

CREATING POSITIVE ATTITUDES ABOUT TRAUMA-INFORMED SCHOOLS:
EXAMINING THE INFLUENCE OF A PROFESSIONAL DEVELOPMENT
TRAINING ON TEACHER ATTITUDES

A THESIS

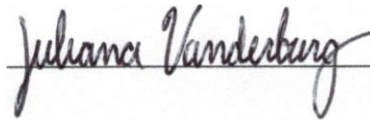
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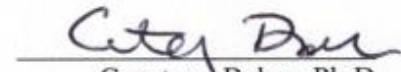
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BY

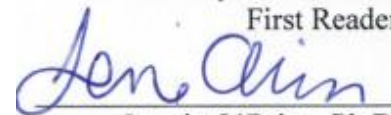
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Abstract

The current study examined the impact of a professional development training in trauma-informed approaches on teacher attitudes. The current study had two main purposes: first, to determine whether two components of attitudes, perception of the problem and self-efficacy, became more trauma-informed among teachers following a professional development training; and second, to investigate whether that change in attitudes was linked to initial levels of familiarity with trauma-informed approaches and/or years of experience. Teachers from 6 schools that are part of the New Orleans Trauma-Informed Schools Learning Collaborative participated in the study ($N = 163$; 68.7% female, 58.9% White). Teachers filled out demographic information and completed the ARTIC scale (Baker, Brown, Wilcox, Overstreet & Arora, 2015) both before and after training. A paired-samples t-test revealed that perception of a problem and self-efficacy among teachers did become significantly more aligned with trauma-informed approaches following the training. However, contrary to the hypothesis, familiarity and years of experience did not moderate perception of a problem or self-efficacy. Regardless, these results have important implications for the trauma-informed schools movement as they show that PD trainings can positively impact teacher attitudes, potentially increasing teacher motivation to carry out trauma-informed practices in the classroom.

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Introduction

Trauma stands as a prevalent and costly public health issue. According to a study published in 2014, about 50% percent of children in the United States have been exposed to some sort of childhood trauma or adverse experience (Bethell, Newacheck, Hawes, & Halfon, 2014). A local survey of New Orleans school students found similarly high rates: 39.8% of youth aged 11-15 have witnessed a shooting, stabbing, or beating; 52.2% worry about violence in their neighborhood; and 54% have experienced the murder of someone close to them (Institute of Women and Ethnic Studies, 2015). This type of exposure is commonly associated with post traumatic stress (PTS) symptoms. For example, a nationally representative study found that 13.4% of children in the US demonstrate PTS symptoms following trauma exposure (Copeland et. al., 2007). This type of trauma can also lead to a variety of mood and anxiety disorders, substance abuse, and impulse control disorders in exposed youth, as well as learning and behavioral issues in a classroom setting (Putnam and Burke, 1992; Burke et. al., 2011).

Due to the range and impact of youth trauma exposure, child advocates have encouraged the implementation of trauma-informed approaches in schools. Studies have suggested that schools are uniquely positioned to abet the negative effects of trauma, as interactions in the classroom can help students strengthen their relationships with adults, learn to modulate their emotions and behaviors, and in general, allow them to develop to their full academic potential (Klem & Connell, 2004). Frameworks have been established to help schools respond to trauma-exposed youth in a manner that could fulfill these aims (see Overstreet & Mathews, 2011, for a review). Most approaches to trauma-informed schools involve recognizing and understanding the signs and impact of trauma while

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lessening its effects through multiple methods in the classroom as well as the larger school environment (Wiest-Stevenson & Lee, 2016). In a trauma-informed school model, all staff have a basic understanding regarding trauma and its effects on individuals and communities and are able to recognize its symptoms and respond appropriately to avoid retraumatizing students (Wiest-Stevenson & Lee, 2016). The ultimate goal of trauma-informed approaches, then, is to enact system wide change in institutions such as schools so that staff can understand and effectively respond to the needs of trauma-exposed youth in ways that lessen the impact of their trauma.

However, in order for trauma-informed approaches to have a positive effect on schools, they must first be successfully introduced and installed in that setting. Implementation science provides guidance for integrating such new approaches strategically so that they are effective and sustainable (Metz, Naom, Halle & Bartley, 2015). Implementation science involves a staged approach: implementers first conceptualize the intervention, examining the problem and deciding how to approach it, then begin the initial installation of their methods. After that, the initial implementation begins as the service delivery is first tested in the setting, then the process concludes with the full implementation as the method is completely integrated into the system (Metz, 2015). Staff training plays a significant role in the installation portion of this process, as members of the organization must understand the method being installed and be motivated to change their own behavioral patterns in order to successfully integrate it into the system. Thus, new frameworks such as trauma-informed approaches are often introduced to schools through professional development trainings.

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Preliminary research has shown that with increased knowledge and understanding of trauma and trauma-informed approaches, positive attitudes toward those approaches will grow (Brown, Baker & Wilcox, 2012). Attitudes toward trauma-informed care in this case would be considered positive if the individual a) perceives trauma to be a problem in the school setting, and b) believes he/she can effectively implement trauma-informed measures, among other factors (Brown, Baker & Wilcox, 2012). However, very little research has been conducted in a school setting to determine whether teacher attitudes toward trauma-informed approaches do become more positive following a professional development training. This is a critical gap in the literature because more positive attitudes could result in a higher implementation rate of trauma-informed approaches in the classroom, something that could increase the positive well-being of students as well as their overall academic performance (Muskett, 2013).

The current literature lacks empirical evidence connecting changes in teacher attitudes toward trauma-informed approaches to professional development trainings in a school-based setting. Thus, the first goal of the study is to determine whether a 2-day professional development training in trauma and trauma-informed approaches did influence teacher attitudes toward trauma-informed care (TIC). However, individual-level characteristics may influence teachers' responses to the training. For example, level of familiarity with trauma-informed methods and number of years of experience could impact how teachers respond to training. Studies have shown that teachers tend to view trauma-related interventions favorably when they have prior experience with them (Baweja, Santiago & Vona, 2016). However, in regards to years spent teaching, studies have indicated that teachers with more teaching experience may be less receptive to the

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implementation of new teaching frameworks (Ghaith & Yaghi, 1997). Thus, the second goal of the study is to determine whether initial familiarity with TIC and years spent teaching moderate observed changes in attitudes before and after the training.

Trauma: Definition, Prevalence, and Impact

The concept of trauma encompasses numerous unique experiences, and due to this complexity, has been defined in many distinct manners. The *Diagnostic and Statistical Manual of Mental Disorders* (5th edition) defines trauma as exposure to actual or threatened death, serious injury, or sexual violence through direct experience, witnessing, or learning about such an occurrence to a close family member or friend (American Psychiatric Association, 2013). Examples of traumatic events include a range of experiences, from natural disasters to interpersonal violence or life-threatening medical conditions. This clinical definition of trauma is often expanded within the context of different research studies, with researchers selecting specific types of traumatic events, stressors or particular populations to understand the prevalence and impact of trauma. For example, in the landmark Adverse Childhood Experiences (ACEs; Felitti et.al., 1998) study, events such as separation from a parent and living with a parent with a mental illness were included as indicators of traumatic experiences in addition to clinically defined traumas such as physical abuse. Regardless of the specific operational definition, trauma presents itself as a widespread and prevalent experience for many youth in the U.S. Rates of trauma exposure among children are high: almost two-thirds of U.S. children are estimated to have experienced a traumatic event by age 16 (Copeland et. al, 2007; McLaughlin et. al., 2013).

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The negative impact of trauma has been observed across a range of studies employing different operational definitions of trauma. For example, the ACEs study found a correlation between breadth of exposure to traumatic events in childhood and later life health issues such as substance abuse, depression, and obesity (Felitti et. al., 1998). One of the most common outcomes associated with trauma exposure is PTS (National Institute of Health, 2010). Nationally representative studies estimate that between 10% and 13% of youth who experience trauma demonstrate PTS symptoms following exposure (Copeland et. al., 2007; McLaughlin et. al., 2013). In addition, a national survey from 2003 showed that about 16% of boys and 19% of girls aged 12-17 met criteria for a diagnosis of PTSD, major depressive disorder, or substance abuse following trauma exposure (Kilpatrick et. al., 2003). In New Orleans, negative mental health outcomes associated with trauma exposure are even more prevalent: it is estimated that 20% of trauma-exposed New Orleans youth will experience lifetime PTSD, and 12.4% will develop depression (IWES, 2015).

In addition to negative mental health outcomes, trauma can also lead to learning and behavioral disorders that can inhibit academic success. One study found that 52% of students reporting 4 or more ACEs demonstrated learning and behavioral difficulties in the classroom (Burke et.al., 2011), and a literature review provided evidence that trauma-exposed youth can present externalizing behavioral disorders such as delinquency and aggressive behavior (see Overstreet & Mathews, 2011, for a review). These behavioral issues, along with cognitive problems resulting from trauma such as impaired executive functioning, decreased verbal IQ, and decreased attention span, can impair academic success (Overstreet & Mathews, 2011). This situation has thus created a demand for

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measures to be implemented to offset the negative impact of trauma on classroom learning.

Trauma-Informed Schools as a Response to Youth Exposure

A variety of child-serving systems are responding to the prevalence and impact of trauma by adopting trauma-informed approaches. Trauma-informed approaches are embedded within a framework that involves recognizing and understanding the signs and impact of trauma while lessening its effects through multiple methods (Substance Abuse and Mental Health Services Administration, 2014). The six principles of trauma-informed approaches include safety; trustworthiness and transparency; peer support; collaboration and mutuality; empowerment, voice, and choice; and cultural, historical and gender issues. Adoption of trauma-informed approaches involves system-level change within an organization so that each person within the institution has an adequate knowledge and understanding of trauma-informed practices and can respond appropriately to the needs of trauma-impacted individuals without re-traumatizing them (SAMHSA, 2014). Studies have provided evidence for the success of TIC in entities such as the child welfare system and inpatient mental health settings, as the implementation of trauma-informed methods has been correlated with patients having healthier lifestyles, reduced distress, and increased ability for emotional regulation (see Muskett, 2013, for a review).

Researchers and clinicians have suggested schools to be a promising venue for TIC implementation as well (Wiest-Stevenson & Lee, 2016). In a trauma-informed school model, all school staff members must have a basic understanding of trauma and its impacts, be able to recognize its symptoms, and be capable of effectively and

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empathetically responding to the needs of trauma-exposed students (Wiest-Stevenson & Lee, 2016). Staff at every level of the school system are responsible for engaging in trauma-informed practices. For example, administrators should endeavor to shift school climate to become more trauma-informed by providing education for faculty members on the impact and prevalence of trauma, while teachers should be able to identify, support, and provide for the needs of individual trauma-exposed students (Wiest-Stevenson & Lee, 2016). Thus, the idea of a trauma-informed school in which all school staff members understand the negative impact of trauma and are capable of lessening its effects on exposed students through multiple methods is a promising model for effectively aiding a greater number of trauma-exposed youth.

Implementation Science and Staff Behavior Change

In order to become more trauma-informed, TIC approaches must first be installed in a school system. Implementation science can provide guidance to schools moving toward the adoption of trauma-informed approaches for integrating those new approaches strategically so that they are effective and sustainable (Metz et. al., 2015).

Implementation science involves a staged approach: implementers first conceptualize the intervention, examining the problem and deciding how to approach it, then begin the initial installation of their methods. After that, the initial implementation begins as the service delivery is first tested in the setting, then the process concludes with the full implementation as the method is completely integrated into the system (Metz et.al., 2015).

The first stage of implementation, the exploration stage, occurs before a new program is put in place and involves assessing the needs of that particular setting and

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strategizing about potential methods of installation. In this stage, an implementation team might collect data on pre-existing infrastructure and resources available to support a program, and assess other factors such as staff and organizational capacity and readiness to accept the new program. An organization's staff must be open to the new program and ready to change their behavior to accommodate the program's basic framework in order for the installation of a program such as TIC to work (Metz et. al., 2015). Some researchers have argued that such behavior change among an organization's staff members can be best understood through the application of more general behavior change models developed in health psychology.

The Health Action Process Approach (HAPA) provides one such model for understanding the mechanisms underlying adult behavior change (Schwarzer & Luszczynska, 2008). The HAPA posits that three cognitive variables related to motivation are critical for eventual behavioral changes: risk perception, the individual's belief that there is a problem that needs to be addressed; self-efficacy, the perceived ability of the individual to carry out a change; and outcome expectancies, the individual's beliefs about whether a behavioral change will result in beneficial outcomes. According to the model, if these three motivational variables are present, the individual will then move into the volitional stage in which he/she plans, carries out, and sustains the change in behavior (Schwarzer & Luszczynska, 2008). The model has been examined in a health psychology context with young adults attempting to reduce their cigarette intake and overweight patients trying to restrain their dietary intake, and correlations between the conceptual framework and actual behavior change were satisfactory (Schwarzer & Luszczynska, 2008).

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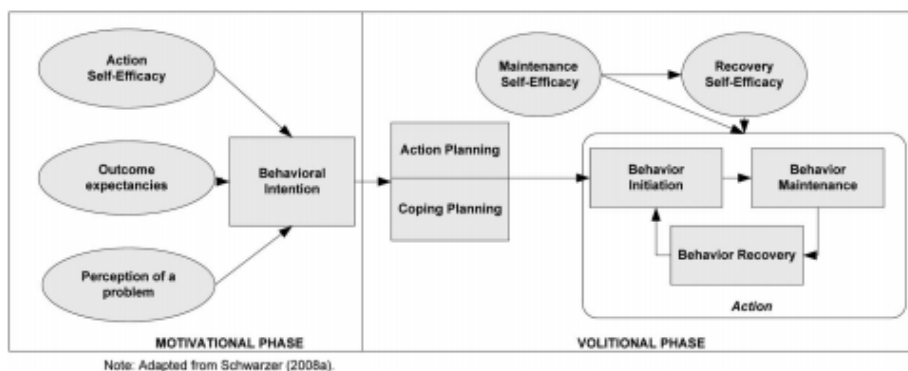


Figure 1. Health Action Process Approach (HAPA) model.

Training, Attitude Changes, and the ARTIC

In addition to its use in health psychology, the HAPA model can also be adapted as a framework for how intervention implementation is conceptualized and supported in other contexts (Sanetti, Kratochwill & Long, 2013). Classroom-based interventions require individual behavior change in order to be implemented and sustained, and thus, the HAPA model can be considered in the context of teacher behavior change (Sanetti et al., 2013). The HAPA model indicates that action self-efficacy, outcome expectancies, and the perception of a problem can lead to a behavioral intention, which is a prerequisite for the behavioral change demanded when adopting new approaches in the classroom (Schwarzer & Luszczynska, 2008). Training in trauma-informed approaches addresses these three motivational aspects of the model. For example, one study demonstrated that after members of congregate care agencies participated in a training on trauma-informed care, they demonstrated an increased understanding about the rationale and core concepts of TIC (perception of the problem); an increase in beliefs favorable to TIC (outcome expectancies); and an increase in self-reported behavior favorable to TIC (self-efficacy; Brown, Baker & Wilcox, 2012). Other research has shown that these positive attitudes toward trauma-informed approaches can be maintained for as long as a year following

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training (Kramer et. al., 2013; Conners-Burrow et. al., 2013). These examples suggest that an increase in knowledge regarding trauma-informed practices can lead to favorable attitudes toward those approaches that may remain relevant long-term.

To date, there is not extensive research on the effectiveness of trauma-specific professional development training in school settings in influencing attitudes and motivation. A recent set of program evaluations of trauma-informed approaches in schools provide preliminary support that training can effectively increase school staff knowledge of trauma. The HEARTS program is a system-wide, multi-tiered approach for creating trauma-informed schools that involves school-wide supports designed to change school culture to become more trauma-informed; increased trauma-informed support systems for at-risk children; and individual interventions for children suffering the impacts of trauma exposure (Dorado et. al., 2016). A critical element of the program was an intensive professional development training designed to increase staff knowledge about the impact of trauma on exposed students and educate them about trauma-sensitive practices. At the end of each year during which the program was implemented, staff members were asked to report on changes in their knowledge, skills, and use of trauma-informed methods as a result of the HEARTS program using a retrospective pre-post method. In this method, staff members reported on both “before” and “after” attitudes at the same time. Results from these surveys indicated that reported knowledge and skills regarding trauma-informed approaches significantly increased following the integration of the program into the school system. This implementation occurred in part as a result of professional development training, suggesting that the training helped influence this shift in staff attitudes (Dorado et. al., 2016).

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Another study also addressed the effectiveness of professional development training in altering staff attitudes about trauma-informed approaches. Staff members participated in a 2-day training and were afterward asked to fill out a survey assessing satisfaction with the PD, with questions assessing whether staff gained knowledge about trauma and whether the training provided them with a useful skill set. This post-test data showed that a majority of participants believed that the training was helpful and that it increased their knowledge of trauma-informed practices, providing some evidence for the effectiveness of similar professional development trainings in creating positive attitudes toward trauma-informed approaches (Perry & Daniels, 2016).

Although these studies provide preliminary evidence indicating that professional development training can shift staff attitudes, more rigorous methods are required to better understand the impact of training. Neither study used a measure of staff attitudes and knowledge with demonstrated reliability and validity. In addition, neither study established baseline staff attitudes before the training took place. The Dorado et al. (2016) study used the retrospective pre-post method, which required participants to recall how they felt before the training after the training was completed. Because participants may not be able to remember precisely how they felt before the training, it is difficult to accurately judge how their attitudes changed pre- and post- training. The Perry and Daniels (2016) study only assessed attitudes post training, making it impossible to document changes over time.

The current study seeks to remedy the methodological issues of previous studies by taking pre- and post- training attitude assessments and by using the psychometrically validated ARTIC scale to determine if attitudes toward trauma-informed approaches can

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be influenced by a professional development training (Baker et. al., 2015). The ARTIC measures attitudes toward TIC through items that assess staff knowledge of and support for trauma-informed methods. The ARTIC has been shown to have strong internal consistency and reliability, making it a viable tool for fulfilling the first goal of the study: accurately assessing changes in attitude before and after professional development training. The ARTIC thus provides methodological advantages over previously used scales designed to measure attitudes toward trauma-informed approaches.

In addition, the ARTIC is consistent with the conceptual framework of the HAPA model. The ARTIC's subscale of underlying causes of behavior corresponds with HAPA's element of perception of a problem. The underlying causes of behavior subscale focuses on teachers' beliefs about the origins of problematic behavior in their students. If the individual holds an attitude unfavorable toward TIC, that person might believe that students' behavioral issues are rooted in mental health conditions rather than a life history of traumatic events (Baker et. al., 2015). If the individual does not believe that behavioral issues come from trauma-related roots, an attitude unfavorable toward TIC, that individual would not perceive trauma to be a problem that needs to be addressed. The HAPA model's component of perception of a problem relates to an individual's belief that there is an issue that must be resolved (Schwarzer & Luszczynska, 2008). Thus, because a favorable attitude on the underlying causes of behavior subscale would indicate that the individual believes trauma is a problem that needs to be resolved, this subscale can serve to operationalize the HAPA model's component of perception of a problem as a motivator for behavior change.

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Likewise, the ARTIC subscales of self-efficacy at work and personal support can operationalize HAPA's component of self-efficacy. The ARTIC defines self-efficacy at work as an individual's belief in his/her ability to successfully meet the demands of working with a traumatized population, while personal support is related to that individual's belief in his/her ability to successfully carry out trauma-informed practices (Baker et. al., 2015). If the individual believes that he/she can meet those demands and carry out those practices, that person would hold a TIC-favorable attitude. In the HAPA model, self-efficacy is defined as one's belief in his/her capability of carrying out a desired action (Schwarzer & Luszczynska, 2008). Thus, the ARTIC scales of self-efficacy at work and personal support can effectively operationalize the HAPA factor of self-efficacy as a component of behavior change, as they describe an individual's belief in his/her own ability to carry out trauma-informed approaches. The other ARTIC subscales—responses to problem behavior, on the job behavior, reactions to the work, and system-wide support for TIC—do not clearly relate to the third HAPA component of outcome expectations, which is linked to whether the individual believes that new behaviors will result in desired outcomes (Sanetti et. al., 2013). Regardless, the ARTIC still provides a good operationalization for the conceptual HAPA model through the connections between its subscales of underlying causes of behavior, self-efficacy at work, and personal support with HAPA's components of perception of a problem and self-efficacy.

Individual-Level Factors that Influence Response to Training

In addition to determining whether attitudes toward trauma-informed approaches change after professional development training, the current study also aims to assess

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whether individual-level factors such as prior familiarity with trauma-informed approaches and years spent teaching can moderate those changes. Staff previously familiar with trauma-informed methods could show more positive attitudes toward TIC both before and after a training, thus showing little change over time, compared to staff unfamiliar with TIC, who might experience a significant increase in positive attitudes following the training. There is limited school psychology literature on attitude changes based on familiarity as a moderator, but much social psychology literature lends support to an idea known as the exposure effect (Zajonc, 1968). The exposure effect is the theory that people tend to prefer familiarity, for example in the form of faces, objects, ideas, etc., over unfamiliarity, which explains why people develop attraction to individuals they see every day and why advertising often works (Brockner & Swap, 1976; Grimes & Kitchen, 2007). Accordingly, people should also have more positive attitudes toward frameworks that are familiar. Therefore, due to the exposure effect, it could follow that individuals who are already familiar with TIC methods would be more likely to have positive attitudes toward TIC both before and after the training than those who are unfamiliar with TIC, and initially unfamiliar trainees should show an increase in positive attitudes after the training when the methods have become more familiar to them.

Individuals who have more years of teaching experience may be less receptive to the relatively new TIC framework than those who have been teaching for fewer years. A previous study showed that when introduced to a new instructional method, teachers with more years of experience were more likely to consider that approach difficult to implement, considered it costlier, and thought of it as less important than inexperienced teachers did (Ghaith & Yaghi, 1997). This evidence indicates that experienced teachers

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may be less receptive to new frameworks than inexperienced ones, making it likely that experienced teachers would thus be less receptive to TIC than their counterparts. A qualitative study similarly indicated that experienced teachers demonstrated strong preferences for traditional teaching methods over new concepts, again suggesting that experienced teachers may be less likely to accept novel frameworks contradictory to their initial beliefs (Williams et al., 2011). Although the literature is limited in terms of directly examining acceptance toward new trauma-informed frameworks, it does suggest that experienced teachers are sometimes unreceptive to new methods and frameworks. This suggests that the experienced teachers in the current study could hold overall more negative and unchanging attitudes toward TIC following the training while inexperienced teachers might show an increase in positive attitudes after the training.

However, in the study, attitudes will be examined using two components of the HAPA model: perception of a problem and self-efficacy. Positive self-efficacy in this context would mean that the individual believes that he/she is capable of handling the demands of the job and working with a traumatized population (Brown, Baker & Wilcox, 2015). Experienced teachers who have been working with such a population for many years may feel more confident about their ability to handle the demands of the work than inexperienced teachers. Thus, experienced teachers are predicted to hold stable and high scores in regards to self-efficacy both before and after the training, while having stable and low scores on perception of a problem measures. Inexperienced teachers are predicted to experience an increase in positive attitudes in regards to both perception of a problem and self-efficacy.

Rationale for the Current Study

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Schools are a promising venue for the integration of trauma-informed approaches. However, in order to successfully create and implement a trauma-informed system, teachers must be willing to change their prior beliefs and behaviors. The HAPA model provides a framework for understanding how individuals are motivated to change their behavior and though initially developed in the context of health psychology, can be effectively applied to a school psychology framework as well (Sanetti et. al., 2013). The HAPA model emphasizes the importance of attitudes in motivating behavior: individuals must perceive that there is a problem, have the self-efficacy to carry out a new approach, and have positive outcome expectations in order to instigate and sustain a behavioral change.

Prior studies have investigated the impact of professional development trainings in instilling positive attitudes toward trauma-informed approaches among school staff members, but are limited in their methodology and scope (Dorado et al., 2016; Perry & Daniels, 2016). The current study seeks to remedy the methodological issues associated with prior studies through its use of the psychometrically validated ARTIC scale, a measure that can also operationalize the conceptual elements of the HAPA model (Baker et. al., 2015). Through the use of this measure in a pre-post design, the current study seeks to determine the impact of professional development training on individual teachers' attitudes in two separate areas: their perception of trauma as a problem underlying student behavior, and their personal self-efficacy in implementing trauma-informed approaches. It is hypothesized that attitudes toward TIC will become more aligned with trauma-informed approaches after professional development training in trauma-informed principles.

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Prior studies have suggested that individual differences could moderate this relationship. For example, levels of prior familiarity with trauma-informed approaches and years of experience could influence teachers' individual responses to the professional development training. Thus, the current study will also investigate the following two hypotheses. First, teachers who are familiar with trauma-informed approaches will report favorable attitudes that remain stable over time, while teachers unfamiliar with such approaches will develop more positive attitudes after the training. Second, teachers with more years of experience in their field will have attitudes that remain stable over time, while teachers with less experience will have more positive attitudes post-training.

Method

Participants

The study used data collected from teachers at six New Orleans area primary and secondary charter schools before and after professional development training in trauma-informed approaches given in July and August of 2015. A total of 248 school staff members participated in the training across the six schools. However, the current study only examined results based on a sample of 163 teachers within that group. These teachers completed a survey to provide demographic information including: age, gender, race, prior familiarity with trauma-informed care, years teaching, grade level taught, years spent working in the current job role, years spent working at the current school, and years spent working in the education field. The majority of participants were female ($N = 112$, 68.7%), White ($N = 96$, 58.9%), and had completed a 4-year college degree program with no further education ($N = 88$, 54%). Additionally, a majority of the teachers were relatively new to their role, having entered it within the last 1-5 years ($N = 106$, 65%).

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The participants were mostly “a little” familiar with trauma-informed approaches ($N = 78$, 47.9%). See Table 1 for further demographic information.

Procedures

The participating schools were selected to be a part of the New Orleans Trauma-Informed Schools Learning Collaborative, an organization comprised of a faculty of professionals from the fields of social work, psychology, and public health. The Learning Collaborative was established to provide support to schools as they adapt their school climate to become more trauma-sensitive, and to help build their organizational capacity to implement, sustain, and continually improve the delivery of trauma-informed approaches. The six participating schools were selected from a pool of 13 applications to join the collaborative and represent an equal mix of K-8 and high schools. The schools were chosen based on indicators of readiness to implement trauma-informed approaches, including leadership commitment and the presence of existing practices aligned with trauma-informed care such as screening for social-emotional risk, use of social-emotional learning curriculum, etc.

Learning Collaborative schools were required to have staff members participate in a two-day professional development training in trauma-informed approaches during the summer of 2015, prior to the start of the 2015-16 school year. The training focused on creating a common understanding of trauma and its impact, building consensus for the effectiveness of trauma-informed approaches, and detailing how to apply the principles of trauma-informed care in schools to create a safe and supportive school environment. The training was based on resources from the National Child Traumatic Stress Network, SAMHSA, and the Trauma and Learning Policy Initiative and through consultation with

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the coordinator and a faculty trainer of the *Risking Connection* program (NCTSN, n.d.; SAMHSA, 2014; Cole, 2013). Immediately prior to the training, evaluation packets were explained and distributed to teachers and school staff. These packets included informed consent forms, demographic forms, a survey of attitudes using the ARTIC scale, and an assessment of the individual's prior knowledge of trauma-informed methods. After completing the two-day training, participants were immediately asked to complete some of the same measures (knowledge assessment, the ARTIC scale) as well as new measures to assess perceptions of acceptability, feasibility, and system climate related to trauma-informed approaches (not included in the current study).

Measures

Demographic information. Teachers completed a survey to provide demographic information including: age, gender, race, prior familiarity with trauma-informed care, grade level taught, years spent working in the current job role, years spent working at the current school, and years spent working in the education field. This study specifically examined prior familiarity with trauma-informed care and years spent working in the current job role as moderators of attitude change. The familiarity item was presented in the form of the question “how familiar are you with trauma-informed care?” with four possible answers: not at all familiar (coded as 1), a little familiar (2), moderately familiar (3) and very familiar (4). The years in role item was presented as the statement “years in your current job role”, with six options provided: less than 1 year, 1-5 years, 6-10 years, 11-15 years, and greater than 20 years. Two other demographic variables measured in the training were also related to experience: years at the current school and years spent working in the education field. However, the years in role item

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best operationalizes years of teaching experience because years at the current school and years in field could include work outside of being a teacher. Years in the current job role, however, ensures that the variable specifically explores years of teaching experience, making it the best available demographic to examine the variable of interest in this study.

Attitudes Related to Trauma-Informed Care scale. Prior to and after the training, teachers completed the ARTIC scale (Baker et. al., 2015). The ARTIC measures attitudes toward trauma-informed approaches and contains 75 items with seven subscales designed to measure the most integral components of attitudes supportive of TIC implementation. Example ARTIC items are presented in Appendix A. Of the ARTIC's seven subscales, there are five core subscales focused on measuring attitudes favorable toward TIC and two supplemental subscales examining individual and system wide support of TIC efforts (Baker et. al., 2015). Individual subscales include (a) underlying causes of problem behavior and symptoms, (b) responses to problem behavior and symptoms, (c) on-the-job behavior, (d) self-efficacy at work, (e) reactions to the work, (f) personal support of TIC, and (g) system-wide support for TIC (Brown, Baker & Wilcox, 2015).

The ARTIC was evaluated in a sample of 760 service providers, including 595 who worked in human services, community-based mental health, or health care, and a subsample of 165 who worked in schools (Baker et al., 2015). Internal consistency reliability, calculated using Cronbach's alpha, was shown to be acceptable for the composite score of the ARTIC ($\alpha = .93$), with the lowest reliability in the "reactions to work subscale" ($\alpha = .71$) and the highest in "system-wide support for TIC" ($\alpha = .81$). Some participants completed the test a second time, and test-retest correlations calculated

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using Pearson's r were also strong, with correlations of .84 at < 120 days, .80 at 121–150 days, and .76 at 151–180 days (Baker et. al., 2015).

In addition to the ARTIC's overall internal consistency and temporal reliability, its subscales also provide a good representation of the elements that comprise attitudes toward trauma-informed approaches. The current study focuses on measuring changes in the subscales of underlying causes of behavior, self-efficacy at work, and personal support, as these three subscales correspond most closely with the HAPA model's emphasis on risk perception and self-efficacy. The underlying causes of behavior subscale involves beliefs regarding the roots of problem behavior. A TIC-favorable attitude in the context of this subscale would be that student problem behavior occurs due to a history of trauma and difficult life events, while a TIC-unfavorable attitude would be to attribute this behavior to other sources (Baker et. al., 2015). This subscale thus corresponds with HAPA's emphasis on risk perception in that a teacher with TIC-favorable attitudes would believe that problem behavior roots from trauma, therefore perceiving trauma to be a problem. Likewise, the personal support and self-efficacy at work subscales correspond with HAPA's self-efficacy construct. The personal support subscale reports concerns about implementing trauma-informed approaches, while the self-efficacy at work subscale documents concerns about meeting the demands of working with a traumatized population (Baker et. al., 2015). Both subscales thus relate to HAPA's definition of self-efficacy in that they involve an individual's beliefs about his/her ability to carry out trauma-informed approaches, and thus, both subscales operationalize the construct of self-efficacy. Additionally, in the current sample, all three subscales demonstrated strong internal consistency from pre- to post- training, with the

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underlying causes of behavior subscale having a Cronbach's alpha of $\alpha = .82$; the self-efficacy at work subscale having one of $\alpha = .81$; and the personal support subscale having one of $\alpha = .82$.

The current study examined the scores of each individual on these ARTIC subscales before and after the training as a method of measuring how participants' attitudes toward and support for TIC practices changed from pre- to post-training. Three paired-samples t-tests were conducted to test hypothesis 1, with the first examining changes in the underlying causes of behavior subscale, the second in the self-efficacy at work subscale, and the third in the personal support subscale. To test hypothesis 2, changes in attitudes toward trauma-informed care were examined through three regression analyses with the pre-subscale score as the independent variable, familiarity as the moderator, and the post-subscale score as the dependent variable. The pre-subscale score and familiarity measure were centered before conducting any analyses, and a centered pre-subscale score by familiarity interaction term were examined to determine if the predicted moderation is present. Standardized betas were used to interpret the results. Finally, to test hypothesis 3, changes in attitudes were examined through a similar set of regression analyses with the pre-subscale score as the independent variable, years in role as the moderator, and the post-subscale score as the dependent variable. The pre-subscale score and years in role variable were again centered before conducting any analyses, and a centered pre-subscale score by years in role interaction term were examined. Again, standardized betas were used to interpret the results.

Results

Descriptive Information on Study Variables

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Before conducting any analyses, data were screened to account for missing data, outliers, skew, and to identify significant correlations among study variables. While there were no missing data in the underlying causes of behavior subscale or the self-efficacy at work subscale, there were numerous instances of missing data in both the pre- and post-personal support subscale due to the inclusion of a “not applicable” option in that scale. Only 57 of the 163 teachers in the sample responded to both pre- and post- personal support measures. Although this missing data could not be accounted for in the analysis, correlations between the pattern of missing data and the separate demographics of familiarity and years in role were examined. Familiarity was significantly correlated with the missing data ($r = .18$ $n = 163$, $p = .02$). Years in role did not share this correlation with the missing data. These results will be discussed further in the limitations section.

In addition to the missing data, there were two outliers in the self-efficacy at work subscale scores. Winsorization is a method that allows researchers to account for outliers by changing an extreme score to reflect the next most extreme score (Keselman et. al., 2002). Winsorization was applied to both of the two extreme outliers in the data set. Skewness and kurtosis were examined in the ARTIC subscales of underlying causes of behavior, self-efficacy at work, and personal support. Each of the subscales demonstrated slight negative skew, but that skew was in an acceptable range of greater than -2 and less than +2, showing that the distributions do not violate the assumption of normality (Curran, West & Finch, 1996). Kurtosis was also in an acceptable range of greater than -2 and less than +2, again showing no violation of normality. Descriptive statistics regarding the data, including means, standard deviations, and frequencies, are presented in Table 2.

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Correlations among the study variables are presented in Table 3. There were significant, positive correlations between the pre- and post-scores for each of the subscales: underlying causes of behavior ($r = .69, n = 163, p < .001$), self-efficacy at work ($r = .70, n = 163, p < .001$) and personal support ($r = .27, n = 57, p < .001$). These results show some consistency among individual responses from pre- to post- timepoints. Additionally, familiarity was correlated with both the pre- and post-underlying causes of behavior subscale and the pre-personal support subscale. The familiarity results mirror those of Baker et. al. (2015), in which the researchers found strong correlations between familiarity and the underlying causes of behavior and personal support subscales. Thus, consistent results were found across studies.

Changes from pre-training to post-training

Hypothesis 1. It was hypothesized that attitudes toward TIC would become more trauma-informed following professional development training focused on trauma and trauma-informed principles. The subscales of underlying causes of behavior, self-efficacy at work, and personal support were examined, and results were significant for each of the three subscales. Teacher attitudes regarding underlying causes of behavior were more trauma-aligned after the training (pre-training $M = 5.31, SD = .79$; post-training $M = 5.77, SD = .78; t(162) = -9.53, p < .001$) than before. Likewise, teachers reported significantly increased self-efficacy at work for trauma-informed approaches after the training (pre-training $M = 5.50, SD = .88$; post-training $M = 5.81, SD = .78; t(162) = -5.77, p < .001$), as well as more personal support for trauma-informed approaches (pre-training $M = 5.61, SD = .98$; post-training $M = 6.01, SD = .80; t(56) = -2.83, p = .007$).

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Hypothesis 2. It was hypothesized that teachers more familiar with trauma-informed approaches would report favorable attitudes that remain stable over time, while teachers unfamiliar with such approaches would develop more positive attitudes after the training. There was no significant interaction of pre-test scores with familiarity, indicating that pre-test scores combined with levels of familiarity did not relate to post-test scores and thus that the predicted moderation was not present. However, the main effect of pre-score was significant for all analyses (underlying causes of behavior: $\beta = .73, p < .001$; self-efficacy at work: $\beta = .60, p < .001$; and personal support: $\beta = .23, p = .03$), and for the underlying causes of behavior subscale, there was a significant main effect of familiarity, ($\beta = -2.00, p = .047$). While the predicted interaction was not present, the main effect of familiarity indicates a trend favorable to the hypothesis, showing that less familiarity with trauma-informed approaches was associated with higher post-test scores. These results are presented in Table 4. No significant results for the main effect of familiarity were obtained when self-efficacy at work and personal support were examined as the dependent variables. These numbers are shown in Tables 5 and 6.

Hypothesis 3. It was also hypothesized that teachers with more years of teaching experience would hold attitudes that remained stable over time, while those with less teaching experience would have more trauma-aligned attitudes following the training. As with familiarity, there was no significant interaction effect, indicating that pre-test scores did not interact with teaching experience to influence post-test scores and again showing that the predicted moderation was not present. However, again similarly to familiarity, the main effect of pre-score was significant for all analyses (underlying causes of

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behavior: $\beta = .66, p < .001$; self-efficacy at work: $\beta = .61, p < .001$; and personal support: $\beta = .23, p = .03$), and there was a significant main effect of years in role ($\beta = -.15, p = .008$) on attitudes regarding underlying causes of behavior. The main effect of years in role again shows a trend favorable to the hypothesis, indicating that less teaching experience was associated with increased trauma-aligned attitudes on the underlying causes of behavior subscale after the training, although the predicted interaction was not found. These results are presented in Table 7. No significant results for teaching experience were obtained when self-efficacy at work and personal support were examined as the dependent variables. These results are shown in Tables 8 and 9.

Discussion

Prior research suggests that professional development trainings have the potential to impact teacher attitudes toward trauma-informed approaches (Dorado et al., 2016; Perry & Daniels, 2016; Sanetti et. al., 2013). Accordingly, it was hypothesized that after a training on trauma and trauma-informed approaches, teacher perceptions of trauma as a problem influencing student behavior and teacher perceptions of self-efficacy in the use of trauma-informed approaches would shift to become more aligned with trauma-informed approaches. These constructs were operationalized using three ARTIC subscales: underlying causes of behavior (perception of a problem), self-efficacy at work, and personal support (components of self-efficacy). As hypothesized, teacher attitudes about underlying causes of behavior, self-efficacy at work, and personal support all became significantly more trauma-aligned following the training. However, it is important to note that even before the training, attitudes were initially positive, with scores around 5 on a Likert scale of 1-7, and then became even more positive following

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the training, with scores closer to 6. This indicates that teachers already had a good amount of support for trauma-informed approaches prior to the training, and the training increased those already positive attitudes.

This initial positivity toward trauma-informed approaches could be a result of the unique characteristics of the sample. Administrators chose to apply for and opt in to the Learning Collaborative in an effort to make their schools more trauma-informed. Thus, staff members in these schools may have already been receiving messages regarding the importance of trauma-informed approaches from school administrators, leading to pre-existing positive attitudes prior to the training. This notion is supported by similar circumstances in the Dorado et al. (2016) study, where schools willingly chose to opt in to the HEARTs trauma-informed program. Pre- training attitudes were moderately positive ($M = 2.53$ on the knowledge of trauma item, a 1-5 Likert scale) moving to become even more positive ($M = 3.97$ on the same item) after the training (Dorado et. al., 2016). Staff attitudes may thus have been more easily swayed by the training due to a pre-existing school culture of support for trauma-informed approaches. Further research investigating the effects of trauma-focused professional development training in settings with less pre-existing regard for trauma-informed approaches could be useful for determining whether a training would have an equal impact on that population.

Regardless of initial attitudes, results supported the hypothesis that perception of trauma as a problem and self-efficacy in carrying out trauma-informed approaches would increase among teachers following the professional development training. It was also predicted that these changes would be moderated by the demographic characteristics of familiarity and years in role. These predictions were not supported. However, although

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moderation was not present, there were some significant, unexpected results in regards to main effects. For perception of trauma as a problem, main effects showed that teachers who were less familiar with trauma-informed approaches tended to experience greater growth in trauma-informed attitudes than familiar ones. These results can be related to a study by Baker and colleagues (2015), who found a significant correlation between familiarity with trauma-informed care and attitudes on the underlying causes of behavior subscale. Specifically, they found that participants more familiar with trauma-informed care indicated more trauma-aligned attitudes on the underlying causes of behavior subscale in general, outside of the context of professional development training. The current results indicate that initially unfamiliar participants who become more familiar with trauma-informed approaches due to a training have attitudes that become more trauma-aligned after the training. This result is thus consistent with that of prior research showing that levels of familiarity can be linked to beliefs regarding the perception of trauma as a problem for students in the classroom.

Post-training attitudes regarding the perception of trauma as a problem were also related to teachers' years of experience in their role. Teachers with less experience had significantly more trauma-aligned attitudes after the training. This again supports prior results, as research has indicated that teachers with more experience are more likely to negatively appraise novel interventions and less likely to change their attitudes and beliefs as the result of a training (Ghaith, 1997). Less experienced teachers in the current study demonstrated trauma-aligned attitudes regarding perception of a problem after the training, results that strongly relate to that prior research.

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While familiarity and years in role were both associated with changes in attitudes in regards to perception of a problem, neither variable was significantly related to the self-efficacy measures of personal support and self-efficacy at work. A possible explanation for this could be that the ARTIC scales of personal support and self-efficacy at work do not adequately operationalize the HAPA construct of self-efficacy. Although both measures were included in the study to describe the same concept, the pre-scores on the scales were not significantly correlated with one another (pre-training self-efficacy at work and personal support: $r = .07$; see Table 3). This lack of correlation suggests that although the study conceptualized these two subscales as indicators of the same construct, the two scales seemed to measure independent constructs. The missing data in the personal support subscale is also problematic as it decreases the reliability of the scale. Overall, these issues make it difficult to determine which subscale, if either, actually measured self-efficacy as defined by HAPA. In order to account for this issue, future researchers could employ a more precise operationalization of self-efficacy to determine the effects of a training on that construct.

The self-efficacy scale developed by Kao and colleagues (2014) might serve as a better tool for this operationalization. The researchers developed the scale as a method of measuring the self-efficacy of elementary school teachers in applying new practices following a web-based professional development training. The 5-point Likert scale, which demonstrates acceptable internal consistency ($\alpha = .92$), includes items such as, “after attending web-based professional development, I feel confident about enhancing my teaching performance” (Kao et. al., 2014). The HAPA model defines self-efficacy as one’s belief in his/her capability of carrying out a desired action (Schwarzer &

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Luszczynska, 2008). These items thus capture the HAPA model's definition of self-efficacy by measuring the individual's beliefs about his/her ability to successfully apply knowledge gained from the training to future classroom practices. Additionally, these items directly relate to self-efficacy following professional development training, ideal for the purposes of this study. Thus, future researchers could consider applying an adapted version of this scale to better operationalize self-efficacy in the context of professional development training.

Regardless of the precise meaning of the constructs, the results showed that the self-efficacy at work and personal support subscales were not affected by familiarity or years teaching. A possible explanation for this could be that the underlying causes of behavior subscale is more knowledge-based than the self-efficacy at work and personal support subscales. The items in the underlying causes of behavior subscale are directly linked to knowledge regarding the influence of trauma on behavior, while the items for self-efficacy at work and personal support are more linked to the individual's emotions and personal beliefs regarding his/her own ability to carry out trauma-informed approaches. Thus, the items on the underlying causes of behavior scale are more linked to objective knowledge that the training can easily provide while the other two scales are more connected to subjective ratings of personal beliefs that are more difficult for a single training to influence. Future trainings could better address this issue by increasing the skill building components of the training and providing more supportive coaching for teachers in the classroom in order to improve those attitudes.

Demographics could also play a role in that unfamiliar and inexperienced teachers would gain more knowledge from the training than familiar and experienced teachers

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already had, leading to the observed trends in regards to the perception of trauma as a problem. It intuitively makes sense that these differences would exist: individuals lacking prior knowledge will learn more from a training than those who do have prior knowledge. However, self-efficacy is more complex. A number of factors, which can include the demographic characteristics of familiarity and years in role emphasized by this study, but also others such as school support, beliefs about the relevance of the training to classroom realities, individual experiences, and personal confidence levels, can all play a role in shaping self-efficacy. When so many factors are at play, it becomes more difficult to make generalizations based on one characteristic in particular. This could be the reason that these results did not show trends based off of familiarity and years in role—there are so many other factors that go into changing self-efficacy that differences in one of these demographics may not lead to observable trends. However, with knowledge, any individual who initially lacks knowledge will experience a greater increase in knowledge following a training as compared to someone who was already informed in that area. A separate study could thus test the idea that knowledge is more related to levels of familiarity and years in role than self-efficacy by using a more knowledge-based rating, such as the URPI-R knowledge of trauma-informed approaches scale, with familiarity and experience as moderators to see if knowledge is indeed the reason for those differences (Briesch, 2013).

Overall, the results of the study indicate that professional development training in trauma-informed care may have an impact on increasing teachers' perceptions of trauma as a problem and their personal self-efficacy for carrying out trauma-informed approaches. However, there are some limitations to the current study. As previously

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mentioned, the study utilized a unique sample of teachers. Specifically, these teachers worked at schools that were part of the Learning Collaborative, suggesting that they were already inclined to hold positive attitudes toward trauma-informed measures due to school climate. This presents a limitation to the study, as teachers already held positive attitudes toward trauma-informed measures at the pre-training time point, making them perhaps more receptive to the training than they would be otherwise. Future research could address this limitation by examining the effects of a professional development training on these measures in a less TIC inclined school environment.

In addition, the current study used a simple pre-post design with no control or comparison groups to determine if the training was the main factor responsible for the shift in attitudes. Because the school administrations had already committed to trauma-informed practices through their admittance into the Learning Collaborative and were thus already in the process of becoming trauma-informed prior to the training, the observed positive change in attitudes may be a natural result of shifting school climate rather than a result of the training itself. The inclusion of a control group that did not participate in the training but did belong to a school in the Learning Collaborative would be useful for determining if the training does indeed directly influence these attitudes. The current study also does not address change in attitudes over time. Future research into how these attitudes are both formed and maintained over time would be useful for determining if there are long-lasting effects of the training, something integral to the successful maintenance of a trauma-informed school.

Another methodological limitation to the study involves the number of analyses conducted. Overall, the study employed nine separate tests—three t-tests and six

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regressions—to draw conclusions regarding the hypotheses. Multiple hypothesis testing can lead to an increase in the family-wise error rate: the probability of discovering a false positive and rejecting a true null hypothesis (Machado, 2015). Thus, due to the multiple tests, the results may have shown statistically significant results when there were none. Replication and the reduction of the number of analyses conducted in the future could serve to alleviate this issue.

In addition to these methodological limitations, the study was also limited by missing data in the personal support subscale. There was a significant correlation between level of familiarity with trauma-informed approaches and the pattern of missing data. Likely, individuals who were less familiar with trauma-informed approaches tended to put “not applicable” on the personal support subscale because those items asked about the individual’s personal support for trauma-informed approaches. If an individual had no prior experience with trauma-informed approaches, those items would not be applicable to him/her. Due to this situation, the current study failed to capture any increase in positive attitudes that arose from participants lacking familiarity with trauma-informed approaches and then gaining positive attitudes post-training. Future research could involve a different measure of personal support, or researchers could consider omitting the “not applicable” option on the ARTIC’s personal support subscale when administering the measure.

Finally, the study was somewhat theoretically limited in that the ARTIC did not have a subscale that corresponded appropriately with the third component of the HAPA model, outcome expectancies. According to HAPA, outcome expectancies are just as integral a part of potential attitude change as perception of a problem and self-efficacy.

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Thus, for the current study to fully investigate the role of these three components in creating attitude change, a measure for outcome expectancies would be needed. Future research can address this limitation through the reworking of measures such as the Costs and Benefits scale, designed to examine outcome expectancies in a health psychology context, to apply to a school setting (Solomon & Annis, 1989).

These limitations aside, the results of the current study hold positive implications for the trauma-informed school effort. This research shows that professional development training can influence attitudes in regards to perception of a problem and self-efficacy to become more positive following the training. According to the HAPA model, these positive attitudes can lead to behavioral change, increasing the likelihood that teachers will fully and faithfully administer trauma-informed approaches in their classrooms. The research also shows that familiarity and years of experience are related to beliefs about underlying causes of behavior. This result can be useful for the individuals administering the trainings, as it can alert them to which teachers might have more hesitations regarding the implementation of the new program. Overall, these preliminary results suggest that professional development trainings in trauma-informed approaches have the potential to shift teacher attitudes and beliefs, something that will allow for the full implementation of trauma-informed programs that will ultimately benefit trauma-impacted students.

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Table 1

Demographic Characteristics of the Sample

Demographic Category	n (%)	Overall (N = 163)
Gender		
Female		112 (68.7)
Male		52 (31.3)
Age		
18-24		42 (25.8)
25-34		97 (59.5)
35-44		13 (5.5)
45-54		9 (8)
55-65		2 (1.2)
Education		
Some college		1 (.6)
Completed college		88 (54)
Some graduate school		24 (14.7)
Completed graduate school		50 (30.7)
Race		
Hispanic		12 (7.4)
White		96 (58.9)
Black		57 (35)
American Indian		6 (3.7)
Asian		7 (4.3)
Native Hawaiian or Pacific Islander		1 (.6)
Other		11 (6.6)
How Familiar		
Not at all familiar		66 (40.5)
A little familiar		78 (47.9)
Moderately familiar		17 (10.4)
Very familiar		2 (1.2)
Years in Role		
< 1		35 (21.5)
1-5		106 (65)
6-10		13 (8)
11-15		5 (3.1)
16-20		2 (1.2)
>20		2 (1.2)

ATTITUDES PRE- AND POST- TRAINING

Table 2

Descriptive Statistics on Variables of Interest

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Pre- Underlying Causes	163	2.86	6.71	5.308	.7859
Pre- Self Efficacy	163	1.71	7.00	5.504	.877
Pre- Personal Support	59	3.33	7.00	5.578	1.010
Post- Underlying Causes	163	3.14	7.00	5.764	.776
Post- Self Efficacy	163	3.29	7.00	5.806	.780
Post- Personal Support	125	3.00	7.00	6.079	.844
Level of Familiarity	163	1.00	4.00	1.724	.696
Years in Role	163	1.00	6.00	2.012	.853

ATTITUDES PRE- AND POST- TRAINING

Table 3

Correlations between Variables of Interest

Measure	1	2	3	4	5	6	7	8
1. Level of Familiarity	--	--	--	--	--	--	--	--
2. Years in Role	.027	--	--	--	--	--	--	--
3. Pre-Underlying Causes	.376**	-.140	--	--	--	--	--	--
4. Pre- Self Efficacy	.126	.093	.154*	--	--	--	--	--
5. Pre- Personal Support	-.057	-.052	.227*	.074	--	--	--	--
6. Post-Underlying Causes	.156*	-.245**	.693**	.098	.147	--	--	--
7. Post- Self Efficacy	.140	.007	.250**	.696**	-.076	.325**	--	--
8. Post- Personal Support	.113	.046	.256**	.261**	.274*	.483**	.455**	--

**Indicates significance at the $p < 0.01$ level.

*Indicates significance at the $p < 0.05$ level.

ATTITUDES PRE- AND POST- TRAINING

Table 4

Results of Regression Analysis Testing the Moderating Role of Familiarity on Underlying Causes of Behavior

Variable	Model 1			Model 2				
	R ²	ΔR ²	ΔF	β	R ²	ΔR ²	ΔF	β
Pre-Underlying Causes of Behavior	.493	.493	77.913	.730	.496	.002	.732	.732
Centered Familiarity	.493	.493	77.913	-.136*	.496	.002	.732	-.146*
UCB x Familiarity	--	--	--		.496	.002	.732	.065

*indicates significance at the $p < .05$ level

ATTITUDES PRE- AND POST- TRAINING

Table 5

Results of Regression Analysis Testing the Moderating Role of Familiarity on Self Efficacy

Variable	Model 1			Model 2				
	R ²	ΔR ²	ΔF	β	R ²	ΔR ²	ΔF	β
Pre- Self Efficacy	.473	.473	109.77	.678	.476	.003	1.48	.688
Centered Familiarity	.473	.473	109.77	.046	.476	.003	1.48	.029
SE x Familiarity	--	--	--		.476	.003	1.48	.059

*indicates significance at the $p < .05$ level

ATTITUDES PRE- AND POST- TRAINING

Table 6

Results of Regression Analysis Testing the Moderating Role of Familiarity on Personal Support

Variable	Model 1			Model 2				
	R ²	ΔR ²	ΔF	β	R ²	ΔR ²	ΔF	β
Pre- Personal Support	.068	.068	8.84	.268	.091	.024	6.32	.225
Centered Familiarity	.068	.068	8.84	.048	.091	.024	6.32	.083
PS x Familiarity	--	--	--		.091	.024	6.32	.166

*indicates significance at the $p < .05$ level

ATTITUDES PRE- AND POST- TRAINING

Table 7

Results of Regression Analysis Testing the Moderating Role of Years in Role on Underlying Causes of Behavior

Variable	Model 1			Model 2				
	R ²	ΔR ²	ΔF	β	R ²	ΔR ²	ΔF	β
Pre-Underlying Causes of Behavior	.503	.503	80.909	.672	.506	.003	1.070	.671
Centered Years in Role	.503	.503	80.909	-.150*	.506	.003	1.070	-.128*
UCB x Years in Role	--	--	--		.506	.003	1.070	.062

*indicates significance at the $p < .05$ level

ATTITUDES PRE- AND POST- TRAINING

Table 8

Results of Regression Analysis Testing the Moderating Role of Years in Role on Self-Efficacy

Variable	Model 1			Model 2				
	R ²	ΔR ²	ΔF	β	R ²	ΔR ²	ΔF	β
Pre- Self Efficacy	.471	.471	108.90	.686	.472	.001	.569	.688
Centered Years in Role	.471	.471	108.90	.008	.472	.001	.569	.001
SE x Years in Role	--	--	--		.472	.001	.569	.036

*indicates significance at the $p < .05$ level

ATTITUDES PRE- AND POST- TRAINING

Table 9

Results of Regression Analysis Testing the Moderating Role of Years in Role on Personal Support

Variable	Model 1			Model 2				
	R ²	ΔR ²	ΔF	β	R ²	ΔR ²	ΔF	β
Pre- Personal Support	.059	.066	8.69	.251	.067	.001	.245	.256
Centered Years in Role	.059	.066	8.69	-.033	.067	.001	.245	-.044
PS x Years in Role	--	--	--		.067	.001	.245	-.033

*indicates significance at the $p < .05$ level

ATTITUDES PRE- AND POST- TRAINING

Appendix A

*Underlying Causes of Behavior Sample Items****I believe that...***

	1	2	3	4	5	6	7		
1	Students' learning and behavior problems are rooted in their behavioral or mental health condition.			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Students' learning and behavior problems are rooted in their history of difficult life events.
6	The students were raised this way, so there's not much I can do about it now.			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	The students were raised this way, so they don't yet know how to do what I'm asking them to do.
11	Many students just don't want to change or learn.			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	All students want to change or learn.

Self-Efficacy Sample Items

4	I don't have what it takes to help my students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	I have what it takes to help my students.
9	I have the skills to help my students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	I do not have the skills to help my students.
14	Each day is uniquely stressful in this job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Each day is new and interesting in this job.

*Personal Support Sample Items****I believe that...***

	1	2	3	4	5	6	7	N/A	
36	Students react positively to the trauma-informed care approach.			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Students react negatively to the trauma-informed care approach.
38	The trauma-informed care approach takes too much time.			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	The trauma-informed care approach saves time in the long run.
42	I am able to carry out all my responsibilities with respect to the trauma-informed care approach.			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	I am not able to carry out all my responsibilities with respect to the trauma-informed care approach.

Biography

Juliana Vanderburg is a 2016 graduate of Tulane University, achieving a Bachelor's of Science in Psychology and a minor in Spanish. After completing her undergraduate degree in December of 2016, she stayed at Tulane University to pursue her Master's of Science in Psychological Sciences, completing the degree in August 2017. A member of Phi Beta Kappa, she graduated from Tulane with honors. She will serve with AmeriCorps during the 2017-2018 school year and then hopes to complete a Ph.D. program in school psychology.