Chapter 15

Trauma-Informed Practices in Schools Across Two Decades: An Interdisciplinary Review of Research

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Attention to childhood trauma and the need for trauma-informed care has contributed to the emerging discourse in schools related to teaching practices, school climate, and the delivery of trauma-related in-service and preservice teacher education. However, though trauma-informed systems of care include schools, empirical work informing trauma-informed teaching and teacher education that is reflected back to those audiences is less established. This interdisciplinary overview and synthesis of literature examined interventions used in schools to determine the dominant framework used for promoting and practicing trauma-informed care in schools and the effectiveness of school-based supports for trauma-affected youth to identify implications for changing teaching practice. While multiple disciplines conduct research using different methodologies examining trauma-informed practices in schools, educators are underexamined in this work. Additionally, education researchers began engaging in research on trauma-informed practices in schools more recently, and as such, research emanating from education researchers comprises a small portion of this review. Drawing across the work, we offer recommendations for a more robust, interdisciplinary research agenda with the intentional purpose to change teacher practice.

Literature around trauma-informed systems of care include schools, with the teachers and staff who work in them, as components of multitiered systems of supports (Chafouleas, Johnson, Overstreet, & Santos, 2016). However, the empirical work informing trauma-informed teaching and teacher education that is reflected back to education audiences is less established, "specifically studies that examine

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particular moves educators make" (Alvarez, 2017, p. 55). This chapter includes an interdisciplinary overview and synthesis of literature examining interventions used in schools that attend to this need by explicitly analyzing and synthesizing existing work aimed at identifying implications for changing teaching practice.

Attention to childhood trauma and the need for trauma-informed care has contributed to the emerging discourse in schools related to teaching practices, school climate, and the delivery of trauma-related in-service and preservice teacher education (Cole et al., 2005; Crosby, 2015; Day et al., 2015; Oehlberg, 2008). Psychological trauma includes experiences or events that are perceived as harmful, create intense distress, and affect an individual's overall well-being (Substance Abuse and Mental Health Services Administration [SAMHSA], 2014). Complex trauma is the result of consistent or repeated traumatic exposure over a period of time, generally resulting in significant dysfunction or reduced well-being (Wolpow, Johnson, Hertel, & Kincaid, 2009). Research has shown that psychological trauma is commonly experienced by children and adolescents (Costello, Erkanli, Fairbank, & Angold, 2002). For example, almost two thirds of adults have reported experiencing adverse emotional events (i.e., trauma) during childhood (Anda et al., 2006). Research has also shown that such trauma in childhood is associated with impediments in school performance, as social, emotional, cognitive, and even brain development can be significantly impeded by traumatic stress (Perfect, Turley, Carlson, Yohanna, & Saint Gilles, 2016). Childhood trauma can negatively affect a students' capacity for self-regulation, organization, comprehension, and memorization (Wolpow et al., 2009), affecting students academically and socially throughout their school experiences.

In schools, trauma-informed education, also referred to as trauma-informed practices, requires administrative buy-in and support, trauma-sensitive classroom practices, positive and restorative responses to behavior, policy and procedure changes, teacher and staff professional development, and strong cross-system collaboration among school staff and mental health professionals (Oehlberg, 2008). Such an approach has been suggested as a means of improving student performance and retention as well as school climate (Oehlberg, 2008). Educators seeking information and resources for trauma-informed practices may locate advocacy and policy articles, as well as organizations that publish guides, toolkits, and best practices. These sources frequently build upon scientific literature to make the case for classroom or school-based recommendations, but few include empirical evidence to support the impact of those recommendations (Day et al., 2015). Indeed, the literature cited here (e.g., Oehlberg, 2008) demonstrates the siloed nature of the empirical work around trauma-informed practices and the subsequent need for interdisciplinary inquiry and dissemination to change teaching practice. Furthermore, implementation of successful trauma-informed approaches in and through schools requires attention to the complexities of school contexts (Chafouleas et al., 2016). The twofold purpose of this review is to examine: (a) lines and overarching methodologies of inquiry and related to trauma-informed school practice and (b) primary findings of the research. By looking across fields as well as where they intersect, we describe current empirical

evidence, gaps, and recommendations for interdisciplinary research approaches. We intend this review to support communications of best practices as well as recommendations and advocacy to promote trauma-informed approaches to teaching.

FOUNDATION OF TRAUMA AND TRAUMA-INFORMED CARE

In a historical account of psychological trauma and societal responses, the SAMHSA's Center for Substance Abuse Treatment (2014) describes the origins of trauma conceptualization in the United States. They describe how ideas about trauma launched from literature on war veterans in the 1860s who returned home with physical and emotional stress from their experiences in combat. Early literature attributed such reactions to "moral weakness" (i.e., personal deficits on the part of the individual experiencing the distress) or "battle fatigue" (i.e., needing respite from the war environment). To address such conditions, talk therapy and physical rest were espoused as clinically appropriate treatments. Over a century later, in the 1980s, the American Psychiatric Association formally recognized posttraumatic stress disorder as a clinical diagnosis, marked by the experience of a specific tragic event and subsequently resulting in impaired functioning (American Psychiatric Association, 1980; Center for Substance Abuse Treatment, 2014).

While individual treatment and clinical methods were long seen as the most effective approach to addressing trauma and posttraumatic stress disorder, newer ideas began to emerge about the utility of empowerment and psychosocial models in the treatment of trauma-affected individuals (Center for Substance Abuse Treatment, 2014). For example, peer support became a strong supplemental treatment approach to aid individuals who had experienced catastrophic events. Eventually, as societal consciousness began to focus on the overwhelming plight of many marginalized and vulnerable populations in the United States, trauma's definition began to expand to include interpersonal forms of violence as well as perceived threat or harm. Aiding in the development of this new definition, research began to illuminate the prevalence of such adverse events, particularly among young people. This emergence of focus on youth is partially due to the work of Felitti et al. (1998), who found that more than 50% of adults in their study experienced at least one form of traumatic stress during childhood. They also found that these childhood experiences were positively correlated with significant health challenges later in life (Anda et al., 2006; Felitti et al., 1998). Today, childhood trauma is identified as "America's hidden health crisis" (ACEs Connection, 2016), as youth trauma has risen to the forefront of the trauma landscape. This work shed light on the importance of preventing childhood trauma and also recognizing and addressing the needs of youth exposed to adverse events prior to their journey into adulthood.

This research, in the fields of medicine and mental health services, along with the needs expressed by those receiving services, informed initial ideas about ways in which service agencies could better serve their clients through practices and policies that were sensitive to their traumatic histories (Center for Substance Abuse Treatment,

2014). These ideas, now termed "trauma-informed care," include a number of key features that are supported and promoted at the national level. For example, SAMHSA's trauma-informed approach includes acknowledging the prevalence of trauma, recognizing the impact of these experiences on all individuals, utilizing trauma-sensitive practices and policies, and avoiding practices that may retraumatize (Substance Abuse and Mental Health Services Administration, National Center for Trauma-Informed Care, 2015). In a review of trauma-informed care across various organizations, three core components of trauma-informed care emerged: (a) workforce/professional development, (b) organizational changes, and (c) practice changes (Hanson & Lang, 2016; Maynard, Farina, & Dell, 2017). Such trauma-informed approaches have become widely adopted in many public service sectors (e.g., mental health, child welfare) and have now come to the attention of schools and education authorities. In response to this emerging area of trauma-informed practice in schools, an abundance of resources and frameworks have been developed to address the needs of trauma-affected youth in schools, as described next.

TRAUMA-INFORMED PRACTICE IN SCHOOLS

In order to determine the most frequently promoted practices and approaches that are being recommended to districts to support the use of trauma-informed school practice, we conducted a practice analysis of the websites of national advocacy groups and state Department of Education (DOE) agencies for relevant resources, tools, and information. Some state DOE webpages range from including little information on trauma to virtually nothing mentioned across their website. Some state DOEs, in partnership with universities and nonprofit organizations, and state and federal grant initiatives are making concentrated efforts toward implementation and provide specific guidance on trauma-informed practice approaches. Furthermore, in many states, the content of trauma-informed practice is embedded in or connected to the domains of social and emotional learning, school safety, school discipline, and/or Positive Behavior Interventions and Supports (PBIS). Still, there is wide variation in the depth and breadth of resources and work reflected through each website.

There is also wide variation in the type of resources being provided on DOE webpages, including toolkits, research and/or practice briefs, guidebooks, PowerPoint slides, and online training and learning modules. Many key resources promoted are those developed in the medical, mental health, research/policy/advocacy, and social service fields. As such, they more so provide universal frameworks for implementing trauma-informed practice into any organization. For example, the American Institutes for Research provide a trauma-informed care curriculum to support organizations who seek to embed trauma-informed practices into all aspects of organizational programming (American Institute for Research, 2016). They provide guiding principles in five key domains (i.e., supporting staff development, creating a safe and supportive environment, assessing needs and planning services, involving consumers, and adapting practices). This allows for one to tailor practices, strategies, and training based on

the context and population being served. In the plethora of resources being used, there is substantive overlap in the core content of the various frameworks, approaches, and principles. In many of the resources, such as the Wisconsin trauma-sensitive school initiative learning modules, the trauma work is promoted using the same tiered PBIS framework that so many administrators and educators are familiar with: Tier I (universal for 100% of students), Tier II (targeted students, 15%), and Tier III (intensive students, 5%; Wisconsin Department of Public Instruction, 2018). Resources from other state DOEs have either followed a similar PBIS framework or have directly cited Wisconsin's learning modules on their websites.

Much of the widely promoted content designed specifically for educators utilize the aforementioned trauma-informed approach developed by SAMHSA (Substance Abuse and Mental Health Services Administration, National Center for Trauma-Informed Care, 2015). These education-focused resources included various forms such as guidebooks, toolkits, and online learning modules. The most frequently cited and freely available trauma-related resources for educators were reviewed to identify common themes. In general, this content was related to one of the three following categories: (a) Building knowledge—understanding the nature and impact of trauma; (b) Shifting perspectives and building emotionally healthy school cultures; and (c) Self-care for educators. Several specific resources are provided in Table 1 for each of these three categories.

Building Knowledge: Understanding the Nature and Impact of Trauma

Providing educators interdisciplinary knowledge that they likely did not receive during their preservice training is a key feature in many of the state DOE resources. This includes findings from brain science, neurobiology, and mental health to help educators understand trauma's impact on students' social, physical, and psychological well-being, as well as how it may present in their school behaviors. One area of emphasis in the resources is on the "acting out cycle" and its relation to the fight, flight, and freeze response when a student perceives a threat to his or her safety. This information is provided through research briefs, presentations, online modules, videos, and so on, and is foundational for shifting the mindset of educators, administrators, and school staff.

Shifting Perspectives and Building Emotionally Healthy School Cultures

The resource literature places a strong emphasis on using new knowledge to employ empathetic responses to students who are trauma-exposed and avoiding approaching students from a deficit perspective when they exhibit behavior that is considered problematic or disruptive. One widely cited resource (e.g., Brunzell, Stokes, & Waters, 2016; Day et al., 2017; Dorado, Martinez, McArthur, & Leibovitz, 2016; Shamblin, Graham, & Bianco, 2016; West, Day, Somers, & Baroni, 2014), developed by Western Washington University and Washington Superintendent of Public Instruction, provides six principles for compassionate instruction and discipline in the classroom: (a)

TABLE 1
Trauma-Related Resources for Educators

Content Area	Resource	Resource Link
Building knowledge and understanding on the nature and impacts of trauma	Child trauma toolkit for educators from the National Child Traumatic Stress Network	http://www.nctsn.org/sites/default/files/assets/pdfs/Child_Trauma_Toolkit_Final.pdf
	Trauma-informed care resources for educators from the Washington Education Association	https://www.washingtonea.org/pd/other-educator-resources/trauma-informed-resources/
	Trauma-informed schools learning network for girls of color from the National Black Women's Justice Institute and the Center on Poverty and Inequality, Georgetown Law	http://schools4girlsofcolor.org/
Shifting perspectives and building emotionally healthy school cultures	Compassionate schools: The heart of learning and teaching from the Washington Superintendent of Public Instruction	http://www.k12.wa.us/CompassionateSchools/HeartofLearning.aspx
	Helping Traumatized Children Learn 1 and 2 from the Massachusetts Advocates for Children and Harvard Law School	https://massadvocates.org/tlpi/
	Trauma-responsive educational practices project	http://www.trepeducator.org/
Self-care for educators	Self-care for educators from the National Child Traumatic Stress Network	https://www.nctsn.org/resources/self-care-educators
	Secondary traumatic stress from the Treatment and Services Adaptation Center: Resiliency, Hope, and Wellness in Schools	https://traumaawareschools.org/secondarystress
	Secondary traumatic stress and self-care packet from the National Center on Safe Supportive Learning Environments	https://safesupportivelearning.ed.gov/sites/default/files/Building_TSS_Handout_3secondary_trauma.pdf

always empower, never disempower; (b) provide unconditional positive regard; (c) maintain high expectations; (d) check assumptions, observe, and question; (e) be a relationship coach; and (f) provide guided opportunities for helpful participation

(Wolpow et al., 2009). The focus in this resource shifts educator perspectives from viewing students' undesirable behaviors (e.g., avoidance, aggression, disengagement) as inherently bad or oppositional toward viewing each student as having been affected in some way by their experiences.

Shifting Perspectives

Using a trauma lens when handling difficulties with students means shifting the question from "what is wrong with you?" to "what is happening with you?" While some specific Tier II and III school trauma interventions address trauma symptoms explicitly, the literature places greater importance on creating and maintaining a school environment where everyone is treated with compassion and understanding and is empowered and validated in who they are as students and educators. This includes intentionally building and sustaining meaningful relationships between staff and administrators, staff and students, and among the students themselves.

Self-Care for Educators

Educators working with students who are exposed to trauma can experience secondary traumatic stress. This stems from learning about students' trauma exposure, feeling empathetic yet having limited ability to change their situations. The resources emphasize the importance of maintaining self-awareness of secondary or vicarious trauma symptoms and engaging in self-care practices—a trauma-informed approach is a process and not a product—thereby not overemphasizing all the potential impacts/outcomes particularly as it relates to the universal strategies that support a trauma-informed environment in schools for all students and staff. In the large varied landscape of resources, a formally agreed upon approach and practices rooted in evidence should be promoted. Still, this approach should give specific attention to the health and well-being of teachers and other school staff, as they navigate the challenging roles they face with students.

REVIEW OF LITERATURE

The purpose of the review was to identify lines of inquiry related to trauma-informed school practice in empirical literature across disciplines and summarize those to identify implications for changing teaching practice. Teachers and other school personnel find working with students affected by trauma challenging (Souers, 2018), and though they are part of a larger child service system of care that includes the school (National Child Traumatic Stress Network, Schools Committee, 2017), they may not necessarily be fully integrated within those systems in terms of understanding their roles and responsibilities or in implementing or delivering practices (Perry & Daniels, 2016). In cases of natural disasters and other community-wide events, teachers and other school-based providers are also affected by the same challenges as students (Taylor, Weist, & DeLoach, 2012). Likewise, teachers may not feel prepared to take on those responsibilities or may resist doing so, particularly

when considering contextual factors such as poverty (Blitz, Anderson, & Saastamoinen, 2016).

Given these challenges, this chapter examined the following research questions: What is the dominant framework used for promoting and practicing trauma-informed care in schools? How effective are school-based supports for trauma-affected youth at the school level (e.g., school climate and disciplinary incidents) and student level (e.g., attendance, academic achievement, sense of belonging)? To address these questions, we also considered the contexts where trauma-informed practices are promoted most heavily (e.g., high-poverty schools, alternative programs, large urban districts, and rural settings). Furthermore, the interdisciplinary nature of this review highlights the timeframes and suggests the mechanisms whereby knowledge and understanding about trauma in other fields migrated into the field of teaching and teacher education. Specifically, this review focused on peer-reviewed articles across disciplines, published between 1998 and 2018. The inclusion of two decades purposefully includes the timeframe prior to the emergence of the Cognitive Behavioral Intervention for Trauma in Schools around the year 2000 (see https://cbitsprogram.org/learn-more) and aligns with the timeframe of the work by Felitti et al. (1998) establishing a correlation between traumatic childhood experiences and challenges later in life.

As a team of researchers and practitioners in teaching and teacher education, social work education, and educational leadership at state and district levels, these lenses shaped decisions regarding how we bounded the review and conducted the descriptive analyses. We targeted studies describing *interventions* used in schools and classrooms and the *effects* of those interventions to determine how researchers outside of education as well as those from within designed research and described findings in order to change teaching practice in support of children affected by trauma. Importantly, selected studies had explicit, rather than implied, implications for classroom or schoolwide impact, involving school-based professionals, in order to change teaching practice.

Method

To examine the impacts, we employed the aforementioned research questions: What is the dominant framework used for promoting and practicing trauma-informed care in schools? How effective are school-based supports for trauma-affected youth at the school level and the student level? We conducted comprehensive searches using a university-based search engine inclusive of the targeted disciplines. Thus, each specific search used multiple databases available through EBSCO Web, Proquest, and ERIC; for example, Proquest searches 25 databases. Because each of the main databases used different terms and limiters, we predetermined these after trial searches. In general, we used "trauma-informed care" OR "trauma-informed practice" as well as variations on those phrases to finalize decisions. We intentionally balanced comprehensiveness and relevance through each trial and used results to inform the final search protocol. For

our initial article retrieval, we used the following parameters as limits; again, the process for doing so varied by database: (a) peer-reviewed, empirical work inclusive of qualitative, quantitative, and mixed methods studies; (b) published between the aforementioned timeframe (1998-2018); (c) published in English; and (d) addressing school age (B–12) children. Searches with these parameters identified 4,056 articles for screening. To screen, we analyzed the titles, abstracts, and, in some instances, methods sections to arrive at 163 articles for eligibility.

Given the iterative nature of conducting a review (Moher, Liberati, Tetzlaff, Altman, & Prisma Group, 2009), we also made the following a priori decisions. First, we made decisions regarding, in essence, what we were looking for broadly, to both describe and inform "changing teaching practice in P–20 educational settings" in the spirit of the current *Review of Research in Education* volume. Next, we excluded work in medical journals, including those in psychiatry and nursing. To balance this exclusion, and because the pilot searches retrieved a low number of studies in school psychology, we modified school psychology to the broader field of psychology, which in a few circumstances include psychiatry. We also excluded dissertations but searched authors of dissertations through Google scholar to determine if they had published that specific research in a peer-reviewed outlet.

We added several recursive, intentional searches by identifying and screening articles cited within similar reviews of research, for example. We also targeted special editions in *Journal of Applied Schools Psychology, 28*(30), 2012, and *School Mental Health, 8*(1), 2016, and screening each article in those volumes not retrieved through previous searches as well as several education journals. We added approximately 52 articles through this method to bring the total to 215 articles screened for eligibility. To determine eligibility, we focused on the research, hypothesis, or purpose statements and methods sections and excluded ineligible articles if they (a) were not empirical, (b) were not school-based, (c) did not address trauma specifically, or (d) did not include an intervention. We interpreted "intervention" broadly but determined that studies needed to also (e) provide some type of results or impact of that intervention. Screening decisions eliminated potentially informative work describing processes and innovative directions, particularly in education (e.g., trauma studies; Dutro, 2008; Dutro & Bien, 2014; Wissman & Wiseman, 2011) because researchers did not frame their work as interventions or describe impact, a decision we recognize as a limitation. We also removed duplicates.

We ultimately included 33 articles in the analysis, which were published across 28 journals. To assign disciplines, we first accessed the journal website in June 2018. Next, we located journal information or aims and scope as described on each website. Finally, we categorized each journal into one of four disciplines: education, social work, psychology/psychotherapy, and inter-/multidisciplinary. We used descriptive coding for categorizing (Miles, Huberman, & Saldaña, 2014) and created a spreadsheet including the following: (a) year of publication; (b) outlet; (c) discipline; (d) methodology; (e) research design; (f) research questions/hypothesis/

purpose; (g) participant population; (h) participant demographics; (i) school context, geography, or other mitigating characteristics; (j) grade level or age of participants; (k) data sources; (l) intervention; (m) findings; and (n) implications for changing teaching practice. We also used holistic coding to consider the nuances of each inquiry and determined how they, individually and collectively, contribute to changing teaching practice across settings and push collaborations in the interest of increasing equity and access for children.

Findings

The 33 articles, identified through this review, published between 2001—three years after the earliest year (1998)—and 2018, represent several disciplines and methodologies. We considered each study broadly and individually in order to describe the landscape of empirical work around school-based, trauma-informed interventions and to make observations regarding how researchers intersect in terms of inquiries, contributions, or intended audience. Following general observations about the nature of the reviewed studies, we address the research questions regarding the dominant framework for promoting and practicing trauma-informed care in schools and the effectiveness of school-based supports. Next, we discuss implications for broad discussions on the research on trauma-informed practices in schools. Finally, we draw from across the body work to make recommendations for changing teaching practice and the research on those practices.

In light of the high percentage of school-aged children exposed to trauma (Jaycox et al., 2009) and the unique position of schools within the lives of students and their families as sites for identification and screening of children for services (Beehler, Birman, & Campbell, 2012; Fitzgerald & Cohen, 2012; Woodbridge et al., 2016), school-based interventions occupy a significant position in the continuum of care for these youth. That said, Saltzman, Pynoos, Layne, Steinberg, and Aisenberg (2001, 2003) described the results of a school-based program designed to address two specific challenges to providing services to trauma-exposed youth. First, youth are underidentified, even when school personnel are involved in the referral process, and second, those who are identified may not attend initial treatment. Furthermore, those who attend treatment initially may not remain for a sufficient time (Saltzman et al., 2003).

Even so, many of the studies included in this review highlight the success of school-based interventions in addressing challenges of identification, enrollment, and continuation of services. Indeed, several characteristics about schools create conditions conducive for provision of care, including routines and regularity (SAMHSA, 2014), and schools' geographical locations in or adjacent to disaster areas (Lee, Danna, & Walker, 2017; Mutch & Gawith, 2014) and war-torn regions (Baum et al., 2013). Schools serve communities that include families affected by terrorism (Berger, Pat-Horenczyk, & Gelkopf, 2007), the trauma of immigration (Beehler et al., 2012), and who are of refugee and asylum status (Ehntholt, Smith, & Yule, 2005). Students and their families experience regional conditions exacerbated by

poverty in rural Appalachia (Shamblin et al., 2016) and urban areas (Dorado et al., 2016; Santiago et al., 2018); and they are shaped by their minoritized status by race, ethnicity, and language (Allison & Ferreira, 2017; Santiago et al., 2015). Some schools enroll students across all these conditions.

That said, service providers incur other challenges in schools. For example, evaluators identified barriers to school-based interventions and programs. Martin et al. (2017) listed a lack of support from administrators and teachers; competing teacher responsibilities; problems engaging parents, especially if the language about trauma-informed care felt threatening; and stigma regarding mental health concerns (Langley, Santiago, Rodríguez, & Zelaya, 2013). In addition, cultural and linguistic barriers may interfere with a staff's ability to recognize trauma-related symptoms, or to distinguish these symptoms from other challenges, such as cognitive or language delays or normal adjustment to a new language and culture (Langley et al., 2013).

To these, we add the conditions described by Mutch and Gawith (2014), who described schools struggling to cope with earthquake recovery as "too exhausted or more focused on returning to normalcy" (p. 59) to participate in research. Given the position and contexts of schools and the challenges inherent with school-based delivery of interventions, how might research across disciplines inform those involved in all systems to address these challenges while remaining effective and responsive as well as adaptable to local conditions and circumstances?

Some researchers considered contexts significant, as do we, particularly considering that circumstances as well as systemic and historical conditions shape the experiences of youth. Some studies were specifically focused on culturally relevant trauma interventions for oppressed, marginalized, and high-risk groups of students (e.g., racially minoritized immigrants, court-involved youth; Beehler et al., 2012; Day et al., 2017; Ijadi-Maghsoodi et al., 2017; Santiago et al., 2018). Other studies, nine in particular, occurred outside the United States, addressing various contexts, including war-related trauma, exposure to terrorism, natural disasters, violence, and disenfranchisement (Acevedo & Hernandez-Wolfe, 2014; Baum et al., 2013; Berger et al., 2007; Brody & Cohen, 2012; Ehntholt et al., 2005; Morgan, Pendergast, Brown, & Heck, 2015; Mutch & Gawith, 2014; Rønholt, Karsberg, & Elklit, 2013; Wolmer, Laor, Dedeoglu, Siev, & Yazgan, 2005). Additionally, 18 provided city or state locations inside the United States, while others named U.S. regions (e.g., Midwest, Northeast). On the other hand, six authors did not identify the exact locations for their studies though they took place in the United States. Table 2 lists the primary findings of each study, along with the discipline, location or context, method or research tradition, brief description of the participants including their grade or age, and the bounding of the study (e.g., the classroom, school, district, or state) as well as authors' implications for changing teaching practice.

TABLE 2
Overview of Included Studies

Authors and Date	Discipline	Location/ Context for the Study	Method or Research Tradition, Intervention	Participants, Grade or Age, Bounding for Study	Findings	Implications for Changing Teaching Practice
Acevedo and Hernandez-Wolfe (2014)	Interdisciplinary	Cali, Colombia	Qualitative, Consensual Qualitative Research methodology, working with students	21 teachers, elementary, middle school	Witnessing students cope constructively can result in subsequent teacher resilience	Attention to vicarious resilience may empower teachers
Allison and Ferreira (2017)	Social work	New Orleans	Quantitative, a pre-experimental pretest and posttest design, building resilience intervention	23 Latino youth, 14 females, 9 males, 4th, 5th, 6th grades, school	Participation in CBITS in Spanish contributed to significantly fewer symptoms	CBITS is a practical and effective intervention and resource for teachers
Alvarez (2017)	Teaching/teacher education	U.S./urban emergent city	Qualitative, instrumental case study, working with Holocaust curriculum	Black male director of school mentoring program, middle school	Documents effective practices of a successful educator	Need to broaden role of educators and prepare them for that role
Anderson, Blitz, and Saastamoinen (2015)	Interdisciplinary	Northeast United States	Mixed, researcher-developed workshop	16 school staff: 15 females; 15 White, elementary school	Concerns about school climate and the need to address students' trauma, barriers to staff implementation of skills[a]	Need for schoolwide plans, training, and implementation, university involvement can help
Bartlett et al. (2016)	Interdisciplinary	Massachusetts	Mixed, descriptive evaluation, Massachusetts Child Trauma Project	326 children 0-18, Systems—senior leaders, TILT ([trauma-informed leadership teams], e.g., mental health workers, school staff, pediatricians, and court personnel), children. $N = 5$ school personnel, state of Massachusetts	Participation in training linked to individual practices; After 6 months of treatment, children in treatment had fewer symptoms and behavior problems[a]	Those in TILT contributed to evidence-based treatment; collaborations linked to increase effectiveness

(continued)

TABLE 2 (CONTINUED)

Authors and Date	Discipline	Location/ Context for the Study	Method or Research Tradition, Intervention	Participants, Grade or Age, Bounding for Study	Findings	Implications for Changing Teaching Practice
Baum et al. (2013)	Interdisciplinary	Acre, Israel/ aftermath of Second Lebanon War	Quantitative, quasi-experimental, cluster randomized design employing intervention and wait-list control groups, Building Resilience Intervention	Teachers and 563 students, Grades 4–6, 4 elementary schools	Decrease in symptoms of students whose teachers participated in resilience building intervention	Teacher training in resilience building effective in reducing effects of traumatic exposure
Beehler et al. (2012)	Interdisciplinary	Clifton and Jersey City, New Jersey	Quantitative, correlations, random effects regression, Cultural Adjustment and Trauma Services (CATS)	149 immigrant students, high school, 2 school districts	Model was effective with different components affected different student outcomes	Providing an array of services and combining them from a comprehensive model is productive
Berger et al. (2007)	Interdisciplinary	Hadera, Israel	Quantitative, quasi-randomized controlled trial, overshadowing the threat of terrorism	142 students, 2nd to 6th grades, school	School-based training implemented within the curriculum effective	Intervention utilizing trained teachers and implemented within the regular school curriculum can be effective for children who may not otherwise be identified and consequently not have received treatment
Brody and Cohen (2012)	Teaching/teacher education	Israel	Qualitative, working with Holocaust curriculum	9 Elementary teacher preparation students, NA	TP students developed paradigms for dealing with the topic of the Holocaust over time	TP constructions of pedagogical content knowledge of traumatic content during their programs raise questions about teacher educators' possible interventions

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TABLE 2 (CONTINUED)

Authors and Date	Discipline	Location/ Context for the Study	Method or Research Tradition, Intervention	Participants, Grade or Age, Bounding for Study	Findings	Implications for Changing Teaching Practice
Crosby, Day, Baroni, and Somers (2015)	Social work	Large Midwestern city	Qualitative, focus groups, modified version of Heart of Learning and Teaching Compassion, Resiliency and Academic Success (HLT)	27 teachers, school	Prior to intervention, teachers identified challenges with student behaviors and needs including specific knowledge about trauma, how to manage, and how to balance their roles, after intervention they reported better understanding and connections between classroom behavior and trauma exposure	Need for improved communication and collaboration, and considerations of how to translate training into the classroom
Day et al. (2017)	Social work	Large Midwestern city	Qualitative, phenomenological, modified version of HLT, Monarch Room (MR)	45 females, 13–19 years old, school	Classroom dynamics, external trauma triggers, interpersonal factors, issues with peers, staff, and school personnel all promote and impede school engagement[a]	Importance of engaging youths' voices in how they are engaged or disengaged in schools
Dorado et al. (2016)	Interdisciplinary	San Francisco Unified School District	Quantitative, program evaluation, Healthy Environments and Response to Trauma in Schools (HEARTS)	46, 5–11-year-olds, 175 School staff	HEARTS as effective intervention, increasing staff knowledge and use of trauma-informed practices, decreased discipline referrals and suspensions, students' trauma related symptoms decreased[a]	Needs for more schools to implement, for district-wide approach, and for urban- and rural-specific models
Ehntholt et al. (2005)	Interdisciplinary/ psychology	London	Quantitative, control treatment, Children and War: Teaching Recovery Techniques	26 refugee or asylum-seeking children, 11–12 years, 2 schools	Improvements in treatment group compared with none in control group; however, follow-up with subset shows improvement was not maintained[a]	To sustain improvement, consider groups of students from same country/language, add booster sessions for children and parallel sessions for parents/caregivers

(continued)

TABLE 2 (CONTINUED)

Authors and Date	Discipline	Location/ Context for the Study	Method or Research Tradition, Intervention	Participants, Grade or Age, Bounding for Study	Findings	Implications for Changing Teaching Practice
Graham, Osofsky, Osofsky, and Hansel (2017)	Interdisciplinary	New Orleans	Quantitative, repeated-measures ANOVA, individual sessions with clinicians in social work or psychology	Children, 8–17 years, not specified	Students showed improvement after postdisaster treatment	Disaster-prone regions can benefit, need for flexibility and cultural sensitivity in implementation
Harber (2011)	Art therapy	Not specified	Qualitative, case study, art therapy	17-year-old male, writing, art, NA	Therapist-designed worksheets enabled participant to explore his feelings	Therapeutic process including art created a framework from which to understand past trauma and attachment
Holmes, Levy, Smith, Pinne, and Neese (2015)	Interdisciplinary	Not specified	Quantitative, evaluation, Head Start Trauma Smart (HSTS)	31 children, 31–76 months, nonspecific preschools	Preliminary support for the need for identification and the intervention[a]	HSTS, as an integrated intervention for young children, can be used as a curriculum along with other social emotional curricula with flexibility to address different settings and cultures
Hoover et al. (2018)	School psychology	Connecticut	Quantitative, implementation outcomes and pre–post test, CBITS	316 children, average age 12.2, state-wide	Students improved in PTSD symptoms, behavioral problems, some improvement in functioning, caregivers were very satisfied[a]	Successful scaling up of school-based model has implications for other states; implementation support included district and school support
Ijadi-Maghsoodi et al. (2017)	School psychology	Southwest United States/ urban	Mixed, evaluation, Resilience Classroom Curriculum adapted to the community	100 students, 9th grade, not clear	Students demonstrated improved resilience scores, both students and teachers received the curriculum well[a]	Use of students as participant/ researchers, teachers reported positive reactions, recommend future directions include teachers, even if passively

(continued)

TABLE 2 (CONTINUED)

Authors and Date	Discipline	Location/ Context for the Study	Method or Research Tradition, Intervention	Participants, Grade or Age, Bounding for Study	Findings	Implications for Changing Teaching Practice
Jaycox et al. (2009)	Interdisciplinary	LASUD	Quantitative, pilot, Support for Students Exposed to Trauma (SSET)	78 students participated in the intervention, middle school	Teachers delivered SSET program with fidelity, intervention effective with high symptoms showed most reduction, students with low symptoms showed little reduction	SSET program delivered by teachers potentially effective and feasible in addressing PTSD and depression in low-income, urban students
Lawson and Alameda-Lawson (2012)	Education	Midsized city, western state	Qualitative, case study, CAN parent engagement program	32 parents, Spanish-speaking Latina, one elementary school community	Descriptions of barriers and traumatic experiences parents faced as well as their engagement	School leaders along with others can support engaging parents as communities of practice, reducing barriers to children's learning, while supporting parents' efforts, tapping into their insights
Lee et al. (2017)	Social work	New Orleans	Qualitative, Classroom–Community Consultation (C3)	5 adult females, not specified	Participants shared how and why they became involved with C3, the impact of the consultation, how C3 helped them grow as practitioners and connected them with additional resources, and their perspective on implications for linking community- and school-based mental health services	Linking school-based and community-based services can be beneficial for the professionals and students; investing in people important as is flexibility and responsiveness to community
Levendosky and Buttenheim (2001)	Interdisciplinary	Not provided	Qualitative, individual therapy and multimethod treatment	11-year-old female, individual	Use of relational, developmental, and trauma theories helpful in understanding and addressing child's symptoms and behaviors; school interventions effective	Development of relationships with teacher, who are among the primary adults in a patient's life, supported healthier internal growth

(continued)

TABLE 2 (CONTINUED)

Authors and Date	Discipline	Location/ Context for the Study	Method or Research Tradition, Intervention	Participants, Grade or Age, Bounding for Study	Findings	Implications for Changing Teaching Practice
Morgan et al. (2015)	Education	Queensland, Australia	Mixed, trauma-informed practice as shaping educator identity	20 teachers and staff, not specified	Identities are challenged and changed by exploring impact of trauma on students' development and learning; commitment to trauma-informed practice and relational pedagogy requires educator identities to be co-constructed and negotiated	Identity development in these educators can inform practice for educators in other settings
Mutch and Gawith (2014)	Teaching/teacher education	New Zealand	Qualitative, children engaged in research on their own experiences	Not specified, primary school, three schools	Children found projects helpful, supportive in contextualizing experiences	Schools can provide processing activities to help children's perspectives and recovery from disaster events
Perry and Daniels (2016)	Interdisciplinary	New Haven, Connecticut	Mixed, CBITS	32 school personnel, 17 students, pre-K to 8th, school level	Trio of Services Professional Development, Care Coordination, and Clinical Services described, foundation year important for sustaining	Understanding components and process essential in order to plan evaluations
Rønholt et al. (2013)	Multidisciplinary	Denmark	Quantitative, nonrandomized; noncontrolled, specifically designed intervention	108 children, Grades 1–9 (Denmark)	Children's PTSD symptoms reduced from pretreatment to posttreatment	Preliminary evidence of feasibility for screening instrument suitable for use by teachers and other school-based personnel; treatment may help to alleviate PTSD symptoms
Saltzman et al. (2001)	Psychology	Not specified	Quantitative, UCLA school-based trauma and grief-focused treatment	26 students, middle school	Participation in group treatment as an intervention may be related to improved academic and behavior measures[a]	Students exposed to community violence may not be identified or treated; this can impair school performance[a]

(continued)

TABLE 2 (CONTINUED)

Authors and Date	Discipline	Location/ Context for the Study	Method or Research Tradition, Intervention	Participants, Grade or Age, Bounding for Study	Findings	Implications for Changing Teaching Practice
Saltzman et al. (2003)	Psychology	Not specified	Quantitative, UCLA school-based trauma and grief-focused treatment	26 students, 11–14 years, 68% Hispanic, 28% African American, 4% Caucasian	Significant barriers to receiving appropriate mental health services, at multiple levels, including at the school district level. Tentative finding that participation link to improvement in symptoms and increased academic performance. Lack of reduction in depressive symptoms[a]	A school-based model of identification and treatment may reduce symptoms and enable students to perform better in school
Santiago et al. (2015)	Interdisciplinary	Not provided/ urban	Quantitative/quasi-experimental, CBITS plus family	40 child-parent dyads, predominately Latino, low-income 5th to 8th grades	Parents who completed the family portion reported greater satisfaction and participation	Family involvement in CBITS may contribute to children's well-being
Santiago et al. (2018)	School psychology	Illinois/urban	Quantitative, Bounce Back program	52 first to fourth graders, predominately Latino, low income, 8 schools within one district	Bounce Back is an effective intervention; however, there were no significant effects for teacher-reported behavior[a]	Teachers are important in screening and they need training to do so; need to evaluate with different populations and include qualitative approaches to understand implementation process and challenges

(continued)

TABLE 2 (CONTINUED)

Authors and Date	Discipline	Location/ Context for the Study	Method or Research Tradition, Intervention	Participants, Grade or Age, Bounding for Study	Findings	Implications for Changing Teaching Practice
Shamblin et al. (2016)	Interdisciplinary	Appalachia/SE Ohio	Quantitative, pre–post, Early Childhood Mental Health Consultation (ECMHC), Project LAUNCH	217 preschoolers, 11 teachers, 11 classrooms in three schools	Improvement in teacher confidence and optimism toward affecting children, increased ratings of children's resilience, decreased ratings of negative attributes[a]	Teacher confidence and hopefulness affected students' behaviors. School–community partnerships created synergy, traumatic events and regional stressors related to poverty supported through ecological view
West et al. (2014)	Interdisciplinary	Large Midwestern city	Qualitative, phenomenology, modified version of HLT; MR intervention	39, 14- to 18-year-old females, alternative school	Students described behaviors, causes, and suggestions	Need for trauma-informed approaches in school settings and for alternatives to suspension/expulsion (Monarch room), importance of student voices
Wolmer et al. (2005)	Psychology	Turkey	Quantitative, controlled 3-year follow-up with multiple informants, school reactivation program (author designed?)	287 children, 9- to 17-year-old, three schools in disaster area	Severity of posttraumatic, grief, and dissociative symptoms of the two groups comparable; teachers blind to group assignment rated participating children significantly higher than the control group in terms of adaptive functioning, academic performance, and behavior[a]	Demonstrates necessity of early interventions postdisaster, teachers are capable to implement clinical interventions

Note. CBITS = Cognitive Behavioral Intervention for Trauma in Schools; PTSD = posttraumatic stress disorder.
[a]Explored effectiveness at school or student level.

Considerations of Frameworks

Overall, our review did not identify a particular framework as dominant among this research for either promoting or practicing trauma-informed care in schools or researching trauma-informed practices in schools. We based this determination on the types of interventions researched and the range of methods used by researchers to examine those interventions. Additionally, we identified methodological decisions regarding study participants and how studies were bounded within settings. Similarly, researchers selected a variety of disciplinary outlets for their work.

The 33 articles included the practices of 30 different interventions. We describe studies according to the most frequently used methods or research traditions as well as the most common disciplinary outlets for this work in order to identify gaps and future directions for research in education and other fields in order to change teacher practice.

Across these 33 articles, researchers used quantitative methodologies most frequently. Seventeen articles included quantitative inquiries, followed by 10 qualitative inquires. Researchers used mixed methods least often, as only six studies employed mixed methodologies. Authors explicitly identified eight studies, or just under 25% of the work reviewed, as evaluations; five of these used quantitative measures, two used mixed methods, and one was qualitative. The two quantitative evaluation studies used discipline and climate measures to determine program effectiveness (Dorado et al., 2016; Holmes et al., 2015), positioned their study toward "bringing a trauma lens to the 'school to prison pipeline' conversation" (Dorado et al., 2016, p. 164), and urged for "the creation of more safe and positive school climates" (Dorado et al., 2016, p. 173).

Based on our methodological criteria and descriptive coding, we categorized 19 articles published in inter-/multidisciplinary journals, the most of any category, followed by six in psychology/psychotherapy journals, five in education outlets, and three in social work publications. We raise questions, however, about which disciplines are included in inter- and multidisciplinary studies or published in outlets identified as such, as many research teams did not identify their disciplinary affiliations, nor explain how disciplinary frames informed their perspectives. Lawson and Alameda-Lawson (2012) serve as a notable counterexample of that trend.

Still, other studies approached trauma-informed practice from the lens of students. In particular, these studies (i.e., Acevedo & Hernandez-Wolfe, 2014; Anderson et al., 2015; Berger et al., 2007; Ijadi-Maghsoodi et al., 2017; West et al., 2014) utilized students' voices through focus groups or by incorporating students as participant-researchers.

Overall, studies across the aforementioned disciplines examined interventions that were derived from various, but similar, theoretical approaches and foundations. Seemingly, the emergence and rapid growth of trauma-informed care into the educational realm, as evidenced by these findings, has occurred with no standard, formally agreed upon terms or framework when it comes to implementing trauma-informed

practices in districts and schools specifically. While there are some commonly identified foundational resources and frameworks promoted through grants, legislation, and institutions, there in fact is currently no consensus on use or clear operationalization of the terms "trauma-informed approach," "trauma sensitive," "trauma- informed system" (Hanson & Lang, 2016; Maynard et al., 2017).

Through our review, we found that education research identified through the search parameters were published within the current decade, with the first two published in 2012, suggesting that date as when research on trauma-informed practices in schools migrated into education. However, Dutro's (2008) aforementioned trauma study along with similar work published in the field but excluded through our criteria were done within the timespan, raising questions about how trauma studies literature may inform interdisciplinary research.

As mentioned previously, because many research teams did not describe their disciplinary perspectives, we cannot determine with certainty that researchers with education foci were not involved in other studies. That said, the five studies published in education journals described interventions that can be characterized as interventions of experience. That is, teachers/educators were shaped by their experiences working with trauma-affected youth (Alvarez, 2017; Morgan et al., 2015), preservice teachers were shaped by working through targeted curriculum over time (Brody & Cohen, 2012), and children engaged in their own participatory research processes (Mutch & Gawith, 2014). Similarly, Lawson and Alameda-Lawson's (2012) case study explored Latino parents' engagement through a communities of practice approach. Thus, we urge researchers across all disciplines to consider the potential for research using educational lenses, described later.

Effectiveness of Trauma-Informed Practice

As mentioned, the 33 articles explored 30 different interventions. To highlight the different interventions included in this literature, we first list them here. A comprehensive table provides details about each study (see Table 2).

- Bounce Back (Santiago et al., 2018)
- Cognitive Behavioral Intervention for Trauma in Schools (Allison & Ferreira, 2017; Hoover et al., 2018; Perry & Daniels, 2016; Santiago et al., 2015)
- Classroom Community Consultation (C3) (Lawson & Alameda-Lawson, 2012; Lee et al., 2017)
- Cultural Adjustment Trauma Services (CATS) (Beehler et al., 2012)
- Early Childhood Mental Health Consultation (ECMHC) along with project LAUNCH (Shamblin et al., 2016)
- Head Start Trauma Smart (Holmes et al., 2015)
- HEARTS (Dorado et al., 2016)
- Individual treatment (Graham et al., 2017)
- Monarch Room; Modified Heart of Learning and Teaching training (Crosby et al., 2015; Day et al., 2017; West et al., 2014)

- Resilience Classroom Curriculum (Ijadi-Maghsoodi et al., 2017)
- Support for Students Exposed to Trauma (SSET) (Jaycox et al., 2009)
- Trauma-Informed Leadership Teams (TILT) (Bartlett et al., 2016)

Thirteen of the 33 studies used school or student-level measures for effectiveness. Those researchers looked at reductions in symptoms of trauma and/or depression resulting from trauma-informed school-based practices (e.g., Allison & Ferreira, 2017; Baum et al., 2013; Graham et al., 2017), but more than half of the researchers did not use school-level measures of climate or disciplinary/behavior incidents, nor student-level measures of attendance, academic achievement, or students' sense of belonging to determine effectiveness. Still, researchers used other forms of evidence to support the effectiveness of each in the published work, with 32 of the 33 studies finding their respective interventions to be "effective" to some degree, duly noting important limitations. The one exception, Anderson et al.'s (2015) needs assessment, workshop implementation, and postworkshop survey and focus groups tapped the ongoing concerns of classroom staff around trauma-informed teaching and, significantly, school climate.

However, studies often underspecified contexts and demographics for their studies, giving too few details about participants, locations, and particularly the schools and/or classrooms where students received or participated in interventions. Along with researchers, we also recognize the nature of much of this work as pilots (Jaycox et al., 2009; Santiago et al., 2015) and preliminary studies (Holmes et al., 2015) rather than extensive randomized trials that provide more "rigorous" illustrations of effectiveness, with both "rigor" and "effectiveness" as terms interpreted differently across disciplines. That said, findings suggest that, within and across disciplines and interventions, more research is needed on the utility of trauma-informed practice, as well as the relationship between those and school disciplinary policies and practices.

DISCUSSION AND IMPLICATIONS

Given the findings that, at this point, there is no dominant or formally agreed upon framework for trauma-informed practices, as well as no consistent determination of effectiveness, it is important to examine what is informing understandings and implementation of trauma-informed practices occurring in states, districts, and schools. Additionally, we question how researchers and advocates attend to the complexities in school settings in general as well as in particular school contexts (Chafouleas et al., 2016). Furthermore, in many instances across the recommended practices promoted on DOE websites as well as in some of the research literature, authors and advocates were unclear or not explicit in providing evidence that the guidance offered was rooted in an empirical base. Furthermore, because disciplinary perspectives were underreported, disciplinary perspectives for "evidence" were not well grounded. This raises additional questions inherent in interdisciplinary

work, such as, is the same term—"effective," for example, defined and understood the same in a mixed method evaluation as it is in a case study? Is "effectiveness" determined similarly within the field of education as it is in psychology or social work? With respect to language use, an established lexicon and protocol is needed to ensure clarity and consistency for the individuals involved and the researchers examining practices.

Directions for Research

We recognize and respect the necessary protections around human subjects in disseminating research. However, given the need for more research in this area as well as interdisciplinary research, we urge researchers to include demographic and contextual information and to do so ethically. Discussions of the ethics of deductive disclosure exist across many fields (e.g., Kaiser, 2009; Sanjari, Bahramnezhad, Fomani, Shoghi, & Cheraghi, 2014), providing the rationale for inclusion of demographic information and useful guidelines to avoid harm to particular populations (Schenk & Williamson, 2005).

We also recommend researchers to consider if and how they can provide significant contextual details so that subsequent researchers can appropriately continue along lines of research or identify gaps. For example, schools can be public, private, charter, alternative, and located in urban, suburban, or rural communities in different parts of the United States and other countries. Communities of minoritized youth and families experience both common and distinctive challenges and oppressions. While no experience of trauma is monolithic, as a community of researchers, we must grapple with questions at the system level as well as the granular level of the classroom; therefore, more contextual information is critical.

Implications Across the Research of Trauma-Informed Practices

We begin the discussion of implications across all disciplines of research by noting the dearth of empirical work within this review describing how teachers use their craft—teaching—as a component of the aforementioned systems of care (Alvarez, 2017), and leading up to that, considering how teachers' preservice experiences throughout their preparation programs can contribute to those practices. Rather, researchers positioned teachers as a source of referral or another service provider within the system of care (National Child Traumatic Stress Network, Schools Committee, 2017). Indeed, how might teaching practice, including instructional design, itself contribute to the system of care?

In advocating for trauma-informed positive education, Brunzell et al. (2016) urge providers to consider strengths approaches (e.g., how can educators/others build on students' positive attributes). Educators, including those in teaching and teacher education, frequently draw upon this perspective, and research in this review found that teachers also benefitted from their interactions and relationships with students (Alvarez, 2017; Morgan et al., 2015). We see this as an important

framing for researchers outside education to consider. Additionally, several of the studies in this review (i.e., Acevedo & Hernandez-Wolfe, 2014; Anderson et al., 2015; Berger et al., 2014; Ijadi-Maghsoodi et al., 2017; West et al., 2014) speak to the significance of school climate from students' perspectives. Therefore, we also see value in exploring student perspectives in this research and practice, as student-guided attention to supportive and nurturing school climates is integral to trauma-informed school practices. It may also be worthwhile to consider ways in which district and school practices and policies, particularly around discipline and punishment, can cause retraumatization for students and replace exclusionary, deficit approaches with those that are informed by the science of trauma and recovery. In Table 2, we provide an exhaustive list of the practice implications derived from this review.

There is a noted trend-like nature among educational initiatives that are ever-changing and at times overwhelming to educators who may be tasked to implement multiple initiatives at once. Similar to trauma-informed school practice, there has been a noteworthy growth in interest and implementation of other approaches such as PBIS, social emotional learning, restorative practices, mindfulness, emphasis on school culture and climate, and so on. Many of these approaches provide healing, connection, support, and learning that are particularly helpful for trauma-exposed students. Trauma-informed practices in schools should not be perceived as just "another thing that will come and go"—rather due to the ever-increasing levels of adversity facing children and youth in our society, the need for providing environments where students feel cared for, safe, and empowered will continue to be tremendous.

Out of necessity, schools have pursued trauma-informed practices and interventions through partnerships with local mental health agencies and universities (e.g., Anderson et al., 2015). However, the core components of trauma-informed practices should also be considered at every level of the educational system. If schools are finding ways to ensure they are responsive to trauma, then districts, state, and federal education offices, and colleges of education should also consider how they are supporting widespread trauma-informed practices both internally and externally. This includes attention to all protocols and procedures, forms, accountability systems, partnerships, and trainings.

Recommendations for Changing Teacher Education Policy, Practice, and Research

Given the relatively recent entry of teaching and teacher education literature into discussions of trauma-informed practices in schools, identified as around 2012 through this review, we draw upon those contributions, the larger body of work identified, as well as the analyses of websites of national advocacy groups and state DOEs to recommend the following actions for research, policy, and practice in those fields.

Broaden Recognition and Understandings of Trauma and Its Impact

The system of care approach (National Child Traumatic Stress Network, Schools Committee, 2017) encompasses all individuals within programs and agencies that are in contact with young people. Furthermore, research demonstrates the need for consensus within schools implementing trauma-informed practices (Metz, Naoom, Halle, & Bartley, 2015). That said, school staff are called to participate in that system without explicit reference to their specific positions or types of interactions with young people. Schools are composed of caring adults in many roles, necessitating inclusion of a wider range of professionals in school-based care. All staff who interact with students, including but not limited to cafeteria workers, bus drivers, and custodial staff, are integral to school culture and may be the only people with whom students feel a connection. While we located individual districts in our professional experiences that are intentionally integrating these staff in trainings and school-wide practices, the experiences and perspectives of these individuals were virtually nonexistent in the literature as only two studies included school-based personnel who were not teachers or administrators: Anderson et al.'s (2015) study of professional development for classroom staff included teaching assistants, classroom aides, and paraprofessionals, and Alvarez's (2017) case study of an educator who serves as "program director of an in school mentoring program" (p. 58). Thus, the experiences and impacts of all school-based staff is underexplored. How can their experiences, skills, and contributions add to the research base?

Shifting From Deficit Notions of Trauma

As described previously, early literature on the impact of trauma positioned individual responses to trauma as "moral weakness." Though we are more than a century and a half from such framings, we need to recognize how contemporary conceptions re-inscribe deficit perceptions of individuals and essentialize their experiences. In his essay explaining the limitations of trauma-informed care, Shawn Ginwright (2018) described his experiences working with one youth in particular. After Ginwright explained to a group of youth how trauma can influence the brain and health, one young man stopped Ginwright, "I am more than what happened to me" (Para 5). Likewise, we urge educators along with others across systems of care to consider the implications of language and framings to include the voices of those effected (i.e., Acevedo & Hernandez-Wolfe, 2014; Anderson et al., 2015; Berger et al., 2014; Ijadi-Maghsoodi et al., 2017; West et al., 2014) and disrupt deficit notions of trauma-affected youth toward asset-based perspectives and actions. Ginwright refers to this approach as "healing centered" (The promise of healing centered engagement, Para 1). Indeed, Mr. Sellers, the educator in Alvarez's (2017) study, understood the nuanced, complex lives of students as he actively worked with them to understand and address structural inequities. Acevedo and Hernandez-Wolfe (2014) describe the "vicarious resilience" as a positive influence developed in teachers who worked with underserved learners in Colombia. Advocacy and policy pieces likewise call for asset

or strengths-based approaches (Wolpow et al., 2009) and resiliency (Chafouleas et al., 2016) approaches. How might teacher education research methodologies using critical frameworks drive these calls forward?

Centering Culturally Responsive Instruction

Cultural responsiveness, or relatedly, culturally sustaining (Paris, 2012; Paris & Alim, 2017) practices assume the aforementioned calls to dismantle deficit notions. Additionally, several researchers (Beehler et al., 2012; Dorado et al., 2016; Lawson & Alameda-Lawson, 2012) include cultural responsiveness within program descriptions and recommendations from the research. We raise additional questions about how centering teaching that is culturally responsive/sustaining within trauma-informed classrooms might provide depth to the aforementioned research and opportunities to support students in positive directions.

Organizational Support to Promote Staff Well-Being

While self-care is noted in the resources as a critical element for educators who are exposed daily to students dealing with trauma and adversity, putting the full onus on individual staff members to support their well-being in light of the known effects of secondary trauma is not sufficient. SAMHSA (2014) recommends that leadership take action to promote organizational culture, policies, and practices to support staff. These include redesigning policies around training and scheduling, focus on prevention by being proactive in supporting stress management, building and reinforcing natural support systems for employees, and evaluating efforts. In education, the reality of secondary/vicarious trauma needs to be considered at every level of the system (federal, state, district, schools). In the high-poverty, high-stress schools, secondary trauma is underestimated. While self-care is promoted as component of trauma-informed practice, administrators at school and district levels should shoulder responsibility for embedding approaches and practices that encourage self-care and regulation for all adults in schools, including teachers and staff.

CONCLUSION

In summary, this chapter outlined the current, yet ever-evolving landscape of research informing trauma-informed practices in schools. To be sure, each study contributes to a collective understanding, but only by moving forward with a more robust, truly interdisciplinary research agenda can all stakeholders better understand and comprehensively address trauma through the schools. Given our finding that a key feature of state DOE resources centered on providing educators interdisciplinary knowledge that they likely did not receive during their preservice programs, we recognize the gaps in knowledge and practice among educators and call for an intentional, well-grounded, and methodologically sound research and practice agenda that drives changes in teaching practice. To that end, educators must also recognize their role and accept their responsibilities to ameliorate the consequences of trauma on youth.

Educational researchers along with school-based practitioners would be wise to incorporate pioneering research occurring in neuroscience, psychology, and social work to better inform their research and practice agendas. Likewise, we encourage researchers outside of education to position teachers and, specifically, teaching, as well as the other adults in schools (i.e., professional school counselors, teaching assistants, and bus drivers) and their activities more prominently in their research agendas.

Finally, we advocate for a truly systems-wide discussion in service of a research-informed practices approach that results in actionable recommendations and respect for all individuals and components of the system with explicit attention to schools. Because school-based practitioners confront the impacts of trauma in the lives of students on a daily basis, we urge that this work moves forward expediently with prevention and recovery at every level of the system in mind.

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