

Preliminary Evaluation of a Brief Intervention to Enhance Trauma-Informed Attitudes Among Educators and School Mental Health Counselors

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ABSTRACT

Professional development training designed to advance knowledge of the impacts of trauma and trauma-responsive practices for educators and counselors in schools and mental health settings have become common. Given the popularity of these training approaches, it is important to understand the potential impact on trauma-informed attitudes and beliefs. This descriptive, exploratory study examined changes in trauma-informed care attitudes as a function of participating in a novel intervention designed to support trauma-informed practices in a sample of elementary school educators, administrators, and school mental health counselors (n=194) from one state in the Southeastern US. Positive changes in trauma-informed attitudes from pre to post training were found on the Attitudes Related to Trauma-Informed Care scale (ARTIC-35). This study provides further evidence that such attitudes can shift over time in a positive direction among both educators and human services professionals. Implications of study findings for both research and practice are discussed.

Keywords: trauma-informed training, schools, educators, counselors, program evaluation



Experiencing negative events in childhood can have a lasting impact on health and mental health into adulthood, elevating the importance of both recognizing and acting to address signs of trauma among children. Seminal research by Felitti et al. (1998) was the first to demonstrate that adverse childhood experiences (ACEs) enhanced risk for a range of maladaptive health and behavioral outcomes of adults decades later (Felitti et al., 1998; Leza et al., 2021; Sahle et al., 2022). While data on prevalence rates of ACEs varies widely based on study population, location, and ACEs definition (Carlson et al., 2020), ACEs appear to be common conditions that can result in elevated risk for long-term negative social, emotional, and health outcomes (Broekhof et al., 2022). To address the high prevalence rates of ACEs and to reduce risk of future detrimental outcomes, efforts to disseminate frameworks and interventions for enhancing trauma-informed and trauma-responsive care practices subsequently proliferated across a range of educational and human service settings (Fondren et al., 2020; Hoover, 2019; McConnico et al., 2016; McIntyre et al., 2018). Given the popularity of these approaches, enhancing understanding of impacts is important for both research and practice. The current study was thus designed to contribute to this growing body of research by examining the initial impacts of a novel trauma-informed care training for educators and human service professionals serving elementary school-age children.

Schools offer an opportunity to support the millions of students facing adversity and trauma in the United States, a situation made worse by the COVID-19 pandemic (Aarah-Bapuah et al., 2022; Chafouleas et al., 2019). The pandemic impacted multiple aspects of parent, child, and family functioning (Prime et al., 2020), exacerbating pre-existing health disparities and other risk factors known to be related to child maltreatment such as social isolation, economic losses, and family stress (Huang et al., 2023). Identifying, supporting, and intervening to meet the needs of students impacted by trauma is thus critically important. In recognition of these needs, many schools have worked to help educators and other school staff become more trauma-informed, and to take actions that are considered trauma-responsive. That said, there is a dearth of evidence linking trauma-informed approaches in schools with important youth outcomes such as mental health, academic performance, and behavior; indeed, a systematic review found no studies meeting inclusion criteria for these types of outcomes (Maynard et al., 2019). Furthermore, there is not a clear consensus on the definitions of terms such as “trauma-informed approach,” “trauma sensitive,” or “trauma-informed system” outside of a position paper by SAMHSA (Substance Abuse and Mental Health Services Administration) published in 2014 (SAMHSA, 2014). Given these concerns, it is important that research continue to focus on defining terms and identifying trauma informed interventions and their impacts in real-world settings.

One of the primary avenues of dissemination for trauma-informed and trauma-responsive frameworks in real-world settings is through professional development, or in-service, training efforts for the existing workforce (e.g. McIntyre et al., 2018). Training educators and other school-based professionals (e.g. counselors, administrators) that interact with students on a regular basis regarding the impacts of trauma, and ways to support students with a history of adversity, can significantly increase the chance for these students to receive the support and professional

intervention that they may need. Indeed, research is growing regarding the implementation and impacts of professional development programs to enhance care for youth in schools who may have experienced trauma. A recent scoping review conducted to examine the types of interventions (e.g., policies, programs, or practices) used in schools to address trauma identified 91 published studies (Stratford et al., 2020). Qualitative synthesis revealed a need for additional work in the policy intervention arena, highlighting concerns regarding methodological rigor, as well as gaps in research on whole-school approaches or approaches using non-clinical staff (Stratford et al., 2020). Indeed, a systematic review of the efficacy of trauma-informed care in school settings found that much of the research has focused primarily on only one level within a three-tiered system of student supports (tier 1: prevention; tier 2: early intervention; tier 3: targeted intervention) commonly found in school settings (Fondren et al., 2020). In recognition of the need to reach all students in a given educational setting, some extant training programs have utilized a multi-tiered approach to attempt to address the needs of all students (Dorado et al., 2016; Thomas et al., 2019).

Importantly, changes in educator knowledge of trauma, attitudes, and beliefs regarding child behavior appear to be a commonly measured outcome of professional development training efforts in this area. As one example, the Healthy Environments and Response to Trauma in Schools (HEARTS) program used a school-wide, tiered approach to creating a trauma-informed educational environment. Dorado et al. (2016) used a retrospective pre- and post-evaluation design and observed positive impacts on school staff knowledge of trauma and use of trauma-sensitive practices. Provider knowledge about trauma and acceptability of trauma informed practices appears to increase when educators perceived there to be a better system fit of these approaches to existing school practices (McIntyre et al., 2018). Perceptions of acceptability and fit are just two of many important factors related to implementation of novel interventions in existing services systems (Meyers et al., 2012).

In related research, changes in educator knowledge and beliefs regarding trauma were the focus of an evaluation of a two-day “Compassionate Schools” initiative designed to enhance understanding of trauma and trauma-responsive actions among educators and human services professionals (Parker et al., 2020). One study included an assessment of changes in attitudes and behaviors relevant for trauma informed practices using a brief, post-test only design using a purpose-built scale (Parker et al. 2020). The second study evaluating this same professional development training program used a standardized scale, the 35-item Attitudes Related to Trauma Informed Care Scale (ARTIC)(Baker et al., 2016, 2021), developed specifically as a tool to assess attitudes related to trauma and trauma-informed care. Using a pre-post single group design, significant positive changes trauma-informed attitudes were found (Parker et al., 2020).

THE CURRENT STUDY

As professional development training programs continue to be developed to enhance understanding of trauma and to support trauma-informed practices, further examination of the impacts of these types on interventions on educator and/or human

services professionals' attitudes and beliefs related to child behavior and trauma is critically important for both research and practice. Ideally, evaluations of these professional development training programs would make use of assessment measures with known psychometric properties. The current study thus focuses on a descriptive, exploratory evaluation of the initial impacts of a trauma-informed training for educators and human service professionals serving elementary school-age children using the ARTIC scale, building on research on the program by Parker et al. (2020) as well as broadening the larger research focus on ACEs (Felitti et al., 1998).

This study took place in the context of a larger research project, entitled Engaging and Training with Compassion (ETC), that focused on enhancing the ability of educators and school mental health professionals to support the social, emotional, and behavioral health needs of elementary school-age children and their families. ETC was conducted via a university-community partnership designed to improve educational and behavioral outcomes for elementary school-age youth through enhanced understanding of the impacts of trauma and provision of appropriate, high quality, family-engaged behavioral health services in the school environment. Over the 3-year project period (2019-2021), activities included partnering with two regional mental health centers in one state in the Southeastern U.S. to train a total of 48 school mental health counselors (24 from each center) in Managing and Adapting Practice (MAP), a modular intervention approach to treating mental health challenges in youth and training a subset of these clinicians to become certified as MAP supervisors (Chorpita et al., 2014). In addition, the study team partnered with select school districts in the catchment areas of the two regional mental health centers to train elementary school administrators, teachers, and school mental health counselors in a novel intervention called the South Carolina Resilient Schools Initiative (SCRSI). SCRSI was modeled after the Compassionate Schools approach created in Washington state (Wolpow et al, 2016) and incorporated the Four R's for a trauma informed approach: realize, recognize, respond and resist re-traumatization (SAMHSA, 2014).

The current study builds on prior research (Parker et al., 2020) by examining the impact of the SCRSI training on counselor and educator trauma-informed attitudes and beliefs regarding child behavior in the context of the ETC study. We hypothesized that the SCRSI training would result in improvements in counselor and educator trauma-informed attitudes and beliefs. Specifically, we sought to explore whether shifts in trauma-informed attitudes and beliefs could be detected for both educators and mental health counselors working in a school setting as a function of the SCRSI training.

METHODS

This descriptive, exploratory study used a single-group pre-post test design to examine initial outcomes of the SCRSI intervention when implemented with professionals in real-world settings.

Data Collection

Participants

211 elementary school educators, school administrators, and mental health counselors from a total of three school districts in a southern state participated in the ETC project and SCSRI training; these districts fell within the catchment areas of the two mental health centers participating in the larger project. Of note, one district dropped out of the project after completing training, leaving two participating districts. 48 school mental health counselors from the two participating mental health centers also participated in the training. Among those who participated in the SCSRI training, 169 educators and school administrators, as well as 25 mental health counselors, completed the optional but encouraged self-report measures. Thus, we had a total of 194 participants for the current study. Please see Table 1 for further details of the study sample. Participants reported being in their current work positions for an average (mean) of 5.94 years ($SD = 6.32$) with a median of 3.25 years; the number of years in their current positions ranged from 0 to 24 years.

Table 1: Participant Demographics ($N = 194$)

Gender	Number	Percentage
Female	129	67%
Male	12	6%
Missing	53	27%
Race		
African American	45	23%
Caucasian	92	47%
Multiracial	2	1%
Prefer not to say	1	<1%
Missing	54	28%
Education		
Bachelors	22	11%
Masters	104	54%
Education Specialist	11	6%
Doctorate	4	2%
Missing	53	27%

Demographics and Background Information

Demographic and background information collected from training participants included the participants' gender identity, racial identity, education level, the setting they work in (e.g., middle school, high school, district office, etc.), the position at their school, and how long they had been in that position. Participants were also asked if they had attended an ACEs training, mandated reported training, or any other evidence-based trainings in the past.

Trauma-Informed Attitudes

We used the Attitudes Related to Trauma-Informed Care (ARTIC) 35-item version (Baker et al., 2016; <https://www.traumatiainstitute.org/the-artic-scale/>) to collect data at pre- and post-training. The ARTIC 35-item scale is a measure of an individuals' attitudes towards the use of trauma-informed care approaches when working with students or youth. The ARTIC includes two versions, one for educators and one for human services professionals; the questions differ only in substituting the term "students" for "clients", depending on the version used. The ARTIC features 35 two-part attitudes set on a Likert scale in which individuals' rate how much they agree with one attitude (set to a 1) or the opposite attitude (set to a 7), with higher scores indicating more positive attitudes towards trauma-informed care. For example, one pair of items are "students need to experience real-life consequences in order to function in the real world" (scale value of 1) and "students need to experience healing relationships in order to function in the real world" (scale value of 7), with 5 intermediate, unlabeled points in-between.

The ARTIC-35 has been found to be a reliable and valid measure of trauma-informed attitudes among health care providers and educators (Baker et al., 2016; Baker et al., 2021) and has demonstrated sensitivity to change after receiving training to improve attitudes towards trauma-informed care among healthcare providers and educators (Brown et al., 2012). Baker et al. (2016) reported strong reliability of the ARTIC 35, with a Cronbach's alpha of 0.91. Consistent with Baker et al.'s (2016) findings, for the current study, the ARTIC-35 had a Cronbach's alpha of 0.92, providing further evidence of adequate internal consistency reliability in the current sample.

Intervention

The South Carolina Resilience School Initiative (SCSRI) intervention was a university-developed training program designed to enhance educator understanding of the impact of trauma on youth and family functioning for those working in elementary, middle, and high school settings. Researchers originally developed the training for educators as a two-day, in-person event, which included an experiential learning component (a tour of a mock house) containing visible signs consistent with possible child maltreatment and a recording of a 911 call regarding a case of child maltreatment. Prior to the current study, over 3000 educators across the state in which the current study occurred had been trained in this model (Parker et al., 2020).

Importantly, the current project occurred during the COVID-19 pandemic, disrupting in-person SCSRI training. The SCSRI training thus transitioned to synchronous virtual delivery of in the Spring of 2020. With the shift to virtual delivery, the first day of training was re-labeled as "Step One" (vs Day One) and the second day was relabeled "Step Two", (vs Day Two). Each Step consisted of three separate modules. Please see Table 2 for details of training content.

Table 2: Training Content

Step	Module	Content	Trainer(s)
One (Becoming Trauma-Informed)	1	Adverse Childhood Experiences presentation (90 minutes) Virtual Mock House Simulation (60 minutes)	ACE Master Trainer or SCRSI Project Staff
	2	Recognizing Signs of Abuse (60 minutes) Mandated Reporting (60 minutes)	Sexual Assault Nurse Examiner Attorney
	3	An Introduction to the Compassionate Skills Approach (75 minutes)	SCRSI Project Staff
Two (Trauma Sensitive Responses)	4	Unconscious Bias (60 minutes) Mindfulness (60 minutes) The Importance of Self-Care (60 minutes)	External Consultant SCRSI Project Staff Licensed Social Worker
	5	Building Skills of Resilience in Students, Families and Ourselves (60 minutes)	SCRSI Project Staff
	6	Implementation Overview, SC School Examples, FAQ (75 minutes)	Facilitated by SCRSI Project Staff and various local educators

Step One training focused on increasing participant knowledge of adverse childhood experiences, recognizing possible signs of adverse experiences, and reporting suspected child maltreatment abuse (SAMHSA's R's of realize and recognize). The three virtual modules included in Step One targeted specific topics and varied in length ranging from 75 to 120 minutes as noted above. In Module One, a Master ACEs Trainer provided ACEs training. In the same module, a Licensed Social Worker led a virtual tour of the mock house, staged with crime scene photos depicting physical evidence of ten adverse childhood experiences (half of which are related to child maltreatment) as noted by Felitti at al. (1998). As part of the mock house experience, participants also listened to an excerpt of a child's 911 phone call. This allowed participants to experience what the home of a child who has been maltreated could look like, and what a reporting call might sound like. In Module Two, a Sexual Assault Nurse Examiner and a local attorney were the lead subject matter experts focusing on recognizing signs of child maltreatment, and the roles of mandated reporters. Module Three introduced the Compassionate Schools framework and

approach, supporting participants to understand how their newfound knowledge of ACEs could impact teaching practices.

Step Two included three additional modules (i.e. modules 4, 5, and 6) that varied in length from 75-120 minutes, and focused on the role of educators, the importance of relationship building, and implementation of trauma-informed practices, incorporating the final two R's (i.e. respond and resist re-traumatization). In Module Four, a local expert and a certified mindfulness instructor led presentations on unconscious bias and mindfulness. In Module Five, a licensed social worker provided training on self-care and SCSRI project staff provided training on resilience. In Module Six (the final module), local educators presented an exploration of trauma-informed practices being implemented within schools, provided examples of implementation, and answered questions.

One primary trainer holding a master's degree in education and experience in the classroom (10+ years) led the SCSRI training with the support of external professionals for specific topic areas as previously noted.

Procedures

The project was approved by the IRB of the local university and the state mental health department; the university IRB determined that the project was exempt; therefore, informed consent was not required or obtained from the adult participants who voluntarily took part in the training courses.

The ETC project team presented an overview of the study to school mental health counselors at the two mental health centers (MHC) participating in the project. These two MHCs were identified by the state-level mental health agency collaborators and agreed to participate in the ETC project. ETC project staff then contacted school districts that fell within the catchment areas of each MHC and provided information on the larger project. ETC project eligibility for school districts included having a minimum of five elementary schools within the district, having school mental health clinicians embedded in the elementary schools within these districts, and obtaining agreement by school district officials to participate. Two school districts agreed to participate, and both school administrators and educators (selected by the districts) enrolled in the training. After an initial training course was delivered, one of the school districts ended participation in the study, as the study could not provide the training district-wide. Thus, an additional district was recruited in the same catchment area and participated in the larger project.

In addition to participating school administrators and educators, select school mental health clinicians from participating MHCs were invited to attend the SCSRI training. Initially, the training was provided on two consecutive days for participants, with two modules per day being delivered. Of the 211 total individuals trained, 44 individuals participated in this in-person delivery of program content. Unfortunately, as noted earlier, the COVID-19 pandemic arrived early in the second year of the three-year project. Training was thus adapted for online delivery, and divided into three learning modules, each lasting approximately one half-day, as described above. The remaining 166 individuals were trained in the online format.

A total of four full-day in-person SCSRI trainings were completed in Year One, and eight SCSRI virtual trainings were completed in both project years two and three.

Analytic Approach and Data Management

To assess the impact of the training, all participants were asked to complete the demographic measures and the ARTIC-35 both before and after the training, and at a follow-up time point 12 months after the initial training (i.e., a pre-/post-/follow-up, single group evaluation design). Due to very limited follow-up data obtained, the current study reports only on pre- and post-training data only. Among the 194 participants who did complete either the pre-training or post-training surveys, varying levels of missing data are noted from both descriptive and inferential statistics. To manage missing data, listwise deletion was used for the analyses, which resulted in a reduction of the sample size used in each of these analyses (as indicated by the degrees of freedom).

RESULTS

With regard to prior training experiences relevant for the current study, the majority of participants (115, 59%) reported having had some form of mandated child maltreatment reporter training in the past. A total of 24 participants (12%) indicated that they had not undergone mandated reporter training in the past, and a large number (55, 28%) did not answer this question. Seventy-eight participants reported they have had some previous training in Adverse Childhood Experiences (ACEs); a total of 50 of these participants indicated that the ACEs training they had attended was two-hours or less in duration. A total of 17 participants indicated having attended a half-day ACEs training, and 11 indicated having attended a full-day or multiday ACEs training previously. The remaining 116 participants indicated either not having any previous ACEs training ($n=39$) or did not provide a response ($n=77$). Given that pre-existing knowledge of ACEs could possibly impact how participants responded to the key outcome measure (ARTIC-35) used in this study, an independent samples t-test was conducted to examine if having previous ACEs training impacted pre-intervention ARTIC scores. The results of the t-test indicated that pre-intervention ARTIC scores did not differ significantly between individuals who had received prior ACEs training, $M = 5.53$, $SD = .70$, $n = 78$, and those who did not, $M = 5.62$, $SD = .50$, $n = 39$; $t(115) = .73$, $p = .47$. As such, previous ACEs training was not included as a covariate in any of the final models.

A mixed-effects ANOVA was conducted to test if attitudes towards trauma-informed care changed significantly after receiving SCSRI training among educators and school mental health counselors. There was a significant difference across the two time points, $F(1, 93) = 98.56$, $p < 0.001$ with a very large effect size of $\eta^2 = 0.52$ (see Figure 1 below). Educators' average score rose from 5.63 to 6.13 (on the 7-point scale.). School mental health' average score rose from 5.76 to 6.09. There was also a significant interaction between time and participant professional category (educator versus school mental health counselor) $F(1, 93) = 4.4$, $p = 0.04$,

with a small effect size of $\eta p^2 = 0.05$. Further, the test of between-subjects effects (participant professional category) was non-significant, $F(1,93) = 0.22, p = 0.64$.

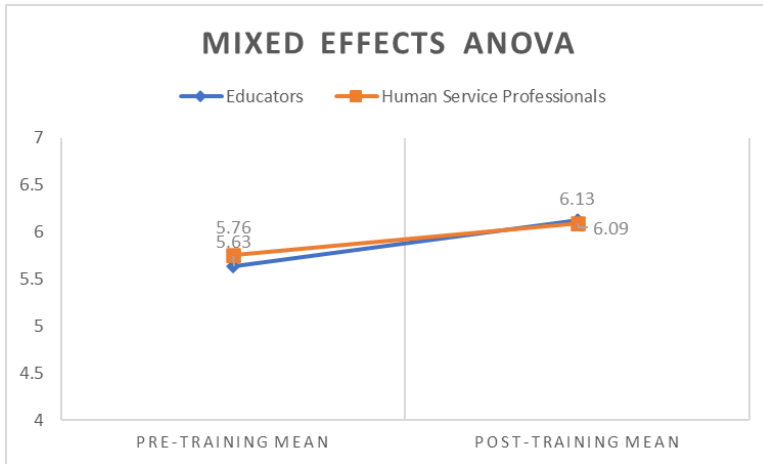


Figure 1: Mixed Effects ANOVA

Given the non-significant impact of participant professional category and the small amount of variance explained by participant professional category (i.e., school mental health counselor and educators) a one-way repeated measures ANOVA was conducted to test the change in trauma-informed care scores among all participants after receiving the training. There was a significant difference across time for all participants, $F(1,97) = 105.58, p < 0.001$, with a very large effect size of $\eta p^2 = 0.52$; see Figure 2. Mean ARTIC scores increased from 5.68 to 6.12 (on the 7-point scale.).

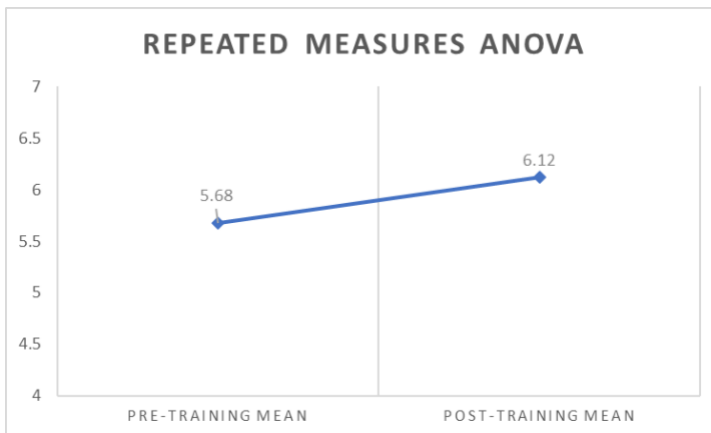


Figure 2: Repeated Measures ANOVA

Before each ANOVA was conducted, the assumptions necessary for the general linear model (GLM) were checked. It was discovered that in both models the assumption of normality was not met as the post-training data followed a negatively skewed distribution (see Figure 3). The distribution bias towards higher scores is likely due to most participants having more positive attitudes towards trauma-informed care prior to completing the training, as evidenced by the high baseline mean of 5.68 out of the 7-point scale. Extent research on repeated-measures ANOVA has found that the test is very robust to severely non-normally distributed data without increasing the risk of type-1 error or impacting power (Blanca Mena et al., 2023). As such, the ANOVAs were completed with the mild-to-moderate non-normality of the training data without use of corrective or transformative procedures.

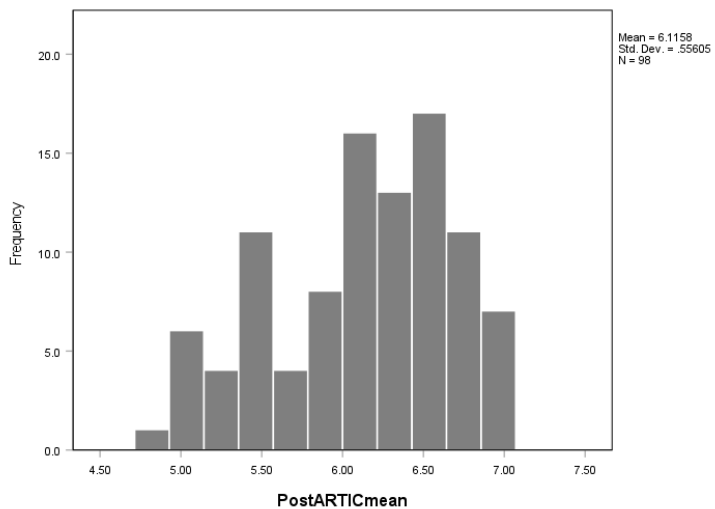


Figure 3: Histogram of Post-Training ARTIC Means

DISCUSSION

This study examined the impact of a novel training for professionals (SCSRI) designed to impact trauma-informed attitudes for educators and school mental health counselors serving youth in elementary school settings. In support of our hypothesis that SCSRI training would result in improvements in counselor and educator trauma-informed attitudes and beliefs, we found statistically significant increases in trauma-informed attitudes as a result of the SCSRI training for both educators and school mental health counselors as assessed using the ARTIC-35 from pre-training to post-training. Therefore, the ARTIC-35 appeared to be sensitive to change over time in attitudes related to trauma-informed care among both educators and mental health counselors involved in this study.

In line with previous research, these findings add to the literature by further supporting the utility of professional training in trauma-informed care strategies and attitudes designed to improve outcomes for students and youth (Baker et al., 2016;

Dorado et al., 2016; Fondren et al., 2020; McIntyre et al., 2018; Thomas et al., 2019). The current preliminary study builds on the work Parker et al. (2020) in finding positive changes in ARTIC scores among educators as well as mental health counselors serving youth in educational settings. Finding measurable impact within a relatively short timeframe with a relatively brief intervention, delivered primarily in an online format during the COVID-19 pandemic, supports the promise of the SCSRI and similar interventions for shifting trauma-informed attitudes of elementary school educators, administrators, and school-based mental health professionals. Interestingly, prior exposure to training in ACEs, which theoretically should enhance knowledge of trauma impacts on child functioning, did not appear to impact the ARTIC-35 scores obtained at baseline. That said, the majority of participants with prior ACEs training reported attending relatively short workshops, limited to 2 hours or less, which may, in part, be why no differential impacts on initial ARTIC-35 scores were seen. This has important practical and research implications. From a practical standpoint, while very brief workshops may be easy to deliver, a lasting impact on attitudes is unlikely. The SCSRI approach used in the current study was delivered in six, half-day sessions, and thus was much longer and covered a wider array of content than a 1 to 2 hour-long workshop on ACEs. Thus, in future research, it will be important to examine what length and intensity of training is needed to realize shifts in trauma-informed attitudes over time.

A major consideration for this project and similar studies is the degree to which measurable shifts in trauma-informed attitudes result in behavioral changes for educators and school mental health counselors, and the degree to which these changes result in actual shifts in child functioning. Finding statistically significant changes in ARTIC scores as well as a moderate effect size is a good first step, but this does not help us understand what changes in adult actions in school settings are possible. Specifically, as a result of the SCSRI or similar training, what changes might be seen in educator actions in the classroom and administrative actions at the level of the classroom or school in response to youth challenging behavior that is potentially related to trauma? As an example, is disruptive behavior in the classroom managed differently as a function of training, or do school-level rates of suspension or expulsion change? For the current larger (ETC) project, we did attempt to examine changes in school climate and in school-level disciplinary actions over the time frame of the study. However, the COVID-19 pandemic impacted school closures and disrupted routine collection of archival data relevant for assessment of these constructs, so we were unable to determine if changes in attitudes were related to changes in actions by adults in response to youth behaviors in schools. The challenge remains in this area of research to demonstrate impact of trauma-informed training and support for a school-based workforce on child academic, social, emotional, or behavioral functioning. Indeed, a systematic review by Maynard et al., (2019) failed to locate any studies documenting child-level impacts of trauma-informed schools, highlighting the substantial gap in the research literature.

From an implementation perspective, there were some meaningful lessons learned in the current study. Implementation barriers were presented by offering the training in-person, including time away from work to travel to the training site, loss of two full workdays for the SCSRI training itself, and financial costs such as

accommodations, food, and mileage. Although many of these barriers were removed by the shift to virtual SCSRI training, virtual delivery created challenges with collection of both pre- and post-training measures. Additionally, the SCSRI intervention, while it had been delivered extensively prior to the current study, was not fully documented in a training manual. This important drawback prevented accurate tracking of fidelity of implementation of the SCSRI intervention.

Study Limitations

While preliminary findings are promising, we must acknowledge important study limitations. The primary limitation is the pre- and post- single group study design. The lack of a comparison group prevents us from concluding that there is causal relationship between receiving the training and changes in trauma-informed attitudes. That said, the current findings are consistent with prior research in finding positive changes in ARTIC scores as a function of training in trauma-informed approaches (MacLochlainn et al., 2022). Despite large effect sizes, it is worth noting that the growth in ARTIC scores was relatively small (8% growth). This is possibly related to the sample having a higher general awareness of the impact of trauma (even without formal training in trauma-informed care) as suggested by the relatively high average baseline score of 5.68 out of 7. The large effect sizes may be partially explained by the relatively low variance (standard deviations were between 0.55 and 0.6 for all analyses) which would suggest that while the impact of the training was mild, it was very consistent across participants. In addition, data on the practical implications of these changes in attitudes (e.g., differential response to youth behavior challenges in schools) was not available.

Additional study limitations include the large amount of missing data, likely in part due to the optional nature of data collection for this study and the shift to online data collection during the COVID-19 pandemic lockdowns. Further limitations include the lack of follow-up data, as well as the selective nature of the sample (i.e., voluntary participation in the larger project that was limited to two areas of one southern state). A further limitation is the relatively novel nature of the intervention examined and lack of data regarding fidelity of implementation of the intervention, which was altered to an online format during the study due to the impacts of the COVID-19 pandemic. While training content remained the same, and ratings for both trainings were favorable, it is important to acknowledge the difference in training formats.

CONCLUSION

Using a relatively brief intervention, we found that the ARTIC-35 was sensitive to change before and after a professional training program designed to enhance educator and school mental health counselor trauma-informed attitudes. Future research is warranted to examine the quality of the program evaluated here and should include consideration of longer-term and real-world impacts of trauma-informed training for school-based professionals. By tracking long-term or follow-up impacts of training, one could assess and evaluate implementation of trauma-informed practices as well

as impacts on trainee retention and views on effectiveness. Specifically, it would be important to identify any new accommodations made for students that changed as a result of training, changes in academic performance of students, or changes in discipline or behavior-related referrals. Determining the impacts of the improved trauma-informed beliefs on school employee retention, job satisfaction, and views on effectiveness will further expand the argument for the importance of trauma-informed training. Additionally, future directions should consider linking changes in attitudes to practical changes in disciplinary action in classrooms. Given the change in attitudes experienced by educators, they may also feel empowered and equipped to advocate for the mental health needs and supports of students experiencing adversity.

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CARL SORENSEN, MA. We would like to also recognize the passing of one of our co-authors. Carl was one of the brightest and kindest human beings to have walked this earth. Carl held a B.A. in Psychology from Bemidji State University, and an M.A. from Minnesota State University. His brilliance and passion for helping

made pursuit of a doctorate degree in Clinical Psychology from the University of South Carolina (USC) a natural choice. His passion was most evident in his choice of a dissertation project—developing a physical education program for children with neurodevelopmental differences. At the time of his unexpected passing, Carl was a published scholar, an excellent teacher, and thoughtful research collaborator on this study and on other projects conducted at the Institute for Families in Society at USC. Carl was always willing to help, and his insights, care, thoughtfulness, and wisdom will be sorely missed.
