

COMPASSION IN THE CLASSROOM: TRAUMA-INFORMED ATTITUDES AND
PRACTICES OF SPECIAL EDUCATORS WORKING WITH STUDENTS WITH
INTELLECTUAL AND DEVELOPMENTAL DISABILITIES

by

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Students with intellectual and developmental disabilities (IDD) are more likely to experience trauma than their peers without disabilities, and therefore strongly benefit from the implementation of trauma-informed practices. The present study used a web-based survey to investigate attitudes towards, knowledge and use of trauma-informed practices of special education teachers who worked with students with IDD. Scores were found via the use of the Attitudes Related to Trauma-Informed Care (ARTIC) scale and a sum score of researcher-created trauma-informed practices. Findings revealed that the 217 special education teachers had moderately high, yet variable, attitudes towards trauma-informed practices. Elementary school teachers scored higher in three out of the five core ARTIC subscales, as well as the ARTIC 35 sum score, than secondary school teachers. Special education teachers reported a strong knowledge and fairly high use of the list of trauma-informed practices. This research provides encouraging insight into the readiness of special education teachers to receive further training on trauma-informed practices and the opportunity for system-wide capacity-building and change regarding trauma-informed practices.

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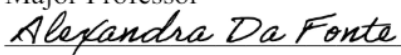
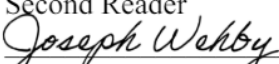
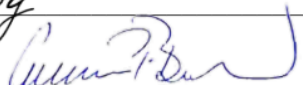
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CHAPTER I: INTRODUCTION

The terms ‘trauma’ and ‘trauma-informed care’ have risen in notoriety across school and health-based settings and there is agreement that, especially since the onset of the COVID-19 pandemic, trauma has become a public health crisis (Blaustein, 2013; Phelps & Sperry, 2020; Purtle, 2018; Schepers et al., 2023). Researchers have had a difficult time maintaining a consistent definition of trauma and determining what standardized trauma-informed care should look like in various settings (Purtle, 2018; Schepers et al., 2023; Thomas et al., 2019). Trauma has been defined as “any experience or event that overwhelms a person’s ability to cope and elicits feelings of terror, powerlessness, and out-of-control physiological arousal” (Tuchinda, 2020, p. 794) while also being described as the harmful emotional result of an adverse experience (Schepers et al., 2023). Trauma is an invasive experience that can influence many aspects of one’s daily life. Trauma is, however, embedded into intersecting oppressions that exist in the current structures of power within today’s society (Liasidou, 2022).

General and special educators see the lasting effects of trauma daily, even if they don’t realize it. Children experience trauma at high rates in the United States with rates ranging from 44% to 66% or more (Overstreet & Chafouleas, 2016; Sadin, 2022; Schepers et al., 2023). So, all educators are extremely likely to be working with students who have faced trauma. Often, student’s behaviors that may appear intentional or premeditated are their reactions to reminders of their trauma (Tuchinda, 2020).

Trauma-informed care (TIC) is a term used to describe services, or care, that indicates acknowledgement of trauma and its impact on the individuals being served. TIC was initially coined in a study by the Substance Abuse and Mental Health Services Administration (SAMHSA) on women with co-occurring substance abuse and mental health disorders who

experienced trauma, and their children (Substance Abuse and Mental Health Services Administration, 2014). TIC focuses on seeing individual's reactivity as their efforts to cope with the trauma they have experienced and avoid re-traumatization (Substance Abuse and Mental Health Services Administration, 2014). TIC is implemented in settings that serve individuals who have likely experienced trauma, such as healthcare, school, social work, child welfare, and mental health settings.

Although there are multiple subcategories of trauma (e.g., historical, racial, or intergenerational trauma) this study will be solely concentrated on the developmental trauma that is associated with traditional definitions (Sadin, 2022), and focused specifically on students with intellectual and developmental disabilities (IDD). Students with IDD are eligible for special education under the categories of autism, intellectual disability, developmental delay, and/or multiple disabilities. Importantly, students with IDD are impacted by trauma at rates much higher than their peers without disabilities (Crompton et al., 2021; Sadin, 2022; Spencer et al., 2005). For instance, Crompton et al. (2021) found that individuals with disabilities are more frequently impacted by trauma and are more likely to have higher Adverse Childhood Experience (or ACE) scores than individuals without disabilities (Crompton et al., 2021). In another study, children with severe intellectual disabilities were found to have been more likely to experience three times more emotional abuse, four times more physical abuse, five times more neglect, and six times more sexual abuse than children without disabilities (Spencer et al., 2005). After experiencing traumatic events, individuals with IDD are more likely to develop Posttraumatic Stress Disorder (PTSD) due to having lower cognitive and/or adaptive abilities to process their experiences (Didden & Mivissen, 2022). In addition to being at greater risk for experiencing trauma than their peers without disabilities, students with IDD often have a more difficult time

understanding and expressing their emotions or communicating when something traumatic has happened to or around them (Coiffait & Leedham, 2016). Therefore, it is crucial to understand the extent to which providers working with students with IDD, such as special educators, hold trauma-informed attitudes and practices.

The Impact of Trauma

Trauma has a wide-stretching impact on individuals' physical and mental health, as well as their education (Schepers et al., 2023; Thomas et al., 2019; Wang et al., 2020). Exposure to trauma during childhood can have a detrimental effect on the development of various parts of the brain, including the prefrontal cortex, hippocampus, and amygdala, which together relate to the functioning of memory, processing, language development, and emotional regulation (Sadin, 2022; van der Kolk, 2005). Trauma impacts mental health because it can impair children's ability to regulate their emotions, prolonging their feelings of uncertainty or insecurity that can also upset social and academic achievement (Schepers et al., 2023; Wang et al., 2020). The longer that children are exposed to trauma and have unmet needs, the more that their emotional regulation will be inconsistent with their chronological age (Sadin, 2022). Ongoing trauma also interrupts development of the hippocampus, which is the part of the brain largely responsible for executive functioning (Sadin, 2022). Executive functioning includes processes that are vital to successful learning, such as processing speed, task organization, working memory, and attention (Sadin, 2022).

Importantly, the impact of trauma can be mitigated when educators establish and build upon their relationships with their students (Smith, 2021). In a review of a pilot study implementing trauma-informed practices at a school in Connecticut, Perry and Daniels (2016) recognized the existing link between academic success and healthy socioemotional development.

When students do not have consistent access to a secure, supportive environment, or when they do not have safe outlets to express what they have experienced, it can take a large toll on their progress academically and emotionally. Conversely, research has shown that schools that acknowledge and respond to their student's trauma have seen reductions in delinquency and improvements in student's academic achievements (Brown et al., 2020; McKinney de Royston & Nasir, 2017; Schepers et al., 2023).

Trauma-Informed Practices in Educational Settings

Trauma-informed practices are educational tools that support a learning environment that is cognizant of all student's needs and experiences, including students who have experienced trauma (Schepers et al., 2023). The research surrounding current trauma-informed practices was best summed up by FalLOT and Harris (2009) who identified five key principles for trauma-informed settings. Those principles are (1) ensuring safety, (2) establishing trustworthiness, (3) maximizing choice, (4) maximizing collaboration, and (5) prioritizing empowerment (FalLOT & Harris, 2009). These principles encompass what is needed to move forward with the creation of trauma-informed models of teaching.

Trauma-informed educational practices can occur at the systems-level (e.g., federal, state, district, or school), or at the classroom-level. Systems-level practices could include things like a school district's behavior-response protocol or district policies requiring face time with trauma specialists. Trauma-informed practices have also been supported at the federal level in the form of various bills introduced to encourage their use (Purtle, 2018). The Substance Abuse and Mental Health Services Administration (SAMHSA) defines a trauma-informed system as one that: (a) understands the widespread impact of trauma and potential paths to recovery; (b) recognizes signs and symptoms of trauma from a systems perspective; and (c) integrates trauma

knowledge into policies, procedures, and practices in an effort to create a supportive environment that is intent on not re-traumatizing its members (SAMHSA, 2014; Perry & Daniels, 2016). The ultimate goal of trauma-informed systems is to recognize signs of trauma, respond appropriately, and resist re-traumatization of students (Brown et al., 2020). To appropriately do so, these systems must foster the physical, psychological, and emotional safety for all parties involved, along with creating opportunities for growth and rebuilding (Smith, 2021). Many schools and districts across the United States have attempted to implement trauma-informed policies and practices. For instance, some districts have formed partnerships with local community organizations that are committed to the mental health and well-being of students. Partnerships of this nature are extremely important in supporting ways to bridge the gap between schools and families (Perry & Daniels, 2016). This bridge is often tackled by some form of care coordination that involves a direct team to facilitate the ongoing dialogue between those two systems (i.e., education and mental health). Yet, despite the efforts of individual districts, according to the National Center on Safe Supportive Learning Environments (NCSSLE), only eight states have enacted laws or regulations based on trauma-informed practices.

Just as trauma-informed practices can occur at the systems-level, they can also occur at the classroom-level. Classroom- or teacher-level practices include both practices that teachers use with students in the classroom and to practice self-care or burnout prevention. Research has documented the ongoing effects that trauma has on raising teacher vulnerability to stress (Mojsa-Kaja et al., 2015; Skaalvik & Skaalvik, 2017). Teachers who experience stress are more likely to experience burnout, chronic illness, or leave the profession entirely. So, it is important to consider the effects of trauma and re-traumatization of both the students and educators (Cipriano & Brackett, 2020).

Children who have experienced trauma benefit from feelings of safety and routine, so classroom-based trauma-informed practices, such as maintaining a consistent, predictable schedule or establishing relationships rooted in trust and emotional safety, can be extremely beneficial to a child's physical, psychological, and academic development (Perry & Daniels, 2016; Smith, 2021). Although teachers are responsible for teaching many skills and concepts to their students, one additional trauma-informed practice is to provide explicit instructions on emotions, safety, and boundaries to students with disabilities, which can help promote levels of recognition and autonomy surrounding potentially traumatic experiences. For instance, Tuchinda (2020) found that children who have lived through traumatic experiences benefit from learning about trauma and its impact on the brain because doing this can help them better understand themselves, their bodies, and their emotions. Although this discussion of practices is far from exhaustive, the trauma-informed practices at the focus of this study are mostly classroom-level practices based on the established foundations of trust, safety, collaboration, empowerment, and autonomy (Carello & Butler, 2015; Falot & Harris, 2009; Thomas et al., 2019; Tuchinda, 2020).

One thing that is important to understand about the research literature is that most attention on trauma-informed educational practices has been focused on the general education population, with little focus on how practices could be adapted to better suit students with disabilities (Crompton et al., 2021). The limited research about special education and/or disability-based trauma-informed practices primarily focus on making the Individualized Education Plan (IEP) process more accessible and individualized for students and their families by practicing cultural competency and using strengths-based language to communicate rather than deficits-based (Crompton et al., 2021; Sabin, 2022).

Special Education Teacher Views about Trauma-Informed Practices

Emerging research suggests that teachers do not feel adequately prepared about trauma and trauma-informed practice (Sadin, 2022; Schepers et al., 2023). However, this research has tended to focus on either (a) preservice teachers, and their views on changes that would be helpful to their preparation or (b) the experiences of general education teachers (Sadin, 2022). Therefore, research is needed to understand what special education teachers understand about trauma and how this is associated with their use of trauma-informed practices at the classroom level.

Understanding teachers' trauma-informed attitudes and practices is especially important for special education teachers working with students with IDD, given the increased prevalence of trauma within this population of students (Crompton et al., 2021). Therefore, the purpose of this study was to understand special education teachers' attitudes, knowledge, and utilization of trauma-informed practices, specifically focused on teachers working with students with autism, intellectual disability, developmental delay, and/or multiple disabilities (Kindergarten to 12th grade). Specific research questions were:

1. What are the attitudes of these special education teachers about trauma-informed practices?
2. To what extent do these special education teachers know about and utilize trauma-informed practices?
3. How are special education teachers' attitudes about trauma-informed practices associated with teacher-level characteristics and with their utilization of trauma-informed practices?

CHAPTER II: METHOD

Participants

Participants were 217 K-12th grade special education teachers. To be included, a participant had to (a) be a licensed and practicing special education teacher who (b) worked with students eligible for special education under the Individuals with Disabilities Education Act (IDEA) categories of autism, intellectual disability, developmental delay, and/or multiple disabilities, and (c) work with students in grades K-12 in a public school within the United States (US). A total of 823 respondents accessed and responded to at least the initial screening questions of the survey. A total of 606 cases were excluded because they did not meet inclusion criteria based on the screening questions ($n = 513$), they met inclusion criteria but did not complete the ARTIC scale ($n = 21$), or because the responses were known or suspected bots ($n = 72$) (Goodrich et al., 2022).

The majority of the 217 participating teachers were female (93.5%). Using non-mutually exclusive categories, participants reported their race/ethnicity as White (92.6%), American Indian or Alaska Native (4.6%), Black or African American (3.2%), Asian American (0.9%), Hispanic/Latinx (0.9%), and other or prefer not to describe (1.4%). Teachers reported being from 35 different US states, plus Washington, D.C., and ranged in age from 22-75 years ($Mdn = 48.0$ years). Teachers' years of experience ranged from 1-44 years ($Mdn = 10.0$ years). A total of 63.6% had completed a master's degree, 34.1% a bachelor's degree, and 2.3% a doctoral degree. In terms of the characteristics of the students they served, teachers reported a median caseload size of 13 (range, 3-106), of whom teachers reported a median of eight students were served under the IDEA categories of autism, intellectual disability, developmental delay, and/or multiple disabilities (range, 1-59). Additional participant characteristics are reported in Table 1.

Procedures

The survey was developed collaboratively by myself and my faculty research advisor through an iterative process that involved considering the research questions and exploring prior research related to practitioner attitudes about or experiences with trauma-informed practice (Alisic et al., 2012; Black et al., 2022; Chudzik et al., 2022; Smith, 2021). Once complete, the full survey was a 109-item questionnaire, which took about 20 minutes to complete and was housed on REDCap, a secure data management and survey platform (Harris et al., 2009). The survey included questions related to teachers' (a) demographic and professional characteristics, (b) attitudes about trauma-informed practice, using an existing measure called the Attitudes Related to Trauma-Informed Care (ARTIC) scale (Baker et al., 2015), and (c) awareness and utilization of trauma-informed practices. There were also four open-ended questions that are not reported or analyzed in the current study. Participants who completed the full survey were invited to enter for a chance to win a \$50 e-giftcard.

After receiving approval from the Institutional Review Board (IRB), recruitment and data collection took place over 3 months, from May to July 2023. We used multiple recruitment strategies to attempt to obtain a large and representative sample of teachers of students with IDD across the US. First, I sent out electronic recruitment flyers to representatives of state-level departments of special education ($n = 12$) and to representatives of disability-based organizations ($n = 6$) who distributed flyers in different ways (e.g., email listservs, newsletters, social media). I also posted the flyer on Facebook pages that are focused on special education teachers ($n = 20$).

Measures

Participant Characteristics

Participants answered a range of demographic questions (see Table 1). Based on our research questions, five variables were used to test for differences across different groups of teachers in their trauma-informed attitudes. These variables were whether teachers: (a) worked in a school or district that implemented trauma-informed policies (1 = yes, 0 = no or unsure), (b) worked in elementary settings (1 = at least partially in elementary settings, 0 = exclusively in middle or high school settings); (c) received professional development from their school or district focused on trauma-informed practices (1 = yes; 0 = no); (d) participated in self-initiated professional development about trauma-informed practices (1 = yes; 0 = no), and (e) completed formal university coursework on trauma-informed practices (1 = yes; 0 = no).

Attitudes Related to Trauma-Informed Care (ARTIC) Scale

We utilized an existing and validated measure, the ARTIC scale (Baker et al., 2015), to evaluate teachers attitudes regarding trauma and trauma-informed care. The ARTIC scale was developed to determine the extent to which an individual or system is trauma-informed, particularly within human services or educational fields (Baker et al., 2015). The ARTIC scale is intended to focus specifically on staff attitudes surrounding trauma-informed care, as attitudes are a core principle of trauma-informed care (Baker et al., 2020). The ARTIC scale has demonstrated strong psychometric properties in testing with a large sample ($n = 1395$) of human service and education providers, including strong internal consistency and construct validity (Baker et al., 2020).

The full ARTIC scale contains 45 items that are organized using seven subscales, including five core subscales and two supplementary subscales. Each subscale is described, with

two example items (one for a high trauma-informed statement and one for a low trauma-informed statement), in Table 2. Individual subscale scores can be produced and utilized for each of the seven subscales, along with two summative scores: (a) an ARTIC 35 score (i.e., a score reflecting the 35 items in the five core subscales) and (b) an ARTIC 45 score (i.e., a score reflecting all 45 items, including the five core and two supplementary subscales). The five core subscales are relevant to all teachers. The two supplementary subscales are designed to specifically measure staff or provider attitudes within systems formally implementing trauma-informed practices and policies. Because of this difference in the purpose of the subscales, we had all participants complete the 35 items in the first five subscales. However, only some teachers were asked to complete the 10 items in the two supplementary subscales. To determine this, we asked participants if their current school or district implemented formal trauma-informed policies. Participants indicating *yes* ($n = 80$) were directed using branching logic on the survey to all 45 items (i.e., the five core subscales and the two supplementary subscales). Participants indicating *no* or *unsure* ($n = 217$) were only given the 35 items for the five core subscales. Two participants indicated *yes* that their school or district implemented formal trauma-informed policies, but we could only derive an ARTIC 35 score for these participants because they selected *N/A* for all ten of the additional ARTIC 45 questions.

Within each subscale of the ARTIC, respondents were asked to rate items using a 7-point bipolar scale between two statements, indicating which statement they felt best represented their personal beliefs. The 7-point scale was later recoded to establish that higher scores were more trauma-informed and lower scores were less trauma-informed. The five core subscales were comprised of seven items each, while the two supplementary subscales each had five items.

Internal consistency was strong in the sample for the current study for both the ARTIC 35 ($\alpha = .94$) and ARTIC 45 ($\alpha = .95$).

Awareness and Utilization of Classroom-Level Trauma-Informed Practices

We used a researcher-created measure to examine teachers' self-report of their awareness and utilization of classroom-level trauma-informed practices. Using a researcher-created measure was necessary because there is not an existing measure or comprehensive list of trauma-informed practices in special education. Therefore, to develop this measure, I reviewed prior literature in conjunction with my faculty research advisor to generate and iteratively revise a list of teacher-implemented trauma-informed practices that have been utilized and described in classroom settings, including with students with IDD (Brown et al., 2020; Carello & Butler, 2015; Fallot & Harris, 2009; Perry & Daniels, 2016; Smith, 2021; Thomas et al., 2019; Tuchinda, 2020). This list was carefully curated and reviewed by multiple research staff members to ensure clarity and relevance to the survey. The final list included 21 different trauma-informed practices that could be implemented by individual teachers, either alone or in collaboration with others (see Figure 1). For each individual practice, respondents were asked if they knew about the practice and/or how often, if at all, they utilize the practice (4 = *Use regularly*, 3 = *Use occasionally*, 2 = *Tried but no longer use*, 1 = *I know what this is but have not used*, 0 = *I do not know what this is*).

Data Analysis

We conducted several analyses. Regarding the first research question, we calculated ARTIC subscale and total scores (i.e., ARTIC 35 and ARTIC 45) and then used descriptive statistics (e.g., means, standard deviations, ranges) to examine patterns in the trauma-informed attitudes of participating special education teachers. For the second research question, we calculated sum scores based on the teachers' knowledge and utilization of the 21 specific trauma-

informed practices. Regarding the third research question, we ran a series of two-tailed Mann-Whitney U tests to explore potential differences in the attitudes of special education teachers towards trauma-informed practices based on teacher-level dichotomous variables for whether they: (a) worked in a school or district that implemented policies related to trauma-informed care, (b) worked in elementary school settings, (c) received professional development from their school or district focused on trauma-informed special education practices, (d) participated in self-initiated professional development about trauma-informed special education practices, and (e) took formal university coursework on trauma-informed practices. For the third research question, we calculated Spearman's correlations to determine the associations between teacher attitudes (i.e., each ARTIC subscale and the ARTIC 35 and ARTIC 45) with their knowledge and utilization of trauma-informed practices (i.e., practice sum score). I used an alpha of .05 for all inferential statistical tests, which is suggested even when multiple significance tests are run, so long as the research is exploratory and descriptive (Bender & Lange, 2001).

CHAPTER IV: RESULTS

Teacher's Trauma-Informed Attitudes

Based on the ARTIC sum and subscale scores, teachers had moderate but widely ranging attitudes about trauma and trauma-informed care. The average total score of the ARTIC 35 was 5.6 (range, 2.3 - 6.7), indicating a moderately high likelihood of having a trauma-informed attitude (see Table 3). Out of the five core subscales, teachers' average ratings were the highest for the On-the-job Behavior subscale ($M = 5.9$; range, 1.3 – 7.0), demonstrating that teachers as a group were more likely to report behaviors focusing on empathy rather than control. The lowest ratings out of the five core subscales were for the Underlying Causes subscale ($M = 5.4$; range, 2.0 – 6.9) and the Reactions subscale ($M = 5.4$; range, 1.7 – 7.0). Within the two supplementary

subscales, the Personal Support subscale had the highest mean score of 5.6 (range, 2.2 – 7.0) demonstrating that special education teachers on average who were working in schools with trauma-informed policies felt supportive of their school/district continuing to or furthering implementation of trauma-informed practices.

Teacher's Knowledge and Utilization of Trauma-Informed Practices

Participants were asked to self-report their knowledge and utilization of 21 specific trauma-informed practices. As a group, teachers demonstrated strong knowledge of and moderate-to-high use of most of the listed practices (see Figure 1). More specifically, most teachers reported knowing about all of the listed practices. Out of the 21 listed practices, the two that had the highest percentage of teachers not knowing about the practice were: (a) Using a classroom “peace corner” (7.3% of teachers indicated they did not know about this practice) and (b) Teaching about trauma and its impact on the brain/body (7.3%). In terms of utilization of practices, all of the practices were reported to be used *regularly* or *occasionally* by more than half of teachers. However, utilization did vary fairly widely across practices. For instance, two practices had greater than 80% of teachers who indicated they used the practices regularly: (a) Creating predictable learning environments by setting and following routines (87.4%) and (b) Ensuring family access to all aspects of IEP process and their students' education (86.4%). Two practices had fewer than 30% of teachers who reported using them regularly: (a) Collaborating with trauma specialists (25.7%), and (b) Teaching about trauma and its impact on the brain/body (17%). A total sum score was created with the possible range of 0-84 to allow for evaluating overall use and knowledge of trauma-informed practices for each individual teacher in the sample. Participants sum scores ranged from 46-84 ($M = 71.6$; $SD = 7.8$) demonstrating a strong but moderately variable knowledge and use of trauma-informed practices by different teachers.

Factors Associated with Differences in Trauma-Informed Attitudes

Based on the results of the Mann Whitney U tests, there were no significant differences in trauma-informed attitudes between teachers whose school or district implemented trauma-informed policies, as compared to teachers whose school or district did not implement trauma-informed policies (see Table 4). However, the Self-Efficacy subscale approached significance ($p = .06$), with attitudes being higher in this area for teachers whose school had implemented trauma-informed policies ($n = 80$; $Mdn = 5.9$, range, 2.9 – 7.0) than for teachers whose school had not implemented trauma-informed policies or who did not know about any trauma-informed policies ($n = 137$; $Mdn = 5.4$, range, 2.0 – 7.0), $U = 4638.0$. The ARTIC 35 sum score also approached significance ($p = .06$) with overall attitudes being higher for teachers whose school had implemented trauma-informed policies ($n = 80$; $Mdn = 5.7$, range, 2.3 – 6.7) than for teachers whose school had not implemented trauma-informed policies or who were not aware of trauma-informed policies ($n = 137$; $Mdn = 5.5$, range, 2.8 – 6.5), $U = 4645.5$.

Based on the Mann Whitney U tests, there were significant differences on three of the five core subscales, plus the ARTIC 35 sum score, for teachers who taught at the elementary school level, as compared to teachers who taught solely at secondary levels. Specifically, elementary teachers ($n = 99$) had higher subscale scores than secondary school teachers ($n = 118$) on the Underlying Causes subscale ($U = 4680.5$; $p = .01$), Responses subscale ($U = 4649.5$; $p = .01$), total ARTIC 35 score ($U = 4865.5$; $p = .03$), and the On-the-job Behavior subscale ($U = 4921.0$; $p = .05$). These differences demonstrate that elementary school teachers are more likely than secondary-level teachers to (a) believe that student problem behaviors are flexible and external rather than fixed and intentional and (b) focus on building healthy relationships that

emphasize safety and flexibility rather than immediate elimination of problem behaviors via strict consequences.

Although there were no significant differences between teachers who had trauma-related professional development from their school or district (as compared to teachers who reported never receiving training), there was a significant difference between teachers who reported participating in self-initiated professional development ($n = 84$), compared to teachers who had never participated in self-initiated professional development ($n = 133$). Specifically, teachers who participated in self-initiated professional development had higher scores on the Underlying Causes subscale ($Mdn = 5.5$, range, 2.0 – 6.6) than teachers who had not participated in self-initiated professional development ($Mdn = 5.3$, range, 3.0 – 6.9), $U = 4452.5$, $p = .01$. Similar to professional development from the school or district, there were not significant differences between teachers who had taken formal university coursework focused on trauma-informed practices versus teachers who had not.

Associations between Teachers' Trauma-Informed Attitudes and Practices

Based on the results of Spearman correlations, teachers' trauma-informed attitudes were significantly and positively associated with their reported utilization of trauma-informed practices. We found a positive, significant correlation between the trauma-informed practices sum score (range, 46 – 84) and the ARTIC sum scores, including both the ARTIC 35 sum score ($r(204) = .49$, $p < .001$) and the ARTIC 45 score ($r(73) = .59$, $p < .001$). There were also positive, significant correlations between the trauma-informed practices sum score and the five core subscales, including the Underlying Causes subscale ($r(204) = .42$, $p < .001$), Self-Efficacy subscale ($r(204) = .41$, $p < .001$), Responses subscale ($r(204) = .40$, $p < .001$), On-the-job Behavior subscale ($r(204) = .37$, $p < .001$), and Reactions subscale ($r(204) = .36$, $p < .001$). We

also found positive, significant correlations between the trauma-informed practices sum score and the two supplementary subscales: the Personal Support subscale ($r(73) = .52, p < .001$), and the System Support subscale ($r(73) = .30, p = .010$).

CHAPTER V: DISCUSSION

Students with IDD are more likely to have experienced trauma than their peers without disabilities (Crompton et al., 2021; Spencer et al., 2005). Therefore, trauma-informed practices need to be adaptable to meet the needs of students with disabilities, as they are an important part of the broader student population. Given that knowledge about trauma-informed practices for students with IDD is still emerging, there is a critical need for further research in this area. Understanding the attitudes of special education teachers related to trauma-informed practices is an important aspect of this needed research, especially because teachers' attitudes can influence their further implementation of trauma-informed practices (Smith, 2021). In this study, we surveyed special education teachers in the United States on their attitudes towards, knowledge of, and use of trauma-informed practices when they worked with students with IDD. We found that special education teachers have moderately high but varying attitudes about trauma-informed practices. We also found that special education teachers know about and utilize various trauma-informed practices, but that utilization did vary moderately across the different practices. This study expands prior research in several ways, offering important implications for practice and future study.

First, special education teachers who worked with students with IDD had moderately high but variable attitudes towards trauma-informed practices. The standard deviations of the subscale and sum scores were substantial and demonstrate fairly high variability among the teachers' responses. It can be helpful to contextualize these findings about special educators with

the broader literature using the ARTIC scale. For instance, Black and colleagues (2022) examined the trauma-informed attitudes of Canadian child welfare workers at child protection agencies, including before and after receiving training on TIC principles established by the SAMHSA (2014) and the Attachment, Self-Regulation and Competency (ARC) framework (Blaustein & Kinniburgh, 2018). Pre-training, child welfare workers in the study had average ARTIC subscale scores range from 5.42 (Underlying Causes subscale) to 6.06 (On-the-job Behaviors subscale). Descriptively comparing the findings from this study with the Black et al. study, special education teachers in the present study had slightly lower mean subscale scores than the child welfare workers pre-training scores. However, special education teachers in the present study had slightly higher subscale scores than participants (a combination of employees in education, law enforcement, and social services) at a Pennsylvanian community center training series on trauma from a different study (Matlin et al., 2019). Overall, trauma-informed attitudes of special education teachers of students with IDD appear to be fairly consistent with other service providers.

Second, findings from the present study indicated that special education teachers working with students with IDD knew about many trauma-informed practices, but utilization of the practices varied more than knowledge itself. There are a few important considerations when interpreting these findings, including that the list of practices used for this study was not necessarily comprehensive. Further, we did not evaluate the quality of how teachers utilized the practices—only whether they reported knowing about and/or utilizing them. Another important consideration is that although this list was created to specifically reflect practices for trauma-informed care, many of the strategies are simply ‘good teaching’ that do not need to be utilized only for students who have experienced trauma (Sadin, 2022; Tuchinda, 2020). This raises some

interesting questions that cannot be answered by the present findings: Did teachers know about and view these practices specifically as trauma-informed practices, or simply good teaching practices? Does that matter? Who are these practices really for? There are interesting implications if the practices were viewed by teachers simply as ‘good teaching’ practices, rather than being specifically about mitigating negative impact from trauma. On one hand, trauma-informed practices might feel accessible to all teachers and therefore easier to implement with all students. On the other hand, if viewed as simply ‘good teaching’ practices, these trauma-informed practices might not be individualized enough for students with IDD who have experienced trauma (e.g., students who benefit from individualized education plans and other forms of individualized instruction). There is also a likelihood that framing trauma-informed practices as useful to special education teachers could narrow the targeted audience for those practices. This raises a challenge to find a balance between specializing teaching practices for students who have experienced trauma (i.e., potentially more effort required of the teacher) and making trauma-informed practices more accessible to teachers by being applicable to all students.

Third, findings from the present study indicated that special education teachers working with students with IDD showed readiness to engage further with trauma-informed practices. The developers of the ARTIC scale (Baker et al., 2015) encourage the use of the scale to measure readiness for trauma-informed practices, as well as a follow-up to see how the implementation of trauma-informed practices is going. The moderately high, although variable, ARTIC subscale and sum scores demonstrate attitudes that are indicative of readiness to learn more trauma-informed practices. These findings connect to prior literature, which has demonstrated that many teachers (not just special education teachers) have little training in trauma-informed practices

(Alisic et al., 2012; Baweja et al., 2016) and want more training about trauma, its ongoing impact, and how to appropriately support students with trauma in classroom settings (Alisic et al., 2012; Brown et al., 2020; Schepers et al., 2023). The notion of ‘readiness’ to engage with trauma-informed practices is also important when considering the finding in the present study that teachers’ attitudes about trauma-informed care are closely related to their knowledge and utilization of trauma-informed practices. In my review of the literature, no other research could be located that focused on determining whether teachers’ attitudes about trauma are related to their practices. However, Kassam-Adams and colleagues (2015) utilized a researcher-developed instrument to compare nurses’ knowledge of and attitudes towards trauma-informed care practices. They found similar patterns as the findings in this study, specifically where nurses’ attitudes about trauma and trauma-informed care were positively associated with higher knowledge of trauma-informed practices. Those patterns of connection between attitudes about trauma-informed care and knowledge of trauma-informed practices must also be mentioned in the framework of special education teachers, who are educating students with disabilities who are much more likely to have experienced trauma. Any teacher working with students with disabilities should have access to further knowledge about trauma-informed practices so that they can better support and understand their students.

Overall, findings from the present study demonstrate the need and desire for systems-level capacity building around trauma-informed practices. Several findings lead to this conclusion. Many special education teachers reported seeking out self-initiated professional development opportunities about trauma-informed practices (43.3% of teachers reported participating in self-initiated training), and this training appeared to make a difference in supporting positive attitudes, at least in the ARTIC subscale focused on underlying causes of

trauma. Yet, as somewhat of a surprise, we found no differences in trauma-informed attitudes when comparing teachers whose district had employed trauma-informed policies versus those whose district had not, nor were there differences based on district-supported professional development. When interpreting these findings, it is important to note that it was also common for teachers to report not knowing about whether their school or district had trauma-based policies at all (41.5% of teachers were unsure of whether their school or district had such policies). Finally, although we did not ask teachers directly about the quality of policies or training from their school/district, another finding pointing to the need for systems-level capacity-building relates to ARTIC subscale scores for the supplementary subscales. Many teachers who did report that their school/district had trauma-informed policies provided low ratings on the System Support subscale, which focuses on how supportive the educators perceive their school system to be towards the implementation of trauma-informed policies and practices. Therefore, taking these findings together, it seems that special education teachers want to be trauma-informed, but that they need greater support from school and district administrators to do so. The broader literature corroborates, explaining that all employees in school districts— from teachers to bus drivers to central office workers to principals— need training and support on trauma-informed practices to better support students who have experienced trauma (Sadin, 2022; Schepers et al., 2023; Thomas et al., 2019).

Limitations and Directions for Future Research

There are several limitations to the present study that should be considered when interpreting findings, and that also indicate important directions for future research. First, this study was a cross-sectional snapshot of special education teachers' attitudes, and therefore it does not investigate whether or how attitudes change over time. Most other research involving the

ARTIC scale measured how participants attitudes shifted over time, such as after intervention (Black et al., 2022). Future research involving longitudinal approaches will be important to further examine the trauma-informed attitudes of special education teachers working with students with IDD. Second, several aspects of the survey may have introduced bias that could have skewed the results to be more positive than they are in the broader population and in practice. The way that the survey was distributed likely created a sampling bias, as teachers interested in trauma and trauma-informed care may have been more likely to respond to a survey advertising a focus on trauma. Additionally, we relied on self-report from teachers. Although self-report is an appropriate way to evaluate teacher attitudes, the use of self-report may have positively skewed results around teachers' knowledge and utilization of trauma-informed practices. Finally, we did not measure the quality or accuracy of how teachers implemented trauma-informed practices, only whether they knew about them and if they utilized them.

There is an ongoing need for research focused on educators' knowledge and utilization of trauma-informed practice, particularly for teachers and other providers working with individuals with IDD. For instance, future research is needed that investigates how providers can ensure students with IDD are provided trauma-informed care in all relevant settings, as well as how to engage special education teachers in learning more about trauma-informed practices. The ARTIC scale is a useful research tool that could benefit from being utilized in intervention and longitudinal studies, such as to investigate the impact of various trainings for special education teachers. Further research is also needed regarding the quality and effectiveness of trauma-informed practices at both the systems- and classroom-level, both broadly for the whole student population and for students with IDD specifically.

Implications for Practice

The positive echo from this study is that multiple groups of educational staff have the opportunity to expand their trauma-informed practice knowledge and application. School administrators have ample room to improve professional development opportunities to increase teachers' knowledge of trauma-informed practices. It must be emphasized that several of the trauma-informed practices from this survey require actions between more than just the students and their classroom instructor. The trauma-informed practices involved collaboration among other school staff and support for the teacher through actions such as self-care or opportunities for breaks. School administrators, separately from district staff, have the unique opportunity to be more involved in the classrooms of their schools. Teachers cannot successfully run a trauma-informed classroom without having support from the rest of their team. Administrators and district staff also have the opportunity to implement systematic standards of practices that are trauma-informed across schools for consistency. The results discussing the professional development options demonstrated a necessary refurbishing of current trauma-informed trainings. The research around trauma-informed care and practices is continuing to grow which can positively aid the creation and implementation of more effective trauma-informed professional development opportunities.

Ultimately, this study showed that special education teachers are eager to learn and implement more trauma-informed practices. Special education teachers can utilize this research to continue to advocate with and for their students as schools and districts continue to roll out various new waves of trauma-informed strategies. It is almost impossible to teach without working with a student who has experienced major trauma in their life. Therefore, special education teachers can strongly benefit from continued education and use of trauma-informed

practices to best support their students, with and without IDD, as well as themselves. The likely impact of utilizing trauma-informed practices to meet students where they are to better support their learning is vast, encouraging, and has the potential to improve student, teacher, and school outcomes. Trauma-informed practices, specifically for students with IDD, is a field worth investing time and energy in to better our educational communities.

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APPENDIX

Table 1. *Participant characteristics*

Variable	% Teachers (<i>n</i> = 217)
School level ^a	
Elementary school	47.9
Middle or junior high school	37.8
High school	36.9
Location	
Rural	51.2
Suburban	33.2
Urban	15.7
IDEA category ^a	
Autism	95.9
Developmental delay	47.5
Intellectual disability	71.4
Multiple disabilities	53.9
Trauma specialist at school	
Yes	22.1
No	46.5
Unsure	31.3
School or district implemented trauma-informed practices	
Yes	37.8
No	20.7
Unsure	41.5
Learning about trauma-informed practices ^a	
Formal university coursework	35.0
School/district professional development	64.9
Self-initiated professional development	43.3

^a Indicates non-mutually exclusive category

Table 2. *Attitudes Related to Trauma-Informed Care (ARTIC) subscale descriptions*

Subscale	Description	Example statements by rating	
		Low	High
Underlying causes of problem behaviors and symptoms	Teachers' attitudes around the underlying causes of behaviors as adaptable versus intentional.	Many students just don't want to change or learn.	All students want to change or learn.
Responses to problem behavior and symptoms	Teachers' responses to problem behaviors as flexible and compassionate versus consequential with firm rules.	Students need to experience real life consequences in order to function in the real world.	Students need to experience healing relationships in order to function in the real world.
On-the-job behavior	Teachers' behaviors as focused on empathy versus control.	If I don't control students' behavior, bad things will happen to property.	As long as everyone is safe, it is ok for students to become really upset, even if they cause some property damage.
Self-efficacy at work	Teachers' feelings towards their ability to endure stressful working environments, specifically when working with students who have experienced trauma, versus feeling unable to handle the stressors.	The unpredictability and intensity of work makes me think I'm not fit for this job.	The ups and downs are part of the work so I don't take it personally.
Reactions to the work	Teachers underappreciating the effects or secondary traumatization and coping with trauma by disregarding arising issues versus appreciating the effects of secondary traumatization and coping by requesting support from others.	When I feel myself "taking my work home", it's best to keep it to myself.	When I feel myself "taking my work home", it's best to bring it up with my colleagues and/or supervisor(s).
Personal support of TIC ^{ab}	Teachers' supporting the implementation of trauma-informed practices versus expressing concerns.	The trauma-informed care approach takes too much time.	The trauma-informed care approach saves time in the long run.
System-wide support for TIC ^{ab}	Teachers' feeling supported by their administration and school in implementing trauma-informed practices versus feeling unsupported.	This emphasis on working in a trauma-informed way is just a passing phase.	Everyone is committed to working in a trauma-informed way long term.

^a Indicates a supplementary subscale

^b Trauma-informed care (TIC)

Table 3. *ARTIC subscale scores and ARTIC 35 and ARTIC 45 sum scores*

Subscale	<i>M</i>	Min	Max	<i>SD</i>
Core subscales (<i>n</i> = 217)				
Underlying causes	5.26	2.00	6.86	0.82
Responses	5.45	1.43	7.00	0.97
On-the-job behavior	5.64	1.29	7.00	0.96
Self-efficacy	5.41	2.00	7.00	1.05
Reactions	5.36	1.71	7.00	0.96
Total ARTIC 35	5.43	2.26	6.74	0.81
Supplementary subscales (<i>n</i> = 80)				
Personal support	5.42	2.20	7.00	1.14
System support	5.02	2.40	7.00	1.21
Total ARTIC 45	5.45	2.56	6.80	0.86

Note. ARTIC = Attitudes Relating to Trauma-Informed Care

Table 4. Mann-Whitney U results comparing ARTIC subscale and ARTIC 35 scores for different groups of teachers

	Underlying causes		Responses		On-the-job behaviors		Self-efficacy		Reactions		ARTIC 35	
	<i>Mdn</i>	<i>p</i>	<i>Mdn</i>	<i>p</i>	<i>Mdn</i>	<i>p</i>	<i>Mdn</i>	<i>p</i>	<i>Mdn</i>	<i>p</i>	<i>Mdn</i>	<i>p</i>
Trauma-informed policies		0.37		0.13		0.10		0.06		0.23		0.06
Not implemented (<i>n</i> = 137)	5.3		5.6		5.9		5.4		5.3		5.5	
Implemented (<i>n</i> = 80)	5.4		5.8		6.0		5.9		5.6		5.7	
School level		0.01**		0.01**		0.05*		0.51		0.49		0.03*
Secondary only (<i>n</i> = 118)	5.3		5.4		5.7		5.6		5.3		5.5	
Any elementary (<i>n</i> = 99)	5.6		5.9		6.0		5.7		5.6		5.7	
District supported PD		0.80		0.88		0.63		0.85		0.85		0.73
No (<i>n</i> = 67)	5.4		5.6		5.9		5.7		5.6		5.6	
Yes (<i>n</i> = 150)	5.4		5.6		5.9		5.6		5.3		5.6	
Self-initiated PD		0.01**		0.24		0.32		0.77		0.62		0.45
No (<i>n</i> = 133)	5.3		5.6		5.9		5.6		5.6		5.6	
Yes (<i>n</i> = 84)	5.5		5.7		5.9		5.6		5.3		5.6	
University coursework		0.83		0.29		0.62		0.67		0.16		0.82
No (<i>n</i> = 141)	5.4		5.6		5.9		5.6		5.6		5.6	
Yes (<i>n</i> = 76)	5.4		5.7		5.9		5.6		5.3		5.6	

Note. ARTIC = Attitudes Related to Trauma-Informed Care, PD = professional development, * $p < .05$, ** $p < .01$

Figure 1. *Teachers' knowledge and use of trauma-informed practices.*

