaluation’s introduction email, which contained the invitation to participate, to all their staff. The invitation asked potential participants to complete the anonymous ARTIC-45 survey. A copy of the email, invitation to participate, and informational infographic can be found in Appendix H. I did not email the staff directly to minimize my insider influence on the data.

The early survey response rate was extremely low, so follow-up emails were sent to the site and district-level administrators. Considering that the response rate may have been low due to administrators being busy and not forwarding the email, to minimize the burden on administrators, I asked the superintendent for access to the district’s email distribution list, but the request was denied. As a result, I relied solely on-site administrators to distribute the invitation to participate.

The principal at Dolphin School acknowledged that a forwarded invitation might not be impactful and thus invited me to explain the significance of the evaluation at a staff meeting. At the meeting, I shared the dissertation topic and explained how their participation could positively impact the district’s approach to trauma-informed care. During the meeting, staff showed interest in completing the survey. The principal at Cougar School provided her staff with a personal invitation and an incentive to complete the survey. Despite receiving interest and a
potential incentive, the survey response rate did not increase. The total number of respondents was $n = 30$. The low response rate and homogeneity of the sample may have resulted in a type II error and may have decreased the generalizability of the results. Type II errors may occur in survey research and may cause the evaluator to accept the null hypothesis even if it is false (Trochim & Donnelly, 2008), so the data was analyzed cautiously.

**Quantitative Data**

I selected the ARTIC-45 scale to ascertain the attitudes of district administrators, site administrators, teachers, and non-teaching staff toward trauma-informed care. The ARTIC-45 publisher granted me permission to reproduce the paper pencil version of the scale. I chose to convert the scale into an anonymous Google Form where non-identifying demographic information was collected. I then carried out statistical analysis to determine the significance of respondents’ attitudes and perceptions toward trauma-informed care.

**Instrument**

The ARTIC-45 utilizes a cross-sectional and descriptive survey design with a bipolar Likert scale. The first 35 questions have a possible response from 1 to 7, where respondents selected between two varying options that represent what they believe. All scales were scored from 1 (lowest) to 7 (highest). A score of 4 is considered a neutral value. The last 10 questions use the 1 to 7 Likert scale with a not applicable (N/A) option for respondents who have yet to implement trauma-informed care. Higher scores indicate a more favorable attitude, while lower scores indicate a less favorable attitude.

For the two subscales with the N/A option, N/A was scored as missing. Two questions within each of the first five subscales were reverse scored. The mean was computed for each
subscale if the respondent answered at least four questions in the first five subscales and three questions in the last two subscales.

**Description of Respondents**

There was a 45% response rate (14/31) for administrators and .05% (16/322) for non-administrators. The demographic characteristics examined were gender, years in education, and role within the district, and the respondents’ answers can be found in Tables 6–8. Those independent variables were chosen because I wanted to see if perspectives varied based on years of experience, gender, and role in the district. Of the respondents, 76.7% (n = 23) identify as female, while 20% (n = 6) identify as male, and 3.3% (n = 1) preferred not to state their gender identity. When looking at respondents’ roles in the district, non-teaching staff included two counselors, two para educators, and two speech and language pathologists.

<table>
<thead>
<tr>
<th>Table 6</th>
<th>Gender of District Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
</tr>
<tr>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>23</td>
</tr>
<tr>
<td>Men</td>
<td>6</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 7</th>
<th>Four Role Categories With Support Staff Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
</tr>
<tr>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>District admin</td>
<td>8</td>
</tr>
<tr>
<td>School site admin</td>
<td>6</td>
</tr>
<tr>
<td>Teacher</td>
<td>10</td>
</tr>
<tr>
<td>All others: support staff</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
</tr>
</tbody>
</table>
Table 8
Staff Number of Years in Education

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid percent</th>
<th>Cumulative percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid 1–5 years</td>
<td>5</td>
<td>16.7</td>
<td>16.7</td>
<td>16.7</td>
</tr>
<tr>
<td>6–10 years</td>
<td>6</td>
<td>20.0</td>
<td>20.0</td>
<td>36.7</td>
</tr>
<tr>
<td>11–15 years</td>
<td>1</td>
<td>3.3</td>
<td>3.3</td>
<td>40.0</td>
</tr>
<tr>
<td>16–20 years</td>
<td>4</td>
<td>13.3</td>
<td>13.3</td>
<td>53.3</td>
</tr>
<tr>
<td>21+ years</td>
<td>14</td>
<td>46.7</td>
<td>46.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

I expected a larger sample size, $n = 50$, making it possible to run tests for all the specific subgroups as illustrated in Tables 6–8. The intention was to use ANOVA to determine possible interaction effects between variables, but due to the limited statistical power, independent-sample $t$ tests were run with recoded subgroups. Due to the small subgroup sizes, I did not perform inferential statistical analyses using the original categories but instead provided descriptive statistics.

Reliability of ARTIC-45

Table 9 shows Cronbach’s alpha for each subscale and for the instrument as a whole. Generally, a Cronbach’s alpha value of .7 or higher indicates an acceptable internal consistency. Four subscale alpha values and that for the scale as a whole are considered sufficiently high for exploratory research purposes. The overall ARTIC-45 score, System Supports, Personal Support, Self-Efficacy, and Responses have acceptable Cronbach’s alpha level values. However, the Reactions and Underlying Causes subscales’ reliabilities suggest limitations in interpreting statistical results based on this data. The On-the-Job Behavior subscale is also problematic, with a Cronbach’s alpha of .180. The Cronbach’s alpha scores are
too low for the Reactions and On-the-Job Behavior subscales to run inferential statistics such as $t$ tests and ANOVA.
Table 9
Internal Reliability of ARTIC-45 and Subscales

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Items</th>
<th>Cronbach’s α</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Underlying Causes</td>
<td>7</td>
<td>.629</td>
</tr>
<tr>
<td>2. Responses</td>
<td>7</td>
<td>.692</td>
</tr>
<tr>
<td>3. On the Job Behavior</td>
<td>7</td>
<td>.180</td>
</tr>
<tr>
<td>4. Self-Efficacy</td>
<td>7</td>
<td>.686</td>
</tr>
<tr>
<td>5. Reactions</td>
<td>7</td>
<td>.448</td>
</tr>
<tr>
<td>6. Personal Support</td>
<td>5</td>
<td>.682</td>
</tr>
<tr>
<td>7. Systems Support</td>
<td>5</td>
<td>.794</td>
</tr>
<tr>
<td>8. Overall</td>
<td>45</td>
<td>.881</td>
</tr>
</tbody>
</table>


Whole Sample Responses

A total of 30 educators completed the ARTIC-45 survey. Their responses were used to determine the favorability of trauma-informed practices and perceptions. Table 10 shows that participants responded favorably to all the subscales. On-the-Job Behavior and Self-Efficacy at Work had the highest favorability. Respondents indicated that they respond empathetically to students who have experienced trauma and feel they can meet the demands of working with those students.
Table 10

One-Sample t Tests for Overall ARTIC-45 and Subscales

<table>
<thead>
<tr>
<th>ARTIC-45 subscale</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underlying Causes of Problem Behavior and Symptoms</td>
<td>30</td>
<td>5.4095</td>
<td>.7686</td>
<td>29</td>
<td>10.045</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Responses to Problem Behavior and Symptoms</td>
<td>30</td>
<td>5.6468</td>
<td>.77205</td>
<td>29</td>
<td>11.683</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>On-the-Job Behavior</td>
<td>30</td>
<td>5.7595</td>
<td>.45966</td>
<td>29</td>
<td>20.966</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Self-Efficacy at Work</td>
<td>30</td>
<td>5.7579</td>
<td>.69120</td>
<td>29</td>
<td>13.930</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Reactions to the Work</td>
<td>30</td>
<td>5.4881</td>
<td>.69128</td>
<td>29</td>
<td>11.791</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Personal Support of Trauma-Informed Care</td>
<td>17</td>
<td>5.4186</td>
<td>.82517</td>
<td>16</td>
<td>7.088</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>System-Wide Support for Trauma-Informed Care</td>
<td>21</td>
<td>4.7619</td>
<td>1.14156</td>
<td>20</td>
<td>3.059</td>
<td>.006</td>
</tr>
<tr>
<td>Average (all 45 items)</td>
<td>30</td>
<td>5.5152</td>
<td>.45898</td>
<td>29</td>
<td>18.082</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>

Notes. a Ho: μ = 4, the neutral point, on a 7-point scale. b Two-tailed p-values.

ARTIC-45 Results by Role in Education

Roles in education were recoded into four subgroups: district administration, school site administration, teacher, and non-teaching staff (see Table 11). Due to the small subsample sizes and low statistical power, the roles were further recoded into two subgroups: administrators and non-administrators. Independent t tests were run to compare the subgroup means to determine whether there is a statistically significant difference between them, as shown in Table 12.
### Table 11
*Descriptive Statistics for ARTIC-45 and Overall Scale for Role in Education*

<table>
<thead>
<tr>
<th>ARTIC-45 subscale</th>
<th>District admin</th>
<th>School site admin</th>
<th>Teacher</th>
<th>All others: support staff</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>SD</td>
<td>N</td>
</tr>
<tr>
<td>Underlying Causes of Problem Behavior and Symptoms</td>
<td>8</td>
<td>5.4107</td>
<td>.72215</td>
<td>6</td>
</tr>
<tr>
<td>Responses to Problem Behavior and Symptoms</td>
<td>8</td>
<td>5.5179</td>
<td>.60579</td>
<td>6</td>
</tr>
<tr>
<td>On-the-Job Behavior</td>
<td>8</td>
<td>5.6786</td>
<td>.48745</td>
<td>6</td>
</tr>
<tr>
<td>Self-Efficacy at Work</td>
<td>8</td>
<td>5.7173</td>
<td>.72178</td>
<td>6</td>
</tr>
<tr>
<td>Reactions to the Work</td>
<td>8</td>
<td>5.5089</td>
<td>.54457</td>
<td>6</td>
</tr>
<tr>
<td>Personal Support of Trauma-Informed Care</td>
<td>7</td>
<td>5.3524</td>
<td>.62742</td>
<td>5</td>
</tr>
<tr>
<td>System-Wide Support for Trauma-Informed Care</td>
<td>6</td>
<td>5.4750</td>
<td>.72784</td>
<td>6</td>
</tr>
<tr>
<td>Average (all 45 items)</td>
<td>8</td>
<td>5.5318</td>
<td>.43230</td>
<td>6</td>
</tr>
</tbody>
</table>
Table 12

Descriptive Statistics and One-Sample t Test of Recoded Role in Education

<table>
<thead>
<tr>
<th>ARTIC-45 subscale</th>
<th>Non-administrator</th>
<th>Administrator</th>
<th>t tests</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Underlying Causes of Problem Behavior and Symptoms</td>
<td>16</td>
<td>5.3304</td>
<td>.86617</td>
</tr>
<tr>
<td>Responses to Problem Behavior and Symptoms</td>
<td>16</td>
<td>5.4628</td>
<td>.78429</td>
</tr>
<tr>
<td>On-the-Job Behavior</td>
<td>16</td>
<td>5.6562</td>
<td>.41504</td>
</tr>
<tr>
<td>Self-Efficacy at Work</td>
<td>16</td>
<td>5.6964</td>
<td>.74299</td>
</tr>
<tr>
<td>Reactions to the Work</td>
<td>16</td>
<td>5.3661</td>
<td>.79961</td>
</tr>
<tr>
<td>Personal Support of Trauma-Informed Care</td>
<td>5</td>
<td>5.5300</td>
<td>.53805</td>
</tr>
<tr>
<td>System-Wide Support for Trauma-Informed Care</td>
<td>9</td>
<td>4.3944</td>
<td>1.21769</td>
</tr>
<tr>
<td>Average (all 45 items)</td>
<td>16</td>
<td>5.4712</td>
<td>.43618</td>
</tr>
</tbody>
</table>

Notes.  

a Based on administrators–non-administrators.  
b Two-tailed p values. Homogeneity of variance assumption evaluated with Levene’s test (p > .05 for all scales).

When independent t tests were conducted for a role in education, none of the tests yielded significance. There is insufficient evidence to suggest that the average response to a particular ARTIC-45 subscale differs between those in administrative and non-administrative roles.

ARTIC-45 Results by Years in Education

I also wanted to detect any differences in educators’ attitudes toward trauma-informed care based on their number of years in education. Descriptive statistics shown in Table 13
combine the one respondent who had 11–15 years of education experience with those who had 16–20 years.
### Table 13
**Descriptive Statistics for Years in Education**

<table>
<thead>
<tr>
<th>ARTIC-45 subscale</th>
<th>1–5 years</th>
<th>6–10 years</th>
<th>11–20 years</th>
<th>More than 20 years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>SD</td>
<td>N</td>
</tr>
<tr>
<td>Underlying Causes of Problem Behavior and Symptoms</td>
<td>5</td>
<td>5.6571</td>
<td>.37253</td>
<td>6</td>
</tr>
<tr>
<td>Responses to Problem Behavior and Symptoms</td>
<td>5</td>
<td>5.2524</td>
<td>.49188</td>
<td>6</td>
</tr>
<tr>
<td>On-the-Job Behavior</td>
<td>5</td>
<td>5.6000</td>
<td>.23474</td>
<td>6</td>
</tr>
<tr>
<td>Self-Efficacy at Work</td>
<td>5</td>
<td>5.8571</td>
<td>.92029</td>
<td>6</td>
</tr>
<tr>
<td>Reactions to the Work</td>
<td>5</td>
<td>5.7143</td>
<td>.69253</td>
<td>6</td>
</tr>
<tr>
<td>Personal Support of Trauma-Informed Care</td>
<td>1</td>
<td>5.4000</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>System-Wide Support for Trauma-Informed Care</td>
<td>3</td>
<td>4.7167</td>
<td>2.01018</td>
<td>4</td>
</tr>
<tr>
<td>Average (all 45 items)</td>
<td>5</td>
<td>5.5325</td>
<td>.53098</td>
<td>6</td>
</tr>
</tbody>
</table>
Due to low subsample sizes and low statistical power, the categories were further recoded into two subgroups: those with 10 or fewer years and those with 11 or more years of experience in education. Independent-sample *t* tests were run to compare the two subgroups, and the results are shown in Table 14.

<table>
<thead>
<tr>
<th>ARTIC-45 subscale</th>
<th>10 or fewer years in education</th>
<th>11 or more years in education</th>
<th><em>t</em> tests</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>N</em>, <em>Mean</em>, <em>SD</em></td>
<td><em>N</em>, <em>Mean</em>, <em>SD</em></td>
<td><em>df</em>, <em>t</em></td>
</tr>
<tr>
<td>Underlying Causes of Problem Behavior and Symptoms</td>
<td>11, 5.3377, .94604</td>
<td>19, 5.4511, .67050</td>
<td>28, 0.384</td>
</tr>
<tr>
<td>Responses to Problem Behavior and Symptoms</td>
<td>11, 5.2316, .72999</td>
<td>19, 5.8872, .70563</td>
<td>28, 2.422</td>
</tr>
<tr>
<td>On-the-Job Behavior</td>
<td>11, 5.6169, .37563</td>
<td>19, 5.8421, .49233</td>
<td>28, 1.309</td>
</tr>
<tr>
<td>Self-Efficacy at Work</td>
<td>11, 5.8312, .77675</td>
<td>19, 5.7155, .65525</td>
<td>28, -0.435</td>
</tr>
<tr>
<td>Reactions to the Work</td>
<td>11, 5.3506, .86982</td>
<td>19, 5.5677, .57562</td>
<td>28, 0.824</td>
</tr>
<tr>
<td>Personal Support of Trauma-Informed Care</td>
<td>3, 5.4833, .72858</td>
<td>14, 5.4048, .86902</td>
<td>15, -0.145</td>
</tr>
<tr>
<td>System-Wide Support for Trauma-Informed Care</td>
<td>3, 4.5643, 1.22158</td>
<td>14, 4.8607, 1.13340</td>
<td>19, 0.551</td>
</tr>
<tr>
<td>Average (all 45 items)</td>
<td>11, 5.3850, .52100</td>
<td>19, 5.5906, .41501</td>
<td>28, 1.191</td>
</tr>
</tbody>
</table>

*Notes.*  

a Based on “11 or more”–“10 or fewer.” b Two-tailed *p* values. Homogeneity of variance assumption evaluated with Levene’s test (*p* > .05 for all scales). Note that the only statistically significant independent-samples *t* test result is for Responses by years in education, *t*(28) = 2.422, *p* = .022, with a large effect (Cohen’s *d* = .918). Responding to Problem Behaviors and Symptoms flexibly and by building relationships was more strongly endorsed by those with 11 or more years in education than by those with 10 or fewer years in education.
Based on the independent-sample $t$ tests, only one result was found to be statistically significant. The subscale Responses to Problem Behavior is significant: $t(28) = 2.422$ (two-tailed). Specifically, the educators with more experience expressed more agreement with trauma-informed approaches and indicated they would respond more favorably to these approaches. A large effect size was observed ($\text{Cohen’s } d = .918$).

**Qualitative Data**

The qualitative data illustrated the culture, climate, and experiences of adults and students within the nine pilot sites. Those data points were valuable for understanding how the moderating factors may influence a trauma-informed environment. A qualitative data analysis software tool was used to identify themes.
<table>
<thead>
<tr>
<th>School name</th>
<th>Type of school</th>
<th>Enrollment</th>
<th>Locations observed</th>
<th>Observation highlights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seahawks</td>
<td>middle school</td>
<td>579</td>
<td>• 7th grade lunch&lt;br&gt;• 8th grade science classroom&lt;br&gt;• 8th grade lunch</td>
<td>• Several students flashed money&lt;br&gt;• A student turned in a cell phone&lt;br&gt;• Students appeared to be enjoying lunch recess, roar of laughter, students chatting, and playing organized games</td>
</tr>
<tr>
<td>Cougars</td>
<td>elementary</td>
<td>376</td>
<td>• 4th/5th grade comb classroom&lt;br&gt;• 4th/5th grade recess&lt;br&gt;• 4th grade classroom</td>
<td>• Students supported a peer who lost a tooth&lt;br&gt;• Several students were off by themselves during intermediate recess&lt;br&gt;• I observed a class taking the SEL survey</td>
</tr>
<tr>
<td>Huskies</td>
<td>elementary</td>
<td>575</td>
<td>• Kindergarten class&lt;br&gt;• Cafeteria&lt;br&gt;• Primary Special Day Class (SDC) classroom</td>
<td>• Cafeteria monitor supported students&lt;br&gt;• Individualized instruction&lt;br&gt;• Expectations reviewed on the walk to lunch</td>
</tr>
<tr>
<td>Rams</td>
<td>elementary</td>
<td>508</td>
<td>• Lunch recess&lt;br&gt;• Cafeteria&lt;br&gt;• Office</td>
<td>• Students engaged me&lt;br&gt;• Students used soft skills to advocate for changes in the lunch and administrative response to behavior&lt;br&gt;• During recess, students were alone no longer than 3 min without a peer engaging them</td>
</tr>
<tr>
<td>Eagles</td>
<td>high school</td>
<td>1,891</td>
<td>• 11th grade AVID classroom&lt;br&gt;• Brunch: students given 15 min to eat and practice soft skills&lt;br&gt;• Transition after brunch&lt;br&gt;• SDC classroom</td>
<td>• Students responded well to staff direction&lt;br&gt;• Students interacted in unstructured settings with nonverbal cues such as gestures&lt;br&gt;• Discussion of culturally diverse names</td>
</tr>
<tr>
<td>Sea Otters</td>
<td>elementary</td>
<td>353</td>
<td>• Courtyard and cafeteria at the start of the school day&lt;br&gt;• 2nd grade classroom&lt;br&gt;• 5th grade gallery walk in the cafeteria</td>
<td>• Students walked on painted lines about the campus&lt;br&gt;• Primary teacher used culturally responsive teaching strategies&lt;br&gt;• 6th grade class provided mini presentation</td>
</tr>
</tbody>
</table>
(Table 15 Continued)

<table>
<thead>
<tr>
<th>School</th>
<th>Grade</th>
<th>Location</th>
<th>Observations</th>
<th>PBIS Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bobcats</td>
<td>elementary</td>
<td>420</td>
<td>• Lunch recess: students play before they eat</td>
<td>• Students supported peers in academic tasks</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• 5th/6th lunch recess</td>
<td>• PBIS structures are flexible</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• 2nd grade classroom</td>
<td>• Administrator supported staff and student needs</td>
</tr>
<tr>
<td>Dolphins</td>
<td>elementary</td>
<td>468</td>
<td>• 6th grade classroom</td>
<td>• Students not allowed to speak during lunch</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Cafeteria</td>
<td>• Well-staffed, four cafeteria monitors</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Primary SDC classroom</td>
<td>• PBIS store supports soft skills and financial literacy</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• PBIS store</td>
<td></td>
</tr>
<tr>
<td>Otters</td>
<td>elementary</td>
<td>356</td>
<td>• 2nd grade classroom</td>
<td>• Teachers engaged me</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Hallway</td>
<td>• PBIS motto painted on the wall</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• 6th grade classroom</td>
<td>• Teacher showed compassion and reassured students who did not have their homework</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• 2nd/3rd grade recess</td>
<td></td>
</tr>
</tbody>
</table>

Note. All sites showed evidence of positive reciprocal interaction among students and staff.

Observational Data

Observations were conducted to provide insight into how culture and climate may influence a trauma-informed environment (see Table 15). To ensure consistency, hour-long observations that included three locations on campus were arranged within a 2-week time frame. Most administrators responded promptly with a date and time for the observation. The administrator at Otter School emailed her staff to inform them that I would be on campus on a particular day. While three unscheduled observations were completed.

The observations were conducted in at least three locations at each site. Locations on campus were the playground, cafeteria, PBIS store, primary and intermediate classrooms, and main school office. Taking in all the observational data allowed themes to emerge and determine
how schools within the MTSS pilot are similar and different. The elevated themes were positive reciprocal actions among students and staff; PBIS structures: rigidity vs. flexibility and growth; environmental structures construct safety; and noteworthy points to elevate.

**Positive reciprocal actions among students and staff.** The analysis of the observational data revealed that positive reciprocal actions was the most prominent theme. Positive interactions are defined as interactions among and between staff and students that promote a positive experience. The opportunity to interact positively is an element of a trauma-informed environment that creates opportunities for students to build healthy relationships with other students and school staff (Perry & Daniels, 2016). The observed interactions supported positive social-emotional interactions and skills development.

Salovey and Mayer (1990) defined emotional intelligence (EI) as “the subset of social intelligence that involves the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and actions” (p. 189). EI is comprised of self-awareness, self-regulation, motivation, empathy, and social skills. I witnessed students and adults using their emotional intelligence to guide their interactions with others.

Positive peer interactions were observed at all sites in unstructured settings. As I observed an intermediate recess at Ram School, I noted that students were by themselves for no more than 3 minutes. If a peer was off to the side alone, another peer approached and engaged him or her. At Otter School, during a third-grade recess, a girl who was visibly upset was standing off by herself, and a peer approached her to ask what was wrong. The girls conversed and resolved the conflict. At several sites, students positively engaged peers in unstructured settings.
Positive interactions were also noted in structured settings. At Bobcat and Cougar Schools, I observed peer support in the classroom. A second-grade student finished his assignment early and then walked around to help his peers. When I was observing in a sixth-grade classroom, I heard a student say, “I can help you with that.” In a fourth- and fifth-grade combo class, two peers went to the teacher to inform her that the girl sitting next to them had lost a tooth. These observations showed that the site’s environment supports students’ social-emotional and academic needs. Provisions for social-emotional and academic needs are in alignment with a trauma-sensitive environment.

Overall, evidence of peer interactions did decrease as the age of students increased at the secondary level in unstructured settings. There were several examples of positive interactions among students. For example, a student at Seahawk School found a cell phone and turned it in to the vice principal. He also found the phone’s owner and brought the owner to the vice principal so he could retrieve his phone. At Eagle High School, students engaged in minimal conversations in unstructured settings. While looking at their phones, they communicated primarily nonverbally with proximity, smiles, and gestures. Interactions were based on similar interests.

Adults created a friendly environment that facilitated opportunities for students to use problem-solving skills. For example, a student asked the teacher about a prom policy in an AVID class. The teacher used the opportunity to share the importance of students to actively seek information. Adults were supportive of students using critical thinking skills and being accountable for their actions.

In addition to promoting critical thinking skills, adults wanted students to take responsibility for their education. After the third-period bell rang, a teacher called out to a
student and told him to go to class. Her tone showed concern for the student’s academic success. The student responded positively to the teacher’s instruction and complied. It appeared that adults have a level of rapport with students thus inspiring students to comply with teachers and administrators. The ability to build and maintain connections and relationships is a component of a trauma-informed environment.

At Sea Otter School, a second-grade teacher provided a nurturing environment with the necessary academic support. A student asked the teacher how to spell a word, and the teacher sounded out the word and reminded the student of the visual sound cards posted on the wall. The teacher also paired the spelling review lesson with sign language as a kinesthetic reminder. When the class engaged in circle time, the teacher and students sang a good morning song that included multiple languages. The teacher provided several examples of culturally responsive teaching strategies, which is a component of a trauma-sensitive environment.

**PBIS structures: rigidity vs. flexibility and growth.** All sites had a PBIS framework in place. Each school site had PBIS expectations posted in communal areas, such as the cafeteria and hallways. At Otter School, the PBIS acronym was painted on the side of the main building. It was evident that teachers and adults have invested a lot of time into helping students learn the schoolwide expectations. Students were acknowledged for exhibiting positive behavior. At the elementary level, I witnessed students earning PBIS bucks for showing responsibility and being helpful. Some school sites hold regular drawings for PBIS incentives, while others have stores where students shop for desired incentives.

Dolphin School had its PBIS store open when I was present. Students who came to the store had an opportunity to use critical thinking skills by deciding what to purchase based on the number of PBIS bucks they had. A boy verbalized his goal of not spending all his PBIS
money. The exchange in the store was an exemplar of teaching and fostering financial literacy and critical thinking skills. PBIS structures help students connect to the environment by providing clear expectations and safety.

Despite the positive aspects of the PBIS framework, it also created opportunities for rigidity that can stifle social-emotional learning. At Bobcat School, students were expected to sit in the cafeteria during lunch and not talk. If students attempted to talk, a staff member said, “Shh.” At Otter School, students had to walk quietly on painted lines as they moved about the campus. The students looked like they were in reform school. Not being able to talk in unstructured settings limits students’ opportunities to practice their soft skills and fails to nurture their social-emotional development. The purpose of PBIS structures is to promote positive behaviors and not hinder the social and emotional development of students. School sites need to strive to find a balance between being rigid and flexible so that students feel supported and safe in their environment.

**Environmental structures construct safety.** The physical environment and staffing differences elevated the theme of safety. Dolphin and Sea Otter Schools have the same physical layout. Husky and Ram Schools have a similar design. Each site had a unique feel, and the school’s pride and energy shined through. The process to enter the campus was the same at all sites. All sites’ offices were in sight of the gate so visitors could be buzzed in and report directly to the office.

A difference among the sites was the number of visible staff during the observations. At Ram School, the playground was supervised by one campus monitor and the principal for a portion of one recess. At Cougar and Otter Schools, the playground was supervised by several teachers. The cafeteria was another location where the number of staff varied. Dolphin School
had four cafeteria monitors, and the vice principal supervising lunch. In comparison, most sites had one or two monitors, and the administrator stepped in for a few minutes.

At Ram School, where there was one recess monitor, I saw students leave the designated area, the blacktop, to retrieve a soccer ball. At one point, they started playing soccer on the lawn. It was the only site where students did not have full access to a grassy area. At Cougar School, students were picking up rocks from the property line, banging them against the play structure, and burying them in the bark. At no point were the students in immediate danger; however, their actions prompted my curiosity about how the allocation of resources directly ties to safety.
Noteworthy Points

Throughout the observations, I noted interactions that piqued my interest. Those encounters were recorded as noteworthy points within the qualitative data software. I felt it was important to highlight those eclectic incidents because they demonstrate how the moderating factors assist a trauma-sensitive environment.

**Rams’ students are not afraid to share their curiosity and wonder.** I had several noteworthy interactions at Ram School. The first one was when a student asked where I worked. I shared that I worked at the district office. He responded, “You make big money. How much do you make?” He was very curious about the income of district employees. When I deflected the question, the student said, “How much do you make an hour? I am smart. I can figure out how much you make.” I acknowledged his intellect but did not provide an hourly rate. Once the student realized I was not going to give him the information he sought, he went on his way and started playing with peers.

During sixth-grade recess, another student asked me where I worked. When the student and his peers noticed me sitting near them at lunch in the cafeteria, they started talking about improving the school lunch and how adults could use more equitable disciplinary decisions. The boys utilized soft and critical thinking skills to promote positive change at their school.

**What is in a name?** I observed a conversation between students and a teacher about how to pronounce a student’s name. It led to a discussion about honoring one’s identity and being proud of one’s heritage. The teacher shared that a person is not responsible for making others feel comfortable by allowing them to mispronounce his or her name. The exchange empowered the student to embrace her name and heritage. A trauma-sensitive environment
creates opportunities for students to feel empowered and considers culturally responsive teaching approaches.

**Status means something at Seahawk School.** At Seahawk School, there were two incidents when students flashed money to peers. The first occurred when the vice principal was called to a classroom to retrieve a hundred-dollar bill. The teacher stated that the student must have taken the money from his parents because he should not have that much money at school. The student claimed that he was showing it because he thought it was fake. The vice principal verified that the bill was real, but the student did not reveal where he had obtained the money. The vice principal took the bill and stated that she would contact the student’s parents.

While I was observing eighth grade lunch, a female student pulled out a wad of cash. She said, “I have forty dollars.” Her peers did not acknowledge her, so she said it again. She then started walking around with the money in the air. It appears that some students at the school value money and tie their status to money.

**I could not hide—insider privilege penetrated the observations.** Several students and staff across the sites engaged me even though I was trying not to let my insider privilege impact the data. All of the exchanges were pleasant and welcoming. One teacher stopped me in the hall and asked me about my evaluation. At another site, a teacher asked me about my work, and based on our exchange, she invited me to observe her classroom. I took her up on her offer and observed her second-grade classroom.

During several observations, some students asked me where I worked, while others smiled and waved. At Ram School, when a group of sixth-grade students found out I worked at the district office, they shifted their lunch conversation to discuss bringing about change at their
school site. Though I tried to conduct the observations so that I faded into the background, I was pulled into the scenes of the observations.

**SEL Survey Data**

I examined sites’ Panorama SEL survey data over four cycles (see Table 16). The analysis consisted of a third- through fifth-grade version and a sixth- through twelfth-grade version of the nationally normed survey. The survey assesses students’ social-emotional well-being over six domains. The first domain is challenging feelings which is how often students feel challenging emotions, a higher score indicates less frequent challenging emotions. The second domain is sense of belonging which is how much students feel that they are valued members of the school community. The third domain is social awareness which tells how well students consider the perspectives of others and empathize with them. The fourth domain is positive feelings which is how often students feel positive emotions. The fifth domain is self-efficacy which is how much students believe they can succeed in achieving academic outcomes. The sixth domain is emotional regulation which is how well students regulate their emotions.

The domains of SEL survey are connected to a trauma-informed environment. In a trauma-informed students feel safe and connected to the school environment, are able to regulate their behavior, and believe in their abilities. The SEL survey assesses students’ emotional regulation and how often they have positive and negative feelings. The survey assesses how students feel about their abilities to succeed and their connection to the school environment. I focused on the sense of belonging and self-efficacy domains because the literature states that establishing feelings of safety and connection in the school setting is predominant to healing trauma-affected students (Brunzell et al., 2016; Cole et al., 2005; Crosby et al., 2018; Wolpow et al., 2016).
Trends within a site, across grade levels, and across sites were noted. I used Panorama’s guidelines to indicate whether or not a site saw positive gains within the domains. The guidelines state that the percent favorable needs to increase by four points to be considered a significant gain.

The analysis of the data sets yielded inconsistent results. Sites made gains in several domains during different cycles but, in later cycles, saw declines in the domain(s). Though statistical significance cannot be obtained, the variations provided context for the fluid movement of students’ experiences, expressions, and feelings.
**Archival.** I reviewed the district’s archival SEL survey data. When interpreting the data, I paid close attention to the environmental factors that could influence students’ social-emotional well-being. The analysis of the data showed that the sites vary across administration periods. For example, a site would see positive movement in one or more domains in a cycle but then decline in the next cycle. When looking at the data over time, I focused on the changes that occurred at two sites where a teacher and a student had died. The trauma related to losing a member of the school community negatively impacted positive feelings at those sites.

I also focused on the sites where previous SEL data had been used to develop a Tier 1 plan to improve social-emotional outcomes. Eagle High School focused on sense of belonging by having teachers focus on developing relationships with students. Despite the target effort to increase students’ sense of belonging, it decreased by two points during the following cycle. A two-point decrease is not considered a significant decline, but the site was hoping for an increase. Given the parameters of the evaluation, I could not identify a plausible reason for the decline.

<table>
<thead>
<tr>
<th>Cycle</th>
<th>Survey Window</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>May 3 – May 21, 2021</td>
</tr>
<tr>
<td>2</td>
<td>October 11 – October 22, 2021</td>
</tr>
<tr>
<td>3</td>
<td>January 24 – February 10, 2022</td>
</tr>
<tr>
<td>4</td>
<td>May 2 – May 19, 2022</td>
</tr>
</tbody>
</table>
Unable to track the same students over the course of the cycles due to articulation and possible school movement, I chose to compare the data from cycles two and three. I compared the fall data cycle to the winter data to ensure the evaluation was comparing the same set of students and not changes in the data.

**Current cycle.** The current SEL survey cycle window was May 2 through May 19, 2022. When looking at the current cycle of data, I noticed that favorability varied by domain, site, and grade span. The variation in data paints a picture of the uniqueness of each site, although the majority of the sites saw a decline in favorability in at least one domain. Domains that were most impacted were Sense of Belonging and Self-Efficacy. Sea Otter School saw a decline across all domains and grade spans. As mentioned above, two sites within the evaluation experienced loss of a staff member and a student, which may have affected the current cycle. At Ram School, which lost a teacher and a student several months apart, the SEL data showed a significant decline in Self-Efficacy and Sense of Belonging for Grades 3–5. At the same time, sixth graders showed a 22-point decline in favorability for Sense of Belonging. The latter decline was not visible during my observation at the site. On the surface, the effect of the loss may not have been visible, but the SEL data indicated that students’ well-being had been impacted. This is an indicator that the SEL survey data can be used as a measure to provide students with timely support.

Bobcat School saw the greatest gain in emotional regulation across both grade spans. Sixth graders also increased favorability in Self-Efficacy. Grades 3–5 increased favorability in the Sense of Belonging domain. This site showed the most positive movement, which could be attributed to its supportive and flexible PBIS framework.
Summary

This chapter reviewed the results and analysis of the qualitative and quantitative data sources that allowed for a rich analysis of how K-12 districts can implement and sustain trauma-informed practices within an MTSS framework. I intersected the results from the data sources to highlight themes that impact the implementation of a trauma-informed framework. The qualitative data elevated the importance of climate and culture, which are vital moderating factors. The following chapter summarizes the findings and links them to the literature review, then provides recommendations for future research regarding the fidelity and sustainability of trauma-informed care within K-12 school systems.
CHAPTER 6: CONCLUSION

Daniel is a youth who has been removed from his home and placed in an unfamiliar community and displays externalizing behaviors at his new school. Externalizing behaviors include disruptive actions such as noncompliance and physical aggression (Overstreet & Matthews, 2011). A child who has experienced adversity such as abuse, neglect, and household dysfunction (Cavanaugh, 2016) can perceive that event as traumatic and respond behaviorally. Daniel’s story is that of a young person who has experienced adverse childhood experiences (ACEs) and is profiled in trauma-informed care literature. McInerney and McKlindon (2014) stated that one-half to two-thirds of children have experienced trauma. The COVID-19 pandemic was a shared experience of trauma due to the multitude of direct and indirect effects of COVID-19, such as social isolation, the loss of a loved one, and school closures.

Trauma can immensely impact and hinder brain development, resulting in cognitive losses and physical, emotional, and social delays, all of which can impact learning outcomes (The Center on Developing Child at Harvard University, 2007). Streeck-Fischer and Van Der Kolk (2000) found that children who have experienced trauma may have difficulty sustaining attention and processing new information. The prevalence of ACEs and their negative educational consequences has led to a national focus on how schools can address this issue (McIntyre et al., 2016). Since trauma-informed care is a relatively new construct in school settings and lacks specific federal or state guidelines, districts may find it challenging to implement such systems. McIntyre et al. (2016) call attention to studies where school districts successfully implemented trauma-informed care frameworks, but without specific guidelines, it is arduous to replicate these frameworks at other schools or districts. The evaluation aimed to
identify the moderating factors that may influence a multi-tiered, trauma-informed care framework. This formative program evaluation contributes to the body of work on trauma-informed practices by providing research-based in a California K-12 district with an MTSS framework. The evaluation used a mixed-method approach and collected data via cross-sectional design.

This chapter discusses how the evaluation’s findings support current research on trauma-informed care in school settings. Secondly, the chapter illustrates how the evaluation’s methodology supports the logic model and inquiry questions. Finally, recommendations for implementing trauma-informed care and suggestions for future research are presented.

Inquiry Questions:

1. To what extent do administrators, teachers, and non-teaching staff express support for and the capacity to implement Multi-tiered, Trauma-Informed Care practices?

2. To what extent are the attitudes expressed, and behaviors exhibited by administrators, teachers, non-teaching staff, and students indicate a climate/culture favorable to Multi-tiered, Trauma-Informed Care practices?

3. To what extent are the attitudes expressed by administrators, teachers, and non-teaching staff regarding Multi-tiered, Trauma-Informed Care practices impacted by the implementation drivers (system support and capacity) in the district?
   a. Do those attitudes vary by the role of the district employee?
   b. Do those attitudes vary by years of service in education?

Discussion

In a theory-driven approach, the evaluator focuses on indicators related to the logic that constructs the initiative. A logic model visualizes the theory that frames the initiative and explains how it works (Giancola, 2021). The logic model is based on a compilation of five theories that allowed the evaluator to develop a modified conceptual framework highlighting moderating factors: district administration, site administration, culture and climate, and staff
The model in Table 17 identifies the activities, short-term, and long-term outcomes for each moderating factor. The scope of the evaluation looked at how the moderating factors influence district trauma-informed activities and short-term objectives. The long-term objectives were not evaluated as a part of this formative evaluation. The themes that emerged from the data analysis are illustrated in a manner that aligns with the conceptual framework.

### Table 17
**Mini Logic Model Based on Moderating Factors**

<table>
<thead>
<tr>
<th>Outputs</th>
<th>Short-term outcomes</th>
<th>Long-term outcomes</th>
<th>Inquiry question(s)/data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of site admins who attend the Novak Educational consulting training sessions</td>
<td>Contract with Novak Educational Consulting Inc.</td>
<td>Continue to provide PD opportunities focused on trauma-informed care</td>
<td>Q1, Q2, &amp; Q3: ARTIC-45; see Appendix D for subscales</td>
</tr>
<tr>
<td>Number of community members who understand what multi-tiered, trauma-informed care is</td>
<td>Secure funding for consulting work</td>
<td>Scale up multi-tiered, trauma-informed care implementation at all school sites</td>
<td></td>
</tr>
<tr>
<td>Number of teachers and staff who participated in trauma-informed care professional development (PD) opportunities</td>
<td>Set expectations for implementation</td>
<td>Implement processes and communicate expectations that lead to sustainability</td>
<td></td>
</tr>
<tr>
<td>Number of admins who have a created trauma-informed campus</td>
<td>Provide PD opportunities focused on trauma-informed care</td>
<td>Use data to make informed decisions</td>
<td></td>
</tr>
<tr>
<td>Number of students who take the universal screener (SEL survey)</td>
<td>Attend Novak Educational Consulting sessions on how to build a MTSS framework</td>
<td>Guide and support teachers, staff, students, and families</td>
<td>Q1, Q2, &amp; 3: ARTIC-45; see Appendix D for subscales</td>
</tr>
<tr>
<td>Number of teachers who felt comfortable proctoring the universal screener (SEL survey)</td>
<td>Encourage staff to develop and support students' social-emotional well-being</td>
<td>Foster a trauma-informed environment</td>
<td>Q1, Q2, &amp; Q3: Observation data</td>
</tr>
<tr>
<td>Number of teachers and staff who participated in trauma-informed care PD opportunities</td>
<td>Provide opportunities for shared leadership</td>
<td>Provide shared leadership opportunities</td>
<td>Q1, Q2, &amp; Q3: Archival and current SEL survey data</td>
</tr>
</tbody>
</table>

- **Outputs:**
  - Number of site admins who attend the Novak Educational consulting training sessions
  - Number of community members who understand what multi-tiered, trauma-informed care is
  - Number of teachers and staff who participated in trauma-informed care professional development (PD) opportunities
  - Number of admins who have a created trauma-informed campus
  - Number of students who take the universal screener (SEL survey)
  - Number of teachers who felt comfortable proctoring the universal screener (SEL survey)
  - Number of teachers and staff who participated in trauma-informed care PD opportunities

- **Short-term outcomes:**
  - Contract with Novak Educational Consulting Inc.
  - Secure funding for consulting work
  - Set expectations for implementation
  - Provide PD opportunities focused on trauma-informed care
  - Attend Novak Educational Consulting sessions on how to build a MTSS framework
  - Encourage staff to develop and support students' social-emotional well-being
  - Provide opportunities for shared leadership

- **Long-term outcomes:**
  - Continue to provide PD opportunities focused on trauma-informed care
  - Scale up multi-tiered, trauma-informed care implementation at all school sites
  - Implement processes and communicate expectations that lead to sustainability
  - Use data to make informed decisions
  - Guide and support teachers, staff, students, and families
  - Foster a trauma-informed environment
  - Provide shared leadership opportunities
  - Use data to make informed decisions

- **Inquiry question(s)/data:**
  - Q1, Q2, & Q3: ARTIC-45; see Appendix D for subscales
  - Q1, Q2, & 3: ARTIC-45; see Appendix D for subscales
  - Q1, Q2, & Q3: Observation data
  - Q1, Q2, & Q3: Archival and current SEL survey data
(Table 17 Continued)

<table>
<thead>
<tr>
<th>Students feel safe</th>
<th>Environment is trauma sensitive and utilizes healing-centered engagement strategies</th>
<th>Q1, Q2, &amp; Q3: ARTIC-45; see Appendix D for subscales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers feel free to ask for support</td>
<td>Increases student engagement and academic performance</td>
<td>Q2 &amp; Q3: Observation data</td>
</tr>
<tr>
<td>Shared leadership</td>
<td>Decreases number of students referred to special education due to behavior</td>
<td>Q2 &amp; Q3: Archival and Current SEL survey data</td>
</tr>
<tr>
<td>Use the SEL survey data to provide tiered support</td>
<td>Uses data to make informed decisions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Students receive timely support once ACEs have been revealed</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Teachers will receive professional development on trauma-informed practices</th>
<th>Feel comfortable creating and supporting a trauma-informed environment</th>
<th>Q1, Q2, &amp; Q3: ARTIC-45; see Appendix D for subscales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mentoring is available</td>
<td>Continue to increase their trauma-informed capacity</td>
<td>Q1, Q2, &amp; Q3: Observation data</td>
</tr>
<tr>
<td>Teachers will administer the SEL survey</td>
<td>Use data to make informed decisions</td>
<td>Q2 &amp; Q3: Archival and current SEL survey data</td>
</tr>
<tr>
<td>Site admin</td>
<td>Communicate the why to staff, students, families</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Display transformational leadership skills</td>
<td></td>
</tr>
<tr>
<td>District admin</td>
<td>Communicate the why to the board and community</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Support trauma-informed care financially</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provide implementation guidance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Make the trauma-informed care a priority</td>
<td></td>
</tr>
<tr>
<td>Site admin (cont.)</td>
<td>Number of admins who have a created trauma-informed campus</td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>-----------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Culture/ climate</td>
<td>Evidence of a trauma-informed environment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Admin exhibits transformational leadership skills</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Staff is open to look past the trauma and support students</td>
<td></td>
</tr>
<tr>
<td></td>
<td>behaviorally and socially-emotionally</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Evidence of shared leadership</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of students who take the universal screener (SEL survey)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of teachers who felt comfortable proctoring the universal screener (SEL survey)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of teachers and staff who participated in trauma-informed care PD opportunities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of admins who have a created trauma-informed campus</td>
<td></td>
</tr>
<tr>
<td>Teacher capacity</td>
<td>PD on trauma-informed practices</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mentoring is available</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Feel supported by admin(s) and colleagues</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of teachers who felt comfortable proctoring the universal screener (SEL survey)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of teachers and staff who participated in trauma-informed care PD opportunities</td>
<td></td>
</tr>
</tbody>
</table>
District’s Progress Toward Short-Term Outcomes

I worked with the district to establish a comprehensive logic model based on a sound theoretical framework and realistic objectives. Due to the constraints of a formative program evaluation, I focused on testing how the district’s systems context and practices impacted the short-term objectives for each moderating factor. The breakdown of findings allows the district to see where and how the logic model was upheld and where it failed.

District administration. The district fully executed its 2021–2022 contract with Novak Educational Consulting Inc. Dr. Novak and her team walked the district through an MTSS needs assessment, directed pilot principals through a year of training, and developed a guidance and implementation plan. The district and site administrators shared positive feedback about their experience with Novak Educational Consulting.

The 2022–2023 school contract has expanded to the district’s remaining Title 1 school sites. The consulting contract is funded via Title 1 allocation. Unfortunately, the district has yet to identify a funding source for non-Tile 1 sites to receive MTSS training nor develop a trauma-informed care implementation plan and provide specific training.

Site administration. The pilot site administrators actively participated in the MTSS training opportunities hosted by Novak Educational Consulting. They used their SEL survey data to develop and support their students’ social-emotional well-being. I was unable to observe site administrators during their staff meetings or have access to staff meeting agendas. Without that information, I could not obtain evidence of shared leadership opportunities.

Culture and climate. The observation data showed that students were connected to the school environment, while the SEL data analysis showed variation in students’ Sense of Belonging favorability. Elementary counselors used survey data to develop tiered support. Sites
have yet to implement schoolwide plans to address trauma-informed care and SEL needs. I was unable to observe opportunities for teachers and non-teaching staff to gain support beyond contacting the school counselor and mental health clinician.

**Teacher capacity.** I observed a teacher administer the SEL survey. The district’s overall response rate increased at seven of the nine pilot sites. The data collection points did not produce evidence of mentoring for staff, and the district does not have evidence to suggest that teachers, non-teaching staff, and administrators have received PD on trauma-informed practices.

**Overall findings.** Evidence supported the achievement of several short-term objectives. However, the results of the evaluation divulged that the overall logic model failed due to the district’s existing systems and practices: the district has historical systems in place that hindered implementation fidelity. For example, the district does not have a system that allows vice principals and those in leadership roles to receive PD alongside their administrator. PD opportunities for all staff are limited and are not mandatory for all bargaining units due to contract language. Another system barrier is that the district usually ties implementation initiatives to sites that volunteer to participate and early adopter sites but fail to plan for full-scale implementation and to illustrate how success can be replicated at all schools. Historical context and common practices impact how well the district is presently able to implement trauma-informed care.

**Findings Related to Inquiry Questions**

1. To what extent do administrators, teachers, and non-teaching staff express support for and the capacity to implement multi-tiered, trauma-informed care practices?

The ARTIC-45 measured administrator, teacher, and non-teaching staff support and ability to implement multi-tiered, trauma-informed care practices. Due to the small sample size ($n = 30$), I was unable to run inferential statistics on the original subgroups and had to create two subgroups: administrators and non-administrators. Therefore, I could not assess teacher capacity,
but rather the capacity of adults in education. The descriptive statistics showed that all participants responded favorably toward capacity and support of Trauma-Informed Care. The literature speaks to teacher capacity, but little is stated about overall educator capacity.

The observation data showed that adults responded and engaged with students in a positive and encouraging manner in both structured and unstructured settings. The most prevalent theme from the observation data was positive reciprocal interactions among students and staff. At Ram School, during an intermediate recess, no student was alone for more than a few minutes.

The qualitative and quantitative data sources produced outcomes that echoed what other researchers discovered. Positive interactions create a safe and supportive environment (Herriford, 2019). The evaluation provided insight into the respondents’ comfort level with responding to students in a trauma-sensitive manner. The data showed respondents favorability toward having the support and resources needed for a trauma-informed environment. Specifically, the educators with more experience expressed greater agreement with trauma-informed approaches and indicated they would respond more favorably to such approaches.

2. To what extent do the attitudes expressed, and behaviors exhibited by administrators, teachers, non-teaching staff, and students indicate a climate/culture favorable to multi-tiered, trauma-informed care practices?

Again, the observation data was a strong indicator of an inclusive and culturally responsive environment. Adults engaged positively with students and other staff. There was visible evidence of PBIS structures. At Otter School, the PBIS acronym was painted on the main building’s wall. Bobcat School had an inclusive bulletin board that contained each class’s Bobcat points for exhibiting positive behavior in the cafeteria.

Eight of the nine sites provided opportunities to practice SEL skills in unstructured settings. Although the structure provided students with clear expectations and guidance, at
specific points the system hindered students’ social-emotional well-being. For example, at Dolphin School, students were required to sit silently while eating lunch. They were not able to practice their SEL and soft skills. When students attempted to talk, an adult would say, “Shh.” At Sea Otter School, students were expected to walk on painted lines as they navigated the campus. During the observation, all students silently walked on the lines. Students looked like they were in reform school as they moved around campus. The school environment should be structured but also create opportunities for students to practice their soft skills.

The SEL data provided additional context to the observational data. The SEL data revealed that though the environment appeared to be inclusive and supportive, multiple schools had low favorability in the sense of belonging and self-efficacy domains. Sense of belonging and self-efficacy domains are key to a trauma-informed environment.

3. To what extent are the attitudes expressed by administrators, teachers, and non-teaching staff regarding multi-tiered, trauma-informed care practices impacted by their capacity?
   a. Do those attitudes vary by the role of the district employee?
   b. Do those attitudes vary by years of service in education?

The low statistical power prevented me from analyzing the data from the administrator, teacher, and non-teaching staff perspectives. However, there was statistical significance between educators with 10 or fewer years of experience and those who have been in education for 11 or more years. There was a difference in how adults who have been in education for various time frames responded to problem behaviors. Educators who have worked in the field for longer responded more favorably when asked whether they have the skill set to address problem behaviors.

Dolphin School, where students were not allowed to talk during lunch, had the most significant decline in SEL favorability. Self-Efficacy, positive feelings, and challenging feelings
showed a considerable decrease. There appears to be a relationship between students’ social-emotional well-being and the opportunity to practice SEL skills.

**Insider Perspective**

I have insider knowledge about the district’s approach to trauma-informed care. Though I attempted to remain neutral, I was pulled into observations at various sites. However, my positionality provided additional insight into the findings. I am aware of district initiatives and PD opportunities that support them. I participated in the Novak Educational Consulting sessions that covered equity and discussed how to create a welcoming and inclusive learning environment that align with trauma-informed care.

In public settings, staff have mentioned that they dislike surveys because the district does not take their perspectives seriously. The district has seen a decline in staff participation across multiple initiatives; there appears to be apathy toward taking surveys. This apathy may account for the small ARTIC-45 sample size. During school board meetings, the teacher’s union has described teachers’ low morale and feelings of burnout.

**Significance of the Evaluation**

The strengths of the evaluation were the methodology and use of multiple data sources. The chosen methodology focused on the key moderating factors of district administrators, site administrators, culture and climate, and staff capacity that are mentioned in the literature. I developed a logic model highlighting how the district’s goals align with the perspectives of administrators, teachers, and non-teaching staff. The evaluation also highlighted how an MTSS framework could provide the necessary structures to offer timely support.
Road Map to Trauma-Informed Care

The scope of this evaluation included nine of the district’s 50 schools over six weeks. I was able to note components and strategies the district should employ to ensure implementation fidelity and sustainability. First, trauma-informed approaches and practices should be tracked as part of the district’s MTSS implementation plan. The plan should include trauma-sensitive approaches to help students feel welcomed, supported, and safe.

Trauma-informed approaches can encourage primary, secondary, and tertiary stakeholders to allocate funding and time to implement programs that foster a positive culture and promote student success. The district can achieve this by committing to activities and practices that assert safety, trust, choice, collaboration, empowerment, and culture, which are critical first steps in ameliorating trauma effects in students (SAMHSA, 2014b). In doing so, each moderating factor should take specific steps.

District Administrators

Schools depend on district administration to implement trauma-informed initiatives (Blitz & Mulcahy, 2017). District-level administrators must clearly articulate the district’s goals, recruit staff who exemplify the culture of change, allocate the necessary resources, and provide site administrators with the skills needed to implement change (Bean & Lillenstein, 2012). It is essential for district leadership to strategically plan the implementation process of a multi-tiered, trauma-informed care model because school sites need their guidance and support to build out their framework. District administrators are the direct support to site administrators, and they need to find a PD format that includes vice principals. The district level needs to provide tools that illustrate the intersectionality of district initiatives such as SEL, MTSS, and PBIS. For
example, they can develop a guidance document that intersects SEL, MTSS, and PBIS implementation plans that include specific accountability checks.

District administrators must allocate money, time, and staffing to ensure implementation is effective. Administrators and staff need time to understand the complexities of the change process and to provide ongoing support for trauma-informed strategies and practices. Next, they need to find a funding source to expand the implementation to non-Title I sites. A possible stable funding source could be the Local Control and Accountability Plan (LCAP).

To allocate resources appropriately, the district should explore the current allocation of staff and materials and make adjustments. As noted in the observational data, site staffing resources varied, and sites with low staffing may pose safety concerns. These elements are central to a safe and inclusive environment. It may be beneficial to provide each site with an MTSS coordinator who uses data to address students’ academic, behavioral, and social-emotional needs.

In addition, the literature discusses the need for community partnerships (Alisic et al., 2012; Baweja et al., 2015; Blitz & Mulcahy, 2017; National Child Traumatic Stress Network, 2022; Perry & Daniels, 2016; Yohannan & Carlson, 2019). I was unable to verify available community partnerships beyond the school counselor and mental health clinician. The district can contact local agencies and nonprofits to obtain trauma-sensitive support. The district administration can also work with the board and cabinet to increase the number of non-teaching staff, such as counselors, mental health clinicians, board certified behavior analysts, and school psychologists.
Site Administrators

Site administrators can utilize the support they receive from the district level to improve student outcomes and support their staff. Proactive administrators who pay specific attention to implementation of systems change and procedures can reduce implementation barriers (NIRN, 2018). Driven leaders guide their school’s practices to help staff understand how trauma may impact students and guide staff to implement effective interventions (Brunzell, 2019). They can do this by prioritizing improvements in teachers’ pedagogical practices by increasing their capacity to support students’ social-emotional needs (Brunzell et al., 2016). This can be achieved by providing time for professional development, ongoing collaboration, and coaching. Site administrators also need to be mindful of their staff members’ secondary trauma and approach them in a trauma-sensitive manner. These characteristics are examples of transformational leadership that can positively affect student achievement (Avolio & Bass, 2009) and provide their staff with the resources to successfully create a trauma-sensitive environment (Sinderlar et al., 2006).

Additionally, administrators need to use data to make informed decisions and actively communicate with stakeholders (Multi-Tiered System of Support Blueprint for MA, 2018). There was evidence that some sites used their Panorama data to address Tier 1 needs. All sites should receive support to analyze their Panorama data and develop a Tier 1 action plan to increase SEL favorability. They may need to strengthen modes of communication and provide incentives for staff participation in gaining teacher and non-teaching staff perspectives.

Culture and Climate

In a trauma-informed culture and climate, students are provided with clear expectations, tools to identify their triggers, and strategies that support them through stressful situations. The
overall goal of a trauma-informed care model is to provide students with coping strategies, social-emotional learning opportunities, and a culture of support and respect. This can be achieved when a school’s culture and climate is committed to creating a safe and supportive learning environment for all students and staff (Stokes & Brunzell, 2020; Murphey & Sacks, 2019).

School sites need to be environments where students feel connected. A trauma-informed culture and climate can be attained when schools focus on social-emotional learning skills such as empathy, self-regulation, and self-efficacy (Murphey & Sacks, 2019). I witnessed staff modeling empathy and promoting self-efficacy in structured and unstructured settings.

Staff are able to model elements of a trauma-sensitive culture with they feel supported in their environment. Anderson et al. (2015) suggested that in a supportive environment, teachers feel free to collaborate with colleagues and develop their trauma-informed capacity without fear of repercussions. Mahdavi and Beebe-Frankenberger (2009) added that it is important to devote a significant amount of time to establish a shared vision that includes all stakeholders’ common principles, values, and goals. A school’s capacity and shared vision can positively impact the climate and culture. School sites should allocate regularly scheduled time for staff to collaborate on trauma-informed and SEL practices.

The district supports the use of PBIS structures that are discussed regularly with the site’s leadership team. PBIS structures were present at all sites. At two sites, elements of the structure hindered students’ social-emotional well-being. School sites must examine their PBIS structures and evaluate the safety and rigidity elements to find a balance that is most beneficial to students. School sites need to identify PBIS structures that hinder opportunities for students to develop social-emotional learning skills in structured and unstructured settings, then reconstruct a
PBIS system that promotes social-emotional well-being. Students should be able to speak during lunch and walk next to a peer when going out to recess.

A part of the reconstruction is to ensure that school staff have the necessary training to implement effective PBIS systems (Sugai & Horner, 2009). It has been five years since the district has provided targeted PBIS training, and it may be beneficial to provide refresher training to ensure high-quality implementation that fosters positive behavior and social-emotional interactions.

Site leaders need to examine how they utilize their current resources and teams. Most sites have a leadership, PBIS, and intervention teams. Sites can better utilize their time by combining teams and forming a leadership team comprised of the counselor, teachers, intervention teacher, mental health clinician, and administration. The team can discuss the intersectionality of all school efforts within a multi-tiered approach. This approach will allow teams to see how trauma-informed care approaches need to be considered within all domains: behavioral, academic, and social-emotional.

**Staff Capacity**

Teachers and non-teaching staff need support in understanding trauma and how it can affect students in an academic setting. They also need support in developing and fostering environments that facilitate optimal student outcomes (Abdussatar, 2021). Though the respondents in this evaluation indicated positive favorability toward trauma-informed care, the district should implement support for all adults who work directly and indirectly with students. They should have a work environment that allows staff the opportunity to express their needs and feelings about trauma-informed practices. The district should find ways to combat the teacher burnout that many educators feel post-COVID-19 school closures. It may be beneficial to
include PD related to vicarious and secondary trauma as well as coaching support for social-emotional learning.

**Suggestions for Future Research**

Since research on trauma-informed care in K-12 environments is a relatively new construct, several avenues exist to explore this phenomenon further. Due to the limited number of studies conducted in K-12 settings on the West Coast of the United States, additional research in these settings would be beneficial. A comparison study of school sites with and without an MTSS framework may identify key elements of the framework that may contribute to fidelity and sustainability. The ARTIC-45 showed an interaction between number of years working in education and ability to respond in a trauma-informed manner; a study that looks closely at the interaction of these two traits may be helpful. A longitudinal evaluation of school sites may also document the moderating factors that contribute to the sustainability of a trauma-informed care environment.

I provided suggestions for future research based on this evaluation’s limitations and findings. The district evaluated could replicate the evaluation for its second cohort of MTSS sites to determine cohort’s similarities to and differences from the first cohort. A replication evaluation should be done during a time frame when less student testing is occurring, such as toward the middle of the school year. The adapted time frame may yield a sizable number of respondents so that inferential statistical analyses can be performed. The SEL survey data could be paired with student interviews to better understand students’ perspectives in a trauma-informed environment.

The analysis of this evaluation highlighted the intersectionality of SEL practices MTSS, and PBIS structures. All three frameworks discuss the importance of implementation fidelity. A
fidelity complement is an opportunity to increase capacity through training. Sugai and Horner (2009) discussed the need for high-quality training to maximize the positive impact of positive behavior support. The district may benefit from revisiting the PBIS training that was completed about five years ago because there are many new staff, and the benefits of the framework are not being maximized and are hindering social-emotional well-being.

This evaluation provided foundational insight into how districts can implement multi-tiered, trauma-informed care. It also elevated the need to ascertain the unique and intersecting components of MTSS, PBIS, and SEL that support and enhance trauma-sensitive environments. Additional research in this area can strengthen K-12 settings’ timely support for students who have experienced trauma.

**Summary**

This chapter discussed the current evaluation’s results to see how they align with the logic model developed to assess the moderating factors. It also explored the evaluation’s contributions to the body of research regarding the implementation of trauma-informed care. In addition, it provided recommendations for further research to enhance K-12 districts’ implementation and sustainability of a multi-tiered, trauma-informed care system. In this system, students are provided with clear expectations, social-emotional learning opportunities, tools to identify their triggers, and coping strategies within a culture of support and respect. Educational systems need to have trauma-informed environments that build a sense of safety and community for students in need. Such systems will allow students like Daniel to receive timely support, decreasing the likelihood that they are misclassified as emotionally disturbed and being educated in the most restrictive educational setting, a non-public school.
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APPENDIX A: ARTIC-45 SURVEY

ARTIC - 45
Attitudes Related to Trauma-Informed Care Scale
VERSION: ARTIC-45 EDUCATION
<table>
<thead>
<tr>
<th>Years in Education</th>
<th>1-5 years</th>
<th>6-10 years</th>
<th>11-15 years</th>
<th>16-20 years</th>
<th>21 plus years</th>
</tr>
</thead>
</table>

Demo Survey

To better support you, your school and teachers would like to ask you some questions about how you think and feel. Only your teachers and school leaders will be able to see your responses, which will not affect your class grades. Please respond honestly—there are no right or wrong answers!

Your Class

Please tell us about how you feel about your current class.

1. How sure are you that you can complete all the work that is assigned in your class?

   Not at all sure   Slightly sure   Somewhat sure   Quite sure   Extremely sure
2. When complicated ideas are discussed in class, how sure are you that you can understand them?

<table>
<thead>
<tr>
<th>Not at all sure</th>
<th>Slightly sure</th>
<th>Somewhat sure</th>
<th>Quite sure</th>
<th>Extremely sure</th>
</tr>
</thead>
</table>

3. How sure are you that you can learn all the topics taught in your class?

<table>
<thead>
<tr>
<th>Not at all sure</th>
<th>Slightly sure</th>
<th>Somewhat sure</th>
<th>Quite sure</th>
<th>Extremely sure</th>
</tr>
</thead>
</table>

4. How sure are you that you can do the hardest work that is assigned in your class?

<table>
<thead>
<tr>
<th>Not at all sure</th>
<th>Slightly sure</th>
<th>Somewhat sure</th>
<th>Quite sure</th>
<th>Extremely sure</th>
</tr>
</thead>
</table>
5. How sure are you that you will remember what you learned in your current class, next year?

- Not at all sure
- Slightly sure
- Somewhat sure
- Quite sure
- Extremely sure

Clear

Your Behavior

Please answer the following questions about how you respond to different situations. During the past 30 days...

6. How carefully did you listen to other people's points of view?

- Not carefully at all
- Slightly carefully
- Somewhat carefully
- Quite carefully
- Extremely carefully

Clear
7. How much did you care about other people's feelings?

<table>
<thead>
<tr>
<th>Did not care at all</th>
<th>Cared a little bit</th>
<th>Cared somewhat</th>
<th>Cared quite a bit</th>
<th>Cared a tremendous amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

8. How well did you get along with students who are different from you?

<table>
<thead>
<tr>
<th>Did not get along at all</th>
<th>Got along a little bit</th>
<th>Got along somewhat</th>
<th>Got along pretty well</th>
<th>Got along extremely well</th>
</tr>
</thead>
<tbody>
<tr>
<td>○</td>
<td>○</td>
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<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

9. How clearly were you able to describe your feelings?

<table>
<thead>
<tr>
<th>Not at all clearly</th>
<th>Slightly clearly</th>
<th>Somewhat clearly</th>
<th>Quite clearly</th>
<th>Extremely clearly</th>
</tr>
</thead>
<tbody>
<tr>
<td>○</td>
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<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Clear
10. When others disagreed with you, how respectful were you of their views?

Not at all respectful □
Slightly respectful □
Somewhat respectful □
Quite respectful □
Extremely respectful □

Clear

11. To what extent were you able to stand up for yourself without putting others down?

Not at all □
A little bit □
Somewhat □
Quite a bit □
A tremendous amount □

Clear

12. To what extent were you able to disagree with others without starting an argument?

Not at all □
A little bit □
Somewhat □
Quite a bit □
A tremendous amount □
13. How often did you compliment others’ accomplishments?

Almost never  ○  Once in a while  ○  Sometimes  ○  Frequently  ○  Almost all the time  ○

Feelings in General

In this section, we are hoping to learn how you experience different emotions that may occur in your life (whether inside or outside of school).

14. How often are you able to pull yourself out of a bad mood?

Almost never  ○  Once in a while  ○  Sometimes  ○  Frequently  ○  Almost always  ○
15. When everybody around you gets angry, how relaxed can you stay?

Not relaxed at all  O  Slighty relaxed  O  Somewhat relaxed  O  Quite relaxed  O  Extremely relaxed  O

16. How often are you able to control your emotions when you need to?

Almost never  O  Once in a while  O  Sometimes  O  Frequently  O  Almost always  O

17. Once you get upset, how often can you get yourself to relax?

Almost never  O  Once in a while  O  Sometimes  O  Frequently  O  Almost always  O
18. When things go wrong for you, how calm are you able to stay?

- Not calm at all
- Slightly calm
- Somewhat calm
- Quite calm
- Extremely calm

Your Feelings

*These questions ask about how you’ve been feeling recently. Please respond honestly—there are no right or wrong answers because there are no right or wrong feelings! Your answers will help us better support you and other students, and will not affect your grades or show up on your report card. You can skip any question you don’t feel comfortable answering.*

*During the past week, how often did you feel _______?*
19. excited

Almost never ○  Once in a while ○  Sometimes ○  Frequently ○  Almost always ○

Clear

20. happy

Almost never ○  Once in a while ○  Sometimes ○  Frequently ○  Almost always ○

Clear

21. loved

Almost never ○  Once in a while ○  Sometimes ○  Frequently ○  Almost always ○

Clear
22. safe

<table>
<thead>
<tr>
<th></th>
<th>Almost never</th>
<th>Once in a while</th>
<th>Sometimes</th>
<th>Frequently</th>
<th>Almost always</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</table>

23. mad

<table>
<thead>
<tr>
<th></th>
<th>Almost never</th>
<th>Once in a while</th>
<th>Sometimes</th>
<th>Frequently</th>
<th>Almost always</th>
</tr>
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<tbody>
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<td></td>
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<td></td>
<td></td>
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</table>

24. lonely

<table>
<thead>
<tr>
<th></th>
<th>Almost never</th>
<th>Once in a while</th>
<th>Sometimes</th>
<th>Frequently</th>
<th>Almost always</th>
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<tbody>
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<td></td>
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</tbody>
</table>
25. sad

26. worried

Feelings About Being at School

In this section, we would like to understand how you feel about your school.

27. How well do people at your school understand you as a person?
28. How much support do the adults at your school give you?

<table>
<thead>
<tr>
<th>No support at all</th>
<th>A little bit of support</th>
<th>Some support</th>
<th>Quite a bit of support</th>
<th>A tremendous amount of support</th>
</tr>
</thead>
<tbody>
<tr>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Clear

29. How much respect do students at your school show you?

<table>
<thead>
<tr>
<th>No respect at all</th>
<th>A little bit of respect</th>
<th>Some respect</th>
<th>Quite a bit of respect</th>
<th>A tremendous amount of respect</th>
</tr>
</thead>
<tbody>
<tr>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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</tbody>
</table>

Clear

30. Overall, how much do you feel like you belong at your school?

<table>
<thead>
<tr>
<th>Do not belong at all</th>
<th>Belong a little bit</th>
<th>Belong somewhat</th>
<th>Belong quite a bit</th>
<th>Completely belong</th>
</tr>
</thead>
<tbody>
<tr>
<td>○</td>
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<td>○</td>
<td>○</td>
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</tbody>
</table>

Clear
# APPENDIX D: MAPPING WHICH ARTIC SUBSCALES ARE INDICATORS OF THE MODERATING FACTORS

<table>
<thead>
<tr>
<th>ARTIC subscale name</th>
<th>ARTIC subscale description</th>
<th>Moderating factors (support system drivers necessary for implementing and sustaining multi-tiered, trauma-informed care practices)</th>
<th>District leadership</th>
<th>Site leadership</th>
<th>Teacher capacity</th>
<th>Climate and culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Underlying Causes of Problem Behavior and Symptoms</td>
<td>Emphasizes behavior and symptoms as adaptations and malleable <em>versus</em> behavior and symptoms as intentional and fixed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>2 Responses to Problem Behavior and Symptoms</td>
<td>Emphasizes relationships, flexibility, kindness, and safety as the agent of change <em>versus</em> rules, consequences, and accountability as the agent of behavior and symptom changes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>3 On-the-Job Behavior</td>
<td>Endorses empathy-focused staff behavior <em>versus</em> control-focused staff behavior</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>4 Self-Efficacy at Work</td>
<td>Endorses feeling able to meet the demands of working with a traumatized population <em>versus</em> feeling unable to meet the demands</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Reactions to the Work</td>
<td>Endorses underappreciating the effects of vicarious traumatization and coping by ignoring <em>versus</em> appreciating the effects of</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

(Appendix D Continued)
vicarious traumatization and coping through seeking support

<table>
<thead>
<tr>
<th></th>
<th>Personal Support of TIC</th>
<th>Reports concerns about implementing TIC versus being supportive of implementing TIC</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>System-Wide Support for TIC</th>
<th>Reports feeling supported by colleagues, supervisors, and administration to implement TIC versus not feeling supported</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td></td>
<td>X</td>
<td>X</td>
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<tr>
<td></td>
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<td>X</td>
</tr>
</tbody>
</table>
# APPENDIX E: OBSERVATION PROTOCOL

<table>
<thead>
<tr>
<th>Location</th>
<th>Descriptive Notes</th>
<th>Reflective Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX F: SEL DATA COLLECTION SHEET

The favorable percentage was listed in each cell.

<table>
<thead>
<tr>
<th>3rd-5th grade</th>
<th>Challenging Feelings</th>
<th>Emotional Regulation</th>
<th>Positive Feelings</th>
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APPENDIX G: PARTICIPANT CONSENT FORM

Research Participant Consent Form

Research Title: Implementation and Sustainability of Trauma-Informed Care via Multi-Tiered System of Support

Lead Researcher: Aisha Brice

Faculty Advisor: Dr. Rod Githens

RESEARCH DESCRIPTION: You are being invited to voluntarily participate in a dissertation research evaluation on trauma-informed care. This inquiry aims to identify factors that contribute to the implementation and suitability of K-12 district initiatives. This form is part of a process called “informed consent” to allow you to understand this evaluation before deciding whether to participate.

You will be asked to participate in an anonymous survey. The evaluator may conduct interviews to better understand the survey data. During the video conferencing interview proceeding, audio or video recording will be used to assist the evaluator in gathering and documenting information. Information collected during the interview will be used solely by the evaluator to complete this dissertation and research project. Your responses will be kept confidential, and interview data will not contain any information that will identify you. If you prefer not to be audio or video recorded, the evaluator will take handwritten notes during the interview.
TIME INVOLVEMENT: Your participation in the survey will take approximately 20 minutes. You may be invited to participate in a 20-minute interview.

RISKS AND BENEFITS: There is no known risk beyond those experienced in everyday living. There are no known benefits to be expected as a result of your participation in this evaluation.

COMPENSATION: You will receive no compensation or payment for your participation.

PARTICIPANT'S RIGHTS: If you have read this form and have decided to participate in this research project, you understand that your participation is entirely voluntary, and your decision whether or not to participate will involve no penalty or loss of benefits to which you are otherwise entitled. If you decide to participate, you are free to discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled. You have the right to refuse to answer particular questions. The results of this research evaluation may be presented at scientific or professional conferences or published in scientific journals.

It is possible that the evaluator may decide that your participation in this research is not appropriate. If that happens, your responses will be dismissed from the evaluation. In any event, the evaluator appreciates your willingness to participate in this research.

CONFIDENTIALITY: Your identity will not be divulged in any materials resulting from this evaluation. Fictitious names and identities may be used to describe participants to attempt to maintain confidentiality.

CONTACT INFORMATION: (XXX) XXX-XXXX

Questions: If you have any questions, concerns, or complaints regarding this evaluation’s procedures, risks, and benefits, contact the Lead Evaluator at (xxx) xxx-xxxx or by email at a_brice@u.pacific.edu or the Faculty Research Advisor, Dr. Rod Githens at rgithens@pacific.edu.
Independent Contact: If you are not satisfied with how this evaluation is being conducted, or if you have any concerns, complaints, or general questions about the research or your rights as a participant, please contact the Office of Research and Sponsored Programs to speak to someone independent of the research team at (209)-946-3903 or IRB@pacific.edu.

By proceeding with the survey, your consent is implied.

Click here to begin the survey.
Dear Invitee,

My name is Aisha Brice, a doctoral candidate at the University of the Pacific’s Transformative Action in Education Program. I am kindly asking for your participation in a doctoral research evaluation that I am conducting titled: Implementation and Sustainability of Trauma-Informed Care via Multi-Tiered System of Support. The evaluation aims to identify how district leadership, site leadership, teacher capacity, and climate/culture impact the implementation and sustainability of a multi-tiered, trauma-informed care initiative.

The evaluation involves completing basic demographic information and a survey: Attitudes Related to Trauma-Informed Care Scale (ARTIC) (Traumatic Stress Institute of Klingenberg Family Centers & Baker C., 2015). The survey will ask specific questions about your experiences and perceptions of trauma-informed care. At the end of the survey, participants will be asked if they would be interested in participating in a possible 20-minute interview. If the response is yes, they will be asked to provide their email address. The evaluator will only contact participants who indicate their willingness to participate in an interview and have provided their email addresses.

The evaluation is completely anonymous; therefore, it does not require you to provide your name or other identifying information. Your participation is entirely voluntary, and you may withdraw from the evaluation at any time. If you would like to participate in the evaluation, please read the Informed Consent letter attached.

If you would like to voluntarily participate, click the survey link at the end of Informed Consent correspondence. Your participation in the evaluation will be of great importance to assist the district in identifying factors that impact the implementation and sustainability of trauma-informed care within schools. Thank you for your time.

Sincerely,

Aisha Brice