Enhancing Elementary School Educators and Staffs Behavioral Classroom Management Strategies to Support Children Affected by Trauma Through Utilization of Trauma-Informed Care (TIC) and Social-Emotional Learning (SEL) Modalities: A Quality Improvement Project

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Enhancing Elementary School Educators and Staffs Behavioral Classroom Management Strategies to Support Children Affected by Trauma Through Utilization of Trauma-Informed Care (TIC) and Social-Emotional Learning (SEL) Modalities:

A Quality Improvement Project

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Abstract

**Background:** The fundamental ACE study asked more than 17,000 adults about their childhood trauma exposure and how it has impacted their health as an adult. The study found a link between ACE exposure and a higher likelihood of experiencing adverse emotional and physical outcomes (Felitti et al., 1998).

**Problem:** Educators and staff encounter children affected by trauma and are untrained in trauma-informed care approaches, known as the “Four R’s” (SAMHSA, 2014b).

**Purpose:** This quality improvement (Q.I.) project aimed to respond to the trauma-informed care (TIC) and social-emotional learning (SEL) gaps among educators and staff at a private elementary school in Maryland.

**Method:** Using a mixed-methods approach of qualitative and quantitative data gathering, including questionnaires, classroom observations, internet-based focus groups, and unstructured interviews.

**Intervention:** The intervention strategies included TIC education, low-fidelity simulation, and SEL skill-building training sessions.

**Results:** Pre- and Post-Test TIC knowledge of the educators and staff increased by 15%, and 86% agreed to a practice readiness for change involving motivation, general school functioning, and intervention-specific approaches. Pre-and-Post of current practice perceptions increased by 4%, and SEL classroom utilization efforts improved by 23%. Theme discussions during the focus group were intervention (characteristics, components, support) and classroom outcomes. The themes of the unstructured interviews were organizational data, teacher outcomes, and relationships between variables.

**Conclusions:** The TIC and SEL educational sessions supported educators and staff in recognizing and realizing trauma behaviors in elementary school students, and the interventions addressed the educational and training gap to help to respond appropriately and resist re-traumatization.

*Keywords:* trauma-sensitive schools, trauma-informed care (TIC), social-emotional learning (SEL), adverse childhood experience (ACE), classroom management
Enhancing Elementary School Educators and Staffs Behavioral Classroom Management Strategies to Support Children Affected by Trauma Through Utilization of Trauma-Informed Care (TIC) and Social-Emotional Learning (SEL) Modalities: A Quality Improvement Project

Experiencing trauma is a terrifying event, especially for young children. Unfortunately, elementary school educators and staff often encounter children with trauma experiences that create a challenge for the school community. Children do not talk about their experiences and feelings, making it difficult for educators and staff to recognize and realize their physical and social dysregulation (Yoo, 2018). Consequently, it is easy to confuse their trauma symptoms with behaviors disguising as aggression, laziness, or seclusion (Substance Abuse and Mental Health Services Administration [SAMHSA], 2014b). Years of trauma research have resulted in several trauma definitions, and ultimately, researchers were able to construct an explanation so that others could understand what children have experienced. The National Child Traumatic Stress Network (NCTSN) (2021b) created the most appropriate definition within the realm of this project: "A traumatic event is a frightening, dangerous, or violent event that poses a threat to a child's life or bodily integrity" (para. 1). Trauma does not discriminate against anyone and is prevalent in communities, healthcare, and school systems. The Center for Disease Control and Prevention (CDC) (2019) shared that trauma-exposed children cannot develop healthy reasoning based on their exposure to "violence, abuse, and growing up in a family with mental health or substance use problems," resulting in adverse childhood experiences (ACEs) (Overview section). When affected by trauma, everyone perceives it differently, and each person's emotional response to a troubling experience determines if they will suffer from short-or long-term consequences. Childhood traumatic experiences substantially impact the public health sector on
various outcomes, including detrimental effects on school systems, primarily in classrooms (Merrick et al., 2019).

**Background**

*National Impact*

The historical and fundamental ACE study conducted in 1998 examined roughly 17,000 adults about their childhood trauma exposure and how it has impacted their health as adults (Felitti et al., 1998). The study revealed lasting effects on health, well-being, and social outcomes in children exposed to or witnessing ACEs before reaching 18 years of age (Felitti et al., 1998). Felitti et al. (1998) found that higher ACEs were linked to more significant adverse outcomes and reported that more than half of the participants had at least one ACE. The CDC (2019) confirmed the reports of the ACE study and discovered that 61% of individuals experienced at least one ACE, and 16% experienced four or more, meaning that one in six adults experience four or more ACEs.

Jones et al. (2019) revealed that ACEs negatively influence social determinants of health (SDOH), and ongoing adversity worsens the consequences of ACEs. Merrick et al. (2019) shared that an individual is at a heightened risk of experiencing chronic health impairments, like coronary heart disease, stroke, asthma, COPD, cancer, kidney disease, and diabetes. Given the increased negative health consequences, it is no surprise that five of the ten leading causes of death are rooted in ACE exposure (Merrick et al., 2019). Moreover, trauma experiences have frequently been linked to alcohol and substance abuse, suicide, mental health conditions, especially depression, reduced educational accomplishments, compromised brain development, low income, and unemployment (Merrick et al., 2019). Since child abuse has been linked to somatic and psychological problems; thus, preventing ACEs could reduce 21 million cases of
depression, 1.9 million cases of heart disease, and 2.5 million cases of obesity (CDC, 2019; Herzog & Schmahl, 2018).

**Significance**

Childhood trauma exposure is a national public health problem, burdens the entire healthcare system, and affects the children's immediate communities, including the school systems. It is imperative to help the students overcome their traumatic experiences; therefore, providing elementary school educators and staff education and training in TIC and SEL modalities is crucial. Given the prevalence of trauma exposure, the NCTSN (2021a) highlighted that educators and staff could benefit students when utilizing TIC modalities in school, considerably improving classroom management, and creating a supportive school environment. McIntyre et al. (2019) concurred with the NCTSN (2021a) conclusions, reporting that most children who suffer from traumatic experiences would benefit from educators' TIC training and education as the efficacy of those programs in schools would decrease adverse student behaviors, suspensions, and disciplinary actions.

However, trauma exposure does not only affect our healthcare care and school systems but also affects the economy. Peterson et al. (2018) estimated in 2015 that the lifetime cost per victim of fatal and non-fatal child maltreatment is approximately 17.5 million dollars. Furthermore, they shared the "annual U.S. population economic burden [to be approximate] $428 billion to $2 trillion" (Peterson et al., 2018, p.181). However, as with any other economic burden estimate, it is essential to note that trends of public health circumstances and reported cases may not describe the true extent of child maltreatment.
Problem

School systems experience the overwhelming and extraordinary challenges from the ACEs that the children have embedded into their bodies and brains (Perry & Daniels, 2016; Stevens, 2019). Fondren et al. (2020) outlined how ACE exposure creates obstacles to learning, resulting in poor academic performance, hinders academic achievement, and increases school suspensions. Additionally, children suffer from other problematic behaviors and emotions, such as the inability to form trusting relationships, a lack of confidence, constant hypervigilance, and incompetence to use executive brain functions correctly (Miller, 2022).

Lipscomb et al. (2019) revealed how caregivers face difficulties helping children “impacted by trauma” based on their personal adversities and a “lack of professional support” (p. 1). Padak (2019) likewise highlighted that those educators might also have a trauma history, perhaps influencing their reaction to students presenting trauma symptoms in the classroom. The literature supports the problems educators and staff at the elementary school face as they feel overwhelmed and helpless and do not know how to ease the burden of the children's trauma experiences. Because of the early trauma exposure and damaged mental capacity, the children have a lower stress tolerance, which places them in constant survival mode for self-protection, resulting in difficulties regulating their behavior and emotions (Community and Family Services Division, 2021).

The elementary school's principal, educators, and staff can relate to the problems linked to ACEs with the school's student population and describe that many children exhibit signs of anxiety, appetite concerns, obsessive behaviors, lack of focus, tardiness, and anger responses (Principal, personal communication, November 1, 2021). Additionally, the principal noted that the COVID-19 pandemic increased the children's social fears and adverse childhood behaviors.
(Principal, personal communication, November 1, 2021). Those symptoms align with the NCTSN (2022) conclusions that trauma-related experiences cause extreme and continuous psychological distress, self-regulation difficulties, and trouble trusting others.

**Community Assessment and Risk Factors**

**Local Impact**

Children living in Maryland may have difficulties functioning in society because of their trauma exposure. The Abell Foundation (2019) explained that "Baltimore City has some of the highest incidence rates of Adverse Childhood Experiences, or ACEs, in Maryland" (para. 1). The Baltimore County (BC) community assessment provided further insights into how the children's microsystem influences their ability to attain SEL skills and academic achievements (Taylor & Gebre, 2016). The two leading BC health contributors, health outcomes and health factors, are grouped in percentile measures ranging from lowest (least healthy) 0-25%, lower 50%, higher 50-75% to highest (healthiest) 75-100% (University of Wisconsin Population Health Institute, 2021b). BC in Maryland is ranked for health outcomes in the lower middle range between 25% and 50% and health factors between 50% and 75%, representing the higher middle range (University of Wisconsin Population Health Institute, 2021b). Still, it was not surprising that the community assessment revealed that educators have children in their classrooms exhibiting symptoms associated with trauma experience.

BC is where the students are supposed to nourish and grow; however, as the two primary health status contributors were examined in greater detail, various additional factors provided more information that aided in analyzing barriers that place residents in unfair conditions regarding health equity. The health status of the BC community members is affected by their behavior, genetics, environmental surroundings, and physical activity. The University of
Wisconsin Population Health Institute (2021a, 2021b) shared that in BC, less than 50% of its residents do not partake in any physical activity, are obese, and consume excessive amounts of alcohol, of which 26% are involved in alcohol-impaired driving death.

Recorded trend measurements for BC between 2002 and 2018 revealed an increase in adult obesity, sexually transmitted diseases, and impoverished children (University of Wisconsin Population Health Institute, 2021b). Furthermore, statistics revealed that only between 70% and 89% of residents graduate high school and attend college, and 4% are unemployed, which correlates to living in poverty (University of Wisconsin Population Health Institute, 2021b). An et al. (2011) revealed that unemployed people are at an increased risk of enduring overall poor health, high-stress levels, high blood pressure, heart disease, and mental health issues. BC also ranks poorly for inadequate social associations, children living in single-parent households, sedentary lifestyles, and violent crimes (Baltimore County Department of Health, n.d.).

The risk factors presented for BC are precursors to negative influences that hinder a child's progress toward a prosperous and productive life. Egerter et al. (2011) outlined that continuous exposure to harmful situations results in long-term emotional and physical dysfunctions, especially when exposed at an early age. If the problems of the health outcome risk factors persist, the unmet needs will widen the already health inequity gap and worsen the health status of the children. Given these indicators, this Q.I. project will examine the benefits of training and educating elementary school educators and staff on TIC and SEL modalities to utilize these competencies and skills in the classroom.

**Healthcare Needs To Be Addressed**

This Q.I. project addressed the lack of educators and staff training and ability to (a) recognize the signs of trauma in students, (b) realize the impact of trauma on students, (c)
respond appropriately to students affected by trauma, and (d) resist re-traumatization of students and themselves, better known as the “Four R’s” of TIC (SAMHSA, 2014a).

**Review of Literature**

Evidence collection about the problem of childhood trauma exposure and the usefulness of appropriate training modalities, such as TIC and SEL, for educators and staff in the elementary school, was conducted using the Johns Hopkins Nursing Evidence-Based Practice Model (JHNEBP). The JHNEBP framework consists of three main steps, which help to systematically form the problem statement, conduct the literature review, and ultimately translate evidence (Dang et al., 2022). To rate each study’s level and quality adequately, the JHNEBP model contained appraisal tools, simplifying the process by asking specific questions (Dang et al., 2022). The searched databases included CINAHL, OVID, EBSCOhost, PsycINFO, ERIC, ProQuest Social Sciences, and Elsevier with the following key terms: trauma-sensitive schools, trauma-informed care (TIC), social-emotional learning (SEL), adverse childhood experience (ACE), and classroom management. The articles' search criteria returned 13,057; however, 10,804 were excluded, 50 were reviewed, and 15 were used. The included studies ranged from a level of evidence of I, III, and V, with randomized control trials (RCTs), meta-analysis/synthesis, mixed-methods, critical analysis, and program evaluations. The date ranges for most studies were between 2016 and 2021. Only four studies were outside the date range (1998, 2007, 2008, and 2011) but were accepted based on historical or significant relevance. The exclusion criteria entailed no full-text link, not peer-reviewed, poor quality, non-English studies, outside the date range, or they did not answer the clinical question. Another critical aspect of the literature search involved the awareness of various abbreviations of relevant terms. Abbreviations relevant throughout the literature and this Q.I. project were:
• ACE: Adverse Childhood Experience,
• TIC: Trauma-Informed Care, and
• SEL: Social-Emotional Learning

One of the essential studies investigating the effects of dysfunctional households, abuse, and neglect in childhood is the CDC-Kaiser study conducted in the early to mid-1990s (Boullier & Blair, 2018). The study revealed that trauma alters the brain's neuroplasticity and reshapes how individuals portray their environment (Boullier & Blair, 2018). This new information helped describe ACEs' impact and relevance regarding mortality and morbidity in adulthood (Felitti et al., 1998). Furthermore, the ACE study revealed a lasting connection to poor developmental behaviors, academic performance, and socio-economic decisions (Felitti et al., 1998; Merrick et al., 2019). Parker et al. (2019) added that if children are repeatedly experiencing ACEs, this further impairs their memory, attention, behavior, and the ability to form healthy relationships. Consequently, it is predicted that trauma-exposed children cannot have beneficial relationships with their educators, who are trying to support them, as they are inclined to feel betrayed or lack a sense of safety (Zlate, 2020).

Implementing TIC modalities means supporting the students and providing them a space to feel safe in which they can create healthy relationships among peers and with educators (Perry & Daniels, 2016). Gherardi et al. (2020) shared that when implementing trauma-sensitive practices, educators realize and recognize the impact of trauma and the need to resist re-traumatization. At the same time, Perry and Daniels (2016) found that 97% of the school staff reported learning about trauma-sensitive practices after professional development (PD) training helped them better recognize trauma. Dorado et al. (2016) further highlighted that prevention and intervention programs for creating trauma-informed, safe, and supportive schools increased educators'
knowledge about trauma, how it affects children, and how to help traumatized children learn in school. Dorado et al. (2016) further shared that trauma-sensitive practices among participating educators increased by 49%.

Multiple studies revealed a statistically and clinically meaningful increase in elementary students' knowledge of SEL concepts, effective coping strategies after implementing SEL programs, increased student school attendance, and educators' knowledge of TIC practices (Padak, 2019; Merrell et al., 2008; Perry & Daniels, 2016). Similarly, Durlak et al. (2011) found that SEL helped children achieve improved physical, intellectual, social, and emotional well-being, learning outcomes, and better attitudes. Padak (2019) added that trauma-exposed students have challenges with SEL skill-building.

The literature review supported the implementation of TIC modalities in the classrooms with the extension of SEL skill-building modalities. Although each study used different intervention programs, they all expressed that the PD of educators in TIC modalities is at the core of creating trauma-sensitive classrooms. Particularly when the school models are grounded in "increased awareness and understanding of trauma" or “built on the science of ACEs and toxic stress” (Gherardi et al., 2020, p. 487; Parker et al., 2018, p. 218).

Educators gain excellent practical skills when a low-fidelity simulation accompanies PD training. A randomized control trial revealed that low-fidelity simulation training provided superior skills compared to traditional education methods alone (Shepherd et al., 2007). Sonsteng-Person and Loomis (2021) likewise highlighted that role-playing was more effective than content-focused training and recommended it as a strategy for training educators.

Despite the unanimous agreement, more studies need to be conducted to find a standardized intervention program to strengthen the validity and reliability of TIC training.
programs and SEL skill-building strategies, which will help reduce sustainability opposition. Gherardi et al. (2020) shared the most used model to implement trauma-sensitive practices: the Trauma and Learning Policy Initiative (TLPI). In comparison, Craig (2006, 2017) shared a six-element model rooted in the work of TLPI and the Milwaukee Public School initiative that includes five elements. However, the authors shared that those models emphasize "staff training, school-wide processes, and specific supportive practices with students" (Gherardi et al., 2020, p. 487).

**Conceptual Framework**

*Multi-tiered Systems of Support (MTSS) Framework*

The conceptual framework that represented and helped explain the problem was the Multi-Tiered System of Support (MTSS) umbrella, as illustrated in Figure 1 (Ellis, 2021). The framework originated as a paradigm from public health research that emphasized three levels of prevention and accepted universal classroom implementations to advance school-wide approaches to meet the needs of all students (Adamson et al., 2019; Center on Positive Behavioral Interventions and Supports, 2021). Kaiser (2020) shared the concepts of the Collaborative for Academic, Social, and Emotional Learning (CASEL) institute and reports that organizations who frequently utilize SEL programs and procedures view it as a vital element of the universal initiatives of the MTSS framework. The CASEL concept intends to promote positive academic and behavioral outcomes for all students. The MTSS umbrella is a framework consisting of various support components, and this Q.I. project will embed SEL interventions to support students academically, socially, and emotionally (Ellis, 2021).
Figure 1

*Multi-Tiered System of Supports (MTSS) Umbrella*


Figure 2 displays the MTSS pyramid, organized in three tiers, color-coded, and the interventions shown include academics, behavior, attendance, and SEL (Werb, 2020). This Q.I. project focused solely on Tier 1 interventions delivering universal strategies supporting all students, in which prevention strategies are the basis for behavioral and academic support. Tier 2 interventions are supplemental to Tier 1 and provide targeted support for students who continue to experience social, emotional, and behavioral risks (Werb, 2020). Tier 3 interventions offer students individualized interventions that may include outside resources to licensed professionals (Adamson et al., 2019).

Figure 2

*Multi-Tiered System of Supports (MTSS) Pyramid*

Theoretical Framework

Figure 3 visually represents Bronfenbrenner's theoretical framework, featuring five color-coded ecological systems, outlining how they shape and influence human growth and development (Rosa & Tudge, 2013). Because children spend most of their time in this context, such as with family, school, and community, the bright, orange-colored microsystem is the first and most important structure that influences their development (Rosa & Tudge, 2013).

Figure 3

*Bronfenbrenner's Bioecological Model*

![Bronfenbrenner's Bioecological Model](image)

*Note.* This model shows that the child is at the core of this system, and the bioecological model includes five system levels: the microsystem, mesosystem, exosystem, macrosystem, and chronosystem. Each system is color-coded for straightforward depiction and understanding. The arrows demonstrate the associations between each system, illustrating their interconnectedness. Adapted from "Bronfenbrenner's Ecological Systems Theory," by O. Guy-Evans, 2020, *Simply Psychology.*

https://www.simplypsychology.org/Bronfenbrenner.html. CC BY-NC-ND 3.0.

The light-yellow shaded mesosystem is a central system where relationships between two or more microsystems transpire. Next is the green shaded exosystem, which indirectly influences the system's center. However, the child is not a component of this system; the events impact their lives because of the affected individual's proximity. For example, when a caregiver loses employment and experiences undue financial hardship in the home, the child will experience an indirect effect (Rosa & Tudge, 2013). Soon the caregiver may not have enough money to provide basic physiological needs like food, water, and housing (Rosa & Tudge, 2013). The blue-shaded
macrosystem follows the exosystem and differs from the others. It includes cultural or subcultural backgrounds of a person's life, such as economic, social, educational, legal, and political systems (Rosa & Tudge, 2013). The fifth system in Bronfenbrenner's framework is the violet-shaded chronosystem, which includes environmental events and changes throughout life (Rosa & Tudge, 2013). It can consist of changes in family structure, job relocation, economic changes, or even the start of a war (Rosa & Tudge, 2013). Bronfenbrenner assumes that objective and subjective perspectives shape the experience in the chronosystem when explaining the "notion of stability and change" (Rosa & Tudge, 2013, p. 254). It is imperative to remember the connection between the environment and characteristics of the child that also influence their development.

Bronfenbrenner's framework has implications for educational application as the system illustrates an inclusive methodology composed of many frameworks, precisely mirroring the ever-changing patterns of family relations (Guy-Evans, 2020). Nevertheless, Bronfenbrenner assumes that the child must build a strong relationship with the components in the microsystem to have a solid foundation as it will help them succeed on other levels in the system. Bronfenbrenner's model received recognition and was generally accepted because it was exceptionally appealing as a helpful system for analysts, sociologists, and educators concentrating on improving a child's education (Guy-Evans, 2020).

This theoretical model provides insights into how microsystems in children's lives influence outcomes, including SEL and school performance (Taylor & Gebre, 2016). Bronfenbrenner explains that child development is a complex phenomenon, but analyzing significant characteristics of students, essential social connections, and basic social settings that impact their social and emotional growth can help educators comprehend the children's
development (Taylor & Gebre, 2016). Bronfenbrenner's bioecological model applies to this Q.I. project because the school is one of the child's primary and intimate environmental influencers. Tabone et al. (2020) elaborated that early preventative initiatives at schools for students exposed to trauma can have profound implications for minimizing the risks that children would later suffer from mental and physical health disorders or begin using illegal substances as a way of relieving their pain and suffering. Thus, training and educating elementary school educators and staff in TIC and SEL skills allows for an improved foundation for the children's success, especially those affected by trauma. Moreover, the microsystem is where children learn, and with the school's support, encouragement, and nurturing environment, it can provide its most substantial impact.

**PDSA Framework**

This Q.I. project followed the Plan-Do-Study-Act (PDSA) cycle because it provides a structured approach to problem-solving, improving a process, or leading to change (Institute for Healthcare Improvement [IHI], 2022a). The PDSA cycle permits efficiently carrying out tasks within each phase and is an ongoing improvement model (IHI, 2022a). The Plan phase is the foundation of starting a change initiative or implementing a project, and during that time, identifying the problem, stakeholders, and timelines and meeting schedules have priority. After that, the Do phase describes what needs to be accomplished, usually by constructing aims and objectives (IHI, 2022a). Furthermore, during this phase, data is collected with tools that measure the desired outcome (IHI, 2022a). The Study phase examines the process by analyzing the data collected from the previous phase. The Act phase determines if the intervention achieved its desired outcomes or if the cycle must be restarted and re-examined (IHI, 2022a).
Description of Project

Purpose of the Q.I. Project and Clinical Question

The project manager initiated this Q.I. project to respond to the trauma-sensitive practice education and training gaps for private elementary school educators and staff, overwhelmed by students' trauma history and classroom behaviors, as confirmed by the school's principal. The Q.I. initiative included PD training in TIC, supported by low-fidelity simulation highlighting trauma behavior concepts, and SEL skill-building modalities focused on supporting elementary school educators and staff. Applying the principles of the PICOT method allowed the identification of the components that later formed the clinical question.

The clinical question asked whether implementing TIC education and SEL skill-building training would increase the educators' and staff's comprehension of how trauma impacts students’ learning and physical and mental health outcomes and if it would increase their utilization of trauma-responsive practices in classrooms to prevent re-traumatization of their students and themselves. The private elementary school educators and staff were the primary populations (P), whereas the students were secondary. The intervention strategies were TIC education, low fidelity simulation, and SEL skill-building training (I). The comparison (C) was the educators' and staff's pre-intervention comprehension and utilization of TIC and SEL modalities compared to their post-intervention comprehension and utilization. The outcome (O) assumed that most elementary school educators and staff would increase their knowledge about trauma-sensitive modalities and increasingly utilize them post-intervention. The intervention timeline (T) was a 15-week effort between January and May 2022.
Aims and Objectives

The following aims and objectives were identified to address the existing education and training gap in TIC and SEL modalities.

Aim 1

Assess the educators’ and staff’s readiness for change, understanding of trauma and its impact on learning, and their current practice between mid-January and mid-February 2022.

Objectives.

1. Administer the Pre-Training Knowledge Survey (Guarino & Chagnon, 2018b) to test their baseline understanding of trauma and its impact on students and staff.

2. Administer the School Readiness for Change Survey (Guarino & Chagnon, 2018a) to assess TIC education and training readiness.

3. Administer the Pre-Training Staff Survey for Assessing Current Practice (Guarino & Chagnon, 2018a) to evaluate their current practice perceptions on TIC strategies in the school.

4. Conduct pre-training classroom observations to assess their baseline TIC and SEL comprehension and utilization.

Aim 2

Instruct educators and staff on TIC practices, utilizing low-fidelity simulation and SEL skill-building modalities, between January and mid-February 2022.

Objectives.

1. Develop and compile trauma-sensitive lectures, illustrate role-playing scenarios, conduct SEL skill-building training, and lead a PD training class.
2. Educators and staff who participate will illustrate a 90 percent increased understanding of trauma and its impact and trauma-sensitive strategies, measured by administering the Post-Training Knowledge Survey (Guarino & Chagnon, 2018b).

3. Administer the Training Satisfaction Survey (Guarino & Chagnon, 2018b) immediately after the PD training.

4. Participate in several unstructured interviews with the principal to develop the baseline organizational knowledge and perceptions.

**Aim 3**

Educators and staff will demonstrate increased utilization of TIC and SEL practices in their daily classroom routine post-intervention and experience changed perceptions of their classroom management by May 2022.

**Objectives.**

1. Post-intervention, 85% of educators will utilize trauma-sensitive school practices in their classrooms, as measured by post-intervention classroom observations.

2. Facilitate a post-training internet-based focus group to assess educators' and staff's classroom perceptions of classroom management and the efficacy of utilizing TIC and SEL on students.

3. Engage in various unstructured interviews with the principal to increase the organizational knowledge and perceptions.

4. Post-intervention, a 20% increased perception of the educators’ and staff’s current practice perceptions, measured by administering the Post-Training Staff Survey for Assessing Current Practice (Guarino & Chagnon, 2018a).
Overview of Methodology

The institutional review board (IRB) approved this study as a Q.I. project as it met the criteria for exempt status. Participants gave verbal informed consent before initiating any intervention via a "yes" response when asked about their willingness to participate in a Q.I. project. Completing the pre-training questionnaires also constituted their consent to participate in the Q.I. project.

Intervention

Plan

The entire Q.I. project was conducted between September 2021 and July 2022, in which the “Plan” phase was the first step, starting in September 2021 until January 2022. The Plan phase answered the "who, what, where, and when" questions of the PDSA improvement cycle (IHI, 2022b). Based on the practice problem, stakeholders were identified: educators, staff, and the principal in a private elementary school in BC, Maryland. During this phase, the project manager shared an MS-PowerPoint slideshow with the principal to strengthen the approval odds, outlining the topic's importance, the study's purpose, and the aims and objectives.

Setting

The project site was a private elementary school in BC, Maryland. The school offers pre-K-fifth grade has a co-ed student body of 74 students during the 2021-2022 school year and requires a school uniform as their dress code (Private School Review, 2003-2020). The school represents a diverse student body as 62% of students are of color (Private School Review, 2003-2022). The average class size comprises about 15 students and is capped at 20 students per classroom (Private School Review, 2003-2022). Eighty percent of the faculty hold an advanced degree (Private School Review, 2003-2022).
BC is geographically in the middle of Maryland and has a census of 854,535 people (United States Census Bureau, 2020). Predominant races in BC are Non-Hispanic Whites (56.6%), followed by Non-Hispanic Black residents (29%), including some minority populations of American Indian, Alaska Native, Asians, Native Hawaiian/Other Pacific Islanders, and Hispanics, and 2% are not proficient in English (University of Wisconsin Population Health Institute, 2021b). The population below 18 years is 21.6%, higher than the 65 and older generation at 17.2% (University of Wisconsin Population Health Institute, 2021b).

At the project's initiation, the county had an 8.9% poverty rate with a median household income of $76,866 (United States Census Bureau, 2020). The Baltimore County Government (2022) outlined that Baltimore is one of the "most educated" areas (para. 1). Their higher learning academic institutions frequently obtain high ratings, serving the county with a well-trained community workforce. Additionally, BC supports business growth and training opportunities for its workforce (Baltimore County Government, 2022).

Population

The population of this Q.I. project was limited to one private elementary school in BC, Maryland. The participants were educators (n= 7) who teach pre-K to fifth grade, support staff (n= 1), and the principal (n= 1), and all reported English as their primary language. Of all the participants (n= 9), 11% identified as males and 89% as females. In addition, seven classrooms, ranging from pre-K to fifth grade, were included in the intervention implementation efforts. The private elementary school participants included males and females with various teaching experiences, ranging from novice to expert. At a minimum, all educators and staff have a bachelor's degree in teaching, and some have an added teaching specialty certificate. The inclusion criteria for participants were to hold any position at the school, regardless of the length
of employment, race, age, years of experience, or the grade level in which they teach. No exclusion criteria were identified for participants. Detailed demographics, such as age, race, ethnicity, marital status, religion, or income, were not assessed for fear of being identified among co-workers and the community as it is a small private school.

**Implementation**

**Do**

The "Do" phase outlined the implementation efforts and data collection, including setting a timeline between January 2022 and May 2022. The principal and project manager met several times, either in-person or virtually, on Zoom (www.zoom.us) to discuss the specifics of the project timeline. It is important to note that between January 2022 and May 2022, the COVID-19 pandemic impacted the school systems, especially when trying to adhere to the CDC guidelines that were constantly changing. Nevertheless, the principal and project manager were able to plan the Q.I. project timeline and allowed implementation during the outlined dates, despite some difficulties regarding the ongoing health crisis.

In late January 2022, the elementary school educators and staff were officially invited to participate in the Q.I. project. After the elementary school educators and staff verbally consented to participate in the Q.I. project, they received more in-depth information about the topic. First, during a morning meeting with the principal, and second, by the project manager, who sent a "Pre-Project Welcome Email" that included the project manager's introduction, background information, degree program attainment, and the purpose of the study. The email also outlined their voluntary participation and described the best ways to reach the project manager if concerns or questions should arise. The project manager asked participants to acknowledge the email to ensure email addresses were accurate because the questionnaire links would be sent later.
Guarino and Chagnon (2018a) recommended surveying staff pre-and post-intervention to capture the educators' and staff's baseline data and compare them once the intervention strategies have begun and been utilized. Before any PD training began, educators and staff completed several baseline questionnaires anonymously via Survey Planet (www.surveyplanet.com). The participants were contacted via email six weeks before the in-person PD training and asked to complete several pre-training questionnaires. The email included a suggested questionnaire timeline, which mainly allowed them two weeks to finish. Before the participants could access the next intervention training, they had to complete the pre-training questionnaires first.

**Questionnaires**

One of the first questionnaires the educators and staff answered was the Staff Survey to Assess Current Practice (Appendix A), a 6-section questionnaire totaling 43 questions, scored on a Likert scale, scoring from 1 (strongly agree) to 4 (strongly disagree) (Guarino & Chagnon, 2018a). Each section aimed to assess different aspects of the elementary school's practice: Section 1 assessed the practice regarding staff development; Section 2 asked if they had a safe and supportive environment; Section 3 asked about the needs and support they required; Section 4 questioned the building of social and emotional skills; Section 5 assessed about their communication techniques, and efforts with students and families; and Section 6 evaluated their current policies and procedures.

The Staff Survey to Assess School Readiness for Change (Appendix B) was a 3-section questionnaire totaling 23 questions, scored on a Likert scale from 1 (strongly agree) to 4 (strongly disagree), and overall aimed to assess the elementary school educators and staff's willingness and readiness for change (Guarino & Chagnon, 2018a). Each section of the questionnaire aimed to assess different viewpoints of the staff. Section 1 assessed their
motivation for change; Section 2 asked how much they agreed on their overall school functioning; and Section 3 asked how much they agreed to adopt a TIC intervention (Guarino & Chagnon, 2018a). The Pre-Training Knowledge Survey (Appendix C) consisted of 10 multiple choice questions assessing their general knowledge, understanding, and impact of trauma (Guarino & Chagnon, 2018b). All Pre-Training Knowledge Survey (Appendix C) questions directly correlated with the training materials. The questionnaire was adopted from the “Trauma-Sensitive Schools Training Package” supplied by the NCSSLE (Guarino & Chagnon, 2018b).

**Electronic Training Resource**

After the participants completed the recommended questionnaires, they could start the e-resource training, *Understanding trauma and its impact* (Guarino & Chagnon, 2018b). The educators received the training link via email, but the content is accessible at the following link: [https://trauma.airprojects.org/trauma-epub/Trauma101_eresource-TEST-1.xhtml](https://trauma.airprojects.org/trauma-epub/Trauma101_eresource-TEST-1.xhtml). The e-resource contains four parts:

1. What is trauma and who is affected?
2. How does the stress response system work?
3. What is the impact of exposure to trauma?
4. What does this mean for schools? (Guarino & Chagnon, 2018b)

The interactive resource trained the educators and staff on the meaning of trauma, who might be impacted by it, how the nervous system reacts to toxic stress and danger, and the consequences of trauma exposure (Guarino & Chagnon, 2018b). The e-resource was intended to be accessed by educators and staff independently and at a time convenient for them on either their personal computer (PC), laptop, or mobile device (Guarino & Chagnon, 2018b).
**In-Person Professional Development and Low-Fidelity Simulation**

Following the independent e-resource training, educators and staff participated in an in-person PD class conducted by the project manager, where an activity training packet was used as a learning companion (Guarino & Chagnon, 2018b). The activity package helped retain the information previously learned from the e-resource. During the in-person training and activities, the project manager started the PD class by sharing the goal for each of the five activities consisting of lessons in (a) teachings about different trauma categories and types, identification of trauma types, (b) the stress response of trauma, (c) recognizing possible effects of trauma on student behavior, (d) how to apply trauma-related concepts to common student scenarios, and (e) how to recognize the potential impact of trauma on school staff (Guarino & Chagnon, 2018b).

The in-person training also included a role-play low-fidelity simulation scenario, highlighting the trauma concepts demonstrated by two educators. One teacher played a trauma-affected student, and the other teacher played the role of the teacher. Both participants received a small 5 x 8 index card with a script to follow. The simulation concept was to help educators and staff learn to apply interactions they might have with students through a perspective grounded in TIC practices. Additionally, educators and staff learned about Tier 1 student support, emphasizing that the lessons learned during PD should be applied universally and benefit all students in their classroom. The SEL interventions discussed in the next section applied to the entire classroom.

**Social and Emotional Learning Skill Building**

The objectives for the SEL skill-building training included learning about the meaning of the topic; its benefits and effectiveness when utilized; classroom approaches; examples of SEL teacher-appropriate language; practice sessions, and a summary of the five CASEL domains that
outlined the ten primary SEL skills that should be taught and assessed. The five domains include self-management, relationship skills, self-awareness, social awareness, and responsible decision-making (CASEL, 2022a).

For example, the CASEL domain, self-management, suggests teaching and assessing the ability to listen to others or follow the rules (Elliott, 2019). For relationship skills, Elliott (2019) suggests teaching and assessing if they use "please and thank you" during communication, being respectful, and taking turns when others are talking. Furthermore, for self-awareness, asking for help is the SEL competency that would best fit this domain (Elliott, 2019). Doing the right thing would achieve the responsible decision-making CASEL domain (Elliott, 2019). Last, if they can do nice things for others, they would accomplish the social-awareness CASEL domain (Elliott, 2019).

The project manager bought, constructed, and donated visual materials for the elementary school educators and staff, where the resources contained concepts adopted from the CASEL 5 competencies (CASEL, 2022a). Appendix D shows a small collection of the donated resources, including reading lists, books, activity worksheets, and card games, sorted according to the SEL domains. Additionally, the school received a folder with SEL worksheets sorted according to the grade levels, and educators and staff could keep and utilize them to implement the modalities. Furthermore, the resources contained an infographic, which provided the educators and staff with helpful phrases to use when children communicated witheringly (Anderson, 2018). A growth mindset infographic by James Anderson was reproduced with permission (Appendix E) and is accessible on the following website: https://mindfulbydesign.com/change-mindset-change-words/.
Unstructured Interviews

The project manager obtained qualitative, organizational, and project-related data through unstructured interviews with the key informant, the elementary school's principal. After each classroom observation day, the principal asked to meet with the project manager. The principal had the relevant expertise connected to the intervention being implemented, was familiar with the project's team members, and had access to various helpful information (Frechtling & Sharp, 1997). The project manager recorded the data during the unstructured interviews to avoid the loss of critical information. Furthermore, the unstructured interviews were conducted in the principal's office, ensuring privacy and quietness. Each unstructured interview lasted approximately 20 to 45 minutes.

Internet-Based Focus Group

Due to the ongoing COVID-19 pandemic and precautions, the project manager modified data collection methods to support the health and safety of all people by holding online discussions. Participants received an email with an online link to a Google Docs document that multiple people could access simultaneously. The project manager did not choose a specific time and day for the participants to meet on the document, as many would outline scheduling conflicts. Therefore, the internet-based focus group was asynchronous, allowing participants more flexibility and hoping to increase the participation odds. This approach still allowed participants to elaborate back and forth on the questions without being present simultaneously. The questions were available to the educators from mid-May until the end of May 2022; thus, data collection occurred on an ongoing basis for over 2-weeks, and numerous email reminders were sent throughout the month, highlighting the importance of participation. Everyone was assigned a different color to distinguish each participant on the Google Docs document. The color "red" was
reserved for the facilitator for easy recognition. The facilitator logged onto the Google Docs document daily at various times for a minimum of two hours. The participants were asked to answer project implementation challenges, shortcomings, and perspectives on project outcomes.

**Observations**

The classroom observations occurred for educators and staff participating in the PD training. Two classrooms per day, each lasting two hours, were observed. The project manager assessed each classroom pre-and post-intervention to measure how many educators and staff would utilize trauma-sensitive practices. A grade-level observation tool with SEL target skills, competencies, and a scoring system was utilized. No pre-or post-observation discussions were held with the classroom educator or staff.

**Training Satisfaction**

Immediately after the in-person training and SEL skill-building exercises, educators and staff completed the Training Satisfaction Survey (Appendix F) anonymously via pen and paper (Guarino & Chagnon, 2018b). However, the participants could choose to complete the Training Satisfaction Survey online, as all other questionnaires were completed online. The project manager wanted consistency within the data collection methods, but the participants chose to finish the questionnaire via pen and paper. After completing the questionnaires, the participants folded their papers in half, and the project manager collected and placed them in an envelope to transport them to the locked file cabinet for storage.

**Validity and Reliability of the Training Materials and Tools**

Validity means how accurate it measures what it was trying to assess (Leung, 2015). In this project, validity indicated how reliable the tools measured the variables of the project’s aims and objectives. The *Trauma-Sensitive Schools Training Package*, which included the Pre-and
Post-Training Knowledge Survey, supplemental e-resource, and the Training Satisfaction Survey, was adopted from the NCSSLE (Guarino & Chagnon, 2018b). The educational material is publicly and freely available, and it is permitted to replicate without obtaining additional consent (Guarino & Chagnon, 2018b). Several viewpoints were accounted for to confirm the validity of the tools; for example, the tool's authors are trained experts in TIC on a national level and employed by the American Institutes for Research (AIR) (Guarino & Chagnon, 2018b). They further strengthen their validity claim by sharing that their training guides and tools consist of “a comprehensive package of evidence-based tools and strategies… [and that] training tools are suites of research-based … materials” (NCSSLE, 2018; NCSSLE, 2022, para. 1).

Furthermore, Guarino and Chagnon (2018b) outlined that school representatives, local and state education agencies, and various governmental institutes from different disciplines participated in the piloting process, reviewed the training material, and confirmed its validity and reliability. Key stakeholders of this Q.I. project, such as the faculty mentor and project site preceptor, evaluated the tools and agreed on the tools’ validity based on the training materials and outcome measures.

The CASEL 5 competencies and instructional practices were adopted from the CASEL framework and their program guide featuring 25 rigorously researched programs (CASEL, 2022a, 2022b). Several meta-analyses revealed that SEL activities are efficient when effective evidence-based practice (EBP) strategies for schools aid in improving intellectual, social, and emotional beliefs while preventing adverse effects (CASEL, 2022b). They further discovered that educators and school staff could successfully implement SEL across various student populations due to training and education (CASEL, 2022b). The observation tools' grade level skill indicators came from the Iowa Department of Education (2020). Experts on the national and
local levels in educational, governmental, and non-profit agencies developed those target skill indicators (Department of Education, 2020).

The _SEL Coaching Toolkit_ by Yoder and Gurke (2017) supplied the observation performance level indicators for which the project manager assigned a score between one and four. The score indicators are as follows, 1 *(SEL practice is not yet present in the classroom)*, 2 *(SEL practice is minimally present in the classroom)*, 3 *(SEL practice is moderately present in the classroom)*, and 4 *(SEL practice is fully present in the classroom)* (Yoder and Gurke, 2017, p. 10). According to Leung (2015), "the essence of reliability for qualitative research lies with consistency" (p.326). Therefore, the strategy employed to ensure reliability is applying consistency within the same techniques in the same situations. For example, data collected during the classroom observations used consistent data and scoring procedure strategies.

To ensure the accuracy of the focus group questions, they were evaluated and controlled by asking questions that measured what the project manager intended to measure. For example, "What did you already know about SEL before the implementation?" The project manager ensured that questions were not ambiguously worded or in a way that could be answered only with "yes" or "no." Moreover, the project manager used simple words and plain language to gather information from the questions. The project manager’s role was to be a moderator or facilitator only. The participants had not seen the questions before the online focus group. The participants (n= 7) invited to the focus group included the elementary school educators, staff, and principal. The project manager employed similar methods to ensure accuracy regarding the unstructured interviews. The questions were asked to measure the intended outcome and were open-ended to avoid short one-word answers. As the interviews were unstructured and primarily unplanned, the interviewee did not know the questions beforehand. The questions were easy to
understand, and the project manager recorded responses via pen and paper in a notebook to validate accuracy.

**Data Management Plan**

**Data Collection**

This Q.I. project utilized a mixed-method approach of qualitative and quantitative data from internal sources via questionnaires, scored observations, focus groups, and unstructured interviews. The questionnaires measured the educators and staff by comparing their pre-training and post-training group results. Student observations were measured as a community as the entire class was observed based on the universal interventions implemented; however, the educators and staff were measured individually. The unit of measurement for the focus group and unstructured interviews consisted of individual assessments. Combining multiple design techniques enriches the study design by generating more thorough and persuasive evidence than using only one study design (Creswell & Clark, 2011).

**Data Analysis**

**Study**

The “Study” phase was conducted between May 2022 and June 2022 and started with the data analysis and then summarizing the key findings. The qualitative data evaluation occurred manually and via thematic analysis, a robust and efficient way of analyzing qualitative data, especially when attempting to comprehend the raw data's ideas, thoughts, or events (Kiger & Varpio, 2020). Two approaches can be employed for thematic analysis, either inductive or deductive (Kiger & Varpio, 2020). The deductive approach uses various preset themes that the project manager decided upon beforehand (Fereday & Muir-Cochrane, 2006). The deductive approach was helpful in the focus group as the project manager wanted to assess the perceptions
of the educators and staff’s classroom management and efficacy of trauma-sensitive practices on their students post-intervention in their own words. The focus group discussed the following themes: intervention characteristics, components, support, and classroom outcomes. Kiger and Varpio (2020) shared that themes that arise during the analysis are considered inductive evaluation practices. The unstructured interviews produced essential data relevant to the clinical question, in which the inductive approach was beneficial as the project manager did not have a distinct outcome in mind. This data-driven analysis formed the following themes: organizational data, teacher outcomes, and variables and their relationships.

All quantitative data analysis occurred using descriptive statistics, and the mean percent change or frequency was calculated in Microsoft Excel (version 2205). The questionnaires that were administered pre-and post-intervention were identical. The questionnaires that included multiple-choice questions would undergo a nominal scale data analysis in which the incorrect answers were labeled with 0 (incorrect) and the correct answer with 1 (correct). The level of measurement for the multiple-choice questionnaires also was specified as nominal data levels. The questionnaires scored on a Likert scale were evaluated via ordinal scale data analysis as it was essential to keep the order of the variables. For example, the Training Satisfaction Survey asked the participants to rate the extent to which they agree, where 1 (strongly disagree) and 5 (strongly agree) were asked. Those values always mean what the label says and cannot change the order. The data analysis for the observations used numerical and statistical parameters. The objective data gathered during the observations were analyzed subjectively and associated with a score between 1 and 4. The scoring system was adopted from Yoder and Gurke (2017), and a score of 1 meant "SEL practice is not yet present in the classroom" and 4 "SEL practice is fully present in the classroom." A score of 2 and 3 represented "SEL is minimally present" or "SEL is
moderately present,” respectively (Yoder & Gurke, 2017, p10). This method allowed to quantify SEL utilization and permitted the use of statistical analysis of the results.

**DNP Project Results and Findings**

At the start of the project, there was a total of n= 9 participants, 11% identified as males and 89% as females. Staff turnover resulted in n= 8 participants; of the remaining eight participants, 13% identified as males and 87% as females. Because of the unique participant characteristics and small school environment, all identifying markers were de-identified to protect participants' privacy. Because of the staff turnover, only six baseline and follow-up observations of the initial seven classrooms were completed and included in the analysis and results. Contextual factors that interacted with the intervention included staff turnover and a lack of staff knowledge and training about the problem.

The Pre-and Post-Training Staff Survey for Assessing Current Practice (Appendix A) consists of six sections, assessing the educator and staff’s opinions about (a) staff development, (b) a safe and supportive environment, (c) their needs and the support they provide to families, (d) SEL skills, (e) collaboration with students and families, and (f) school policies and procedures (Guarino & Chagnon, 2018b). Results revealed that the most frequently selected Likert items "Agree" and "Strongly Agree" at pre-intervention totaled 79% compared to post-intervention at 82%. (Figure 4). However, although this objective's proposed 20% increase was not met, a 4% change was still noted.
Figure 4

*Mode of Pre-and Post-Training Assessment of Current Practice*

![Chart](image)

Note. Mode of pre-and-post training assessment of current practice. Categorical values were scored on a 4-point Likert scale. Raw data were converted to percent values and displayed within the colored bar graphs. Below the colored bar graphs, pre- and post training indicates the x-axis items. Above the bar graph, a total of the two most frequently selected Likert items are displayed. The orange color depicts the percent frequency of 52% and 56% at pre- and post-training for the Likert items “Agree.” The blue color depicts the percent frequency of 27% and 26% at pre- and post-training for the Likert items “Strongly Agree.” The y-axis shows the percent frequency value scores.

The School Readiness Survey for Change (Appendix B), consisting of three sections, assessed elementary school educators and staff for (a) motivation, (b) general school functioning, and (c) intervention-specific opinions and perceptions at pre-intervention. Contextual elements that positively interacted with the intervention were the school environment's motivation for change and a supportive organizational culture, especially at the leadership level. When considering the overall school's readiness for change, except for a few disagreements in some item questions, the frequency analysis shows 86% willingness to change (Figure 5).
Figure 5

Mode of Staff Survey to Assess School Readiness for Change

![Mode of School Readiness for Change Survey](image)

Note. Mode of Staff Survey to Assess School Readiness for Change. Categorical values were scored on a 4-point Likert scale and are shown below the colored bar graphs. Percent frequency values are displayed above the bar chart, arranged in ascending order.

Results revealed that the most frequently selected answers to all questionnaire questions were the items "Agree" and "Strongly Agree," at 53% and 33%, respectively. A section-specific analysis discovered that in Section 1, concerned with how motivated the school community would be in adopting a TIC approach, Questions 1 and 8 were answered with "Disagree" at 44% and 11%, respectively. These two questions asked about the existing strategies and the need for "trauma-sensitive approaches" (Guarino & Chagnon, 2018a, p. 13). The first question in Section 1 asked about "A trauma-sensitive approach [that] is different from existing universal supports already in place for students at our school" (Guarino & Chagnon, 2018a, p.13). One participant disagreed with this statement, which could be a possible connection to Question 1 in the Pre-and Post-Training Knowledge Survey (Appendix C), which was answered incorrectly. Poorly recognizing trauma-sensitive approaches and trouble identifying traumatic events indicate a low
motivation. Therefore, possible barriers should be assessed as to why elementary school educators and staff are reluctant to change and adopt trauma-sensitive approaches.

Questions in Section 2 addressed school climate, leadership, and communication aspects aiming toward the overall school functioning and asked, for example, "My school operates well in the day-to-day manner" (Guarino & Chagnon, 2018a, p. 13). Seventy-eight percent of the questions contained "Disagree," and 11% included answers of "Strongly Disagree." The statements that were answered with "Disagree" asked questions regarding the staff’s perceptions about receiving “the support they need… [and if] staff feels respected and valued,” and whether they were “open to making changes” or not (Guarino & Chagnon, 2018a, p. 13). The question that received the most frequent answer of “Disagree” was “staff receives adequate training to adopt new approaches” (Guarino & Chagnon, 2018a, p.13). Question 8 contained the answer “Strongly Disagree,” which questioned the communication efforts among staff members (Guarino & Chagnon, 2018a). If the operational school functioning emerges with a low score, the school community must focus on improving those areas before they can accept any change initiatives effectively (Guarino & Chagnon, 2018a). Fortunately, that was not the outcome for this elementary school, as the total score for the items “Agree” and “Strongly Agree” equaled 81%.

Section 3 aimed to assess intervention-specific opinions with an example question: "Staff has the skills needed to adopt a trauma-sensitive approach" (Guarino & Chagnon, 2018a, p14). Data analysis revealed consensus by the frequency measurement, "Agree," outlining that the elementary school educators and staff perceived adequate capacity and resources to adopt a Q.I. initiative. However, 84% of the questions were answered with "Disagree," and 17% answered with "Strongly Disagree." The questions replied to with “Disagree” were gathering the staff’s
perceptions about the knowledge, skills, resources, and staff” availability to implement trauma-sensitive approaches (Guarino & Chagnon, 2018a). Question 6 was answered with “Strongly Disagree,” examining “the systems and processes in place to adopt a trauma-sensitive approach” (Guarino & Chagnon, 2018a, p.14).

The Pre-and Post-Training Knowledge Survey (Appendix C) examined if participants would increase their TIC knowledge by 90% post-intervention. Figure 6 shows the participants’ percent change per question for the Pre-and Post-Training Knowledge Survey, illustrated by bar graphs in different colors.

**Figure 6**

*Combined Participants’ Pre-and Post-Knowledge Survey Percentage Comparison Per Question*

![Graph showing combined percentage comparison per question](image)

*Note.* Pre-and Post-Knowledge Survey percent comparison scores are shown for the ten questions per survey. Percentage scores were calculated based on the correct answers given by all participants pre-and post-intervention. Different color shadings help distinguish between pre-knowledge (blue bars) and post-knowledge (orange bars) results.

A question-specific analysis revealed that more participants answered Questions 1 and 8 correctly pre-intervention than post-intervention. Pre-intervention, 22% of participants answered Question 1 correctly compared to 13% post-intervention. Sixty-seven percent answered Question 8 correctly pre-intervention compared to 38% post-intervention. The two questions dealt with the comprehension of overall traumatic experiences and the meaning of secondary traumatic stress.
Although two out of the ten questions did not reveal an increased TIC knowledge acquisition, 61% of the questions were answered correctly compared to 53% pre-intervention (Figure 7). This shift indicates a 15% increase in pre-to post-intervention scores.

**Figure 7**

*Mean Scores of Pre-and Post-Knowledge Survey, including Percentage Change*

![Mean Scores of Pre-and Post-Knowledge Survey](image)

*Note.* Mean average and standard deviation for the pre-and post-knowledge surveys for the combined participants of n= 8 and 9, pre-and post-intervention, respectively. The results show that an average of 53% of questions were answered pre-intervention correctly compared to 61% post-intervention. Different color shadings help distinguish between pre-knowledge (blue bars) and post-knowledge (orange bars) results.

The Training Satisfaction Survey (Appendix F) associated with the in-person training lectures and role-playing scenarios was administered and completed by all participants (n= 8) immediately after the in-person training. There was a consensus of 87% among the participants in agreeing or strongly agreeing with the questionnaire’s statements. However, 13% of the participants shared that they "neither agree nor disagree" to question 3 "I am better equipped to recognize the effects of trauma on students, staff, and parents" (Guarino & Chagnon, 2018b, p. 36).
The Training Satisfaction Survey also asked five open-ended questions and required participants to finish each sentence. The first sentence started with "I learned…," and the most common participants’ answers included learning about "different types of traumas" (Guarino & Chagnon, 2018b, p.36). The second open-ended question started with "I most appreciated …," and the most often mentioned participants’ answers included knowledge application statements such as "relating it to my students, the real-life scenarios and allowing us to converse about relevant trauma issues" (Guarino & Chagnon, 2018b, p.36). The third open-ended question started with "The first thing I want to try ….," and the theme identified within the participants’ answers was the immediate transformation they wanted to undergo (Guarino & Chagnon, 2018b, p.36). For example, "to think about the why before reacting, and to think to a greater extent before reacting." Two of the open-ended questions remained unanswered or did not yield significant data that asked (a) “I would like additional education on…,” and (b) “We can improve this training by…” (Guarino & Chagnon, 2018b, p. 36).

The pre-and post-training observations aimed to assess whether educators and staff utilized trauma-sensitive practices in their classrooms. Contextual factors that influenced the intervention included COVID-19 guidelines from the organization. During one of the post-training observation days, an entire school class learned of a COVID-19 exposure causing the cancellation of the class. Some modifications to the observation schedule had to be conducted, which did not impact data collection. Due to staff turnover, only 85% of the classroom observations are illustrated in the results. Pre-intervention, 100% of the educators utilized some form of SEL modalities within the classroom. Likewise, post-intervention, 100% of educators and staff utilized trauma-sensitive practices in their classrooms.
Interestingly, during the classroom observations, it was uncovered that the educators and staff’s trauma-sensitive utilization efforts improved. Figure 8 depicts the percent change of SEL utilization efforts between pre- and post-intervention. It also shows the mean percentage of the classrooms' baseline scores at 52%, increasing to 64% for their post-training scores, indicating an overall percentage increase of 23%.

**Figure 8**

*SEL Utilization Percentage Change*

Data analysis of a particular SEL domain showed that educators and staff generally focused on utilizing and implementing self-management, social awareness, and relationship skills. The analysis revealed an overall positive increase in the given SEL domain, such as social awareness (25%), relationship skills (14%), and self-management (3%) from pre-to post-intervention. Although the last competency mentioned revealed only a slight increase, it is still noteworthy to acknowledge that educators applied and utilized those SEL strategies.
The idea of the focus group was to gain additional insights into the thoughts, perceptions, feelings, and concerns regarding TIC education and SEL utilization in their classrooms post-intervention. Eight participants (n=8) were invited to contribute to the focus group discussions, but only about 13% to 25% (n=1-2) were actively engaged. Since the focus group followed the deductive approach to thematic analysis, the predetermined themes were intervention (components, characteristics, and support) and classroom outcomes. During the focus group, the project manager explored previous experience in trauma-sensitive training. Findings revealed that an educator participated in a previous PD course, "Love Languages in the Classroom," which trained them to appreciate student diversity.

Therefore, when students contribute to SEL implementation problems or barriers, the educators could still identify their classroom’s needs by acknowledging their uniqueness and saying, “We must consider student diversity.” Because the educators' respect diversity, they still found strategies to implement SEL modalities successfully: "I encourage them to participate but have found that even just some quiet time to reflect can be good for hesitant students." A follow-up question asked, “Were the barriers related to hesitancy or the children’s low motivation of not accepting the SEL modalities?”

Findings outlined that if students were hesitant about participating, then they would allow them to engage in a more reserved way; however, for those who showed low motivation, one teacher shared, "Students can earn stars for positive self-management and demonstrating kind relationships with their peers and adults throughout the day." This statement indicates that students could be persuaded to participate and accept the newly implemented SEL activities when they are incentivized throughout the day. The project manager asked, “Did you engage in any self-care practices since the PD training?” Twenty-five percent shared how they tried to
separate work from their free time and not engage in work-related activities outside working hours. One teacher explained how distancing themselves from work is only partially effective and said, "I try to keep the school at school and home at home to care for myself and give myself the personal time away from school that I need. I have tried only to answer homework-related questions after 4:30 pm and save all other matters for the next morning." Another teacher added that they are trying to engage in self-care, but “sometimes I am not as successful at this part, as I would like to be!"

Findings to the question, “Did you use any technology in your classroom to teach them about SEL?” revealed that over half of educators and staff admitted using technology to integrate SEL practices in their classrooms. The project manager added a question to understand how they used the technology. Answers included playing relaxing music during snack or free time, replaying or displaying interactive activities, and researching and downloading SEL lessons and worksheets. Laptops, classroom projectors, personal cellphones, or CD players were mentioned regarding the types of technology utilized.

Educators and staff answered questions about specific SEL activities and shared newly incorporated activities, including where students could intentionally reflect on how to improve their attitudes by choosing a positive direction. For example, students’ ideas were recorded in their "morning reflection journal" as they began "the day answering a reflective prompt." Another SEL activity shared by one educator was that they “also use the 'mindful minute for kids’ cards after recess to help students going into the afternoon learning.” Educators and staff shared that “these and other SEL practices were used daily” and comprehended that the activities were “designed for the entire classroom.”
The project manager explored whether the educators and staff noticed positive or negative student behavior changes, achievement changes, or a shift in their classroom climate since implementing SEL modalities. The recorded responses noted that since implementation, students’ behaviors improved, increased learning motivation, and showed less impulsivity toward student peers. One teacher shared an important classroom outcome by saying, "In my classroom, I have many students who are impulsive and tend to be very argumentative and hostile towards each other. Teaching SEL practices has helped them become more self-aware and focused on positive versus negative behaviors."

Unfortunately, no one answered the four questions about the overall project’s value. A better insight would have been gained if elementary school educators and staff had shared their thoughts about each statement in their own words. For example, “have you noticed any strengths or weaknesses in the project, do you have any ideas/recommendations that would add to the success of this project, were the project ideas suitable for the school, and is there a staff consensus about the need for TIC and SEL skill-building?” To summarize, the most exciting insights found similarities between the literature and the focus group, offering support that PD helps understand trauma-sensitive approaches and implementing SEL into the classroom may change behaviors positively.

The unstructured interviews occurred with the elementary school principal and took place spontaneously but usually during the week of classroom observations, totaling about 18 pre-and post-intervention interviews. The implications for choosing unstructured interviews and not developing standardized questions stemmed from the limited knowledge about the elementary school system. The unstructured interviews allowed the project manager to explore experiences, perceptions, and opinions more thoroughly; for example, an open-ended question during the
unstructured interview was, "Could you describe a scenario in which a student is sent to the principal's office, please? Depending on the principal's answer, follow-up questions were asked that the project manager did not foresee at an earlier time because of the lack of knowledge about elementary school system policies. The first question triggered the following question: "When a student is sent to the principal's office, does that automatically result in disciplinary actions?"

Therefore, it was best first to examine the meaning of the data and then generate themes from the information. Without any preconceptions of the data, the following themes emerged during the analysis: Organizational data, teacher outcomes, and variables and their relationships.

The unstructured interviews with the principal were designed to increase organizational knowledge and perceptions, including COVID-19 concerns and teacher outcomes, highlighting the understanding of the children's behavioral problems, emotional dysregulations, and possible consequences, and the importance of parent involvement and students’ success. The principal emphasized the problems linked to ACEs in the school’s student population and described that many children exhibit “anxiety, appetite concerns, obsessive behaviors, lack of focus, tardiness, and anger responses” and that the COVID-19 pandemic “increased the students’ adverse childhood behaviors and exacerbated social-fears.” The principal communicated that the school system lost several students based on the school’s inability to tolerate and accommodate them, saying that the primary reasons for student dismissals are “aggression, disruptive classroom behaviors, safety concerns, and uncooperative parents.” However, the principal shared that they treat each conduct behavior “uniquely, just as the children are, but first, we treat all cases with kindness, love, and prayers.”

It was easy for the principal to form a relationship between different variables, and a question regarding variables and their associated relationship included, "Could you notice a
relationship between parent involvement and student success?" The principal responded, "Well, those students who have involved parents generally do better. Better in terms of grades, success, attendance, etc." The same principle applied to academic performance and school attendance, as the principal replied, "Regardless of why students are absent from school, they notice that students perform poorly if the parents are not involved."

The principal elaborated on the current post-training teacher practices and their increased knowledge of TIC and SEL practices. They shared that adverse student behaviors previously had different teacher responses. No specific example was shared of the students' misconduct or how the teacher responded. However, the principal said, "To notice how educators respond now shows that they have increased their knowledge about the topic and paid attention during the professional development." A vital aspect discovered during the unstructured interviews was that PD increases knowledge about the topic, allowing educators and staff to apply the TIC approaches known as the “Four R’s” when managing detrimental student behaviors, and the insights from the unstructured interviews align with the information found during the literature review.

**Ethical Considerations**

The primary participants contributed to the project voluntarily and were not considered vulnerable populations. Oral consent was obtained prior to the start of the project; consent was also determined by completing the first online questionnaire. All data collected were de-identified, stored in a folder, and secured in a locked file cabinet. Data analysis occurred on a password-protected personal laptop. When online meetings occurred, a secured home network was utilized. This Q.I. project initiative was not started until the project site, mentor, and school approval, including the IRB, was gained. Additionally, no project site activities were performed
on holidays to comply with the project managers’ school policies. The project manager also obeyed the ongoing COVID-19 restrictions the school outlined to comply with the school policies.

Summary and Interpretation

Key Findings

This Q.I. initiative was conducted to respond to the TIC and SEL education and training gap for the private elementary school educators and staff to increase their comprehension and utilization of SEL strategies and prevent re-traumatization for their students and themselves. They were overwhelmed by their students' trauma history and classroom behaviors and would benefit from TIC and SEL education and training to enhance their classroom management strategies to support children affected by trauma. The educational offering took place in a private elementary school in BC, Maryland, and included online and in-person PD didactic lessons on understanding trauma and its impact emphasized by low-fidelity simulation exercises. Afterward, educators and staff contributed to an in-person SEL competency skill-building session.

Chafouleas et al. (2016) highlighted that the "foundational component of trauma-informed schools is professional development training" (p.154). Furthermore, they highlight that PD alone is insufficient in building a solid baseline in TIC understanding, suggesting skill-building strategies that staff can use in their classrooms (Chafouleas et al., 2016). In addition to the TIC and skill-building training, the project manager collected data evaluating the impact of the PD training objectives. The items assessed were the participants' knowledge of TIC, SEL classroom utilization, current practice perceptions, and motivation to change. In general, the participants displayed a willingness to change, increased their knowledge, utilized SEL in the
classroom, and showed an increased effort in SEL use; however, their current practice perception scores illustrated no substantial change.

Data analysis of the Pre- and Post-Training Knowledge Survey illustrated a 15% change in knowledge post-intervention. Research studies that analyzed TIC implementation approaches likewise suggested that they noticed an increase in knowledge acquisition and skills after their intervention initiatives (Lipscomb et al., 2019; Dorado et al., 2016; Perry & Daniels, 2016). In the Readiness for Change Survey, 86% of participants were willing to change. The NCTSN (n.d.) points out that the evaluation results may be used to motivate organizational change that promotes a child’s and family healing, supports their potential to grow, and maximizes physical and emotional safety. Furthermore, the Readiness for Change Survey assists organizations in discovering, identifying, developing, and sustaining TIC strategies (NCTSN, n.d.).

Gherardi et al. (2020) warned about making "the assumption that a focus on trauma alone will transform urban schools is inherently deficit-oriented" and outlined that "heightened willingness to adopt new practices" suggested re-traumatization prevention (p. 497). Interestingly, the Pre- and Post School Readiness for Change Survey (Appendix B) results showed no substantial changes as the analysis only revealed a 4% increase. Consequently, it was essential to analyze each section of the questionnaire to understand the connection between readiness and willingness. It was necessary to address and comprehend any underlying problems; otherwise, educators and staff's attitudes to change would not have been impacted.

The classroom observations examined five competencies: self-management, self-awareness, social awareness, relationship skills, and decision-making. Moreover, 100% of educators and staff utilized SEL practices within their classroom pre- and post-intervention. Interestingly the observation results also revealed a 23% increase in SEL utilization efforts post-
intervention. Based on the assumptions, the objective was fully met and produced a second positive result of 23% increased SEL utilization efforts. Tabone et al. (2020) discussed that their classroom observation resulted in a "significant improvement" even with low improvement scores (p.5).

Bronfenbrenner's bioecological model outlines how various ecological systems influence human growth and development (Rosa & Tudge, 2013). Children are engaged mainly in the microsystem, consisting of family, friends, and school. Tabone et al. (2020) echoed Bronfenbrenner's system order, outlining that children's lives are influenced by many factors and should be influenced positively in those places in which they interact the most; therefore, "school-based programs are particularly promising" (p.6). Because children are not segregated from their environment, TIC programs should be applied in real-world settings like classrooms, as school systems are among the prominent influencers of students’ development (Tabone et al., 2020).

The project’s elementary school educators and staff’s newly implemented TIC and SEL activities in the classroom positively impacted the student's behaviors. Before this Q.I. intervention, the elementary school minimally promoted or utilized SEL modalities, but Merrell et al. (2008) supported the significant implications of SEL in reducing students' disturbing behaviors and positively affecting academic achievements. Dorado et al. (2016) shared that the conventional methods to complex conduct problems, such as applying suspension policy guidelines, are ineffective long-term methods, especially if the school system tries shifting its paradigm to include TIC strategies. The focus group analysis revealed that applying SEL strategies helped lessen the student's behaviors by positively shifting and aligning them with targeted SEL outcomes.
The Training Satisfaction Survey (Appendix F) results highlighted 87% satisfaction with the training materials. When answering a question regarding the ability to recognize the trauma effects with a neutral stance, 13% of the participants indicated that they "do not know" or "do not feel better, but at the same time also not feel less equipped" to recognize trauma effects. Comparing results presented by Perry and Daniels (2016) about the ability to recognize trauma post-education showed that 16% were confident after training. It may be that the elementary school educators and staff do not have sufficient evidence to answer this question accurately. However, more than 90% of the participants were satisfied with their training outcomes, deemed it valuable, and claimed a knowledge increase, which also was found in the research by Perry and Daniels (2016).

News about unsafe school environments can heighten trauma symptoms, such as anxiety, depression, flashbacks, and disruptive classroom behaviors of students. These behaviors are valid and increasingly observed when school shootings are reported or witnessed. Diaz (2022) reported that 27 school shootings had already occurred, only six months into 2022. Gun violence data for the first six months of 2022 revealed that 191 children were killed, and 415 were injured between zero and eleven years old (Gun Violence Archive, 2022). Menschner and Maul (2016) highlighted that creating a physically safe environment is essential because "feeling physically, socially, or emotionally unsafe can cause extreme anxiety in a person who has experienced trauma, potentially causing re-traumatization" (p.4). Tabone et al. (2020) share how TIC interventions are “critical prevention strategies for children who experience trauma” (p.5). Merrell et al. (2008) indicated that “social-emotional learning programs resulted in … meaningful increases in students’ knowledge of [SEL] concepts and effective coping strategies” (p.221).
Hornor et al. (2019) reported that almost all children experience traumas at specific points in their lifetime, and many suffer from deteriorating health complications. Trauma exposure implies how they react and respond to triggering situations (Horner et al., 2019). "Addressing child trauma earlier and more effectively will result in higher outcomes, less need for more comprehensive and expensive interventions, and lower long-term expenditures," according to the research (Hornor et al., 2019, p. 215). Consequently, finding an opportunity or EBP approach in the classroom to help children respond to their trauma successfully supports positive implications beyond the school setting, alleviating a missed opportunity to help a child affected by trauma.

Cost-Benefit Analysis

A cost-benefit analysis (CBA) is a great tool to help the school system evaluate its financial profitability by comparing the economic expenditures of the intervention with the outcome (Belfield et al., 2015). When an organization considers investing in a program, it must consider the benefits of the investment to justify its cost (Belfield et al., 2015). At times, interventions surpass the cost and are therefore not feasible to implement even if the intervention is deemed effective (Belfield et al., 2015). A CBA aims to prevent unnecessary cost distribution and compare the intervention and the program's costs (CDC, 2021). In this Q.I. program, the benefits consist of intangible outcomes, but intangible costs are difficult to predict as they are not monetized (Royse et al., 2016). Royse et al. (2016) reveal that other researchers replace the term intangible with terms like cost savings, return on investment (ROI), and value-added, which allows to attach a dollar amount and then use it for calculations in a program evaluation.

Belfield et al. (2015) outline that SEL increases educational achievements, identified with higher earnings based on academic accomplishments. Reynolds and Temple (2008) shared that
investing in learning programs yields a return between four to ten dollars per dollar invested. Belfield et al. (2015) estimated that the "lifetime earnings of a child who is currently in third grade would be $575,000" (p. 12). They also report that if a student is proficient in SEL skills, their earnings will increase between four to 15%, meaning they would gain up to $46,000 more unless they considered the "weakest correlation," increasing their earnings by at least $23,000 (Belfield, 2015, p. 12).

Improved SEL skills can be further correlated with intangible benefits and converted to a tangible profit, such as the student dropout risk. Greenberg et al. (2017) reported an estimated $350,000 per person price tag for not finishing school. Implementing a universal intervention can lower the risk by 25% of students leaving school without graduating (Greenberg et al., 2017). If a low-cost intervention, like SEL skill-building, reduces school dropout risk by 25%, this will create a substantial cost saving of about $87,500 yearly for the economy (Greenberg et al., 2017). Consequently, implementing TIC and SEL in the classrooms appears appropriate based on the calculations and the CBA analysis as it highlighted the societal and school environment benefits when implementing SEL.

The interventions of this Q.I. project helped educators and staff understand the effects of trauma and why particular students behave the way they do. Educators and staff aimed to promote and create a TIC and student-supported environment in which they were encouraged to focus on positive and nurturing social and emotional skills. Overall, the project helped create a positive impact because educators were trained, educated, and motivated to help their elementary students in need of support to manage their trauma symptoms effectively.
Strengths and Limitations

Even though some of the objectives were not fully met, the intervention indicated robust features, and one of the strengths was the interprofessional communication between the organization’s leadership team, educators, and staff that aided in developing this Q.I. project. The supportive culture, team diversity, and motivation of all stakeholders allowed the project manager to introduce a prevalent and timely topic. Additionally, the elementary schools’ generosity provided meeting resources and time, which supported the project’s success.

Measurement strengths of the project included data collection at multiple time points (pre/post-intervention). Questionnaire data produced quantitative, cost-effective, consistent output and was easy to analyze. The open-ended questionnaire questions, unstructured interviews, and focus group data helped explain the “why” and “how.” The observations provided data and insights that would not have been self-reported, and mostly, the participation rate and questionnaire responses yielded a high participation rate (>90%).

There are a few limitations that exist even with the positive outcomes of the project. The overestimation of Aim #1 related to TIC knowledge was based on the assumed knowledge acquisition and the practice change perceptions, which were substantially higher than the actual outcome. Another limitation was methodology-related, such as having a small number of participants due to the size of the elementary school. The small number of participants cannot be considered representative of the population; thus, the results are not generalizable. For future project implementations, recruiting more participants would yield increased accuracy, making it easier to generalize the outcomes and allowing statistical testing to share results. If a project site has a relatively small number of participants, perhaps implementing a project at multiple project sites may be more effective. Additionally, no demographic data was collected from the...
participants as it was vital to protect their identity. Relevant demographics, such as years of teaching experience, gender, age, years of employment at the project site, or a more specific educational level, could have provided insights into the relationship of the independent variables and may have affected perceptions surrounding trauma and its impact.

Unpaired participant results cannot fully portray the learning outcomes per individual. When data was collected, the participants did not receive a unique identifier in which they could have been matched to their post-training results. The results had to be reported as a whole entity because individualized result interpretation could not be obtained. In future EBP studies, matching individuals' results of their pre- and post-assessments would be helpful for a better interpretation and understanding of the outcomes.

From the project manager's perspective, a limitation consisted of the observer's lack of training, which possibly caused observation data to be missed. Personal bias may have caused a deficiency in objectivity, further supplying distorted observational data. A future consideration would include adequate training for observational data collection methods and recruiting a second observer to collect data and compare information for interrater reliability.

Next, the educators and staff did not fully participate in the data-producing efforts toward the end of the project implementation, resulting in minimal data from the focus group questions. An in-person focus group may have resulted in the desired involvement; however, COVID-19 limited this approach for this project implementation. The focus group participation was vital to gaining a holistic view of the project outcomes. For future expectations, conducting various small independent interviews may be better to gain the participants' empirical beliefs.

Time constraints consisting of school holidays, COVID-19 exposures, and schedule conflicts were problematic during the project’s implementation phase. Measuring continuous
change over time was challenging because additional project-related activities, like multiple observations or reinforcing the learned material post-training, were not conducted. A future concept for the project manager and stakeholders would include improved scheduling efforts, especially surrounding school closures, and time management skills. Despite the many limitations mentioned, the project’s outcome provided the educators, staff, and principal with an enhanced understanding of trauma and its impact. It highlighted an urgency to continue implementing and increasing the knowledge of TIC and SEL modalities, especially when knowing the price tag of trauma exposure.

Conclusion

Overcoming the TIC and SEL implementation gap required understanding the workplace culture and the educators’ and staff members' knowledge, talents, and attitudes toward EBP. This Q.I. project provided the basis for creating a school setting where students can thrive in a safe and supportive environment, develop SEL skills, and minimize risk behaviors while increasing health promotion. This Q.I. project concentrated entirely on universal interventions, supporting all children in the classroom. It portrayed the connection between the school system and improvement efforts with the help of summarizing the tangible and intangible costs associated with the change efforts. The implementation activities addressed many psychological and organizational dimensions of the change efforts attempting to improve educators' and staff's responsibility, organizational sustainability, and opportunities for students and the entire school system related to TIC and SEL skills. The PDSA model used a mixed-methods approach to assess the efficacy of the intervention. The findings indicated an increase in TIC and SEL skills and knowledge; therefore, continuing intervention services are crucial and suitable prevention strategies for children affected by trauma.
Sustainability

Act

The “Act” phase started in July 2022, when the project manager disseminated this Q. I. project information via an MS-PowerPoint presentation to the University’s faculty. Additionally, the educators, staff, and principal of the project site received an email with the presentation recordings. Sharing the outcomes of this Q.I. project with the educators, staff, and principal at the elementary school project site so they can understand the intervention outcomes, helps sustain the effort, and appreciate the impacts. Other sustainability plans should include the production and use of data for monitoring, improvement, and funding purposes. For example, educators and staff could collect data on the trauma-sensitive approaches they are implementing and monitor the implications on students.

Based on that data, the educators and staff could create progress reports that they could share with others to improve care coordination, especially if they are working toward implementing Tier 2 of the MTSS framework. Moving towards implementing Tier 2 is supplemental to Tier 1, providing targeted support for students who continue to experience social, emotional, and behavioral risks. Collecting data also supports the construction of TIC and SEL training materials for ongoing implementation efforts. Another critical aspect of collecting data is to monitor and evaluate their EBP approaches and ask for feedback from co-workers and leadership during staff meetings. Data reports can also be used to secure funding, potentially increasing the sustainability of the TIC efforts at the elementary school.

Recommendations

Based on the literature and the project results, an essential recommendation includes prioritizing and normalizing physical and mental health wellness for educators, staff, and
students. Other recommendations include continuing PD training to enhance and sustain their TIC and SEL skills. Encourage the continued use of TIC and SEL modalities in the classroom, but better yet, embed them into the curriculum and draft school policy changes that include mandatory SEL skill-building classes. Finally, more research on the cost-benefit analyses of TIC and SEL prevention and intervention programs is needed to close this research gap, as they are either non-existent or outdated in the literature.

**Funding**

The project manager received no financial support or outside funding for conducting this Q.I. project. The project manager paid all expenses during the project implementation, mainly for SEL resources, gas to drive to and from the project site, and lunch during the PD training.
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https://doi.org/10.1016/j.childyouth.2020.104998


Appendix A

Staff Survey for Assessing Current Practice

<table>
<thead>
<tr>
<th>1. Support staff development</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. All staff members receive training on different types of trauma and effects on students and staff.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Staff knowledge of trauma is assessed pre- and post-training.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Topics related to trauma are regularly addressed during professional development events.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. The school supports ongoing learning related to trauma and trauma-sensitive practices.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. School staff has a clear understanding of what it looks like to use a trauma-sensitive approach when working with students.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. School staff has a clear understanding of what it looks like to use a trauma-sensitive approach when working with parents.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. Discussions about trauma and trauma-sensitive practices are addressed in staff meetings.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. The school addresses the effects of trauma on staff (e.g., secondary traumatic stress, vicarious trauma).</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Appendix A (Continued)

Staff Survey for Assessing Current Practice

Please rate on a scale of 1–4 (1: strongly disagree–4: strongly agree) the extent to which you agree with the following statements.

<table>
<thead>
<tr>
<th>2. Create safe and supportive environments</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The school’s physical environment (e.g., classroom and common areas) is safe for staff, students, and families.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. The school creates a welcoming physical space.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. The school environment reflects the cultures of the students, families, and staff in the school community.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. The school has policies around bullying and violence.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Antibullying and violence policies are consistently enforced.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. The school minimizes potential trauma-related triggers (reminders) for students in the school environment.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. Staff consider trauma and trauma-sensitive approaches when responding to student crises.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. Staff interactions with students communicate respect (e.g., approach, tone).</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. Staff interactions with parents communicate respect (e.g., approach, tone).</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. The school conveys respect for cultural differences.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Assess needs and provide support</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. School-based assessments (e.g., psychosocial/behavioral) consider history of trauma.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Student assessments are conducted in a safe and respectful manner.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Students and families are active partners in setting goals for students.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Individual student plans (e.g., IEPs, behavioral plans) consider trauma and trauma-related needs.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. The school provides or refers students to trauma specific mental health services when needed.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
### Appendix A (Continued)

**Staff Survey for Assessing Current Practice**

<table>
<thead>
<tr>
<th>4. Build social and emotional skills</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The school incorporates formal strategies or curriculum for building social and emotional skills.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. The school educates students about stress and its effects.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. The school educates parents about stress and its effects</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. School staff teach students strategies (verbal and nonverbal) for coping with stress.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. Collaboration with students and families</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Staff is aware of how exposure to trauma may influence relationships with students and parents.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Staff are aware of cultural backgrounds of students and families in the school community.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Staff supports student choice and control.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Staff supports parent choice and control.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Staff upholds student and family privacy and confidentiality.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. Students and families are given a voice to express concerns and ideas.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. Staff demonstrate respect for cultural differences in their interactions with students and families.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. Staff work to foster a sense of partnership with students and families.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. Staff maintains regular two-way communication with parents about their child’s learning.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Appendix B
Staff Survey to Assess School Readiness for Change

<table>
<thead>
<tr>
<th>Section 1</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A trauma-sensitive approach is different from existing universal</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>supports already in place for students at our school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Trauma sensitivity would add significant value to existing practices</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>and approaches at our school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Trauma sensitivity is consistent with our school values and culture.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. A trauma-sensitive approach is compatible (aligns well) with existing</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>programs and approaches already being used at our school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Adopting a trauma-sensitive approach would help us meet the needs of</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>students and staff in our school community.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. It is realistic and achievable for our school to implement trauma-sensitive</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>practices schoolwide.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Positive outcomes from adopting a trauma-sensitive approach will be</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>easily visible to staff.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Adopting a trauma-sensitive approach is a priority for our school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
### Appendix B (Continued)

#### Staff Survey to Assess School Readiness for Change

<table>
<thead>
<tr>
<th>Section 2</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My school operates well in the day-to-day manner.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Staff receives the support they need in their varied positions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Staff feels respected and valued.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Leadership supports existing interventions and approaches.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. School staff is open to making changes and trying new things.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. Staff receives adequate training to adopt new approaches.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. Staff in different roles have opportunities to collaborate.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. Communication across support, instructional, and leadership staff in my school is bidirectional, clear, and timely.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. Staff has the general skills, expertise, and education needed to do their jobs.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section 3</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Staff has the knowledge needed to adopt a trauma-sensitive approach.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Staff has the skills needed to adopt a trauma sensitive approach.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. There are instructional and non-instructional staff who would champion this approach in our school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Staff has clear support from leadership to adopt a trauma-sensitive approach.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Staff has enough resources to adopt a trauma sensitive approach.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. Our school has the systems and processes in place to adopt a trauma-sensitive approach.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Appendix C

Pre- and Post-Training Knowledge Training

1. An experience becomes "traumatic" when it
   a. Involves a specific type of abuse
   b. Overwhelms our ability to cope with the situation
   c. Activates the stress response
   d. Both A and B

2. Research indicates that the percentage of children and youth exposed to violence in the past year is:
   a. 20–30%
   b. 40–50%
   c. 60–70%
   d. 80–90%

3. Complex trauma refers to
   a. Multiple experiences of trauma starting early in life and the long-term effects of these experiences
   b. Traumatic events that are complicated and difficult to understand or address
   c. The cumulative impact of trauma across generations
   d. Both A and C
   e. All of the above

4. A traumatic experience
   a. Is not something most children or youth bounce back from
   b. Often leads to long-term emotional issues
   c. All of the above
   d. None of the above

5. Once the stress response system is activated, a person is less capable of
   a. Reacting
   b. Planning and reasoning
   c. Both A and B
   d. Neither A or B
Appendix C (Continued)

Pre - and Post-Training Knowledge Training

6. Factors that impact a child’s response to a potentially traumatic event include
   a. Parent history of trauma
   b. Level of social support
   c. Culture
   d. Biological factors
   e. Both A and B
   f. All of the above

7. To "re-traumatize" someone means to
   a. Ask them about their experiences
   b. Recreate situations that leave people feeling helpless, unsafe, and out of control
   c. Both A and B
   d. Neither A or B

8. Secondary traumatic stress refers to
   a. Distress related to feelings about your own traumatic experiences
   b. Distress related to hearing about someone else's trauma
   c. All of the above

9. Working with students and families exposed to trauma
   a. Can be traumatic for educators
   b. Always affects providers’ work performance
   c. Is not something schools should address directly
   d. Both A and B

10. Creating a trauma-sensitive school means
    a. Supporting individual students exposed to trauma
    b. Training student services staff on trauma-related interventions
    c. Ensuring that all school staff is educated about trauma and is able to respond accordingly
    d. All of the above
    e. Both A and B
Appendix D

SEL Resources
Appendix E
Growth Mindset

<table>
<thead>
<tr>
<th>INSTEAD OF</th>
<th>TRY SAYING</th>
<th>BUT THEN....</th>
</tr>
</thead>
<tbody>
<tr>
<td>I’m not good at this</td>
<td>What am I missing?</td>
<td>I don’t know what I’m missing!</td>
</tr>
<tr>
<td>I give up</td>
<td>I’ll use a different strategy</td>
<td>If I had a different strategy I wouldn’t have given up</td>
</tr>
<tr>
<td>It’s good enough</td>
<td>Is this really my best work?</td>
<td>Yep! Turns out it is my best work</td>
</tr>
<tr>
<td>I can’t make this any better</td>
<td>I can always improve</td>
<td>I don’t know how to improve on this!</td>
</tr>
<tr>
<td>This is too hard</td>
<td>This may take some time</td>
<td>I spent the time and still don’t know how.</td>
</tr>
<tr>
<td>I made a mistake</td>
<td>Mistakes help me learn</td>
<td>That mistake proves I haven’t learnt!</td>
</tr>
<tr>
<td>I just can’t do that</td>
<td>I’m going to train my brain</td>
<td>How do I change my brain?</td>
</tr>
<tr>
<td>I’ll never be that smart</td>
<td>I will learn how to do this</td>
<td>How do I learn this?</td>
</tr>
<tr>
<td>Plan A didn’t work</td>
<td>There’s always a Plan B</td>
<td>How do I create Plan B?</td>
</tr>
<tr>
<td>My friend can do that</td>
<td>I will learn from them</td>
<td>I can’t work out how my friend does that.</td>
</tr>
</tbody>
</table>

Appendix E (Continued)

Permission Request Authorization

Growth Mindset

From: James Anderson
Sent: Thursday, February 10, 2022 5:29 PM
To: Kerstin Burt
Subject: [External] Re: Permission Request

Good Morning Kerstin,

Thanks for reaching out and seeking permissions to use my work.

I’d be very pleased for you to use my work in the way described. I’d simply ask that you keep the appropriate attributions on my resources, and that you print a reference to my website www.jamesanderson.com.au in any notes you provide to your audience.

I’d also be very grateful if you’d relay your experiences using my resources with your audience. Just a short email to tell me how the audience received the work, and perhaps any suggestions for future improvement that you notice would be appreciated.

Thank you and good luck with your work.

James

James Anderson
Speaker | Author | Educator

M: 0423778008
E: james@jamesanderson.com.au

www.jamesanderson.com.au
www.mindfullydesign.com
www.habitsofmind.org
Appendix F

Training Satisfaction Survey

Please circle the number indicating the extent to which you agree with the following statements:

<table>
<thead>
<tr>
<th>Please rate how much you agree or disagree with the following statements, which comprise the learning objectives for this training.</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. This training enhanced my understanding of the prevalence and types of trauma my students may experience.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2. I learned how the brain and body respond to stress and trauma.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3. I am better equipped to recognize the effects of trauma on students, staff, and parents.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4. The content of the training was relevant and can be easily applied to my work.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Please rate how much you agree or disagree with the following statements about the training experience.

| 5. The material was presented in a clear and logical manner. | 5 | 4 | 3 | 2 | 1 |
| 6. The workshop kept my interest overall. | 5 | 4 | 3 | 2 | 1 |
| 7. The presenter was well prepared and knowledgeable. | 5 | 4 | 3 | 2 | 1 |
| 8. There was ample time for interaction and questions. | 5 | 4 | 3 | 2 | 1 |
| 9. I would recommend this training to others. | 5 | 4 | 3 | 2 | 1 |
Appendix F (Continued)

Training Satisfaction Survey

Please respond as specifically as possible to the following:

1. I learned . . .
2. I most appreciated . . .
3. I was surprised . . .
4. The first thing I want to try is . . .
5. I would like additional education on . . .
6. We can improve this training by . . .