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TRAUMA INFORMED CARE WITHIN
ALTERNATIVE EDUCATION SETTINGS

A Dissertation

Submitted to the School of Education

Duquesne University

In partial fulfillment of the requirements for
the degree of Doctor of Philosophy

By

Cydney V. Quinn

August 2021

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Cydney V. Quinn

2021

DUQUESNE UNIVERSITY
SCHOOL OF EDUCATION
Department of Counseling, Psychology, and Special Education

Dissertation

Submitted in partial fulfillment of the requirements for the degree
Doctor of Philosophy (Ph.D.)

School Psychology Doctoral Program

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ABSTRACT

TRAUMA INFORMED CARE WITHIN ALTERNATIVE EDUCATION SETTINGS

By

Cydney V. Quinn

August 2021

Dissertation supervised by Tammy Hughes, PhD, ABPP.

Schools are considered to be the primary location for providing children with prevention and treatment for mental health symptoms, however, it is well documented that children's mental health needs remain underserved. Especially at risk are children who have experienced trauma and other adverse childhood experiences (ACEs). Many children in this group are subject to disciplinary action, and are often removed from primary classrooms to alternative education placements (AEP) in an effort to manage behaviors. Therefore, it is important that alternative education teachers are trained in trauma-informed care (TIC). While it may be presumed that AEP staff would be well-versed in TIC, due to the high number of students who have encountered trauma, researchers have suggested that AEP personnel often express confusion about what specific TIC attitudes are needed to effectively implement TIC, due to teacher training having a focus on disruptive behavior management, rather than understanding the underlying causes. Thus this study examines the perceived attitudes to TIC demonstrated by a group of AEP staff and compared to the normative sample of general education teachers.

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CHAPTER I

INTRODUCTION

While schools are considered the primary location for providing children with prevention and treatment for mental health symptoms (Barrett et al., 2013; Metz et al., 2007), research supports that children's mental health needs remain underserved (Merikangas et al., 2010). Especially at risk are children who have experienced trauma and other adverse childhood experiences (ACEs; Center for Health and Health Care in Schools, 2011), particularly when these factors are associated with aggression or other problematic behaviors. Many children in this group are subject to disciplinary action and are often removed from primary classrooms to alternative education placements to manage behaviors (Loveless, 2017). This school pushout pattern is also documented for children in special education, even if behaviors are associated with their ACEs, background, or disability status (Loveless, 2017; Veldman et al., 2015).

Multi-Tiered System of Support (MTSS) has focused on how child social-emotional development is related to behavior and misbehavior. As such, educators have shown an increased appreciation of the need to support typical social, emotional, and cognitive development patterns through tiered supports. However, the impacts of trauma and other ACEs on children's development and behaviors are not yet uniformly appreciated and documented in the school setting. Furthermore, there is generally less knowledge about adjusting school-based supports and interventions to support children after experiencing ACEs (Koomar, 2009).

Therefore, trauma-informed care (TIC), also called trauma-informed teaching or trauma-informed instruction, was created to demystify how to address trauma responses in the education setting. The purpose is to facilitate appropriate prevention and treatment strategies, provide explicit environmental support to highlight the child's feelings of safety so that relationships are

viewed as supportive and a buffer for managing stress. This sequence then allows the child to benefit from MTSS and other tailored ACEs and trauma supports. Given that alternative education teachers are likely to be the recipients of children moved from primary classes, these teachers must be trained in trauma-informed practices.

Trauma

Adverse childhood experiences are defined as exposure to abuse, neglect, and other household challenges (e.g., exposure to domestic violence, substance abuse, incarceration, mental illness, and divorce; CDC, 2016). Exposure to more than three ACEs has been shown to negatively impact child neurodevelopment, which in turn is said to impact emotional, social, and cognitive skills (CDC, 2016). Higher rates of exposure are associated with more negative outcomes (Ha & Granger, 2016). The term toxic stress denotes that the experience results in prolonged activation of the body's physiological stress-response system, reengaging the autonomic nervous system's "fight-or-flight" response (Perry & Connors-Burrow, 2016). Highly intense experiences and lower-level repeated experiences can result in overactive (i.e., freeze, flee, fight, and fawning) or underactive (e.g., a failure to respond appropriately) stress response. Inappropriate stress responses significantly increase the likelihood of negative emotional expressions and behaviors and may disrupt emotional, behavioral, social, and cognitive development (Ha & Granger, 2016).

Due to the growing number of children exposed to ACEs, the problem has recently been identified as a public health epidemic (Baker et al., 2015). According to a 2011 Substance Abuse and Mental Health Services Administrations (SAMHSA) report, most people are exposed to trauma during early childhood. For example, a United States study found that 54% of nine to thirteen-year-old children experienced at least one traumatic event (Alisic, 2012). Additionally,

more than two-thirds of children in the United States have reported having experienced a traumatic event by the age of 16 (NCTSN, 2018).

In response to a growing recognition of the prevalence of trauma and its adverse effects upon children's development, there has been a surge of initiatives to help schools support students with a history of trauma exposure better (Baker et al., 2015). There are several initiatives in Pennsylvania (e.g., House Resolution 345) designed to measure and address the effects of ACEs in schools within the commonwealth. These initiatives have been deemed necessary so that school teams may develop a more nuanced understanding of the types of externalizing behaviors students display, especially when aggressive and disruptive behaviors may be due to traumatic stressors. By learning different approaches (e.g., understanding trauma and the impact on healthy development) to support healthy development in youth, teams are better equipped to handle behaviors that may seem and result from trauma exposure. Therefore, students are best supported through appropriate treatment rather than punished and potentially removed from the primary education setting.

Educational Placements

Even with information provided to schools regarding identification and treatment of students who have experienced traumatic events (e.g., behavioral and emotional regulation difficulties), schools can instead categorize aggression and externalizing behaviors as willful and non-compliant acts by choice (Mental Health America, 2018). Classifying acts of aggression as a student conduct violation, rather than a mental health issue requiring intervention, school teams turn to alternative education (Bradshaw et al., 2008; Mental Health America, 2018). Alternative education programs (AEP) were designed to support students considered at-risk of school failure (Lange & Sletten, 2002). Historically, advocates argued that alternatives to traditional school

models were crucial to meet all students' needs (Barr & Paret, 2001; Raywid, 1995; Wehlage & Rutter, 1985). However, alternative education programs have been in place for many years, and the results of these programs are variable; some have been highly successful, while others are seriously flawed, resulting in students staying in such settings for long periods, dropping out from school, and suffering from higher rates of suspension (Education Law Center, 2010).

Within Pennsylvania, the Alternative Education for Disruptive Youth (AEDY) designation was created to support students who display recurrent and severe aggressive behaviors in their home school. Students are sent to an AEDY as a disciplinary measure, and the program aims to segregate, contain, and reform disruptive students. Students are referred to AEDY programs for a variety of reasons; however, they must fall within one of the following categories according to Act 30 of 1997, § 19-1901-C (5): "(1) disregard for school authority, including persistent violation of school policy and rules; (2) display of or use of controlled substances on school property or during school-affiliated activities; (3) violent or threatening behavior on school property or during school-affiliated activities; (4) possession of a weapon on school property, as defined under 18. Pa. C. S. § 912 (relating to possession of a weapon on school property); (5) commission of a criminal act on school property or during school-affiliated activities; or (6) misconduct that would merit suspension or expulsion under school policy." Therefore, students displaying any aggressive behaviors will typically meet the criteria for the AEDY program regardless of etiology.

Unfortunately, students are frequently sent to the AEDY without evaluating the cause of their aggressive behaviors. Often, trauma exposure and the impact from the traumatic event is not examined, nor is it even a consideration in the following counseling services that are to be offered in AEDY. As a result, students are placed in the AEDY, receiving treatment that may be

inappropriate for their needs. Therefore, if students are demonstrating symptoms of having been exposed to trauma, their patterns of emotional and behavioral dysregulation may not be appropriately supported, nor are they a focus of interventions. Often, students in AEPs are burdened by trauma histories or traumatic stressors and have complex developmental trajectories (Day et al., 2017). Therefore, the lack of understanding regarding the student's experiences and how those experiences impact development and learning may interfere with the progress they experience in AEDY programs, which can have consequences such as extended time in the AEP or an increase in mental health symptomatology.

Trauma-Informed Care

From early childhood through primary and secondary settings, schools have the opportunity to offer experiences that promote healthy development in children by using a trauma-informed lens (Bartlett et al., 2017). Students spend most of their waking hours in the school environment; therefore, schools are the front line to supporting children who have experienced ACEs. While most high-quality educational approaches rely upon many of the same approaches as trauma-informed teachings, such as prioritizing relationships, focusing on the needs of the whole child, and engaging the family as a part of the support team, trauma-informed teaching adds a layer of support. What differs between the two teaching methods is the manner and approach in which trauma-informed practices are used to create a safe environment for children who have experienced ACEs.

Trauma-informed teaching does not assume that the child enters school with feelings of safety as a traditional school does, but instead seeks to understand and identify what makes the child feel safe, as well as the triggers that would result, in the child's view, that the experience is unsafe, which may be observed in the freeze, flee, or fight actions (Bracha, 2004). Once an

approach to effectively establish a feeling of safety is established, then there is (often simultaneously) an emphasis on relationship development so that the educator can better serve as a source of support (protective factor), which is followed by skill development (e.g., behavioral control or academic progress). The combination of establishing feelings of safety and building a relationship that can serve as a supportive stress buffer comprises the essential components of trauma-informed teaching and helps children exposed to ACEs to develop in a healthy manner (Perry & Conner-Burrows, 2016). For children with ACEs, and especially toxic stress, starting with skill development can be a recipe for failure. This group is at high risk for problematic behaviors, which tend to result in punishment by the school staff (Koomar, 2009), prompting a re-traumatization cycle that also impairs the relationship development with the teacher.

Nevertheless, many educators indicate that they are unprepared to address children's behaviors exposed to trauma (Maring & Koblinsky, 2013). Educators report that they are not trained during their teacher training programs to recognize trauma or the impact that adverse childhood experiences have on students' social, emotional, and cognitive development. Nor are they prepared to make decisions related to how trauma may prompt aggressive or disruptive behaviors and how treatment strategies in such cases should be developed (Baker et al., 2015). Adverse childhood experiences themselves can be unfamiliar to teachers, and it can be challenging to balance the demands of delivering universal education with the additional needs of children who have experienced ACEs.

However, by learning to interact with children through a trauma-informed approach and incorporating it into one's teaching style, an educator may be better able to understand why a child is exhibiting undesirable behaviors and instead use instruction to address such behaviors than punishment. By moving from "what is wrong with this child" to "what happened to this

child," the classroom can become more trauma-informed. In the long run, this leads to better academic performance, less need for discipline, and a more nurturing school environment where both students and educators feel safe. Therefore, it is not surprising that there is a national effort toward more trauma-informed school practices to better support trauma-exposed children in school.

Barriers to Implementing Trauma-Informed Care

In the effort to shift to trauma-informed practices, educators may be blocked in doing so by multiple barriers. Change can be difficult within any system, but in a complex system such as a school, it can be time-consuming and requires commitment across personnel at all levels (Barrow et al., 2012). A primary challenge can be schools' existing cultures, with their histories and shared traditions long-time teachers and staff share (Hodas, 2006). An attitude of "that is not what we do" can present a barrier to adopting new approaches such as trauma-informed educational practices.

Another challenge noted by Hodas (2006) is the belief that addressing students' traumatic experiences is the equivalent of "being soft" or "letting them get away with something." This belief can fuel the perception that discipline-oriented practices are best meted out in a confrontational style, to show the situation's seriousness with students who are not responding positively to a normative classroom setting. Therefore, if school systems lack the commitment to integrate a trauma-informed approach in their practices, educators may lack the "buy-in" necessary to enact change. Without the administrators' explicit backing, educators may not be encouraged to change their attitudes and beliefs regarding trauma-informed teaching. They may see this as an additional layer of responsibility rather than appreciating the potential positive outcomes of trauma-informed approaches.

Nevertheless, an additional barrier is an absence of comparing teachers' attitudes toward trauma-informed care (TIC) across settings to understand better how teachers assigned to children experiencing ACEs are likely to approach this work. Within the empirical work on TIC, the effects of TIC implementation are typically measured via client-reported outcomes such as symptoms indices (Morrissey et al., 2005); program-level metrics such as suspension and expulsion reduction (Stevens, 2012); and organizational-level characteristics such as treatment environment (Rivard et al., 2005). Though these are important outcomes, many potential variables may influence these relatively distal metrics. Consequently, it is difficult to know whether and how teacher attitudes toward this work impact success. Furthermore, schools implementing TIC often report qualitative and anecdotal evidence of change but struggle to find practical tools to measure teacher attitudes quantitatively. The Attitudes Related to Trauma-Informed Care (ARTIC) Scale (Brown et al., 2012) was thus developed to measure these attributes to understand better teachers' commitment to trauma-informed practice and where professional development needs to be directed.

Significance of the Problem

Given that many students who are removed from their primary education classroom are transferred to alternative education placements (AEP), the AEP staff needs to be competent in addressing the symptoms of emotional and behavioral disorders in children and manage disruptive behaviors as a result of ACEs. Additionally, because these staff are instrumental in delivering school-wide practices that address psychological well-being, especially related to coping with trauma exposure (Brunzell et al., 2015), it is essential to understand their attitudes towards these teaching practices. Specifically, AEP staff need to deliver TIC to support

academic, behavioral, and social-emotional learning instruction to those who encounter childhood trauma.

While it may be presumed that AEP staff would be well-versed in trauma-informed practices, due to the high number of students who have encountered trauma, researchers (Anderson et al., 2015) have suggested that AEP personnel may express confusion about what specific TIC attitudes are needed to implement TIC effectively. Most of their teacher preparation training is focused on disruptive behavior management rather than understanding the underlying causes. Further, in general, trauma-informed practices in AEP are not widely-researched, resulting in a need for additional studies to clarify what approaches educators tend to use in working with students who have ACEs.

Thus, in this study, I examined the perceived attitudes to TIC demonstrated by one group of AEP staff and compared it to those of a normative sample of general education teachers. To date, there is no published data on these topics. This study's results may provide researchers with initial benchmarks of these constructs and encourage school administrators to understand better the attitudes necessary to embed TIC into classrooms and provide preliminary information about what to include in teacher preparation or professional development programs. Apart from drawing attention to an under-researched domain of TIC in schools (e.g., Chafouleas et al., 2016; Harris & Fallot, 2011), this study's main contribution is the provision of how the constructs interact with alternative education personnel and to explore the TIC attitudes the staff brings to their teaching.

Research Question 1. When compared to the normative sample on the ARTIC survey, do alternative educators display more TIC-favorable attitudes?

Research Question 2. Is there a significant relationship between participant characteristics and the subscales on the ARTIC?

Research Question 2a. Do individuals who differ in gender or other have differences between their mean score performances on the ARTIC domains?

Research Question 2b. Do individuals who differ in race or other have differences between their mean score performances on the ARTIC domains?

Research Question 2c. Do individuals who differ in education level have differences in their mean score performances on the ARTIC domains?

Research Question 2d. Do individuals who differ in annual income have differences in their mean score performances on the ARTIC domains?

Research Question 2e. Do individuals who differ in their job setting have differences in their mean score performances on the ARTIC domains?

Research Question 2f. Do individuals with differing lengths of time in their job role have differences in their mean score performances on the ARTIC domains?

Research Question 2g. Do individuals with differing lengths of time in their organization have differences in their mean score performances on the ARTIC domains?

Research Question 2h. Do individuals with differing lengths of time in their field of work have differences in their mean score performances on the ARTIC domains?

Research Question 2i. Do individuals who differ in their level of previous trauma training have differences in their mean score performances on the ARTIC domains?

CHAPTER II

LITERATURE REVIEW

Treating trauma in schools has been identified as a public health epidemic (Baker et al., 2015). The growing literature base indicates that individuals who experience traumatic events display emotional and behavioral concerns frequently, the cause of which may be misunderstood in the school setting. Often, trauma histories and traumatic stressors are missed while assessing children with disruptive behaviors, and schools will be moving students with disruptive behaviors (e.g., emotional and/or behavioral dysregulation) into alternative education rather than consider appropriate interventions for traumatic symptomatology displaying as disruptive behaviors (Booker & Mitchell, 2011). While it may be expected that AEP staff would be well versed in trauma-informed practices due to the high number of youth who have encountered trauma in their facilities, researchers have suggested that AEP staff are more likely to focus upon management of disruptions than examining the etiology of such behavior (Anderson et al., 2015). Ultimately, to provide professional development that can increase trauma-informed practices in the school setting, educators' attitudes regarding trauma and the way they interact with a student exposed to trauma need to be examined to determine the appropriate path to take during professional development. (Desimone, 2009; Desimone, 2011).

Trauma and Adverse Childhood Experiences

From birth to early childhood, many variables, including genetic and cultural backgrounds, ineffective child-rearing, insufficient parental supervision, trauma, poverty, parental delinquency, parental substance abuse, family conflict, influence the manifestation of behavior disorders in children (Barton, 2003; Brennan et al., 2003; Rhule, 2004; Thompson, 2003). Unfortunately, the expression of chronic, severe behavioral disruptions in children is

often met with such sanctions as detention, suspension, or expulsion, regardless of their different etiologies, one of which being traumatic stress. Etiologically-different aggressive or "defiant" behaviors warrant different intervention and support forms even when the outward behavioral expressions appear similar. For example, early trauma exposure is associated with an increased amygdala response to threat, frustration, and/or social provocation, as well as an increased response in the hypothalamus and periaqueductal gray matter, resulting in more reactive and retaliatory behavior (Sherin & Nemeroff, 2011). Due to the unplanned, impulsive, and reactive nature of these behaviors, responses to this misbehavior must be approached differently to help children develop healthy coping skills and support growth.

Adverse Childhood Experiences

Children's exposure to early trauma, or Adverse Childhood Experiences (ACEs), can result in non-preferred behaviors in the school. ACEs are defined as abuse (e.g., emotional, physical, and sexual), household challenges (e.g., violence towards mothers, substance abuse, mental illness in the home, divorce, and incarceration), and neglect (e.g., emotional and physical; Felitti et al., 1998). Exposure to early toxic stressors, including maltreatment, family violence, and parental instability, has immediate and lasting effects on physiological development, health, and mental health, such as school behavior problems (Alegria & Green, 2015).

When a child experiences an adverse circumstance, their ability to remain resilient lies within the interaction between the risk factors present and their protective factors (Zolkoski & Bullock, 2012). A protective factor can be defined as "a characteristic at the biological, psychological, family, or community (including peers and culture) level that is associated with a lower likelihood of problem outcomes, or that reduces the negative impact of a risk factor on problem outcomes" (O'Connell et al., 2009, p. xxviii). For example, some protective factors can

be positive family relationships, clear expectations for behaviors, high self-esteem, and engagement opportunities in the school and community. Moreover, children must have various protective factors before they can pursue a normal and healthy developmental pathway.

However, with greater neurocognitive risk (e.g., higher reactivity, high number of ACEs), a reactive aggression response comes with increased probability. As the number of ACEs increases, so does the risk for alcoholism, depression, disease, financial stress, future domestic violence, risky sexual behaviors, suicidal ideation, poor academic achievement, and aggressive behaviors outside of school (Felitti et al., 1998). Felitti and colleagues (1998) found in their seminal study that adults who had experienced four or more ACEs had a higher risk for these adverse physical and mental health outcomes. In the school setting, children who have experienced ACEs tend to be retained more often, are more likely to be in special education, and are less engaged in the school setting (Perfect et al., 2016). However, more recent subsequent studies have identified lower thresholds, ranging from two to three ACEs, as the point in which risk for adverse consequences increases significantly (Merskey et al., 2013).

Traumatic Events

In general, ACEs occur in children aged 0-18, across all races, economic classes, and geographical regions. The prevalence of ACEs is much higher for lower socioeconomic status (American Academy of Pediatrics, 2017). Children living in poverty tend to have the highest rate of exposure to trauma and ACEs. While trauma looks similar to ACEs, it is essential to note that not all ACEs are considered traumatic (Jonson-Reid & Wideman, 2017). A traumatic event is defined as a frightening, dangerous, or violent event that poses a threat to a child's life or bodily integrity (National Child Traumatic Stress Network [NCTSN], 2018). Natural disasters (e.g., hurricanes, earthquakes, and floods), acts of violence (e.g., assault, abuse, terrorist attacks, and

mass shootings), as well as car crashes and other accidents, can all be traumatic (NCTSN, 2018). Furthermore, events such as traumatic grief and separation, system-induced trauma (e.g., foster care, hospital care, etc.), or forced displacement can be traumatic for an individual.

When categorizing which ACEs would be considered traumatic, abuse and neglect fall neatly under the umbrella of trauma. Further, witnessing an event that threatens the life or physical security of a loved one may also be considered traumatic (e.g., violence in the home, potential substance use), particularly for younger children who perceive the safety of their attachment figures as their safety. However, substance use, divorce, incarceration of a parental figure, and mental health in the home are not always traumatic stressors for children but should still be treated with care due to the research that indicates that as the number of ACEs increases, resiliency begins to lessen.

As the number of children experiencing traumatic events is examined, more than two-thirds of children in the US reported experiencing trauma by 16. Like ACEs, children who experience trauma are at risk of poor outcomes across a range of developmental and health domains, such as emotional and behavioral disorders. Traumatic events can instigate intense emotions and physical reactions that can persist long after the event. Children may feel terror, fear, or physiological reactions after experiencing trauma. In particular, children who do not have the resources to protect themselves or who lacked protection from others to avoid the consequences of trauma may experience severe psychological outcomes (NCTSN, 2018).

Toxic Stress

After experiencing one ACE or a traumatic event, a child's neurodevelopment may become disrupted (Center for Disease Control [CDC], 2016). Although stressful experiences are atypical and needed elements of proper psychological development when experienced in

moderation and under supportive conditions, it contrasts to the ACEs experienced by a child in a systematic and prolonged manner that makes stress toxic. Toxic stress wreaks havoc on all human functioning systems, ranging from affective to physiological (Shonkoff et al., 2013). In the absence of a nurturing environment or caregiver, exposure to toxic stressors can also lead to prolonged activation of the body's physiological stress-response system, which in turn has been found to lead to an overproduction of neural connections in the regions of the brain involved in fear, anxiety, and impulsive responses. In essence, under these conditions, the brain is wired to remain in a constant "fight-or-flight" response (Sherin & Nemeroff, 2011).

Furthermore, there are often fewer neural connections in the brain regions responsible for planning, behavioral control, and reasoning, resulting in permanent changes to the brain's physiology, especially for young children (Perry & Connors-Burrow, 2016). Research suggests that in some children who experience toxic stress, the brain may develop in ways that lead to an underactive stress response system, which is also problematic to their later functioning. Regardless of whether these toxic stress experiences lead to an overactive or underactive stress response, the likelihood for adverse emotional and behavioral health is significantly increased (Ha & Granger, 2016).

Psychological Effect of Trauma and Aces on Children

The diathesis-stress model (Ingram & Luxton, 2005) explains how severe enough adverse events, like toxic stress, ACEs, or traumatic events, can then manifest into psychological disorders, such as those we see in schools (e.g., conduct disorder, oppositional defiant disorder, depression, anxiety, and many others). The presence of psychopathology becomes a combination of a child's vulnerability, such as their biological characteristics and exposure to stressful environments (Hughes et al., 2017). When a child's stressors exceed her ability to cope,

underlying genetic disease or disorders may become evident. For example, when traumatic stress surpasses a developing child's limited coping skills, that child may become unable to regulate their emotions and begin to use unhealthy coping skills (Arvidson et al., 2011). At this point, stressors in a child's life can reroute a child's developmental path, leading a child to her disorder (e.g., physiological or mental health).

Children who experience toxic stressors, such as ACEs or trauma, may begin to display emotional problems (e.g., anxiety, depression, decreased attention, an inability to respond to social cues) or conduct problems (e.g., anger outbursts, uncontrolled anger, irritability, self-destructive behaviors.) Additionally, for individuals with a history of trauma, the fight response to provocations predominates rather than freeze or flight, even when the threat is distal. By comparison, for typical individuals, the behavioral response to a threat is first to freeze, then as a threat nears, to flee, and then to fight (Bracha, 2004). However, this fight, flight, or freeze response becomes dangerous to the brain, rather than protective, when repeated traumatic experiences lead to an over-reactive stress system. These children are now living in a constant state of emergency which can profoundly impact and limit brain development, resulting in cognitive losses, physical, emotional, and social delays, all of which undermine learning (ELC-PA, 2010).

As noted, trauma may impact students' learning capabilities and their behavior at school in addition to neurological changes. Children who have experienced trauma may find it more challenging than their peers to pay attention and process new information, and evidence suggests that some of these children develop sensory processing difficulties, which can contribute to problems with reading and writing. Researchers have also found that maltreated children are more likely than their peers to be retained in a grade, have irregular attendance, and be placed in

special education classes. Furthermore, their traumatic experiences tend to impact their relationships with peers and teachers in the classroom. Children who have experienced trauma may be distrustful or suspicious of others, leading them to question their relationships' reliability and predictability. They often have difficulty responding to social cues, may withdraw from others, or even be more aggressive and negative in peer interactions. Teachers' rules and consequences may be viewed as punishment by children who have experienced trauma, thereby increasing the potential for re-traumatization.

So while schools do not treat trauma interventions, or even counseling at times, as their main priority, the impact of traumatic experiences can result in a path of long-term consequences that can be avoided using appropriate treatments. Understanding the cycle, the impact of trauma on the brain and development, and how adverse experiences impact students' day-to-day functioning can help children adopt patterns in thinking, believing, and coping with promoting healthy development.

How is Trauma Being Treated?

As noted, children who have experienced trauma and ACEs and those with differing mental health needs often deviate from the typical developmental path (e.g., neurodevelopmentally, cognitively, socially, emotionally, and behaviorally). Due to the many stressors that children can face at a young age, how the brain structure can change matter and typical developmental paths must be understood and examined so that interventions can be quickly enacted to support healthy growth and development. At birth, infants face limited problem-solving skills and quickly need to develop ways to interact with others. Infants learn to signal distress, and they also learn how to get their environment to respond to them. As the infant grows and matures, she develops skills across multiple domains, such as academic, motor,

independent living, social, and cognitive skills in consideration to the environment around her and the responsiveness of caregivers (Hughes et al., 2017).

For example, through the learning theory (Bandura, 1977), it is stated that children learn skills through direct observation, trial, error, and/or inferring information from their environment. However, when a child becomes delayed in a skill, an intervention is needed immediately to facilitate typical child development (Hughes et al., 2017). Typical development includes demonstrating emotions at birth and social attachment with the primary caregiver, contributing to appropriate social development and cognitive developmental structures (Brazelton & Greenspan, 2001). While many interventions can facilitate children's growth through development, when a child encounters ACEs or experiences a traumatic event, there is an additional layer of support needed in a therapeutic setting, the home environment, and the school.

How are Schools Supporting Students Who Have Experienced Trauma?

Due to the growing literature base indicating that individuals who experience traumatic events often display emotional and behavioral concerns and are often misunderstood in the school setting, the problem surrounding trauma has been identified as a public health epidemic (Baker et al., 2015). According to a 2011 Substance Abuse and Mental Health Services Administrations (SAMHSA) report, most people are exposed to trauma during early childhood. For example, a US study found that 54% of nine to thirteen-year-old children experienced at least one traumatic event (Alisic, 2012). Additionally, more than two-thirds of the children in the United States have reported having experienced a traumatic event by the age of 16 (NCTSN, 2018).

In response to these consequences, there has been a surge of initiatives to help schools better support students with a history of trauma exposure (Baker et al., 2015). Indeed, in the state of Pennsylvania, there are several initiatives (e.g., House Resolution 345) designed to measure and address the effect of ACEs in schools within the commonwealth. To provide appropriate treatments, school teams need to distinguish between how trauma has impacted behavioral regulation, the other drivers of the aggressive behaviors and then make decisions if the child meets the criteria for special education to receive more individualized treatment.

Often, even with all of the information provided to school districts regarding identification and treatment of students who fall under the IDEA category of Emotional Disturbance (ED), due to their traumatic histories, schools are quick to address aggressive behaviors that result from trauma as willful and noncompliance acts (e.g., Social Maladjustment [SM]), rather than examining how previous trauma exposure has impacted the student. Therefore, instead of assessing students for emotional and behavioral disabilities for a multitude of reasons, including trauma histories and traumatic stress, schools quickly jump to alternative education in order to remove the disruptive behaviors out of the school system and to teach them skills to be successful in the general education setting (Booker & Mitchell, 2011).

Alternative education is an option that is thought to be provided to students if they are at risk of school failure so that they will be able to succeed (Lange & Sletten, 2002). More clearly defined, alternative education can be considered all educational activities that fall outside of the traditional K-12 school systems (e.g., homeschooling, GED preparation, special programs for gifted children, charter schools, etc.; Aron, 2006). However, the term is most frequently used to describe programs serving at-risk youth. Some advocates argue that alternatives to traditional school models are crucial to meet all students' needs (Barr & Parett, 2011; Raywid, 1985;

Wehlage & Rutter, 1987). However, alternative education programs have been in place for many years, and the results of these programs are variable; some highly successful, while others are said to be flawed at providing the appropriate support (Education Law Center [ELC], 2010).

Alternative education can be more clearly defined through a three-type classification developed by Mary Anne Raywid (1995, pp. 26-31). This typology is based on an alternative education program's goals and distinguishing characteristics, which is described as follows:

Type I schools "offer full-time, multiyear, education options for students of all kinds, including those needing more individualization, those seeking an innovative or challenging curriculum, or dropouts wishing to earn their diplomas. A full instructional program offers students the credits needed for graduation. Students choose to attend.

Other characteristics include divergence from standard school organization and practices (deregulation, flexibility, autonomy, and teacher and student empowerment); an especially caring, professional staff; small size and small classes; and a personalized, whole-student approach that builds a sense of affiliation and features individual instruction, self-paced work, and career counseling. Models range from schools-within schools to magnet schools, charter schools, schools without walls, experiential schools, career-focused and job-based schools, dropout-recovery programs, after-hour schools, and schools in atypical settings like shopping malls and museums" (Raywid, 1995, pp. 26-31).

Type II schools "distinguishing characteristic is discipline, which aims to segregate, contain, and reform disruptive students. Students typically do not choose to attend but are sent to the school for specified periods until behavior requirements are met. Since placement is short-term, the curriculum is limited to a few basic, required courses or is

entirely supplied by the ‘home school’ as a list of assignments. Familiar models include last-chance schools and in-school suspension” (Raywid, 1995, pp. 26-31).

Type III Schools “provide short-term but therapeutic settings for students with social and emotional problems that create academic and behavioral barriers to learning. Although Type III programs target specific populations - offering counseling, access to social services, and academic remediation - students can choose not to participate” (Raywid, 1995, pp. 26-31).

Regarding students who are observed to have aggressive behaviors due to their traumatic experiences, those students typically fall into the Type II programming to have a more correctional emphasis and have a primarily disciplinary focus. Students are sent to these schools often as a final step, and their emphasis is typically on behavior modification and remediation (Lange & Sletten, 2002) when in reality, they need the therapeutic support that can be found in Type III schools.

Alternative education programs (AEP) have evolved over the years to mean different things to different audiences. However, several characteristics are shared among all types of AEP settings. For example, AEPs maintain a small size, emphasize one-on-one interactions between teachers and students, allow opportunities for student success relevant to the student’s future, permit flexibility in structure and place an emphasis upon student decision making, and are supposed to create a supportive environment (Barr, 1981; Bryk & Thum, 1989). Additional key elements include clearly-defined goals to inform evaluation and enrollment, implementation of the curriculum, a student-centered atmosphere, training and support for teachers who work with at-risk populations, and links to multiple agencies (Dynarski & Gleason, 1998; Frymier, 1987; Raywid, 1995). While such programming may seem to be a good fit for those children who have

been exposed to trauma, most of the AEP programs, let alone their home district, are unaware that their students have experienced any traumatic stress and the subsequent need to tailor interventions to support their development.

As there is limited data on AEPs in the US due to the lack of consistency across the programs and ability to measure similar outcomes, it is estimated that there are over 20,000 alternative schools and programs currently in operation, most designed to reach students at risk for school failure due to behavioral concerns (Lange & Sletten, 2002). In Pennsylvania, approximately 615 programs are in operation for disruptive behaviors, which serve approximately 30,000 students through AEP for disruptive behaviors. In 1975, the Education Law Center of Pennsylvania (ELC-PA; 2010), a nonprofit legal advocacy organization dedicated to ensuring that all of PA's children have access to quality public education, was created to focus on any disadvantaged students (e.g., poverty, children of color, children with disabilities, English language learners, children in welfare, homelessness, and children in juvenile justice systems). However, most of their focus was put on students within the AEP's alternative education for disruptive youth (AEDY) program, especially over the past 15 years (ELC, 2010).

The AEDY is a program created to provide education to students in grades 6-12 who have been removed from the regular education setting for disciplinary reasons. Those programs help students work on behavioral problems while at the same time keep a focus on students' academic work. Placements in the AEDY are temporary, and students may only stay in placement until they have met their behavioral goals, at which time, students are returned to their regular education setting (ELC, 2010). Students are also required to receive at least 20 hours of academic instruction and two and a half hours of counseling (individual or group) each week.

They must receive instruction in math, English, science, social studies, and health/life skills based on their grade level.

While on paper, these requirements may sound beneficial to support students' growth to be placed back into their home district, many of the programs are not tailored to fit the student's needs (ELC-PA, 2010). For example, an eighth-grade student may be receiving eighth-grade academics and is expected to behave in a typical manner as eighth-grade students, but in actuality is functioning at the developmental level of a fourth-grader due to delayed development traumatic stress. This student's counseling program may not be tailored or appropriate to address the cause of the aggressive behaviors and his or her developmental level. Therefore, a lack of understanding of the student's development due to trauma can interfere with the AEDY program's progress.

Students are referred to AEDY programs for a variety of reasons; however, they must fall within one of the following categories according to Act 30 of 1997, § 19-1901-C (5):

"1) disregard for school authority, including persistent violation of school policy and rules; 2) display of or use of controlled substances on school property or during school-affiliated activities; 3) violent or threatening behavior on school property or during school-affiliated activities; 4) possession of a weapon on school property, as defined under 18. Pa. C. S. § 912 (relating to possession of a weapon on school property); 5) commission of a criminal act on school property or during school-affiliated activities; or 6) misconduct that would merit suspension or expulsion under school policy."

Therefore, students with any aggressive behaviors, whether stemming from a traumatic event or not, are typically displaying behaviors that meet inclusion criteria into the AEDY program.

While aggressive students appear to be eligible for referral to the program, there is a note in the AEDY referral form that specifies that AEDY is not an emotional support program. Students with disabilities may not be enrolled in the AEDY program unless the placing school district has met all special education procedural requirements. Therefore, if a student qualifies under the special education diagnosis and category of service of emotional disturbance (ED) or any other IDEA category, a manifestation determination must be completed first to determine the aggressive behavior's cause.

Ideally, school systems should be examined if the student: 1) has been the victim of trauma, 2) has been delayed in emotional development, 3) meets the criteria for a diagnosis of social maladjustment (SM) and, 4) requires treatment for ED and SM. If a student's disability is believed to be the cause of his or her misbehavior, then a child or adolescent should not be referred for an AEDY program if their behavior is the manifestation of their disability. However, if school teams are not routinely performing such examinations, they will be unable to make a fully-informed decision on the appropriate specially-designed instruction for students.

Students who demonstrate behaviors due to trauma, or those who have an emotional disturbance, may not benefit from an AEDY setting due to the specially-designed instruction that is not typically provided in such settings. For example, while the extant literature suggests that students diagnosed with SM would benefit from being placed in an AEP for the explicit teaching of skills and the individualized environment if they also are experiencing emotional difficulties from trauma, this location would likely be inappropriate for them due to the limited resources for trauma interventions and the punitive nature that occurs in the AEPs (Campbell-Sills & Barlow, 2007; Forness, 2003; Frick, 1998; Frick et al., 2014; Torres & Barber, 2017).

Data, however, shows that within the past ten years, AEDY programs have increased by 200% (ELC-PA, 2010), which indicates that they are proliferating. Accordingly, the ELC-PA completed an investigation into the causal factors for the rapid increase in the use of AEDY programming. The ELC-PA noted that some parts of the definition could be read to cover students whose offenses are less severe; for example, "disregard for authority" could fall under any act that an adult views as defiant. Therefore, while AEDY was developed for students demonstrating serious misconduct, children and adolescents who evidenced less severe offenses were also recommended for such programming. Indeed, the ELC-PA (2010) and the Pennsylvania Department of Education (PDE) concluded that schools refer students to the AEDY without making every effort to first provide students appropriate services in the least restrictive setting possible. The ELC-PA (2010) research related to AEDY programs has led to recommendations that the definition of "disruptive students" be restricted to students who commit repetitive serious offenses. Additionally, all students with disabilities protected under IDEA should not be transferred to alternative schools without a complete evaluation, except in certain special circumstances (e.g., serious bodily harm, possession of a weapon).

The ELC-PA (2010) and PDE went on to find many other areas within the AEDY subject to review and change (e.g., the overrepresentation of students with disabilities and students with color; due process procedures; school day structure; content and outcomes of AEDY programs, services for students with traumatic histories; services for students with disabilities; services for English language learners; qualifications and training for personnel; progress reviews and length of stay; safety; family engagement; public reporting; and funding). However, to focus on students with traumatic histories in the AED, in this study, I sought to examine: 1) the extent to which teachers in the AEDY program are informed about childhood trauma and 2) the extent to

which these teachers are equipped to handle behaviors related to the trauma such students have experienced.

Trauma-Informed Systems

Given the research that indicates that many students are not provided with appropriate support for their emotional histories in their home school setting and often receive inappropriate treatment (e.g., placement in AEPs), several evidence-supported and evidence-based approaches to address trauma, otherwise known as trauma-informed systems, have been developed and proven to be effective. Becoming trauma-informed requires a shift at the staff and organizational level to refocus the attention upon understanding what happened to a child, rather than focusing on the behavior alone. Trauma-informed approaches represent a holistic approach to shaping culture, practices, and policies within the organization to be sensitive to traumatized individuals' experiences and needs (ELC-PA, 2010). These practices have already been implemented in mental health, substance use, and child welfare service sectors, as well as in social policy, as well as in intellectual disability services, and now schools (Bowen & Murshid, 2016; Raja et al., 2015; Mason et al., 2016; D'Andrea et al., 2013; Purtle & Lewis, 2017).

Trauma-informed approaches are also gaining traction in the US Congress. In 2015, 28 bills were introduced with an explicit purpose to promote trauma-informed practice (Purtle & Lewis, 2017), and similar bills were considered in the 115th Congress (e.g., The Trauma-Informed Care for Children and Families Act of 2017, H.R.1757, S.774; A Resolution Recognizing the Importance and Effectiveness of Trauma-Informed Care, S.Res.346, H.Res.443). While enthusiasm for trauma-informed practice indicates the growing support for trauma-informed approaches, less is known about creating trauma-informed organizational changes (Hanson & Lang, 2014).

Trauma-Informed Approaches at the Organizational Level

The use of trauma-informed practices in other fields, including medicine and child welfare, has yielded promising results. Positive outcomes of these trauma-informed systems include improved client engagement and retention, staff and client safety, staff development in numerous professional domains, and increased supportive environments. At one residential treatment facility, the Sanctuary Model (Bloom, 2007) was implemented, which creates an organizational culture in which staff and clients build skills in critical areas such as safety, emotional management, self-control, and conflict resolution. Additionally, at the same time, open communication, healthy boundaries, healthy social relationships, and growth and change are promoted. Researchers found that the staff in the Sanctuary Model units were more likely to report community environments that promoted support, autonomy, safety, open expression of feelings, and personal problem-solving (Rivard et al., 2005), when compared to staff in a residential facility that did not utilize any trauma-informed models.

Other research indicated similar results when implementing trauma-informed care. When staff in a child and adolescent inpatient psychiatric facility were trained on TIC, the facility experienced a 67% reduction in the number of times children were placed in seclusion and/or in restraints (Azeem et al., 2011). Women receiving substance abuse treatment under trauma-informed practices (i.e., promoted physical and psychological safety, provided culturally competent and individualized services, and involved staff training on trauma) were less likely to leave treatment early than women receiving services usual (Amaro et al., 2007). Further, child welfare supervisors in Arkansas who received training on trauma-informed services reported a significant increase in their knowledge of trauma-informed practices, as well as a significant

increase in their support of trauma-informed assessment and TIC among the staff they supervise (Kramer et al., 2013).

Researchers and practitioners in the field agree that trauma-informed approaches at the system level make intuitive sense, and a growing body of research supports their implementation as evidence-supported approaches. However, rigorous evaluations are still needed to build on this evidence and further establish these approaches' efficacy (Conradi & Wilson, 2010). Even with the research needed and no universal definition of trauma-informed practices (Branson et al., 2017; Hanson & Lang, 2014; Marsac et al., 2016), there are core tenets that are reflected in the Substance Abuse and Mental Health Services Administration's (SAMHSA, 2014) "Four R's." The "Four R's" are: "*realizing* the widespread impact of trauma, *recognizing* the signs and symptoms of trauma among clients and staff, *responding* by integrating knowledge about trauma into practice and policy, and proactively *resisting* re-traumatization" (SAMHSA, 2014).

Trauma-informed systems begin with the first contact a person has with an agency. These systems require all staff members (e.g., receptionists, intake personnel, direct care staff, supervisors, administrators, peer supports, board members) to recognize that the individual's experience of trauma can significantly influence engagement with services, interactions with staff and clients, and responsiveness to program guidelines, practices, and interventions. TIC includes program policies, procedures, and practices to protect the staff and their clients' vulnerabilities. TIC is created through a supportive environment and by redesigning organizational practices to prevent practices that could be re-traumatizing to clients and staff (Harris & Fallot, 2001; Hopper et al., 2010). The ethical principle, "first, do no harm," resonates strongly in the application of TIC (SAMHSA, 2014).

Furthermore, TIC involves a commitment to building competence among staff and establishing programmatic standards and clinical guidelines that support trauma-sensitive services. TIC encompasses recruiting, hiring, and retaining competent staff, involving consumers, trauma survivors, and peer support specialist in the planning, implementation, and evaluation of trauma-informed services; developing collaborations across service systems to streamline referral processes, thereby securing trauma-specific services when appropriate; and building a continuity of TIC as consumers move from one system or service to the next. TIC involves reevaluating each service delivery component through a trauma-aware lens. Therefore to create the basis of trauma-informed organizations, companies should consider implementing the following ten steps (ELC, 2010; SAMHSA, 2014):

1. Commit to creating a trauma-informed agency;
2. Create an initial infrastructure to initiate, support, and guide changes;
3. Involve key stakeholders, including consumers who have histories of trauma;
4. Assess whether and to what extent the organization's current policies, procedures, and operations either support TIC or interfere with the development of trauma-informed approach;
5. Develop an organizational plan to implement and support the delivery of TIC within the agency;
6. Create collaboration between providers and consumers and among service providers and various community agencies;
7. Put the organizational plan into action;
8. Reassess the implementation of the plan and its ability to meet the needs of the consumers and to provide consistent TIC on an ongoing basis;

9. Implement quality improvement measures as needs and problem areas are identified;
10. Institute practices that support sustainability include ongoing training, clinical supervision, consumer participation and feedback, and resource allocation (SAMHSA, 2014, pp.159-160).

In order to support this, organizations can do things such as: show administrative commitment to TIC, review and update vision, mission, and value statements; assign a key staff member to facilitate change; create a trauma-informed oversight committee; conduct organizational self-assessment of trauma-informed services; develop an implementation plan; incorporate universal routine screenings; use science-based knowledge; create a peer-support environment, obtain ongoing feedback and evaluations; change the environment to increase safety, and develop trauma-informed collaborations (SAMHSA, 2014). Creating a trauma-informed organization is a fluid, ongoing process; it has no completion date. Consumer demographics change across time, exposure to specific types of trauma may become more prevalent, and knowledge of best practices will continue to evolve, however, by ensuring that TIC a high-quality, routine, and pervasive part of their organization through the above-listed measures, organizations can provide appropriate care for their clients and their staff (SAMHSA, 2014).

Trauma-Informed Approaches at the Teaching Level

As large organizations, schools have the unique opportunity to offer experiences that promote healthy development by using a trauma-informed lens (Bartlett et al., 2017). Students spend most of their waking hours in the school environment; therefore, what better a place than to promote trauma-informed practices in the school setting? While most high-quality education

relies on many of the same approaches as trauma-informed teachings, such as prioritizing relationships, focusing on the whole child's needs, and engaging the family as a part of the support team, trauma-informed teaching adds a layer of support.

What differs between the two education methods is the manner and approach that trauma-informed practices use to create a *safe environment*. Trauma-informed teaching does not assume that the child enters with feelings of safety but instead seeks to understand and identify what makes the child feel safe, as well as the triggers that would make the child view that experience as unsafe, which may be observed in the freeze, flight, or fight actions (Bracha, 2004). Once an approach on safety is established, then there is an emphasis on relationship development so that the educator can better serve as a source of support (protective factor), which is followed by skill development. Combining skills in trauma-informed teaching helps children exposed to ACEs, toxic stress, and other early risks to develop healthily (Perry & Conner-Burrows, 2016). For children with ACEs and trauma exposure, starting with skill development can be a recipe for failure. They are at high risk for problematic behaviors, which tend to result in punishment (Koomar, 2009) and a re-traumatization cycle that also impairs relationship development with the teacher.

Therefore, educators that use a trauma-informed approach are in unique positions because they can serve as a protective influence for children. These educators can increase resilience in children, which will ultimately support children's mental health and wellness. However, many educators indicate that they are unprepared to address children's behaviors exposed to trauma (Maring & Koblinsky, 2013). The demands seem only to increase, and educators become overwhelmed. The ACEs experience itself can be unfamiliar, and it can be challenging to balance the demands of delivering universal education with the additional needs of a child who

has experienced ACEs or a traumatic event. Therefore, when integrating trauma-informed care into a school, some fundamental assumptions and skills need to be implemented to support teachers' knowledge of ACEs and trauma and incorporate it into their daily teaching practices.

Key Assumptions of Trauma-Informed Schools

In trauma-informed schools, to start implementing TIC, personnel at all levels need to understand trauma and how it affects student learning and behavior in the school environment (SAMHSA, 2014). Therefore, teachers should receive professional development that is related to the implementation of services and provides an in-depth understanding of trauma. Professional development will help ensure that all school personnel understand the impact of trauma, recognize trauma-exposed students, and develop the skills to create an environment responsive to their student's needs. This type of trauma-focused professional development training has been demonstrated to build knowledge, change attitudes, and develop promising TIC practices (Green et al., 2015).

When trauma-focused professional development is delivered in school settings, teachers report an increase in their knowledge about trauma and trauma-sensitive practices and their understanding of how to help trauma-exposed students in schools (Dorado et al., 2015). Some of the core areas of this professional development should be focused on the basics of trauma prevalence and impact, focusing on the neurobiological impact of chronic trauma exposure and de-escalation strategies to avoid re-traumatizing students and promoting staff self-care with a focus on vicarious traumatization. Although necessary, this training alone is insufficient to ensure effective and efficient implementation of trauma-informed approaches (Dorado et al., 2015; Metz et al., 2015).

In order to be effective, the foundational training must be augmented and deepened through more intensive training that focuses on specific trauma-informed classroom strategies and through coaching of teachers to increase their capacity to use trauma-informed skills and strategies (Dorado et al., 2015; Fixsen et al., 2009; Metz et al., 2015). Specific competencies considered central to most TIC models include establishing safe environments that foster connected relationships in which the teacher knows how to prevent and respond to student triggers that can lead to behavioral escalation and re-victimization (Wolpow et al., 2011). Such training should be paired with teacher coaching to increase the effectiveness and sustainability of the training (Fixsen et al., 2009) and teachers' use of specific skills in their classrooms. Coaching is particularly effective when the target skills involve relational behavior (Stormont et al., 2015) and positive classroom management techniques.

Aside from professional development as a way of responding to trauma-exposed students' needs, schools should implement universal screening for trauma exposure and/or traumatic stress reactions (Ko et al., 2008; Listenbee et al., 2012). Given the high prevalence of trauma exposure and the associated risk for a variety of adverse outcomes, a universal approach to screening can maximize detection of students at risk for the wide range of adverse outcomes, allowing schools to respond to those students in real-time in order to ameliorate or prevent future negative outcomes (Dorado et al., 2016). This information from universal screening can also help to prevent re-traumatization of students. Early identification of students struggling with trauma can help schools prevent and support behaviors (Dorado et al., 2016; Wolpow et al., 2009). Often, chronic trauma leads to behaviors that make teachers feel that students have "bad behavior," are unmotivated, hostile, or lost, which leaves the teachers asking, "What is wrong with this student?" when confronted with challenging behaviors. This viewpoint of student behavior can

result in punitive disciplinary responses, increasing the likelihood of re-traumatization resulting from seclusion or harsh zero-tolerance policies (Dorado et al., 2016).

When schools understand the traumatic experiences of their students, they are more likely to ask, "What has happened to this student to develop these behaviors" or "Why are they exhibiting behaviors such as these?" which is more likely to lead to supportive interventions to teach the student a repertoire of new skills (Dorado et al., 2016). By engaging in a multi-tiered model of trauma care in schools (see Figure 2), teachers can learn these skills so that they can best support their students. For example, as shown in Figure 1, during Tier 1: universal training for school staff regarding trauma is given, then Tier 2: consultation between teachers and school mental health staff, and lastly in Tier 3: consultation between school mental health staff and external professionals (e.g., psychologists, mental health clinicians). Tiers 2 and 3 acknowledge the consultative role of school mental health staff with teachers and the importance of external resources to prepare teachers to take on a new role as a trauma-informed educator.

Since it is estimated that two in three children are exposed to traumatic experiences, this can impact brain development and social functioning. Therefore, learning in school, recognizing and addressing this issue, seemingly should focus on our educational system. Therefore, SAMHSA (2014) identified critical areas of trauma-informed practices for schools to develop through these professional training opportunities, as seen in Table 1.

Aside from SAMHSA, the US Attorney General's National Task Force on Children Exposed to Violence recommended that "every school in our country should have trauma-informed staff and consultants providing school-based trauma-specific treatment (Listenbee et al., 2012). Therefore, the Pennsylvania educational system created a roadmap for how PA can

take steps towards fulfilling this goal and better meet the needs of its most vulnerable students, along with the literature base presented.

Table 1

Key Areas for Trauma-Informed Approaches

Key Area	Definition
	<i>The school's ability to:</i>
Safety	Ensure physical and emotional safety for all students and school personnel
Trust	Maintain trust among students and personnel while being transparent about school policy and procedures
Support	Establish supportive environments building on crucial relationships to increase TIC practice sustainability
Cultural Responsiveness	Move past cultural stereotypes and biases (e.g., based on race, ethnicity, sexual orientation, age, geography), offer gender-responsive services, leverage the healing value for traditional cultural connection, recognize and address historical trauma, implement culturally relevant interventions and practices.
Collaboration	Recognizes that healing happens in relationships and the meaningful sharing of power and decision-making by ensuring everyone has a role to play in a trauma-informed approach

Adapted from SAMHSA TIC Guiding Principles, 2014

Recommendations for Administrators & Teachers in Pennsylvania. The Pennsylvania Department of Education (PDE) has indicated a step-by-step list of administrators' and teachers' recommendations to follow, which aligns the professional literature on this topic. First, they indicated that teachers need to be aware of the signs of trauma (e.g., fear and anxiety; changes in behavior; increased somatic symptoms; absenteeism; difficulty to redirection and authority). Next, they recommend that schools obtain a trauma history so that they can be vigilant in watching for signs of trauma. Third, educators should avoid re-traumatizing by knowing the triggers for each child and avoiding the need for punitive action. Fourth, school-community partnerships with mental health organizations should be created so that students can be connected with additional supportive services. Lastly, schools should learn about the various trauma-informed models that have been developed and consider adopting one (e.g., Sanctuary). Furthermore, it was recommended that teachers follow these principles: take care of yourself (e.g., physical exercise, creative outlets, self-care); empower students by offering choices and praising positive choices; check-in with students; remember anniversaries (e.g., the date a student was placed into foster care with or the anniversary of a loved one's death); be sensitive to the fact that not all students have a "traditional family"; identify a mentor for a student; and be sensitive to the possibility that students' parents/careers may also be trauma survivors.

Recommendations for Revising School Discipline Policies. Aside from recommendations for staff members, recommendations were made to revise the school discipline practices. It was cautioned that exclusionary school discipline practices that push away the child already impacted by trauma and communicate a message of rejection were likely to re-traumatize the child. Therefore, alternatives to out-of-school suspensions were recommended, and positive behavioral supports should be implemented. Further, discipline efforts should include the

assumption that children are always doing the best they can, working from where they are emotionally, intellectually, and developmentally at that moment. Due to this, de-escalation and redirection should be the first-line response any time discipline is needed. Next, relationships with parents, caregivers, and families should be created, as they are valuable allies and almost always have their child's best interest at heart. When enforcing school discipline policies, consistency and safety should be promoted, and avoiding ``criminalizing" children. Lastly, work should be completed to prevent future behavioral problems (e.g., follow a learning plan, reassess, and reintegrate to create learning opportunities).

Becoming trauma-informed in the classroom: What does it look like? Given the examples and ways schools can implement trauma-informed care into their practice, what does a trauma-informed classroom look like? Two examples below are provided to show how care and safety were implemented into daily interactions with students in a classroom and avoiding punishment and re-traumatization.

Example 1 - Externalizing Behavior (Table 2). Joe is walking to the music room when his classmate, Bryan, trips, and bumps into him. Joe and Bryan begin yelling at each other, and as their teacher, Ms. Johnson, walks up, Joe punches Bryan in the face. Ms. Johnson has to break up the fight.

Table 2.*Approaches to Externalizing Behaviors*

	Traditional Approach	Trauma-Informed Approach
Initial Response	Ms. Johnson calls the security guards, and the boys are escorted to the principal's office. Ms. Johnson continues walking her students to music.	Ms. Johnson separates the students and brings them to an empty classroom to calm down, supporting other staff. She speaks with Joe and asks him, "what is going on," and after a few minutes (due to their relationship they have developed this school year), Joe shares that there is instability and violence in his home. Bryan is de-escalated by a teacher with whom he has a strong relationship.
Disciplinary Action	Both students meet with the principal and are suspended (Bryan for three days, Joe for nine days). Joe is told he will be expelled next time because he is a "repeat offender." Parents are called.	Following individual conversations, the students and teachers meet with the principal. In a non-confrontational conversation, both students receive "in-school suspension," in which they have to participate in social skills training.

Short- and Long-Term Implications	Bryan misses three days of school, and Joe misses nine days of school. As a result, they fall behind in classwork, and grades suffer. Both students feel that the school has labeled them, and parents feel they are working in opposition to school staff.	During their time in in-school suspension, the boys complete coursework and meet with counselors. The counselor finds that Joe is experiencing domestic violence and instability due to being placed with his grandmother. The counselor reaches out to the grandmother, and a behavioral plan is created and a referral for therapy. Further, Joe joins an after-school mentoring program for social skills and academic support.
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Example 2 - Internalizing Behavior (Table 3). At the beginning of 7th grade, Aria was very outgoing and engaged in the class. However, starting in the second half of the year, she has been reticent, rarely raises her hand, and does not speak unless prompted by a teacher. She has begun complaining of stomach pains and headaches and frequently visits the school nurse. She has missed several days of school as well.

Table 3.

Approaches to Internalizing Behaviors

Traditional Approach	Trauma-Informed Approach
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Initial Response	Aria's quietness is noticed but not deemed a problem due to the classroom's busy environment. With many children in a class, there is no time to assess the students individually.	Her teacher notices Aria's behavior, and during lunch, the teacher investigates further. During this time, she reveals that she witnessed a child from another school being hit by a car on the way home from school a few weeks ago. She has since then felt scared to walk to and from school and is experiencing anxiety.
Disciplinary Action	Aria's stomach pains are written off as an excuse to leave the classroom. The teacher and nurse become frustrated with her.	Her teacher speaks with her family, and they refer her to the appropriate services. The school emphasizes the importance of Aria feeling safe going to and from school.
Short- and Long-Term Implications	On her school evaluations, Aria's parents are told that Aria needs to be more attentive, and they believe that Aria does not take school seriously. Additionally, Aria's grades begin declining.	Aria's family makes arrangements for her to walk to/from school with her older sister. This change in her daily routine, combined with counseling, leads to a decline in somatic symptoms and increased engagement at school. A collaborative relationship between Aria and her teacher is formed. The teacher develops a lesson plan on transportation safety for the class.

As you can see, while trauma-informed care can look different for children with externalizing or internalizing behaviors, each child was provided with a feeling of safety and comfort through the trauma-informed approach. By looking at "why" instead of the "what" in a child's behavior, a classroom can become more trauma-informed. In the long run, this leads to better academic performance, fewer disciplinary actions, and a more nurturing school environment where both students and staff feel safe.

Barriers to Implementation

While considering the extant literature regarding how to create a trauma-informed system in schools and to acknowledge and provide support to ameliorate the secondary trauma that teachers face in their jobs, several critical barriers remain that block the progression of research, practice, and policy related to TIC. The core principles of TIC, such as those posited by Harris and Fallot (2001), include integrating trauma theory into explanations of stress, psychopathology, and coping; establishing core values of safety and empowerment; avoiding approaches that are counter to the principles of TIC; and approaching education in a way that facilitates the building of crossover skills (e.g., emotion regulation). In current thinking, these foundational principles are often blended with TIC implementation drivers (e.g., administrative commitment to change, professional development) and TIC practice elements (e.g., trauma screening, TIC-informed policies and procedures, restraint reduction, trauma-specific treatments, and strength-based behavior management; Arvidson et al., 2011; Azeem et al., 2011; Brown et al., 2012; Fixsen et al., 2009; Harris & Fallot, 2001; Ko et al., 2008).

While some are primed to shift from the rich, foundational theoretical and conceptual thinking to the data-driven analysis of TIC and its effects, others see progress blocked by

multiple barriers. Change can be difficult at any level, but in a complex system such as a school district, it can be time-consuming and requires commitment across all levels (Barrow et al., 2012). A primary challenge is the existing organizational cultures of schools, with their histories and shared traditions clung to fervently by long-time teachers and staff (Hodas, 2006). "That is not the way we do things here" can present a significant barrier to adopting new approaches such as trauma-informed schools. Another challenge noted by Hodas (2006) is the belief that addressing students' traumatic experiences is the equivalent of "being soft" or "letting them get away with something." This perception can add another issue for school personnel who believe in a discipline-oriented or more confrontational interaction style with students not responding positively to a normative classroom setting. Therefore, if school systems are not entirely on board to integrate a trauma approach into their education setting, it is likely that buy-in will be low with little or no movement towards developing trauma-informed schools.

On top of providing services and learning to be trauma-informed at the organizational or school level, those working with children who have experienced trauma also need to be acutely aware of their professional quality of life. Research has shown that those who help people exposed to traumatic stressors are at risk of developing negative symptoms associated with burnout, depression, and post-traumatic stress disorder. Within the body of literature that examines secondary traumatization, or vicarious traumatization, the positive feelings about people's ability to help are known as Compassion Satisfaction (CS). The adverse, secondary outcomes have variously been identified as burnout, countertransference, compassion fatigue (CF), secondary traumatic stress (STS), and vicarious traumatization (VT; Stamm, 2010).

While it unknowns how many professionals suffer adverse effects from their helping role, it is known that reports of secondary trauma, burnout, and compassion fatigue are widespread

(Stamm, 2010). Over the past several decades, research has shown that while many helpers are pleased, they can help people who experience highly stressful events; however, secondary exposure to traumatic stress negatively impacts them. There is research evidence that secondary exposure and burnout can lead to depression and increased use of alcohol or drugs. Further, in the workplace, compassion fatigue is associated with higher physical illness rates, greater use of sick leave, higher turnover, lower morale, and lower productivity (The Center of Victims of Torture [TCVT], 2018). Of course, the overall concept of professional quality of life is complex because it is associated with characteristics of the work environment (e.g., organization and task-wise), the individual's characteristics, and the individual's exposure to primary and secondary trauma in the work setting (Stamm, 2010). Therefore, by using prevention to acknowledge the levels of burnout, fatigue, and job satisfaction in employees, organizations can establish policies that are consistent with current knowledge of risk and prevention, as well as support their professionals so that they can continue to work with youth who have experienced trauma (TCVT, 2018).

An additional barrier that may prevent adequate investment by staff may be related to the absence of psychometrically robust instruments to evaluate TIC. Within the empirical work on TIC, the effects of TIC implementation are typically measured via client-reported outcomes such as symptoms indices (Morrissey et al., 2005); program-level metrics such as suspension and expulsion reduction (Stevens, 2012); and organizational-level characteristics such as treatment environments (Rivard et al., 2005). Though these are important outcomes, they are costly and time-consuming. Because so many potential variables can influence these measures, it is also challenging to know whether and how TIC staff training, in particular, relates to the change. Furthermore, schools implementing TIC often report qualitative and anecdotal evidence of

change but struggle to find inexpensive and practical tools to capture this change quantitatively. Thus, there has been a call for a reliable, valid, and cost-effective tool to measure the proximal outcomes of TIC, which resulted in the Attitudes Related to Trauma-Informed Care (ARTIC) Scale (Brown et al., 2012).

Measurement of Trauma-Informed Care

Attitudes Related to Trauma-Informed Care (ARTIC) scale.

The Attitudes Related to Trauma-Informed Care (ARTIC) scale was based on the earlier measure, the Trauma-Informed Care Belief Measure (Brown et al., 2012), which assessed staff attitudes favorable to trauma-informed care (TIC). The earlier measure was developed to evaluate the program, the Risk Connection (RC) staff trauma training model (Brown et al., 2012). It was developed in the early 2000s by blending critical stakeholder feedback, expert opinions, and the existing literature on TIC. This precursor instrument to the ARTIC was sensitive to attitude change associated with formal trauma training (Brown et al., 2012). However, it was limited in that it included only one general factor, a fundamental attitude towards TIC.

To address the shortcomings of the earlier measure, experts in TIC, trauma and stress, school-based mental health, and community mental health were called upon so that the authors could undertake an extensive mixed-methods process to develop a revised scale (Baker et al., 2016). Given the increased attention focused on TIC in the last decade, the item-redevelopment process included a fully updated review of the theoretical, empirical, and measurement literature relevant to TIC, emphasizing those works considered a foundational field (Baker et al., 2016).

After re-developing the measure, the ARTIC now included eight subscales that were intended to fully represent the most central component of attitudes that are supportive, or

unsupportive, of TIC implementation. These subscales included attitudes about: (a) underlying causes of problem behavior and symptoms, (b) the impact of trauma, (c) responses to problem behavior and symptoms, (d) on-the-job behavior, (e) self-efficacy at work, (f) reactions to the work, (g) personal support of TIC, and (h) system-side support for TIC (Baker et al., 2016). More in-depth descriptions of the subscales and the questionnaire characteristics will be discussed in Chapter 3.

The authors of this scale then moved to evaluate the use of the scale with school-based staff ($n = 760$), given the recent increase in the number of trauma-sensitive schools and clear TIC applications to educational settings (Cole et al., 2005). Furthermore, individuals in human services, community-based mental health, or health care were recruited to work with traumatized youth. Individuals who worked in schools and were at least 18 years of age were eligible to participate in the study. Participants were 83% female, and 92% identified as white, while 95% identified as not Hispanic. The sample was highly educated, with 96% of the participants reporting that they completed college, some graduate school, or graduate school. The average annual income of the participants was \$50,000. Overall, participants reported being reasonably early in their careers, having worked an average of 2.91 ($SD = 1.48$) years in their current job, 2.92 ($SD = 1.47$) years with their current organization, and 4.11 ($SD = 1.59$) years in their field. Job roles varied widely, with an administrator (21%), primary therapist (16%), direct care staff (15%), and direct care supervisor (11%) being the most common. Furthermore, participants reported working in diverse job settings, including community organizations (28%), schools (12%), and mental health clinics (10%). The majority of participants, 91%, reported that their jobs included at least some opportunity for face-to-face contact with students/clients. Lastly, a

little over half of the participants (57%) reported having previously participated in formal TIC training (Baker et al., 2016).

This study indicated that the composite scores varied slightly by demographic characteristics. Female, racial/ethnic majority, better educated, and more experienced participants and those who had less face-to-face contact with students/clients had ARTIC scores more favorable to TIC. Also, individuals working in human services and health care had scored more favorable to TIC than those working in schools. The composite scores were strongly related to personal familiarity with TIC ($r = .34-.45$) and most staff-level TIC implementation indicators ($r = .30-.59$).

Additionally, the "underlying causes of behavior problems and symptoms," "responses to problem behavior and symptoms," and "on-the-job behavior" domains were strongly correlated with personal familiarity with TIC and staff-level TIC indicators, such as having a positive attitude about TIC. The "on-the-job behavior" domain was also related to indicators of service providers' day-to-day behaviors (e.g., asking students about their trauma histories). The "self-efficacy at work" domain was associated with staff-level TIC indicators, job satisfaction, feeling supported at work, and less burnout. The "reactions to the work" domain were associated with staff-level TIC indicators and job satisfaction. "Personal support of TIC" was associated not only with personal familiarity with TIC but also with indicators that the participant's job setting facilitates familiarity with TIC (e.g., TIC is well implemented in the organization, the participant has received formal TIC training). TIC-favorable staff-level indicators and feel rewarded at work for using TIC were also strongly correlated with "personal support of TIC."

The "system-wide support for TIC" subscale was the only ARTIC subscale correlated strongly with system-level indicators of TIC implementation. This subscale was also predictably

related to staff-level indicators associated with feeling supported at work. Participants are scoring higher on the ARTIC "system-wide support for TIC" supplementary subscale also reported more job satisfaction and less burnout. Therefore, the ARTIC scores were meaningfully associated with staff and system-level indicators associated with TIC implementation and showed significant differences between participants who were not familiar with TIC. These findings provided promising evidence of the ARTIC scores' validity (Baker et al., 2016).

Alternative Education and Trauma-Informed Care

Given that many students who are removed from the general education classroom end up in alternative education placements, the AEP staff need to have specialized knowledge in emotional and behavioral disorders and manage disruptive behaviors. Additionally, alternative education staff is instrumental in delivering school-wide practices that address psychological well-being, especially related to coping with trauma exposure (Brunzell et al., 2015). Moreover, alternative education staff can deliver TIC to support academic, behavioral, and social-emotional learning instruction to those who encounter childhood trauma.

While it is thought that alternative education staff would be well versed in trauma-informed practices, due to the high number of students who have encountered trauma in their facility, researchers (Anderson et al., 2015) have suggested that alternative education personnel have expressed confusion about what specific TIC knowledge and skills are needed to effectively implement TIC since most of their training is focused on disruptive behavior management, rather than understanding the underlying causes of such behaviors. Ultimately, examining the interactions of alternative education staff's attitudes could potentially affect their knowledge and skills (Desimone, 2009; Desimone, 2011) that they perceive are necessary for implementing effective TIC in the schools. In general, research on trauma-informed practices in alternative

education programs is not widely researched, resulting in a need for more studies to focus on the attitudes that alternative education staff members bring to their program related to trauma and their knowledge and skills regarding trauma-informed interventions.

Thus, in the proposed study, I examined alternative education program staff's perceived attitudes to trauma-informed care and compared it to a normative sample of general education teachers. Findings from this unique population may provide researchers, school administrators of alternative education programs, and alternative education staff with a better understanding of the necessary attitudes to best embed TIC knowledge and skills into their classroom and isolate potential areas of growth. Apart from drawing attention to an under-researched domain of TIC in schools (e.g., Chafouleas et al., 2016; Harris & Fallot, 2011), this study's main contribution is to provide insight into how the constructs interact with alternative education personnel and to explore the therapeutic nature the staff brings to their programming.

CHAPTER III

METHODOLOGY

The purpose of this study was to evaluate the attitudes related to trauma-informed care from educators working in Alternative Education Programs (AEPs). The Alternative Education Programs consist of either alternative school settings or juvenile justice school settings. In the previous chapters, I have posited that individuals placed in alternative education or in a justice/juvenile justice setting often demonstrate emotional and behavioral symptoms resulting from trauma. Unfortunately, due to the disruptive nature of the behaviors, these individuals may be removed from their home schools and placed in alternative education settings.

In order to investigate the research questions posed in this study, the Attitudes Related to Trauma-Informed Care (ARTIC) scale was utilized to assess how educators responded to questions investigating their knowledge, skills, and disposition in and to teaching students who have experienced trauma. Data was gathered from educators (e.g., teachers, administrators, counselors) employed in Alternative Education Programs (AEPs), which provides services to adolescents who have been excluded from their traditional school setting for behavioral challenges (i.e., justice and juvenile justice offenses, incarceration in a juvenile detention center or adult prison). This data was then compared to the normative data of the ARTIC, that was previously collected from the responses of general education teachers and mental health professionals across the country. In the subsequent section of this paper, I provide a description of the procedures for the recruitment of participants, the psychometric properties of the proposed measures, the administration of measures, data collection, and the proposed data analyses.

Participants

Participants included educators working in Alternative Education Placements (AEPs), as well as those employed in the juvenile detention center or an adult prison within Allegheny County. All participants that were asked to participate were employed from the Allegheny Intermediate Unit (AIU3) Alternative Education Program (AEP). The AIU3 is a regional public education agency in Pennsylvania's public education system. In this agency, specialized services are provided to Allegheny County's suburban school districts, as well as non-public, charter, and vocational-technical schools. Within the AIU3, the AEP serves students in grades 6-12 who have been excluded from their traditional school setting for one of the following reasons: (1) disregard for school authority, including persistent violation of school policy and rules; (2) display of or use of controlled substances on school property or during school-affiliated activities; (3) violent or threatening behavior on school property or during school-affiliated activities; (4) possession of a weapon on school property; (5) commission of a criminal act on school property or during school-affiliated activities; or (6) misconduct that would merit suspension or expulsion under school property. The AEP also serves students in justice and juvenile court locations. The services provided by AEP include academic instruction, school counseling, advocacy, and behavior intervention support. For the purpose of this study, all schools within the AEP were asked to participate, which include five school placements.

Of the 72 participants, there were 43 males and 29 female participants, with 77% identifying as White and non-Latino, 15% as African American, 1.5% Asian, and 1.5% American Indian or Alaskan Native. Of these participants, 20 were from Community West, 18 from Community East, 15 from Shuman Detention Center, 9 from Allegheny County Jail, 5 from Auberle, and 5 worked across multiple schools.

Exclusionary Criteria

Before conducting statistical analysis, the data was examined for the exclusionary criteria. Individuals were excluded if:

1. They were not employed by AIU AEP
2. If the educator did not consent to participate in the study.

Procedures

After receiving Institutional Review Board approval, recruitment and data collection began. The AIU AEP staff were receiving trauma-informed training for their yearly professional development, to assist them in integrating trauma-informed care (TIC) into their teaching. It is important to note that the AIU AEPs can receive professional training from a variety of providers, including PATTAN and PDE, all of which offer educational opportunities regarding trauma informed-teaching practices. Administrators may choose any number of opportunities related to addressing trauma in their setting. Documenting the impact of specific content from a specific training experience is not part of this study, but rather, I seek to document the recommended content for subsequent individualized training for each setting.

Therefore, respondents for this study were recruited from the described sample (e.g., school personnel serving in the five AEP schools). All school personnel were asked to participate in the study. Although it is typical for administrators to require all school personnel to attend professional development training, including any provided by this team addressing TIC, participation in this study was not required. When participants were recruited to participate in this study, the consent form was provided to each individual. The consent form ensured that the educators understood that participation in the research study was voluntary and they could withdraw their participation at any time, without penalty. Administrators in the building would

not be notified if school personnel declined to participate or did not answer questions, nor would they be aware of information that would be linked to the individual school personnel.

Additionally, individuals were informed that they could withdraw their participation from the study at any time, or simply discontinue answering the questions. Further, they were notified that their information would be compared to that provided by other school personnel, and would be used for dissertation data, as well as the potential for inclusion in future publications in the scholarly literature.

All collected consents were documented in the codebook. Participants were assigned an identification number that was written on the questionnaire. Consent and assent forms were locked in a separate cabinet from the data collected in a university office in order to ensure that no data were identifiable. Such data was stored for the duration of the study, plus three years, at which time, all data will be destroyed. In order to ensure confidentiality, all data were de-identified. Once all consents were collected, data collection began. In this study, I utilized a quantitative research design in order to assess the attitudes, opinions, and behaviors of educators regarding trauma-informed care, as well as the characteristics of the population. Participants were given a demographic data sheet to complete, as well as the ARTIC (45-item measure), which they completed in their workplaces and returned to the investigator upon completion.

Measures

Self-reported demographic information. Demographic information was collected using a questionnaire created by the researcher that mirrored the demographic information that was collected when the original team of researchers (Baker et al., 2015) created norms for the ARTIC scale. On the informational sheet, I asked respondents to identify their job location (e.g., Community Schools, Shuman Detention Center, Allegheny County Jail, Auberle: Hartman

Adolescent Male Shelter), gender, and race. The staff were also asked to indicate their highest level of education they held and their annual income. Furthermore, they were asked to provide information about their job setting (e.g., human services/health care vs. education), the number of years in their job role, the number of years they had worked within their organization, and the number of years they had worked in their field. Lastly, staff members were asked to indicate if they had been previously trained in trauma-informed care. The data collected from the self-reported demographic information form was used to describe the sample and in statistical comparisons where appropriate.

Attitudes Related to Trauma-Informed Care-45 (ARTIC-45; Baker et al., 2015). The ARTIC Scale is one of the first psychometrically valid measures of trauma-informed care (TIC) to be published in the scholarly literature. It measures paraprofessionals' and professionals' attitudes toward TIC. The ARTIC was developed to measure, easily and inexpensively, a) teachers' current theoretical and empirical knowledge related to TIC and, b) service providers' attitudes relevant to TIC directly and specifically. The ARTIC (education version) has three different versions; a full scale measure that serves as a comprehensive knowledge, skills, and attitude measure, and an abbreviated follow-up measure that can be used to monitor staff readiness and progress in implementing TIC. During its development, the authors asked content experts (e.g., in TIC, trauma and stress, school-based mental health, and community mental health) and those with expertise in study design and methodology to become integral members of designing the questionnaire.

The 45-question (baseline) version of the ARTIC was used in the study. This version, including its subtests, were found to have respectable to excellent reliability and validity values. For example, internal reliability was calculated using Cronbach's α and was found to be strong for

the ARTIC-45 ($\alpha = .93$). Subscale alphas ranged from respectable to very good (DeVellis, 2012) with the lowest reliability associated with “reactions to the work” ($\alpha = .71$) and the highest with “system-wide support for TIC” ($\alpha = .81$). Additionally, this version of the ARTIC scale exhibited a factor structure consistent with research and theory. Therefore, given the following information this measure is considered to be a reliable measure of attitudes related to TIC.

The questionnaire yields seven subscales, with each of the five core subscales having seven items and the two complementary subscales each having five items. This measure uses a 7-point bipolar Likert scale. Means are calculated for the total measure and for its seven subscales. The seven subscales are noted below in Table 4.

Table 4.

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

Subscale name	Description
Underlying causes of problem behavior and symptoms	Emphasizes internal and fixed versus external and malleable
Responses to problem behavior and symptoms	Emphasizes rules, consequences, and eliminating problem behaviors versus flexibility, feeling safe, and building healthy relationships
On-the-job behavior	Endorses control-focused behaviors versus empathy-focused behaviors
Self-efficacy at work	Endorses feeling unable to meet the demands of working with a traumatized population versus feeling able to meet the demands
Reactions to the work	Endorses underappreciating the effects of vicarious traumatization and copy by ignoring versus feeling able to meet the demands
Personal support of TIC	Reports concerns about implementing TIC versus being supportive of implementing TIC

The normative data of the ARTIC was developed through the use of a sample of 760 service providers, including 595 who worked in human services, community-based mental health, or health care (78%) and a targeted subsample of 165 who worked in general education (22%). Given the recent emergence of trauma-sensitive instruction and its clear application to educational settings (Cole et al., 2005; 2013), school-based staff were purposely recruited.

Individuals who were at least 18 years of age and who worked in one of the identified fields were eligible to participate in this study. Participants were 83% female, and 92% identified as white, while 95% identified as not Hispanic. The sample was highly educated, with 96% of the participants reporting that they completed college, some graduate school, or graduate school. The average annual income was \$50,000. Overall, participants reported being early in their careers, having worked an average of 2.91 (SD = 1.48) years in their current job, 2.92 (SD = 1.47) years with their current organization, and 4.11 (SD = 1.59) years in their field. Additionally, a little over half of the participants (57%) reported having previously participated in formal TIC training (e.g., RC, Advocates for Children, Sanctuary).

The validity indicators were analyzed using Pearson's product moment correlations to provide preliminary support for construct and criterion-related validity. Internal validity evidence suggested that females, racial/ethnic majorities, more education, more experience, and less face-to-face contact with students/clients being associated with ARTIC scores that were more favorable to TIC. In addition, individuals working in human services and health care had scores more favorable to TIC than those working in schools. The ARCTIC-45 composite scores were strongly related to personal familiarity with TIC ($r = .34-.45$) and most staff-level indicators of

TIC implementation ($r = .30-.59$). Furthermore, the underlying causes of behavior problems and symptoms, responses to problem behavior and symptoms, and on-the-job behavior domains were strongly correlated with personal familiarity with TIC and staff-level TIC indicators, such as having a positive attitude about TIC.

The “on-the-job behavior” domain was also related to indicators of day-to-day behaviors of service providers (e.g., asking students about their trauma histories). The “self-efficacy at work” domain was associated with staff-level TIC indicators, job satisfaction, feeling supported at work, and less burnout. The “reactions to the work” domain was associated with staff-level TIC indicators, as well as job satisfaction. “Personal support of TIC” was associated not only with personal familiarity with TIC, but also with indicators that the participant’s job setting facilitates familiarity with TIC (e.g., TIC is well implemented in the organization, the participant has received formal TIC training). TIC-favorable staff-level indicators and feeling rewarded at work for using TIC were also strongly correlated with “personal support of TIC.” The “system-wide support for TIC” subscale was the only ARTIC subscale that correlated strongly with system-level indicators of TIC implementation. This subscale was also predictably related to staff-level indicators associated with feeling supported at work. Participants scoring higher on the ARTIC “system-wide support for TIC” supplementary subscale also reported more job satisfaction and less burnout. In summary, associations among the ARTIC subscales and the validity indicators provide preliminary psychometric support related to validity.

Internal and External Validity Threats

Sample size was considered a threat to the ability to discern differences among symptom groups. The sample came from a select group of individuals who worked within AEPs from the AIU; therefore, the generalizability of the results is limited. Additionally, for those who have

participated in prior training related to trauma-informed care, there is variability by which their past training may affect their attitudes and beliefs.

Data Preparation

Before conducting the statistical analyses, after the data were collected, it was cleaned (e.g., checking for missing data and outliers). In order to test for check for missing data, a frequency test was completed to locate any data that was missing and its percentage. In this case, I consulted the manual and followed the instructions written by the creator of the scale (e.g., “For missing data, an 8 will be entered. This data will not be used to calculate the mean scores”). For subscales that were unable to be calculated due to missing data, that particular subscale was not used in the data. However, the other data provided by that individual was still used for the other subscales.

It was anticipated that the statistical analyses for this study would include calculating the effect sizes (i.e., Cohen’s D), and the significance with a t-test to test hypotheses regarding the comparison between the normative data and the data from the current sample regarding their attitudes related to TIC. Additionally, reliability was calculated for each subscale and the overall scale to determine if the ARTIC-45 can be used reliably with AEP educators. Furthermore, descriptive statistics were used to determine the number of participants demonstrating each of the constructs, as well as to examine the scores on the instrument across characteristics. A t-test was conducted to discern any significant differences between the groups (e.g., demographic characteristics), while a Bonferroni test was completed to prevent data from incorrectly appearing to be statistically significant by making an adjustment during comparison testing. Lastly, a bivariate correlation matrix was used to indicate any significant relationships between participant characteristics and the instrument subscales.

Research Questions and Hypotheses

The aim of this study was to examine AEP staff's perceived attitudes toward TIC and to compare them to a normative sample of general education teachers and child human service providers. In order to do so, the two data samples were compared. Findings from this unique population may provide researchers, school administrators of AEPs, and AEP staff with a better understanding of the attitudes that are necessary to best embed TIC knowledge and skills into their classroom as well as to identify areas for growth. Apart from drawing attention to an under-researched topic (e.g., Chafouleas et al., 2016; Harris & Fallot, 2011), this study's main contribution was to provide insight into how educators in alternative education feel about trauma-informed care in the classroom. Furthermore, this study provided information regarding areas of need that can be used to guide decisions regarding future professional development of AEP staff.

Research question 1. When compared to the normative sample on the ARTIC survey, do alternative educators display more TIC-favorable attitudes?

Hypothesis. Educators from the current sample in the alternative education program will report more TIC-favorable attitudes.

Statistical analysis. Descriptive statistics, Cohen's D, and reliability statistics will be used to answer this research question.

Research question 2. Is there a significant relationship between participant characteristics and the subscales on the ARTIC?

Hypothesis. A significant relationship will be present between participant characteristics and the ARTIC subscales, as noted below in each sub-question.

Statistical analysis. A bivariate correlation matrix will be calculated to answer this question.

Research question 2a. Do individuals who differ in gender have differences between their mean score performances on the ARTIC domains?

Hypothesis. Females will report more TIC-favorable attitudes than males.

Statistical analysis. Descriptive statistics and ANOVA will be calculated to answer this research question.

Research question 2b. Do individuals who differ in race demonstrate differences between their mean score performances on the ARTIC domains?

Hypothesis. Individuals who identify as Black or African-American will report more TIC-favorable attitudes than other races.

Statistical analysis. Descriptive statistics and ANOVA will be calculated to answer this research question.

Research question 2c. Do individuals who differ in education level have differences in their mean score performances on the ARTIC domains?

Hypothesis. Individuals with higher education levels will report more TIC-favorable attitudes than those with lower education status.

Statistical analysis. Descriptive statistics and ANOVA will be calculated to answer this research question.

Research question 2d. Do individuals who differ in annual income have differences in their mean score performances on the ARTIC domains?

Hypothesis. Individuals with higher annual incomes will report more TIC-favorable attitudes than those with lower annual incomes.

Statistical analysis. Descriptive statistics and ANOVA will be calculated to answer this research question.

Research question 2e. Do individuals who differ in their job setting have differences in their mean score performances on the ARTIC domains?

Hypothesis. Individuals working in human services/health care roles will report more TIC-favorable attitudes than educators working in AEPs.

Statistical analysis. Descriptive statistics and ANOVA will be calculated to answer this research question.

Research question 2f. Do individuals who have been in their current employment role for differing amounts of time have differences in their mean score performances on the ARTIC domains?

Hypothesis. Individuals working in their current role for longer periods of time will report more TIC-favorable attitudes.

Statistical analysis. Descriptive statistics and ANOVA will be calculated to answer this research question.

Research question 2g. Do individuals who have been employed by their organization for differing amounts of time have differences in their mean score performances on the ARTIC domains?

Hypothesis. Individuals working in their current organization for longer periods of time will report more TIC-favorable attitudes.

Statistical analysis. Descriptive statistics and ANOVA will be calculated to answer this research question.

Research question 2h. Do individuals who have been employed in their field of work have differences in their mean score performances on the ARTIC domains?

Hypothesis. Individuals working in their current field for longer periods of time will report more TIC-favorable attitudes.

Statistical analysis. Descriptive statistics and ANOVA will be calculated to answer this research question.

Research question 2i. Do individuals who differ in their level of previous trauma training have differences in their mean score performances on the ARTIC domains?

Hypothesis. Individuals with previous trauma-informed training will report more TIC-favorable attitudes than those who have not received any previous training.

Statistical analysis. Descriptive statistics and ANOVA will be calculated to answer this research question.

Data Analysis

Research question 1. In the first research question, I described the characteristics of the current sample population; race, gender, level of education, annual income, job setting, number of years in job role, number of years in organization, number of years in field, and previous trauma training were reported. Descriptive statistics were used to determine the number of participants who demonstrated these characteristics. Next, I compared the normative data from the ARTIC scale with the data from this sample. Cohen's D was calculated on each subscale to determine which population had higher TIC-favorable attitudes, and if there was a significant difference between these samples. Lastly, the reliability of the sample's population was calculated and compared to the normative sample.

Research question 2. In the second research question, a bivariate correlation was used to determine any significant relationships between the ARTIC subscales and participant characteristics. These relationships were described to indicate which characteristics influence the attitudes related to TIC, and were examined further through descriptive statistics.

Research question 2a. Descriptive statistics were used to describe the means in the ARTIC subscales in individuals identifying as female, male, non-binary/third gender, or other. Additionally, ANOVA was completed in order to determine if there was a significant difference between the groups.

Research question 2b. Descriptive statistics were used to describe the means in the ARTIC subscales in individuals identifying as Asian, American Indian or Alaskan Native, Biracial or multicultural, Black or African American, Hispanic or Latino of any race, and White and non-Latino. Additionally, ANOVA was completed in order to determine if there was a significant difference between the groups.

Research question 2c. Descriptive statistics were used to describe the means in the ARTIC subscales in individuals identifying as female, male, non-binary/third gender, or other. Additionally, ANOVA was completed in order to determine if there was a significant difference between the groups.

Research question 2d. Descriptive statistics were used to describe the means in the ARTIC subscales in individuals who completed high school or a GED, some college, all college, some graduate school, and all graduate school. Additionally, ANOVA was completed in order to determine if there was a significant difference between the groups.

Research question 2e. Descriptive statistics were used to describe the means in the ARTIC subscales in individuals annually earning less than \$20,000, between \$20,000 and

\$40,000, between \$40,000 and \$60,000, between \$60,000 and \$80,000, between \$80,000 and \$100,000, between \$100,000 and \$120,000, and earning over \$120,000. Additionally, ANOVA was completed in order to determine if there was a significant difference between the groups.

Research question 2f. Descriptive statistics were used to describe the means in the ARTIC subscales in individuals working in human services or health care and education settings. Additionally, ANOVA was completed in order to determine if there was a significant difference between the groups.

Research question 2g. Descriptive statistics were used to describe the means in the ARTIC subscales based on the number of years the participants have been employed in their current job role. Additionally, ANOVA was completed in order to determine if there was a significant difference between the groups.

Research question 2h. Descriptive statistics were used to describe the means in the ARTIC subscales based on the number of years the participant has been employed in their current organization. Additionally, ANOVA was completed in order to determine if there was a significant difference between the groups.

Research question 2i. Descriptive statistics were used to describe the means in the ARTIC subscales in individuals who have received formal trauma training and those who have not received formal training. Additionally, ANOVA was completed in order to determine if there was a significant difference between the groups.

CHAPTER IV

RESULTS

In this chapter, I present the descriptive statistics for the demographic characteristics of the sample population. I also conducted analyses to test the hypotheses and analyze the potential differences between the normed population and the current population (e.g., educators from AEPs) on the ARTIC scale.

Descriptive Analyses

Research Question 1

When compared to the normative sample on the ARTIC survey, do alternative educators display more TIC-favorable attitudes? Table 5 shows participants' demographic information by group membership. In all, 73 employees from the AIU AEP participated in the study. Of the sample, more than half who participated were males (42), while 29 females participated. Furthermore, the sample consisted of primarily White or Non-Latino-identifying participants (56 individuals). The rest of the population consisted of 11 individuals identifying as Black or African American, 1 individual identifying as American Indian or Alaskan Native, and 1 individual identifying as Asian.

Table 6 shows the participants' demographics regarding their education level, income, job setting, as well as their years in their role, organization, and field. The sample consisted of a seasoned staff with 34% of individuals having been in the education field for more than 20 years. Furthermore, 16 individuals have been in the field for 16-20 years, 15 individuals for 6-10 years, 12 individuals for 11-15 years, and two individuals for 1-5 years. Therefore, more than half of the sample has been working in education for over 16 years. When asked about their time at the

organization more than half of the participants have been working at AIU AEP for over 11 years. Nine individuals have worked within the organization for 6-10 years, 18 individuals for

Table 5

Demographic Information

	N	%
Gender		
Female	29	39.7
Male	43	58.9
Total	72	98.6
Race		
Asian	1	1.4
American Indian or Alaskan Native	1	1.4
Black or African American	11	15.1
White or Non-Latino	56	76.7
Total	69	94.5

1-5 years, and lastly, five individuals have worked at AIU AEP for less than a year. Further, 13 participants have worked in their current role for over twenty years at the longer end, while 15 individuals have worked for 1-5 years in their current role, as well as four individuals working less than one year in their current role.

Additionally, 65 participants reported working in education, while 2 individuals worked in human services/health care (e.g., counselors). However, it should be noted that all were employed under the AIU AEP, and all are considered broadly to be working in the education field. Furthermore, of the sample, 48 participants completed graduate school, 10 completed some graduate school, 11 completed college, and one person completed some college. Lastly, the sample's income was assessed and results revealed that one participant earned over \$120,000 annually, 3 individuals earned between \$100,000 and \$120,000 annually, more than half earned between \$60,000 and 100,000 annually, nine individuals earned between \$40,000 and \$60,000 annually, and lastly, six participants earned between \$20,000 and \$40,000.

Table 6*Career Demographic Information of the Sample*

	N	%
Education Level		
Some College	1	1.4
Completed College	11	15.1
Some Graduate School	10	13.7
Completed Graduate School	48	65.8
Total	70	95.9
Income		
\$20,000 -\$40,000	6	8.2
\$40,000 -\$60,000	9	12.3
\$60,000 -\$80,000	25	34.2
\$80,000 -\$100,000	22	30.1
\$100,000 -\$120,000	3	4.1
>\$120,000	1	1.4
Total	73	100.0
Job Setting		
Human Services/ Health Care	2	2.7
Education	65	89.0
Total	67	91.8
Years in Role		
<1 year	4	5.5
1-5 years	15	20.5
6-10 years	12	16.4
11-15 years	15	20.5
16-20 years	12	16.4
>20 years	13	17.8
Total	71	97.3
Years in Organization		
<1 year	5	6.8
1-5 years	18	24.7
6-10 years	9	12.3
11-15 years	16	21.9
16-20 years	13	17.8
>20 years	11	15.1
Total	72	98.6

Years in Field

1-5 years	2	2.7
6-10 years	15	20.5
11-15 years	12	16.4
16-20 years	16	21.9
>20 years	25	34.2
Total	71	95.9

Table 7 represents the number of individuals who stated they completed trauma-informed training in the past, and those who indicated they have not. Results indicated that 64 individuals have engaged in trauma-informed care training throughout their education or career, while 8 individuals have not received any formal trauma training.

Table 7*Trauma-Informed Care Demographic Information*

	N	%
Received Trauma-Informed Training in past		
Yes	64	87.7
No	8	11.0
Total	72	98.6

Statistical Analysis**Research Question 1**

When compared to the normative sample on the ARTIC survey, do alternative educators display more TIC-favorable attitudes? After examining the demographics of the population, the subscales were scored per participant and then, the means for each question (e.g., scores closer to 1 indicated being less trauma-informed in the domain, while scores closer to 7 indicated being more trauma-informed in the domain). The analysis across all demographics and their means revealed that participants, no matter their gender, age, race, education level, length in career, income, time in the field, or their previous knowledge of trauma-informed care, responded in

such a way that their scores ranged from 4 (neutral attitudes) to 7 (TIC-favorable attitudes). The participants typically rated themselves on the TIC-favorable attitude portion of the Likert scale, with the occasional means that fell in the 3 range (indicating a slightly less TIC-unfavorable attitude). Furthermore, the means on all seven subscales were then compared to the normed data using Cohen's D. Table 8 depicts the comparison between the normed data and the current sample, while Table 9 depicts the effect sizes of the comparison.

The results revealed that educators within the AIU AEP reported lower scores on all subscales of the ARTIC, including the overall score, when compared to the normative data, with the exception of one subscale. The AIU AEP population reported slightly more favorable TIC-attitudes in their responses to problem behaviors and symptoms. The data from this sample revealed that they emphasize flexibility, feeling safe, and building healthy relationships with their students slightly more than the normative sample did with their students and clients.

After comparing the normative sample with the current sample, the reliability of the scores were computed. In Table 10, the Cronbach's Alpha and reliability classification was reported for both samples. Results indicated that both samples had comparable reliabilities for the overall scale, on-the-job behavior, reactions to the work, and personal support. However, the sample from this study demonstrated responses that were less reliable on the subscales measuring underlying causes, responses to the work, self-efficacy, and system support.

Table 8*Mean Comparison Between Populations on ARTIC Subscales*

Scale	ARTIC Normative Sample			AEP Sample		
	Mean	SD	N	Mean	SD	N
Overall Scale	265.38	26.21	760	230.14	28.88	72
Underlying Causes	39.44	5.49	760	33.65	5.25	72
Responses	42.22	5.12	760	50.92	7.69	72
On-the-job Behavior	43.04	4.24	760	40.65	5.15	72
Self-Efficacy	42.11	5.21	760	39.35	5.92	71
Reactions	41.51	4.86	760	34.47	4.66	72
Personal Support	30.16	4.30	760	23.68	6.63	68
System Support	26.91	6.00	760	21.31	6.46	71

Table 9*Effect Sizes of the Comparisons of Populations on ARTIC Subscales*

Scales	Effect Size	Classification
Overall Scale	0.54	Medium
Underlying Causes	0.47	Medium
Responses	-0.554	Medium
On-the-job Behavior	0.245	Small
Self-Efficacy	0.241	Small
Reactions	0.594	Medium

Personal Support	0.502	Medium
System Support	0.410	Medium

Table 10

Reliability from the Data from Both Samples

AEP Sample				Normative Sample		
Subscale	Cronbach's Alpha	N of items	Classification	Cronbach's Alpha	N of items	Classification
Overall Scale	.92	45	Excellent	.93	45	Excellent
Underlying Causes	.68	7	Moderate	.78	7	Good
Responses	.72	7	Moderate	.76	7	Good
On-the-job Behavior	.73	7	Moderate	.72	7	Moderate
Self-Efficacy	.69	7	Moderate	.79	7	Good
Reactions	.55	7	Moderate	.71	7	Moderate
Personal Support	.79	7	Good	.80	7	Good
System Support	.58	7	Moderate	.81	7	Good

Research Question 2

Is there a significant relationship between participant characteristics and the subscales on the ARTIC? After determining that this sample indicated lower TIC-favorable attitudes on the ARTIC when compared to the normative data with the exception of one subscale, the data collected from the AIU AEP was examined in more depth. In Table 11, a bivariate correlation was conducted to determine the existence of relationships between demographic data and the

subscales on the ARTIC. The data revealed only three significant relationships. First, on-the-job behavior was significantly correlated with gender. The results indicated that females reported higher empathy-focused behaviors when compared to the males in the sample. Second, participants' education level correlated with system-wide support for TIC. Therefore, the lower the education level of the participants, the more likely they were to report feeling supported by colleagues, supervisors, and the administration to implement TIC.

While no significant relationship was found between the other demographic variables and the ARTIC subscales, there were a few meaningful correlations to be noted. First, the data indicated that females reported emphasizing more flexibility, building feelings of safety, and building healthy relationships, when compared to males. Additionally, when examining the correlations, females reported appreciating the effects of vicarious traumatization and coping through seeking support when compared to the male population.

Furthermore, when examining the correlations, individuals who identified as Asian or American Indian/Alaskan Native indicated feeling supported by colleagues, supervisors, and the administration to implement TIC when compared to individuals who identified as Black/African American or White/Non-Latino. c, it should be noted that only one individual identified as Asian and only one individual identified as American Indian/Alaskan Native, making it hard to indicate a significant difference. Lastly the data revealed that as individuals remained in the organization for longer periods of time, they reported feeling less supported by colleagues, supervisors, and the administrative team related to implementing TIC.

Table 11*Correlation Between Demographic Characteristics and ARTIC subscales*

Years	Underlying Causes	Responses	On the Job Behavior	Self-Efficacy	Reaction	Personal Support	System Support	Overall Score
Gender	-.169	-.219	-.283*	.126	-.210	-.169	-.047	-.168
Race	.021	.087	.024	-.019	.030	.003	-.222	-.011
Education	-.047	.008	.106	-.040	-.098	-.136	-.312**	-.097
Income	.030	.048	.136	.055	.000	-.055	-.080	.037
Job Setting	.189	-.006	.060	.003	-.102	-.187	-.276*	-.052
Year in Role	-.040	-.006	-.087	-.053	-.041	-.012	-.134	-.059
Year in Organization	-.068	.032	-.062	-.026	-.123	-.083	-.217	-.089
Year in Field	-.005	.089	-.042	.009	-.015	.034	-.073	.012
Trauma Training	-.036	.042	-.140	-.089	.022	-.072	.021	-.042

*. Correlation is significant at the 0.05 level (2-tailed)

**. Correlation is significant at the 0.01 level (2-tailed)

Research Question 2a

Do individuals who differ in gender have differences between their mean score performances on the ARTIC domains? Table 12 depicts the scores between males and females on all seven domains of the ARTIC scale. The results indicated that in all domains of trauma-informed care, with the exception of the self-efficacy at work subscale, females reported more trauma-informed attitudes relevant to TIC implementation. However, when determining if there

is a significant difference between genders, there was no significant difference on any subscale or the overall scale as shown in Table 13. While on-the-job behavior resulted in a p-value less than .05 ($p = .016$), after the Bonferroni correction, in order for this subscale to be significant, the p-value would need to be less than .006; therefore, there is no significant difference.

Table 12

Mean Performance Scores on the ARTIC Domains by Gender

Gender	Underlying Causes	Responses	On the Job Behavior	Self-Efficacy	Reaction	Personal Support	System Support	Overall Score
Female	4.96	5.40	6.06	5.49	5.45	5.39	4.80	5.39
Male	4.70	5.05	5.64	5.71	5.14	4.99	4.68	5.17

Table 13

Independent Samples Test on the ARTIC Domains Between Genders

Scale	t-test	df	Sig. (2-tailed)
Underlying Causes	1.432	70	.157
Responses	1.878	70	.065
On-the-job Behavior	2.469	70	.016*
Self-Efficacy	1.555	70	.293
Reactions	1.795	70	.077
Personal Support	1.393	66	.168
System Support	.388	69	.699
Overall Scale	1.422	70	.159

*. Correlation is significant at the 0.05 level (2-tailed)

Research Question 2b

Do individuals who differ in race or other have differences between their mean score performances on the ARTIC domains? In Table 14, the means were examined across the race and ethnicity of the population. When comparing the largest two groups of participants (i.e., Black or African American vs. White or Non-Latino), the results revealed no significant differences, but those who identified Black or African American indicated higher levels of trauma-informed attitudes related to on-the-job behaviors, self-efficacy at work, and slightly higher on their overall score. However, there were no significant differences between group on any subscale or the overall scale as shown in Table 15.

It should be noted that while the American Indian or Alaskan Native classification had a small number of participants ($N = 2$) their results indicated that the individual who identified as Asian reported higher scores related to trauma-informed attitudes on all domains in the ARTIC scale. Furthermore, the individual who identified as American Indian or Alaskan Native was found to have the lowest scores related to trauma-informed attitudes on all domains in the scale. However, due to the small number of participants, this is not considered significant and would need a larger population size to determine if this is true of individuals who identify as American Indian or Alaskan Native.

Table 14*Mean Performance Scores on the ARTIC Domains Across Race*

Race	Underlying Causes	Responses	On the Job Behavior	Self-Efficacy	Reaction	Personal Support	System Support	Overall Score
Asian	6.00	5.71	6.57	6.43	5.71	6.25	7.00	6.19
American Indian/ Alaskan Native	4.00	4.00	4.00	4.00	4.00	4.40	3.80	4.02
Black or African American	4.63	5.05	5.91	5.78	5.30	5.10	5.30	5.30
White or Non-Latino	4.84	5.23	5.81	5.60	5.30	5.10	5.30	5.26

Table 15*Independent Samples Test on the ARTIC domains between Races*

Scale	F	df	Sig. (2-tailed)
Underlying Causes	1.500	3	.223
Responses	1.005	3	.396
On-the-job Behavior	2.662	3	.055
Self-Efficacy	1.649	3	.187
Reactions	1.058	3	.373
Personal Support	.469	3	.705
System Support	2.264	3	.089
Overall Scale	1.986	3	.125

*. Correlation is significant at the 0.05 level (2-tailed)

Research Question 2c

Do individuals who differ in education level have differences in their mean score performances on the ARTIC domains? In Table 16, the means were examined across education levels of the population. Results revealed that participants who completed some college reported higher trauma-informed attitudes in all domains (ranging from 5.43 to 7.00). Most scores fell between 5.00 and 6.00, indicating slightly more TIC-favorable attitudes. However, those that completed college, some graduate school, and completed graduate school fell in the neutral range for understanding the underlying causes of behaviors and symptoms related to trauma. Furthermore, those that completed some graduate school indicated slightly higher TIC scores than those who completed college or graduate school regarding their on-the-job behavior. Additionally, the participants that completed some graduate school fell in the neutral range for personal support of TIC, while the participants that completed graduate school fell in the neutral range for system support of TIC. However, when determining if there is a significant difference between education levels, there was no significant difference on any subscale or the overall scale as shown in Table 17. While on-the-job behavior ($F = 3.767, p = .015$) and system support ($F = 2.793, p = 0.47$) resulted in a p-value less than .05, once the Bonferroni correction was completed it was determined that in order for these subscale to be significant the p-value would need to be less than .006, therefore there is no significant difference.

Table 16*Mean Performance Scores on the ARTIC Domains Across Education Level*

Education Level	Underlying Causes	Responses	On the Job Behavior	Self-Efficacy	Reaction	Personal Support	System Support	Overall Score
Some College	6.00	5.43	6.86	7.00	6.71	7.00	7.00	6.50
Completed College	4.81	5.18	5.31	5.57	5.25	5.40	5.28	5.25
Some Graduate School	4.67	5.16	6.20	5.54	5.37	4.95	5.17	5.32
Completed Graduate School	4.82	5.22	5.84	5.63	5.26	5.10	4.54	5.25

Table 17*Independent Samples Test on the ARTIC Domains Between Education Levels*

Scale	F	df	Sig. (2-tailed)
Underlying Causes	.926	3	.433
Responses	.042	3	.988
On-the-job Behavior	3.767	3	.015*
Self-Efficacy	.914	3	.439
Reactions	1.370	3	.260
Personal Support	1.048	3	.378
System Support	2.793	3	.047*
Overall Scale	1.259	3	.296

*. Correlation is significant at the 0.05 level (2-tailed)

Research Question 2d

Do individuals who differ in annual income have differences in their mean score performances on the ARTIC domains? In Table 18, the means were examined across incomes of the sample. Individuals who earned between \$100,000 and \$120,000 reported the most TIC-favorable attitudes across all domains. Conversely, individuals earning between \$40,000 and \$60,000 reported the lowest score in the subscale of on-the-job behavior. However, when determining if there is a significant difference between income levels, there was no significant difference on any subscale or the overall scale as shown in Table 19.

Table 18

Mean Performance Scores on the ARTIC Domains Across Income

Income	Underlying Causes	Responses	On the Job Behavior	Self-Efficacy	Reaction	Personal Support	System Support	Overall Score
20-40K	4.71	5.07	5.76	5.55	5.38	5.20	4.83	5.22
40-60K	4.84	5.24	5.56	5.17	5.14	5.48	4.85	5.19
60-80K	4.88	5.27	5.91	5.89	5.26	5.03	4.75	5.33
80-100K	4.68	5.05	5.78	5.51	5.36	4.98	4.53	5.19
100-120K	5.90	6.43	6.52	6.10	5.86	6.33	5.15	6.08
>120K	3.86	4.43	6.00	5.00	3.57	3.60	3.67	4.40

Table 19*Independent Samples Test on the ARTIC Domains by Income*

Scale	F	df	Sig. (2-tailed)
Underlying Causes	1.812	5	.124
Responses	1.942	5	.101
On-the-job Behavior	.923	5	.473
Self-Efficacy	1.380	5	.245
Reactions	1.639	5	.163
Personal Support	1.157	5	.342
System Support	.309	6	.906
Overall Scale	1.483	5	.209

*. Correlation is significant at the 0.05 level (2-tailed)

Research Question 2e

Do individuals who differ in their job setting have differences in their mean score performances on the ARTIC domains? In Table 20, the means were examined across job settings levels of the population. However, as noted above, only two participants indicated that they were in the human services/health care job setting. Additionally, all participants were employed by the AIU AEP, and technically fall under the realm of education. Therefore, those that indicated they worked in human services/health care could have been participants that are employed as counselors, social workers, or behavioral support staff. While the sample size was too small between the two groups to determine significant difference, the results from this comparison revealed that human services/health care providers indicated higher TIC-favorable attitudes on

the subscales: responses to problem behavior and symptoms, reactions to the work, personal support of TIC, system support of TIC, and their overall score on the ARTIC. Those indicating they are employed as educators reported higher attitudes towards TIC regarding the underlying causes of problem behavior and symptoms, on-the-job behavior, and slightly higher on self-efficacy at work. However, when determining if there is a significant difference between job settings, there was no significant difference on any subscale or the overall scale as shown in Table 21. While system support ($t = 2.301, p = .025$) resulted in a p-value less than .05, however, after the Bonferroni correction was completed it was determined that in order for these subscale to be significant the p-value would need to be less than .006, therefore there was no significant difference.

Table 20

Mean Performance Scores on the ARTIC Domains Across Job Settings

Job Setting	Underlying Causes	Responses	On the Job Behavior	Self-Efficacy	Reaction	Personal Support	System Support	Overall Score
Human Services/ Health Care	4.00	5.21	5.57	5.64	5.71	6.38	6.70	5.46
Education	4.83	5.18	5.83	5.66	5.27	5.09	4.71	5.27

Table 21

Independent Samples Test on the ARTIC Domains Between Job Settings

Scale	t-test	df	Sig. (2-tailed)
Underlying Causes	-1.548	65	.126
Responses	.052	65	.959

On-the-job Behavior	-.485	65	.629
Self-Efficacy	-.023	65	.981
Reactions	.828	65	.411
Personal Support	1.491	61	.141
System Support	2.301	64	.025*
Overall Scale	.416	65	.678

*. Correlation is significant at the 0.05 level (2-tailed)

Research Question 2f

Do individuals with differing lengths of time in their job role have differences in their mean score performances on the ARTIC domains? In Table 22, the means were examined across the number of years that participants were employed in their current role. The data revealed that in all subscales, including the overall score on the ARTIC, individuals who worked less than 1 year in their current role reported more favorable attitudes related to TIC. Individuals who worked 1-5 years reported the least favorable attitudes towards TIC as it related to underlying causes of problem behaviors and symptoms and reactions to the work. Participants working 16-20 years in their role reported the least favorable attitudes towards TIC as it related to responses to problem behavior and symptoms, on-the-job behavior, self-efficacy at work, personal support of TIC, system support of TIC, and the overall score on the ARTIC. However, when determining if there is a significant difference between income levels, there was no significant difference on any subscale or the overall scale as shown in Table 23.

Table 22*Mean Performance Scores on the ARTIC Domains Across Years in Current Role*

Years	Underlying Causes	Responses	On the Job Behavior	Self-Efficacy	Reaction	Personal Support	System Support	Overall Score
<1	5.04	5.36	6.25	5.82	5.50	5.25	5.68	5.56
1-5	4.70	5.23	5.72	5.56	5.16	5.04	4.75	5.19
6-10	4.92	5.07	5.93	5.63	5.42	5.30	4.75	5.19
11-15	4.91	5.32	5.83	5.93	5.25	5.33	4.86	5.39
16-20	4.82	5.01	5.70	5.37	5.45	4.88	4.28	5.16
>20	4.70	5.31	5.75	5.57	5.10	5.18	4.70	5.22

Table 23*Independent Samples Test on the ARTIC Domains Between Years in Current Role*

Scale	F	df	Sig. (2-tailed)
Underlying Causes	.277	5	.924
Responses	.331	5	.892
On-the-job Behavior	.438	5	.820
Self-Efficacy	.676	5	.643
Reactions	.501	5	.775
Personal Support	.225	5	.950
System Support	.755	5	.585
Overall Scale	.377	5	.863

*. Correlation is significant at the 0.05 level (2-tailed)

Research Question 2g

Do individuals with differing lengths of time in their organization have differences in their mean score performances on the ARTIC domains? In Table 24, the means were examined across the number of years participants were employed in their organization. The data revealed that individuals who had worked less than one year in the AIU AEP reported the most favorable attitudes to TIC on all subscales, with the exception of responses to problem behavior and symptoms and self-efficacy at work. All participants ranging from one to over 20 years at the organization reported neutral attitudes related to underlying causes of problem behavior and symptoms, as well as in the category of system support of TIC. However, when determining if there is a significant difference between income levels, there was no significant difference on any subscale or the overall scale as shown in Table 25.

Table 24

Mean Performance Scores on the ARTIC Domains Across Years in Organization

Years	Underlying Causes	Responses	On the Job Behavior	Self-Efficacy	Reaction	Personal Support	System Support	Overall Score
<1	5.40	5.31	6.37	5.66	5.83	5.77	5.79	5.72
1-5	4.75	5.25	5.71	5.67	5.33	5.31	4.97	5.29
6-10	4.78	5.03	5.94	4.59	5.27	5.28	4.89	5.27
11-15	4.70	5.07	5.66	5.69	4.93	4.59	4.29	5.07
16-20	4.78	5.04	5.73	5.35	5.44	4.84	4.34	5.16
>20	4.86	5.52	5.91	5.77	5.19	5.57	4.77	5.40

Table 25*Independent Samples Test on the ARTIC Domains Between Years in Organization*

Scale	F	df	Sig. (2-tailed)
Underlying Causes	.719	5	.611
Responses	.616	5	.688
On-the-job Behavior	.897	5	.488
Self-Efficacy	.351	5	.880
Reactions	1.468	5	.212
Personal Support	1.477	5	.210
System Support	1.529	5	.193
Overall Scale	.947	5	.457

*. Correlation is significant at the 0.05 level (2-tailed)

Research Question 2h

Do individuals with differing lengths of time in their field of work have differences in their mean score performances on the ARTIC domains? In Table 26, the means were examined across the number of years participants were employed in the education field. All participants ranging from one year to over 20 years in education indicated neutral feelings related to the underlying causes of problem behaviors and symptoms. Furthermore, participants who ranged from 16-20 years in the education field held the least favorable TIC attitudes related to responses to problem behaviors and symptoms, on-the-job behaviors, self-efficacy at work, system-support of TIC, and the overall score on the ARTIC. However, when determining if there is a significant difference between income levels, there was no significant difference on any subscale or the overall scale as shown in Table 27.

Table 26*Mean Performance Scores on the ARTIC Domains Across Years in the Field*

Years	Underlying Causes	Responses	On the Job Behavior	Self-Efficacy	Reaction	Personal Support	System Support	Overall Score
1-5	4.57	5.14	5.79	5.57	4.93	5.60	5.00	5.25
6-10	4.88	5.12	5.85	5.59	5.30	4.98	4.81	5.24
11-15	4.76	5.12	5.85	5.79	5.40	5.11	4.93	5.31
16-20	4.71	4.94	5.71	5.36	5.07	5.13	4.41	5.09
>20	4.82	5.34	5.78	5.69	5.28	5.19	4.69	5.30

Table 27*Independent Samples Test on the ARTIC Domains Between Years in Field*

Scale	F	df	Sig. (2-tailed)
Underlying Causes	.148	4	.963
Responses	.630	4	.643
On-the-job Behavior	.079	4	.988
Self-Efficacy	.524	4	.719
Reactions	.462	4	.763
Personal Support	.147	4	.964
System Support	.333	4	.855
Overall Scale	.308	4	.872

*. Correlation is significant at the 0.05 level (2-tailed)

Research Question 2i

Do individuals who differ in their level of previous trauma training have differences in their mean score performances on the ARTIC domains? In Table 28, the means were compared between individuals who indicated they had received previous trauma-informed training to those who indicated they had never received any training related to trauma. The data revealed that participants who reported having previous training in trauma-informed practices held more favorable attitudes to TIC on all subscales with the exception of responses to problem behaviors and symptoms, reactions to the work, and system support of TIC. However, when determining if there is a significant difference between income levels, there was no significant difference on any subscale or the overall scale as shown in Table 29.

Table 28

Mean Performance Scores on the ARTIC Domains by Previous Trauma Knowledge

Gender	Underlying Causes	Responses	On the Job Behavior	Self-Efficacy	Reaction	Personal Support	System Support	Overall Score
Yes	4.82	5.18	5.84	5.65	5.26	5.18	4.72	5.27
No	4.73	5.29	5.52	5.41	5.31	4.90	4.80	5.19

Table 29

Independent Samples Test on the ARTIC Domains by Previous Trauma Knowledge

Scale	t-test	Df	Sig. (2-tailed)
Underlying Causes	.300	70	.765
Responses	-.352	70	.726
On-the-job Behavior	1.185	70	.240

Self-Efficacy	.744	70	.460
Reactions	-.180	70	.858
Personal Support	.587	66	.560
System Support	-.172	69	.864
Overall Support	.351	70	.726

*. Correlation is significant at the 0.05 level (2-tailed)

CHAPTER V

DISCUSSION

In this chapter, I will focus on interpreting the findings of the current study. The results will be interpreted as they related to the research questions and hypotheses, and the exploratory analyses will be reviewed. Further, limitations of this study will be presented, followed by the implications of this research, the conclusions of the present study for theory, and future directions for practice.

Summary of Findings

In this study, I examined the attitudes, knowledge, and skills through the ARTIC scale for educators working in an AEP and compared the results to the normative population used during the development of the scale. I examined the differences between the attitudes toward implementing trauma-informed practices between the two samples, as no studies have presented the findings of the ARTIC scale with personnel working in an AEP. When developing the ARTIC scale, the authors normed their scale on individuals working in health-care and human service organizations, as well as the general education setting. Through this study, I sought to provide future insight into the attitudes and beliefs that alternative educators hold when working with traumatized youth and how to best support future training for personnel employed in AEPs.

How does the Survey Data from the Normative Data Compare to That Supplied by this Sample of AEP Personnel?

Q1: When compared to the attitudes demonstrated by the normative sample on the ARTIC survey, do alternative educators display more TIC-favorable attitudes?

After comparing the standardized difference between two means from the calculated Cohen's D, participants in this study self-reported less favorable attitudes regarding TIC in their

work as educators. In the sample from this study, participants responded to items in such a way as to evidence lower means on all domains, including the overall scale, with the exception of their responses to problem behaviors and symptoms. Therefore, the educators in this sample indicated that they emphasize flexibility, feeling safe, and building healthy relationships with their students. However, when compared to the normative population, the AIU AEP educators have less knowledge of the underlying causes of trauma, empathy-focused responses to student behavior, feelings of self-efficacy when working with traumatized populations, understanding of vicarious traumatization and working to support students, and personal and system support when implementing TIC.

These results were somewhat surprising due to the nature of the student population in AEPs. The students who have been removed from their home school and placed in the AIU AEP have been found to engage in problematic or dangerous behaviors (e.g., persistent violation of school rules, controlled substance use/possession, violent or threatening behaviors, possession of weapons, or commission of a criminal act). Those engaging in such behaviors are perhaps more likely to have underlying adverse childhood experiences, or traumatic events, that have led to emotional and behavioral dysregulation (Ha & Granger, 2016). Since students in AEPs are often burdened by trauma histories or traumatic stressors and have complex developmental trajectories (Day et al., 2017), it would likely be helpful for AEPs to educate students with a trauma-informed approach to achieve positive outcomes.

In future professional development, this current sample would benefit from more information regarding the underlying causes of behaviors as it relates to trauma and how to respond in real-time to traumatized youth. Additionally, AEP educators should be provided with information on vicarious trauma and their own personal reactions to working with traumatized

youth for their own self-care and wellbeing. Furthermore, this data indicates that AEPs need to have support from colleagues, administrators, and systems in order to encourage their staff to implement trauma-informed approaches to alter the way they interact with students, which matches the research on implementation of trauma-informed practices in the school setting. Given that this sample of educators from AEPs had less TIC-favorable attitudes than the normative sample, it is important that the AEPs look for ways to develop the attitudes in the domains found in the ARTIC to support their staff in working with traumatized youth.

AEP Educators' Attitudes Related to Trauma-Informed Care

After comparing the data to the normative sample, I completed a more in-depth analysis of the attitudes demonstrated by the participants in this study related to TIC, which I summarized below within each domain of the ARTIC scale.

Q2: Is there a significant relationship between participant characteristics and the subscales on the ARTIC?

Underlying causes of problem behavior and symptoms. Within the current sample, the data revealed that females, individuals identifying as Asian, those who completed some college, participants making between \$100,000 and \$120,000, those who have worked less than one year in their current role and organization, and those who have received previous trauma trainings reported higher scores as they relate to understanding the underlying causes of problem behavior and symptoms. These individuals' attitudes emphasize their understanding of students' learning and behavioral problems as being rooted in their history of difficult life events.

Results also revealed that participants who were males, from all other races, from all other education levels, earned more than \$100,000, and who had been in their roles, organization, and field for more than one year reported neutral attitudes related to understanding

how trauma affects behaviors. Given this information and knowing that the sample consisted mostly of individuals who identify as males, White or Black, who completed graduate school, earned between \$60,000 to \$80,000, and had worked in their role, field, and organization for more than one year, we can conclude that most felt neutral when it comes to understanding the underlying causes of behavior related to trauma exposure.

Responses to problem behavior and symptoms. In regard to how the sample viewed responses to problem behaviors and symptoms evidenced by students, the results revealed that individuals who identify as female, Asian, have completed some college, earn \$100,000 to \$120,000 annually, have been in their role and organization for less than one year, and have not received formal trauma training indicated that they emphasize flexibility, feeling safe, and building healthy relationships with their students. They endorsed statements such as, “it’s best to treat students with respect and kindness from the start so they know I care.”

In this study, individuals who have worked in their role for 16 to 20 years, as well as in the field for 16 to 20 years, reported attitudes that indicated neutral feelings which may be associated with practices that emphasize rules, consequences, and eliminating problem behaviors in students. Therefore, in this sample, the data suggests that the longer individuals stay in their role, organization, and field, the more likely they are to act in a way that emphasizes rules when working with traumatized youth.

On-the-job behavior. In this sample, individuals who identify as female, Asian or Black, have completed some college or some graduate school, earn above \$100,000 annually, have worked for less than one year in their role, organization, or field, and have received previous trauma training reported TIC-favorable attitudes in relation to on-the-job behavior. These individuals reported having empathy-focused behaviors and recognizing typical student emotions

and behaviors after experiencing trauma. Conversely, results also indicate that males' on-the-job behavior emphasizes control-focused behaviors (e.g., it reflects badly on me if my students are upset) and are less likely to show empathy with their students. This was important to note because more than half of the participants are male, which indicates that in future professional development opportunities, it would be important to help train the male educators on more empathy-focused behaviors when working with traumatized youth.

Self-efficacy at work. As it relates to an individual's feelings of being able to meet the demands of the traumatized youth with whom they work, males, those who identify as Asian and Black, who completed graduate school or some college, earning between \$100,000 and \$120,000, have worked in their role for 11-15 years, and have received previous trauma training indicated higher feelings of self-efficacy. These individuals reported attitudes such as "I have what it takes to help my students."

Reactions to the work. Individuals who identify as female, Asian, Black, or White, who completed some college or some graduate school, earning between \$100,000 and \$120,000, have worked less than one year in their current role and organization, and have not received formal trauma training reported more TIC-favorable attitudes relating to reactions to the work. Therefore, these individuals indicated higher scores when appreciating the effects of vicarious traumatization and coping through seeking support. For example, they are more likely to believe that they are impacted by their work, which is an indicator of caring.

Personal support of TIC. Females, those who identify as Asian, White, or Black, who have completed some college or completed college, earning between \$100,000 and \$120,000, working in their organization for less than one year, and have received previous traumatic training reported higher levels of personal support for implementing TIC. These individuals are

optimistic that they can/will be able to carry out any responsibility with respect to the trauma-informed approach. Individuals who have worked in their role for 16-20 years, within their organization for 11-20 years, and within the organization for 6-10 years, as well as the individual earning over \$120,000 reported being concerned that they cannot/will not be able to carry out their responsibilities with respect to the TIC approach. Therefore, the data indicates that those who have been in their role, organization, or field for longer periods of time indicate more worries and concerns about implementing TIC.

System-wide support for TIC. Lastly, when feelings of support by colleagues, supervisors, and administration to implement TIC was assessed, females, those who identify as Asian, Black, or White, who have completed some college or completed college, earn between \$100,000 to \$120,000, and have worked less than one year in their role or organization reported more favorable attitudes to perceiving that they have enough support from the organization to perform their responsibilities effectively. There was a strong relationship between the level of education a person has earned and their attitudes towards system-wide support. The data indicated that individuals with less education believe that their colleagues, supervisors, and administration team support them while they transition to implementing TIC, while those with more education do not hold the same strong beliefs.

Summary

Therefore, after assessing the data collected from this sample of AEP educators, we can see that females, individuals who identify as Asian, those who have completed some college, earning between \$100,00 to \$120,000, have worked less than one year in their role and organization, and have had previous trauma-informed trainings had ARTIC scores more favorable to TIC. In the normative population, females, racial/ethnic majority, better educated,

and more experienced participants had ARTIC scores that were more favorable to TIC. Therefore, this data differed in that the current participants who were less educated and had less experience self-reported more positive TIC attitudes.

Limitations

As with any study, there are multiple limitations to the current research. First, while self-report is one of the most-widely-used methods of collecting information regarding an individual's thoughts, feelings, attitudes, and beliefs, the literature suggests that without a validity check, the information provided in survey self-reports are often not fully representative. Most research indicates that responses in self-reports have a focus on social desirability; therefore, the respondent is answering questions about normative behavior to appear prosocial to those who will be interpreting the data. Additionally, many individuals do not have introspective ability, and may not be able to assess themselves accurately. For the purpose of this study, because trauma-informed care is an initiative put into place in the Pennsylvania education system, respondents may have answered the survey in a way that would make them appear to have more TIC-favorable attitudes.

Staff may fear that they should have more knowledge or positive attitudes regarding the implementation of TIC when working with traumatized youth, and respond in a way that their supervisors would hope for. Additionally, staff may not be trained well enough in TIC to understand the full components of what it means to “engage in empathy-focused behaviors” or “respond to student behaviors in a way that does not start the traumatization cycle again.” Lastly, the data collected does not necessarily reflect the district or school-wide implementation of TIC; rather, it reflects the individual’s perception of how the school, colleagues, and he or she are implementing TIC.

Second, this sample of alternative education staff members comes from the same organization, AIU AEP. Therefore, staff members who have been there for many years in their career would have the same level of training on trauma. Additionally, all staff members would have similar experiences with the level of commitment that administrators are engaging in related to implementing TIC into their schools. While there are five different schools in the AEP, each principal reports to the same director, who provides the same information related to issues in which the staff should be trained. Furthermore, these staff members come from the same area in Pennsylvania, so it is not representative of the whole state beginning the TIC initiative.

Lastly, additional demographic information regarding the specific job role per participant (e.g., teacher, counselor, principal, administrator, behavior support staff, special education teacher) would have been beneficial to contribute to the research. This additional data could have provided information on the TIC-attitudes as it relates to the different types of work, such as the difference between counseling and teaching, counseling and behavior support staff, teachers and principals, principals and administrators, and even the different types of teachers (e.g., math, reading, science, etc.). This data may also provide information on the departments within a school system who are proficient or confident in certain domains, which would allow administrators to use those departments to encourage growth across others in the system.

Implications

The results of the present study have valuable theoretical and clinical implications. The outcomes can inform empirical research and practices related to implementing TIC in educational settings, particularly in alternative education, as well as to provide insight regarding an assessment of teacher's attitudes as they relate to trauma-informed care. The findings of this

study should be used to improve future research and practice in light of its findings and limitations.

Treating trauma in schools has been identified as a public health epidemic (Baker et al., 2015) since the growing literature base indicates that individuals who experience traumatic events often display emotional and behavioral concerns, the cause of which are often misunderstood in the school setting. Additionally, given that many students who are removed from their primary education classroom are transferred to alternative education placements (AEP), the AEP staff needs to be competent in addressing the symptoms of emotional and behavioral disorders in children, as well as have the ability to manage disruptive behaviors as a result of ACEs. Because these staff are instrumental in delivering school-wide practices that address psychological well-being, especially related to coping with trauma exposure (Brunzell et al., 2015), it is important to understand their attitudes towards these teaching practices. Specifically, AEP staff need to be able to deliver TIC to support academic, behavior, and social-emotional learning instruction to those who encounter childhood trauma.

While it may be hypothesized that AEP staff would be well versed in trauma-informed practices due to the high number of youth who have encountered trauma in their facilities, researchers have suggested that AEP personnel have expressed confusion about effectively implementing TIC since most of their training is focused on disruptive behavior management, (Anderson et al., 2015). Ultimately, examining the interactions of AEP staff's attitudes may potentially affect the amount of knowledge and skills they perceive are necessary for implementing effective TIC in the schools, and how much they profit from professional development sessions on the topic of trauma (Desimone, 2009; Desimone, 2011).

The data from the current study is consistent with the findings from the extant literature base, by further showing that those in AEPs report less TIC-favorable attitudes. Research shows that there are different philosophies about how to change behavior, and in the past, it was thought to encourage a “tough love” approach that can be defined as actions that are cold, withdrawn, or punitive with the intent to improve behavior. However, punishment is associated with increased aggression, poorer quality of relationships, mental health problems, and can lead to antisocial behavior (Tait, 2020). Furthermore, research reveals that teachers appear more likely to misperceive Black children as angry, which may undermine the education of Black youth (APA, 2020). Black children are consistently overrepresented in school pushout and exclusion and what is known as the school-to-prison pipeline (ELC, 2011).

Within this sample, more than 90% of the students in the school identified as Black, which would potentially render them more vulnerable to misunderstandings about their behaviors, feelings, and emotions, potentially leading to more punitive approaches that only reignite the traumatization cycle. Synthesizing the current findings with that from the professional literature base leads to my recommendation that the current school system, as well as other AEPs, can use this data to choose professional development training to encourage trauma-informed practices to best support students in a way that encourages healthy development.

Individuals working in AEPs should be receiving trauma-informed trainings that aim to increase the understanding of underlying causes of problem behaviors, responses to said behaviors, empathy focused on-the-job behaviors, self-efficacy when working with traumatized youth, ways to cope with working with trauma, and system-wide support of TIC, all to increase personal implementation. AEPs can use the ARTIC scale to provide a baseline to determine the

extent to which their culture is trauma-informed, and the findings can then inform data-driven decision making about the need for trauma training and other TIC interventions. For schools that have already implemented TIC, the ARTIC can provide a way to engage in ongoing evaluation of the practices that are hypothesized to be linked to safe and supportive environments and associated with better outcomes. Additionally, the ARTIC can be used to monitor any regression towards punitive measures, and serve as a guide to keep systems on track. Lastly, the ARTIC can guide the administrators to evaluate prospective personnel to determine whether they possess attitudes that would be a good fit for their culture, or even promote TIC-favorable attitudes. This scale has been found to be useful when working in AEPs, and highlights the need for more in-depth professional development specifically tailored to supporting staff when working with traumatized youth.

Conclusion

Currently, limited information exists about the attitudes related to trauma-informed care in education, specifically in AEPs. While AEPs are highly populated with youth who have experienced trauma or adverse childhood experiences, data is lacking in order to support that AEPs are equipped to support students' emotional and behavioral needs in a way that does not re-traumatize these children. Furthermore, there is limited information regarding AEP employees' understandings, reactions, behaviors, and attitudes to working with traumatized youth. This study sheds light on this important and under-researched area, and provides insight into the next steps for professional development for those employed in AEPs. By providing greater insight into the domains and characteristics of individuals with less favorable TIC-attitudes, this study provides an important framework towards creating systemic change when implementing TIC into a school system. Education everywhere, but specifically AEPs who work

with highly traumatized youth, should use this data to see that there is a call to action for more in-depth trauma training that supports the understanding of the underlying causes of behaviors, empathy-focused behaviors in staff, increased flexibility, safety, and healthy relationships, and understanding of vicarious traumatization within the school system.

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