School-Based Trauma-Informed Practices: How Urban School Psychologists Support Students

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Many school-age children in low-income communities experience at least one potentially traumatic event (PTE) before adulthood. Urban high-need schools (UHNS) can play a central role in serving youth by integrating trauma-informed practices (TIPs) throughout a multitiered systems of support framework. Although school psychologists are increasingly urged to support school-wide TIPs, their use of such practices is unclear due to the frequent omission of school psychologists from the trauma literature (Diamanduros et al., 218; Overstreet, 2015). Recent studies have identified the gap between school-based trauma research and practice, with some citing limited training as a potential barrier (e.g., Gubi et al., 2019). However, no studies to date have thoroughly explored urban school psychologists’ trauma training or their implementation of TIPs. Chapter 1 outlines the effects of trauma on urban youth, reviews literature on the
effectiveness of TIPs in UHNS, and underscores the need for school psychologist training in trauma. Chapter 2 employed a consensual qualitative research design to answer the following research questions: 1) How do urban school psychologists become trained to deliver TIPs? 2) How does school psychologists’ training influence their perceived competence in providing TIPs? and 3) What TIPs do urban school psychologists use to address student trauma? Twelve school psychologists in high-need urban elementary schools completed two-semi structured interviews on their trauma training opportunities and implementation of TIPs. Analyses revealed the following five domains: a) participant trauma training, b) perceived competence in delivering TIPs, c) addressing trauma in evaluations, d) collaborating with adults, and e) direct work with children. Graduate trauma training varied widely across participants, which directly influenced their perceived competence and led many to seek additional professional development. Training also influenced the type of TIPs participants used to support students who experienced trauma. Most participants noted their use of TIPs that target trauma-related symptoms rather than evidence-based interventions that directly address trauma and PTE exposure. An overview of these strategies is provided. Implications for future graduate training curricula are discussed.

INDEX WORDS: trauma, trauma-informed schools, trauma-informed practices, urban school psychology, school psychologist training, consensual qualitative research
SCHOOL-BASED TRAUMA-INFORMED PRACTICES: HOW URBAN SCHOOL PSYCHOLOGISTS SUPPORT STUDENTS

by

MORIAH KEARNEY

A Dissertation

Presented in Partial Fulfillment of Requirements for the Degree of Doctor of Philosophy in School Psychology in Counseling and Psychological Services in the College of Education & Human Development Georgia State University

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1 THE NEED FOR SCHOOL PSYCHOLOGIST TRAUMA TRAINING: A CALL TO ACTION

Mental health services in the United States are undergoing a “trauma-informed movement” given a) significantly increased publication of trauma-informed articles, b) the development and implementation of evidence-based trauma interventions, and c) access to trauma-informed resources and professional training opportunities (Mullaney, 2018). Parents, mental health professionals, researchers, and policy makers assign schools with the responsibility of providing trauma-informed practices (TIPs) given the time students spend in educational settings (e.g., Hoover et al., 2018; Little & Akin-Little, 2013; Overstreet & Mathews, 2011). Several recent lawsuits claimed schools disregarded the effects of trauma, with some plaintiffs postulating that trauma is a disability warranting specialized services (e.g., 504 accommodations, special education; Ahlers et al., 2016; Jane Doe, et. al. v. New York City Department of Education, 2018; Peter P. et al. v. Compton Unified School District, 2015; Mullaney, 2018; Sparks, 2019; Stephen C. v. Bureau of Indian Education, 2019). Legislators and health care companies have taken notice, proposing laws that provide millions of dollars for the development and implementation of school-based trauma initiatives (e.g., Kaiser Permanente’s Resilience in School Environments project) Johnson, 2019; RISE from Trauma Act of 2019, Trauma-Informed Schools Act of 2019).

School-based trauma-informed care\(^1\) is a strengths-based approach intended to address the effects of trauma by increasing staff knowledge of trauma sequela and infusing best trauma

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\(^1\) Only school-based trauma-informed care will be discussed in the current paper unless otherwise noted. While trauma-informed care refers to the overarching approach to service delivery, this paper will be centered on trauma-informed practices (TIPs), the specific strategies implemented.
practices (Jennings, 2007; SAMHSA, 2014). This approach may be particularly important for youth in urban high-need communities (UHNC)\(^2\) characterized by chronic stressors such as social isolation, economic strain, unmet basic needs, and decreased residential stability (Siefert et al., 2000; Santiago et al., 2011). Persistent stressors sometimes coincide with potentially traumatic events (PTEs), as impoverished neighborhoods often have increased rates of crime, family violence, and physical assault compared to more affluent communities (Copeland et al., 2007; Finkelhor et al., 2005; Finkelhor et al., 2009; McLaughlin et al., 2013; Monzon et al., 2016). The cumulative effects of environmental and community stressors contribute to traumatic stress symptoms that impair functioning. Staff in urban high-need schools (UHNS) face the challenge of addressing the needs of many students who display varying levels of distress in response to PTEs.

Researchers have proposed that schools meet student needs by utilizing a multitiered systems of support (MTSS) framework, with several identifying school psychologists as potential key stakeholders (Little & Akin-Little, 2013; Overstreet & Mathews, 2011). However, school psychologists have been largely omitted from the school-based trauma literature due to a number of factors, including limited training and competing work demands. The current paper will a) provide a brief synopsis of the effects of trauma on urban youth functioning, b) review literature examining the outcomes and challenges of implementing TIPs in UHNS, and c) underscore the need for trauma training in school psychology graduate programs.

\(^2\) Urban high-need communities (UHNC) refer to urban neighborhoods with increased poverty and mobility rates, greater racial and ethnic diversity, and decreased social supports (Medina et al., 2014).
Trauma and Student Functioning

Although trauma awareness has increased in recent years, the technical use of the word *trauma* is inconsistent across studies. Some researchers argued trauma is an event (e.g., Overstreet & Mathews, 2011; Perfect et al., 2016), while others referred to trauma as the response to the event (e.g., Costello et al., 2002; Eklund & Rossen, 2016). To address this variation, the Substance Abuse and Mental Health Services Administration (SAMHSA) collaborated with national trauma experts and the American Psychological Association (APA) to develop a conceptualization of trauma applicable to environments that promote positive youth development including schools, child welfare agencies, and the juvenile justice system (SAMHSA, 2014). Per their definition,

individual trauma results from an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life threatening and that has lasting adverse effects on the individual’s functioning and mental, physical, social, emotional, or spiritual well-being. (SAMHSA, 2014, p. 7)

By identifying trauma as the response to an event rather than the event itself, SAMHSA acknowledged that exposure to a PTE does not automatically connote trauma (SAMHSA, 2014; Saunders & Adams, 2014). As depicted in Figure 1.1, trauma occurs when individuals experience subsequent disruptions in their functioning that result in adverse long-term effects (SAMHSA, 2014).
Figure 1.1.
SAMHSA’s Three “E’s” of Trauma

Event

Adhering to diagnostic criteria of trauma- and stressor-related disorders outlined in the *Diagnostic and Statistical Manual of Mental Health Disorders* – Fifth Edition (DSM-5), PTEs entail the actual or perceived threat of physical or psychological harm through directly experiencing or witnessing a life-threatening situation (American Psychiatric Association, 2013; SAMHSA, 2014; Woodbridge et al., 2016). Researchers (e.g., Alisic et al., 2014; Breslau et al., 2004) refer to a dichotomous categorization that distinguishes between non-personal PTEs such as natural disasters and accidents, and interpersonal PTEs, which violate social norms and constitute betrayal, malevolence, injustice, or immorality (e.g., community violence; Alisic et al., 2014; D’Andrea et al., 2012; Finkelhor et al., 2009).

The seminal Adverse Childhood Experiences (ACEs) study found that almost two-thirds of adults experienced at least one PTE during childhood (Felitti et al., 1998). Findings from subsequent studies of childhood PTE exposure rates in the U.S. vary due to differences in measures, samples, and data collection procedures (Paolucci et al., 2001; Perfect et al., 2016; Saunders & Adams, 2014; Woodbridge et al., 2016). Despite these differences, there is a general consensus that youth in UHNC with concentrations of ethnic minorities experience higher rates
of violent PTEs (e.g., physical assault or abuse, death of a loved one by murder or homicide) compared to youth in other communities (Breslau et al., 2004; Crouch et al., 2000; Drake & Pandey, 1996; Turner et al., 2006). In one study, 80% of immigrant children in a low-income urban neighborhood witnessed violence in the previous year, while 49% were direct victims of violence (Jaycox et al., 2002). Findings from several other studies indicate between 70% to 100% of youth living in UHNC witness or directly experience community violence (Cross et al., 2018; Dempsey et al., 2000; Paxton et al., 2004).

These PTEs often occur across settings, as minority youth in UHNC are more likely than their more affluent White peers to report both school and community violence (e.g., stabbings, shootings; Buka et al., 2001). Urban youth are also at increased risk for exposure to multiple PTEs (Breslau et al., 2004). Results from a national sample of youth found that participants who reported seven or more PTEs were more likely to be Black and come from UHNC (Finkelhor et al., 2007). In a separate study, 87% of children in a low-income urban neighborhood experienced two or more PTEs before the age of 10 (Kiser et al., 2010).

**Experience**

As depicted in Figure 1.1, a PTE must be overwhelmingly stressful for it to lead to trauma. Harvey (1996) posited that how an individual experiences a PTE is influenced by the combined attributes of the event, the individual, and the environment. Characteristics of the event that influence whether it is deemed traumatic include its frequency, severity, duration, and perceived intensity (Harvey, 1996). Youth may experience greater coping skill impairments when faced with direct victimization in comparison to non-personal PTEs (Hodas, 2006). Events that result in legal involvement, shifts in socioeconomic status, or separation from caregivers exacerbate feelings of stress (Hodas, 2006). These factors have been argued to be detrimental for
children and adolescents who have previous trauma histories, pre-existing mental health concerns, and/or cognitive delays (Hodas, 2006).

“Neighborhood-effects research” examines negative contextual factors that increase the risk of mental health concerns such as traumatic stress (e.g., Bowen et al., 2002; Santiago et al., 2011; Stockdale et al., 2007). For example, youth in UHNC may face environmental hazards, social isolation, decreased social supports, greater acceptance of harsh parenting techniques, and residential instability (Bowen et al., 2002; Caughy & Franzini, 2005; Evans, 2004; Jozefowicz-Simbeni & Allen-Meares, 2002; Kiser, 2007; Kiser & Black, 2005). Additional neighborhood risk factors that can exacerbate the effects of PTE exposure include limited economic resources, increased fear of victimization, and low levels of trust among community members (Kiser, 2007; Stockdale et al., 2007). Lowe et al. (2016) found that the correlation between childhood PTE exposure and depressive symptoms was stronger for participants in high-crime urban neighborhoods.

Proximal family factors also influence how children experience PTEs (Kiser & Black, 2005). Youth may struggle if family responses to the event include disorganization, decreased family cohesion, caregiver withdrawal, caregiver trauma, reluctance to talk about the event, or feelings of blame and anger towards the victim (Aisenberg & Ell, 2005; Cross et al., 2018; Kiser & Black, 2005; Kiser et al., 2010). These responses may exacerbate family stressors (e.g., parental stress, family conflict, incarceration or victimization of a family member, parent mental illness or substance abuse), further decreasing parents’ ability to meet their children’s emotional needs and impairing children’s ability to cope (Bowen et al., 2002; Collins et al., 2010; Kiser, 2007). While several studies have demonstrated links between poverty and less adaptive caregiving (e.g., Merritt, 2009), the links to poor outcomes are neither determinant nor well
understood. For example, economic stress did not predict neglectful parenting among urban African American mother-adolescent dyads (Grant et al., 2005). Further, neglectful/distant parenting, measured using the Iowa Family Interaction Rating Scales, did not predict maladaptive child outcomes.

The effects of adverse contextual factors that influence the experience of PTEs in high-need communities are well documented. However, individual and environmental factors do not always increase vulnerability to trauma. Strong cognitive abilities, positive coping skills (e.g., emotion-regulation, behavior-regulation), supportive caregiver-child relationships, and strong family structures can decrease the stress youth feel after a PTE by promoting the development of resilience (Kiser et al., 2010; Masten & Coatsworth, 1998). Youth who are resilient recover from PTEs, reducing the potential for trauma and increasing their capacity to manage future adversity (Fergus & Zimmerman, 2005). As will be subsequently described, schools can enhance student resilience and prevent the development of long-term adverse outcomes by creating safe school climates, promoting the development of positive adult-student relationships, and teaching skills to increase students’ self-regulatory capacities (Cole et al., 2009; Klein, Cornell, & Konold, 2012).

Effects

Most children exhibit some level of distress after PTE exposure. Common responses to PTEs include sadness, numbness, separation anxiety, and an increased need for affection (Kiser & Black, 2005; SAMHSA, 2014). Immediately after the event, these behaviors can serve as healthy and adaptive coping strategies. With support from caregivers, many students who display these responses return to prior functioning within several weeks or months. Trauma occurs when maladaptive effects of PTEs are severe and persistent (Cole et al., 2009; Eklund & Rossen, 2016;
SAMHSA, 2014). Most studies refer to the effects of PTE exposure on youth development. Consistent with previously noted differences in ‘trauma’ usage, several scholars assess the effects of traumatic stress – a potential effect of PTE exposure in itself – on functioning. Findings across studies vary due to differences in when data were collected relative to PTE exposure and outcome measures used. For example, some researchers relied on parent or teacher reports of students’ externalizing behaviors while others utilized student self-reports measuring PTSD, depression, or other internalizing disorders.

Possible responses to PTEs include those listed in the DSM-5 diagnostic criteria of posttraumatic stress disorder (PTSD), such as irritability, intrusive thoughts, poor concentration, and avoidance (American Psychiatric Association, 2013; Perfect et al., 2016; Thompson & Massat, 2005). PTE exposure can also lead to a disrupted sense of safety and the development of negative assumptions about oneself or the world, resulting in hopelessness, low self-concept, and poor ego resilience (Cole et al., 2009; Wodarski, Kurtz, Gaudin, & Howing, 1990; SAMHSA, 2014). In some cases, interruptions in typical psychological functioning may warrant a mental health diagnosis. Numerous studies have demonstrated that PTE exposure is significantly correlated with increased rates of depressive disorders, anxiety disorders, traumatic stress, and PTSD (e.g., Copeland et al., 2007; Hurt et al., 2001; Jaycox et al., 2002; Kiser, Medoff, & Black, 2010; Overstreet & Mathews, 2011; Yasik et al., 2012).

PTEs may lead to increased antisocial behaviors. Exposure to chronic violence may exacerbate this relationship by normalizing aggressive acts and decreasing children’s empathy (Overstreet, 2000). Several studies found that urban youth exposed to violence and maltreatment exhibit increased delinquency, non-compliance, and externalizing behaviors, resulting in increased disciplinary referrals (De Bellis et al., 2013; Eckenrode et al., 1993; Wodarski et al.,
1990; Thompson & Massat, 2005). The persistence and frequency of these behaviors over time has been found to lead to clinically significant symptoms and diagnoses of disruptive behavior disorders such as oppositional defiant disorder and conduct disorder (Perfect et al., 2016; Price et al., 2013).

PTEs can also lead to changes in neurological functioning and deficits in cognitive skills (De Bellis, Woolley, & Hooper, 2013; Perfect et al., 2016). Relative to their peers, youth who experience PTEs have lower attention, memory, executive functioning, verbal, and visuospatial skills (e.g., Beers & De Bellis, 2002; De Bellis et al., 2013; DePrince et al., 2009). Diezel and colleagues (2015) found that maltreated youth scored significantly lower than their peers on the Processing Speed and Verbal Comprehension indices on the Wechsler Intelligence Scale for Children–Fourth Edition (WISC–IV). Studies have indicated cognitive deficits are more severe in children with multiple PTE exposures and those with subsequent symptoms of PTSD (De Bellis et al., 2013; Perfect et al., 2016; Saigh et al., 2006; Saltzman, Weems, & Carrion, 2006).

The aggregate effects of PTE-induced psychological and physiological impairments hinder school success. Results from several studies suggested students exposed to PTEs demonstrate lower reading scores than their peers on standardized academic assessments (e.g., Delaney-Black et al., 2002; Hurt et al., 2001; Thompson & Massat, 2005). Youth who experience trauma due to maltreatment or community violence suffer a range of adverse academic outcomes, including poor test scores, decreased academic engagement, increased grade retention, and increased rates of special education eligibility (Delaney-Black et al., 2002; Eckenrode et al., 1993; Fantuzzo et al., 2011; Hurt et al., 2001; Reyome, 1994; Shonk & Cicchetti, 2001; Wodarski et al., 1990).
 Though the three “E’s” presented here seem relatively simple and linear, trauma is a complex phenomenon. Given the covarying effects of individual and environmental factors in a child’s life, it is seldom possible to isolate and determine causality between PTE exposure and trauma symptoms (Eklund & Rossen, 2016; Hodas, 2006; Klest, 2012). Professionals must instead work to prevent harm and meet the needs of affected youth (Klest, 2012). Despite the high rate of PTE exposure and increased risk of psychological problems in impoverished neighborhoods, many children who need mental health care do not receive treatment (Hodgkinson et al., 2017; New Freedom Commission on Mental Health, 2003; Whitney & Peterson, 2019). Data obtained from the 2016 National Survey of Children’s Health estimated that of the 16.5% of children with at least one mental health disorder, approximately 50% do not receive mental health treatment (Whitney & Peterson, 2019). Similarly, the 2020 State of Mental Health in America report indicated 60% of youth with symptoms of major depressive disorder do not receive treatment (Mental Health America, 2019). Rates of unmet need may be even higher for youth living in UHNC due to barriers such as lack of insurance, competing life or work demands, lack of transportation, and cultural stigma of mental health care (Hodgkinson et al., 2017; Kataoka et al., 2002; Santiago et al., 2013).

**School-Based Trauma-Informed Practices**

Given the increased prevalence of PTEs in UHNC and the potential for these events to lead to traumatic stress, it is critical that mental health professionals address treatment gaps among youth. Researchers and policy makers have cited schools as integral players in the provision of TIPs (Allensworth, Lawson, Nicholson, & Wyche, 1997; Fitzgerald & Cohen, 2012; Little & Akin-Little, 2013). Schools in UHNC can capitalize on compulsory attendance to improve access to mental health care and facilitate treatment completion (Allensworth et al.,
1997; Beehler et al., 2012; Fitzgerald & Cohen, 2012; Hodgkinson et al., 2017; Little & Akin-Little, 2013). In one study, 91% of students completed a school-based trauma intervention, while only 15% completed treatment at a community clinic (Jaycox et al., 2010). School-based psychological services can also address cultural barriers that limit access to care. Minority parents in low-income neighborhoods may resist support from community agencies due to stigma regarding mental illness (Beehler et al., 2012; Hodgkinson et al., 2017). These same parents often consent to mental health interventions delivered in schools, as they perceive school-based treatment to be connected to their child’s educational performance (Beehler et al., 2012; Domitrovich et al., 2010; Hodgkinson et al., 2017; Jaycox et al., 2014).

Current literature and professional guidelines espouse the multi-tiered systems of support (MTSS) framework as a “gold standard” for school-based service delivery (National Association of School Psychologists [NASP], 2020; Reinbergs & Fefer, 2018; Splett et al., 2018). Through implementation of this evidence-based model, schools can promote wellness and meet the mental health needs of all students, rather than focusing solely on those who display severe symptomatology (August et al., 2018; Cowen, 1991; Eagle et al., 2015; Overstreet & Mathews, 2011; Reinbergs & Fefer, 2018; Splett et al., 2018; Villareal, 2018; Wexler, 2014). Universal interventions implemented at Tier 1 are provided to all students to strengthen their social, emotional, and behavioral competencies (August et al., 2018; Sulkowksi & Michael, 2014). At-risk youth who need more intensive services are referred to targeted Tier 2 interventions that aim to prevent the development of mental health problems (August et al., 2018). Youth with the most complex mental health needs receive individualized Tier 3 interventions that work to curtail the long-term effects of maladaptive behaviors (SAMHSA, 2007; Sulkowski & Michael, 2014).
Progress monitoring and data-based decision making are incorporated throughout every level of support (August et al., 2018; Eagle et al., 2015; Wexler, 2014).

School staff can utilize an ecological lens to ensure a variety of services at each tier promote student wellness. In his original ecological theory, Bronfenbrenner (1977) identified four environmental levels in which individuals develop – the microsystem, mesosystem, exosystem, and macrosystem. While all four systems influence human behavior, the first three have more direct effects on youth development. The microsystem comprises interactions individuals have in their immediate environments, such as those that occur in schools, families, and peer groups (Bronfenbrenner, 1977). Various Microsystems interact with one another in what is known as the mesosystem. While youth may not directly interact with the exosystem, structures at this level – such as students’ neighborhoods, school districts, and media influences – impact their immediate environment (Bronfenbrenner, 1977; Crosby, 2015).

Universal interventions that target the microsystem may include strategies to increase student engagement, create warm classroom environments, and promote positive student-teacher relationships. Tier 1 strategies in the mesosystem may include family participation in school programs and class-wide social skills lessons to strengthen peer relationships and reduce bullying (Crosby, 2015). Schools can target the exosystem at Tier 1 by providing staff professional developmental on trauma-related behaviors and working to ensure school-wide practices and disciplinary policies promote a positive climate.

Each of these three environmental levels can also be addressed in Tier 2 and 3 interventions. Through their direct work with at-risk students, school-based mental health professionals can promote wellness at the microsystem level by teaching needed skills and improving self-competency in small group or individual settings (Cowen, 1991; Crosby, 2015).
At the mesosystem, adults across settings (e.g., teachers, caregivers, school mental health professionals) may consult to address more specific emotional or behavioral concerns of at-risk students. Consultation may also expand to include community mental health providers. In the exosystem, schools can create policies concerning district crisis response and partner with community agencies for students in need of more intensive supports (Crosby, 2015).

The theoretical frameworks (i.e., ecological theory, MTSS) described above can be used to address a range of student mental health needs. In supporting students who experience trauma, schools can also ground their MTSS framework in what SAMHSA identifies as the four R’s of trauma-informed care (SAMHSA, 2014). Per these four assumptions, schools a) realize the effects of trauma, b) recognize the symptoms of trauma, c) respond by infusing trauma knowledge throughout policies and practices, and d) actively resist re-traumatizing children, families, and staff (SAMHSA, 2014).

A number of articles have outlined school-based the implementation of TIPs using an MTSS framework (e.g., Ahlers, Stanick, & Machek, 2016; Chafouleas, Johnson, Overstreet, & Santos, 2016; National Child Traumatic Stress Network [NCTSN], 2017; Reinbergs & Fefer, 2018; von der Embse, 2019). Created for the current paper, Figure 1.2 depicts a tiered model based on the National Child Traumatic Stress Network’s trauma-informed schools system (NCTSN, 2017). Universal professional development and psychoeducation provided to staff, students, and families helps individuals realize the effects of trauma and recognize trauma symptoms in themselves and others. School administrators and other stakeholders can respond to this knowledge by creating safe school environments and establishing trauma-informed disciplinary policies that resist the re-traumatization of students. Schools can further respond to
trauma knowledge and target the four R’s more directly by providing intensive small group and individual services to both students and adults at Tiers 2 and 3 of the model (see Figure 1.2).

Figure 1.2

Tiered Trauma-Informed School Model

Trauma-Informed Practices in Urban High-Need Schools

An increasing number of studies have examined the effectiveness of school-based TIPs across levels of support. An overview of quantitative and qualitative articles focusing on interventions conducted in UHNS is presented in Table 1, with effect sizes provided as available. While most studies reported effect size as Cohen’s $d$, two studies calculated Cohen’s $f^2$ and partial eta squared ($\eta_p^2$). Per Cohen’s (1992) guidelines, $d = .20$ indicates a small effect, $d = .50$ a medium effect, and $d = .80$ a large effect. Cohen (1992) also recommended $f^2 = .02$ for a small effect, $f^2 = .15$ for a medium effect, and $f^2 = .35$ for a large effect. When analyzing $\eta_p^2$, .01, .06, and .14 indicate small, medium, and large effect sizes, respectively (Richardson, 2011).
## Table 1.1

**Articles Implementing Trauma-Informed Services in Urban High-Need Schools**

<table>
<thead>
<tr>
<th>Authors</th>
<th>Design</th>
<th>Population</th>
<th>Intervention</th>
<th>Key Outcomes</th>
<th>Intervention Implementers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allison &amp; Ferreira, 2017</td>
<td>Pre-posttest</td>
<td>23 students grade 5-7 (^a)</td>
<td>(2) CBITS</td>
<td>PTSD ( d = .80)</td>
<td>School social worker</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Depression ( d = 1.08)</td>
<td></td>
</tr>
<tr>
<td>Anderson et al., 2015</td>
<td>Qualitative</td>
<td>16 elementary classroom staff</td>
<td>(1) Four monthly STPD</td>
<td>80% found info. useful</td>
<td>University researchers</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>62% supported harsh discipline</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Staff still unsure how to address challenging behavior</td>
<td></td>
</tr>
<tr>
<td>Blanchet-Cohen &amp; Nelems, 2013</td>
<td>Mixed methods</td>
<td>104 students grade 2-8</td>
<td>(2) JoH</td>
<td>88% students learned to manage feelings &amp; use self-calming strategies</td>
<td>School social workers, Unspecified partner agency facilitators</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>78% students increased self-awareness</td>
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</tr>
<tr>
<td>Brown et al., 2006</td>
<td>Quasi-experimental</td>
<td>63 students grades 3-7 (^a)</td>
<td>(1) Classroom CBT</td>
<td>Decreased arousal &amp; total symptoms after Tier 1</td>
<td>LCSWs, Unspecified mental health professionals</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(2) Screening</td>
<td>Decreased depression &amp; PTSD symptoms after Tier 3</td>
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<td></td>
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<td></td>
<td>(3) Individual therapy</td>
<td>No effects on caregiver reports</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td>Teachers reported greater understanding of behavior, how to alter teaching, &amp;</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>need for more info. on applying trauma knowledge</td>
<td></td>
</tr>
<tr>
<td>Crosby et al., 2015</td>
<td>Qualitative</td>
<td>27 high school teachers (^a)</td>
<td>(1) STPD</td>
<td>Schools with highest fidelity had greatest decrease in student PTSD symptoms</td>
<td>Psychotherapist</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>High clinician satisfaction</td>
<td></td>
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<tr>
<td>Distel et al., 2019</td>
<td>Mixed methods</td>
<td>10 school-based MHP (^a)</td>
<td>(2) Bounce Back</td>
<td></td>
<td>Social workers, Doctoral-level psychologists, Unspecified school-based and community clinicians</td>
</tr>
<tr>
<td>Authors</td>
<td>Design</td>
<td>Population</td>
<td>Intervention</td>
<td>Key Outcomes</td>
<td>Intervention Implementers</td>
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</tbody>
</table>
| Dorado et al., 2016     | Retrospective pre-post design    | 1243 K-8 students K-8 175 school personnel a     | (1) STPD, consultation (2) Team meetings, trauma therapy                      | Staff trauma knowledge $d = 1.72$  
On-task behaviors $d = .86$  
Discipline referrals $d = 2.42$  
Trauma therapy: Affect regulation $d = .74$  
Adjustment $d = .59$       | Unspecified clinicians          |
| Ellis et al., 2013      | Pre-posttest                     | 30 middle school refugees a                     | (2) Skills group (3) Individual and home TST                                  | Decreased depression & PTSD at all tiers                                        | Social workers, Unspecified clinicians |
| Gudino et al., 2017     | Quasi-experimental               | 46 middle and high school females a              | (2) STAIR-A                                                                   | Depression $d = 0.58$  
Social stress $d = .65$  
PTSD $d = -.28$  
Anxiety $d = .42$  
Locus of control $d = .46$  
Relationships $d = -.46$ | Doctoral-level therapists      |
| Holmes et al., 2015     | Pre-posttest design              | 1,100 children & 400+ Head Start staff a         | (1) STPD, consultation, staff peer mentoring (2) Screening, consultation, adult psychoed. (3) Individual therapy | Increased attention  
Decreased externalizing & internalizing behaviors | Master’s-level therapists (social work and counseling) |
| Ijadi-Maghsoodi et al., 2017 | Mixed-methods community-partnered participatory research | 100 students grade 9 a                          | (1) RCC                                                                       | Problem-solving $d = 0.53$  
Empathy $d = 0.29$  
Overall resilience $d = 0.50$  
Decreased stress  
Improved communication | School social workers          |
| Jaycox et al., 2009     | Randomized controlled trial      | 76 middle school students a                      | (2) Screening, SSET                                                          | PTSD $d = -.39$  
Depression $d = -.25$  
Greater intervention effects for students with more symptoms  
No changes on parent reports | School counselor and teachers |
<table>
<thead>
<tr>
<th>Authors</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Kataoka et al., 2011</td>
<td>Randomized controlled trial</td>
<td>123 students grade 6&lt;sup&gt;a&lt;/sup&gt;</td>
<td>(2) CBITS</td>
<td>Immediate group had higher language arts &amp; math grades</td>
<td>School psychiatric social worker</td>
</tr>
<tr>
<td>Kataoka et al., 2003</td>
<td>Quasi-experimental</td>
<td>229 elementary &amp; middle school students&lt;sup&gt;a&lt;/sup&gt;</td>
<td>(1) STPD, (2) MHIP</td>
<td>Decreased depression &amp; PTSD for intervention group</td>
<td>Master’s-level school psychiatric social workers</td>
</tr>
<tr>
<td>Langley et al., 2015</td>
<td>Randomized controlled trial</td>
<td>74 students grade 1-5&lt;sup&gt;a&lt;/sup&gt;</td>
<td>(2) Screening, Bounce Back</td>
<td>Immediate group: PTSD $f^2 = .80$</td>
<td>Master’s-level social workers</td>
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<tr>
<td></td>
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<td></td>
<td>Anxiety $f^2 = .40$</td>
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<td></td>
<td></td>
<td>Depression $f^2 = .34$</td>
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<td></td>
<td>Delayed group: PTSD $f^2 = .76$</td>
<td>Licensed clinical psychologists</td>
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<td></td>
<td></td>
<td>Anxiety $f^2 = .24$</td>
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<td></td>
<td></td>
<td></td>
<td>Depression $f^2 = .25$</td>
<td></td>
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<tr>
<td>McConnico et al., 2016</td>
<td>Mixed methods</td>
<td>12 teachers &amp; 250 K-2 students&lt;sup&gt;a&lt;/sup&gt;</td>
<td>(1) STPD, ongoing consultation &amp; coaching, STRIVE toolkit</td>
<td>Increased teacher trauma knowledge</td>
<td>Not specified</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td>Increased teacher confidence &amp; self-efficacy</td>
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<td>More positive classroom climate</td>
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<td></td>
<td></td>
<td>Improved behavior management</td>
<td></td>
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<tr>
<td>Mendelson et al., 2015</td>
<td>Quasi-experimental</td>
<td>49 students grade 7-8&lt;sup&gt;a&lt;/sup&gt;</td>
<td>(2) RAP club</td>
<td>Dysregulation $d = .85$</td>
<td>Unspecified mental health professionals,</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Social competence $d = .87$</td>
<td>Young adult community members</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td>Academic competence $d = .87$</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Authority acceptance $d = .69$</td>
<td></td>
</tr>
<tr>
<td>Nadeem et al., 2011</td>
<td>Case study</td>
<td>School district&lt;sup&gt;a&lt;/sup&gt;</td>
<td>(1) Monthly trauma team meetings, (2) CBITS</td>
<td>Decreased PTSD</td>
<td>Community mental health professionals, District-employed clinicians (counselors, social workers)</td>
</tr>
<tr>
<td>Authors</td>
<td>Design</td>
<td>Population</td>
<td>Intervention</td>
<td>Key Outcomes</td>
<td>Intervention Implementers</td>
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<tr>
<td>Nadeem et al., 2018</td>
<td>Mixed methods</td>
<td>26 school-based mental health clinics</td>
<td>(2) CBITS</td>
<td>31% of sites started CBITS groups Sites that implemented groups had more involved decision-making process, supportive leadership, team meetings</td>
<td>LCSWs, Psychologists, Psychiatrists, School psychologists</td>
</tr>
<tr>
<td>Perry &amp; Daniels, 2016</td>
<td>Mixed methods</td>
<td>32 staff, 19 families, 2 classrooms grades 5-6, 17 students</td>
<td>(1) STPD, classroom workshop (2) Weekly family meetings, CBITS</td>
<td>91% staff increased trauma knowledge Improved school-family communication &amp; students’ relaxation skills Fewer students met PTSD criteria GTI-CN: PTSD (d = 1.06) Depression (d = .87) Grief (d = .96) GTI-C: PTSD (d = .78) Depression (d = .85) Grief (d = 1.18) No decreases on parent reports</td>
<td>Unspecified doctoral-level and master’s-level clinicians</td>
</tr>
<tr>
<td>Salloum &amp; Overstreet, 2012</td>
<td>Experimental</td>
<td>Four elementary schools</td>
<td>(2) GTI-CN &amp; GTI-C</td>
<td>No decreases on parent reports</td>
<td>Master’s-level social workers, Social work interns</td>
</tr>
<tr>
<td>Saltzman et al., 2001</td>
<td>Mixed methods</td>
<td>812 middle &amp; high school students</td>
<td>(2) Screening, trauma &amp; grief-focused group</td>
<td>Decreased PTSD &amp; grief No decrease in depression Improved GPA</td>
<td>Unspecified clinicians</td>
</tr>
<tr>
<td>Santiago et al., 2018</td>
<td>Experimental</td>
<td>52 students grade 1-4</td>
<td>(2) Bounce Back</td>
<td>Immediate group: PTSD (\eta^2 p = .35) Depression (\eta^2 p = .21) Coping (\eta^2 p = .27) Delayed group: PTSD (\eta^2 p = .24) Depression (\eta^2 p = .17) Coping (\eta^2 p = .24) No effects on teacher reports</td>
<td>School social workers</td>
</tr>
<tr>
<td>Santiago et al., 2016</td>
<td>Qualitative</td>
<td>15 Latino parents</td>
<td>(2) CBITS + F</td>
<td>Improved child self-regulation Improved parent &amp; family functioning</td>
<td>School social workers</td>
</tr>
<tr>
<td>Authors</td>
<td>Design</td>
<td>Population</td>
<td>Intervention</td>
<td>Key Outcomes</td>
<td>Intervention Implementers</td>
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</tbody>
</table>
| Santiago et al., 2015    | Quasi-experimental design  | 40 student-parent dyads (grades 5-8) a           | (2) CBITS, CBITS + F                             | CBITS + F: Parents improved school involvement, attitude towards mental health, coping
|                          |                            |                                                 |                                                   | More warmth & consistency
|                          |                            |                                                 |                                                   | Decreased PTSD & depression                    | School social worker                             |
| Santiago et al., 2014    | Quasi-experimental         | 64 student-parent dyads (grades 5-8) a          | (2) CBITS, CBITS-F                               | CBITS + F: Improved school involvement & parent functioning
|                          |                            |                                                 |                                                   | Greater reduction in child PTSD & depression                                | School social workers                            |
| Stein et al., 2003       | Randomized controlled trial| 126 middle school students a                    | (2) Screening, CBITS                            | Immediate group: PTSD $d = 1.08$
|                          |                            |                                                 |                                                   | Depression $d = .45$
|                          |                            |                                                 |                                                   | Psychosocial dysfunction $d = .77$
|                          |                            |                                                 |                                                   | No differences after both groups completed CBITS
|                          |                            |                                                 |                                                   | No difference on teacher reports                                            | Psychiatric social workers                       |
| Von der Embse, Rutherford, Mankin, & Jenkins, 2019 | Iterative approach to program design | Middle school a | (1) PBIS, STPD, classroom management coaching (2) Screening, CICO, relaxation group, CBITS | Decreased discipline referrals
|                          |                            |                                                 |                                                   | Increased student engagement
|                          |                            |                                                 |                                                   | Improved screening & access to school-based services                     | Doctoral-level school psychologist, School counselors |
| Vona et al., 2018        | Qualitative                | School stakeholders a                          | (2) CBITS                                       | Increased staff support for CBITS
|                          |                            |                                                 |                                                   | Increased teacher awareness of trauma                                      | Researchers                                      |

Note: LCSW = licensed clinical social worker, CBITS = Cognitive Behavioral Intervention for Trauma in Schools, PTSD = posttraumatic stress disorder, STPD = staff trauma professional development, JoH = Journey of Hope, CBT = cognitive behavioral therapy, MHP = mental health professionals, TST = trauma systems therapy, STAIR-A = Skills Training in Affective and Interpersonal Regulation-Adolescent, RCC = Resilience Classroom Curriculum, SSET = Support for Students Exposed to Trauma, MHIP = Mental Health for Immigrants Program, GTI-C = Grief and Trauma Intervention-Coping skills only, GTI-CN = GTI-Coping skills and trauma narrative, CBITS-F = CBITS + Family Component, PBIS = Positive Behavioral Intervention and Supports, CICO = Check In/Check Out

a student population predominantly Black and/or Latino
Tier 1

As depicted in Figure 1.2, Tier 1 interventions include staff professional development, psychoeducation for students and caregivers, and school-wide initiatives such as positive behavior interventions and support (PBIS) and social-emotional learning curricula. Eleven studies implemented practices at this level of prevention, with most studies providing staff professional development regarding trauma. Across studies, teachers and other classroom staff reported increased awareness of trauma and its effects on student functioning (e.g., Anderson et al., 2015; Crosby et al., 2015; Dorado et al., 2016; McConnico et al., 2016; Perry & Daniels, 2016). Professional development was often provided over several months and covered topics such as the effects of trauma on learning, understanding trauma reminders, stress reduction techniques, and classroom cognitive behavioral strategies. While school staff reported improved understanding of trauma following related trainings, they also identified continued areas of need, such as support addressing challenging behaviors and additional information on implementing trauma-informed practices in the classroom (Anderson et al., 2015; Crosby et al., 2015). Results of one study suggested isolated trainings may have limited effects on changing adult mindsets regarding trauma, as participants continued to support harsh disciplinary strategies (Anderson et al., 2015). This is consistent with current literature, which often identifies increased duration (i.e., time span and contact hours) as a core feature of effective professional development (Desimone, 2009; Penuel et al., 2007).

Addressing this potential limitation of professional development, several researchers conducted ongoing consultation that further augmented staff knowledge, prevented lapses in skills, and provided feedback on classroom strategies (Dorado et al., 2016; Holmes et al., 2015; Thomas et al., 2015). In addition to reporting increased trauma knowledge, elementary school
teachers in one study who received training and ongoing coaching endorsed improved confidence in responding to student trauma (McConnico et al., 2016). Researchers in turn observed improved classroom management, increased teacher sensitivity, and increased student productivity (McConnico et al., 2016). Another study provided preliminary evidence that staff training and consultation may directly impact student behaviors. While classrooms that received ongoing coaching exhibited fewer disciplinary referrals over the school year, the referral rates from classrooms without this support did not change (von der Embse et al., 2019).

In several studies, staff trainings were implemented in conjunction with additional trauma-informed practices, such as small group interventions and individual therapy (Holmes et al., 2015; Kataoka et al., 2003; Nadeem et al., 2011; Van der Embse et al., 2019). As these studies included multiple interventions and only measured student functioning, it is difficult to distinguish direct effects of professional development on staff and student outcomes.

A limited number of studies demonstrated preliminary support for class-wide interventions. Program components included psychoeducation, emotion identification activities, and opportunities to practice coping strategies (Brown et al., 2006; Ijadi-Maghsoodi et al., 2017; McConnico et al., 2016). Fifth- and sixth-grade students who participated in a classroom stress management workshop reported increased capacities to relax, trust others, and worry less (Perry & Daniels, 2016). In a separate study, ninth-grade students indicated improvements in their empathy, problem-solving skills, and communication skills after completion of a nine-week trauma-informed classroom intervention (Ijadi-Maghsoodi et al., 2017). Students also reported lower stress and indicated increased comfort seeking school-based mental health services (Ijadi-Maghsoodi et al., 2017). Additional factors associated with Tier 1 classroom interventions
included improved class climate and decreased arousal for students who met criteria for PTSD (Brown et al., 2006; McConnico et al., 2016).

**Tier 2**

Ideally, fewer students will require more intensive Tier 2 services due to efforts at Tier 1 of the MTSS model (Merrell & Buchanan, 2006; Swain-Bradway, Pinkney, & Fannery, 2015). Researchers have proposed that 80 to 90% of students receive Tier I interventions, 10 to 15% receive Tier 2 interventions, and 1 to 5% receive Tier 3 interventions (Sulkowski & Michael, 2014; Wexler, 2018). However, schools in high-need communities may find that larger percentages of students initially need more intensive services given the increased mental health concerns often observed in these neighborhoods (Sulkowski & Michael, 2014). This heightened need for more clinical support may help explain the prevalence of school-based studies that examine Tier 2 interventions.

CBT has been established as the most effective and widely-researched treatment for youth who display trauma-related symptomatology such as depression, anxiety, emotional reactivity, and behavior problems (Deblinger et al., 2017; Jaycox et al., 2009; Langley et al., 2015). Consequently, most of the Tier 2 studies reviewed conducted interventions based on CBT principles. A number of cognitive behavioral interventions have been developed for use in the school setting, including Cognitive Behavioral Intervention for Trauma in Schools (CBITS) and Bounce Back (Jaycox et al., 2009, Langley et al., 2013; Langley et al., 2015, Stein et al., 2003). Several studies have examined CBITS’ effectiveness with the intervention’s target population – youth in UHNS exposed to community violence (Stein et al., 2003). A limited number of studies associated CBITS with improved academic performance (Kataoka et al., 2011; Nadeem et al., 2011). Further, Latino and African American students who participated in CBITS reported
decreased symptoms of depression and overall PTSD (Allison & Ferreira, 2009; Nadeem et al., 2011; Perry & Daniels, 2016; Stein et al., 2003). Despite these improvements, students in one school continued to manifest significant levels of re-experiencing, heightened arousal, and avoidance following CBITS completion (Perry & Daniels, 2016). In a separate study, students’ self-reported psychosocial improvements were not reflected on teacher behavior reports (Stein et al., 2003).

Factors noted to increase the potential benefits of CBITS included community partnerships, administrator support, weekly group supervision for clinicians, and staff training (Nadeem et al., 2011; Nadeem et al., 2018; Vona et al., 2018). Schools further increased positive outcomes associated with CBITS through family involvement. Results from a study conducted in three predominantly Latino schools indicated that parents who completed the CBITS family component reported increased warmth and school involvement when compared to parents in a control group (Santiago et al., 2015). In a similar study, Latino parents reported decreased child symptoms and improvements in overall family functioning following completion of the CBITS family component (Santiago et al., 2016). Caregiver participation in school-based TIS also facilitated the development of family support networks and increased the number of families aware of mental health services (Perry & Daniels, 2016; Santiago et al., 2016).

Several researchers have studied the effects of Bounce Back, an extension of CBITS intended for use with younger elementary school students (e.g., Distel et al., 2019; Langley et al., 2015; Santiago et al., 2018). African American and Latino students who participated in Bounce Back exhibited decreased symptoms of PTSD per self-report and parent-report measures. Improvements in problem-solving and emotion-regulation skills were also reported (Distel et al., 2019; Langley et al., 2015; Santiago et al., 2018). The effects of Bounce Back on other areas of
youth functioning remain unclear. In two separate studies, Bounce Back was not associated with significant decreases in anxiety, depressive symptoms, or teacher-reported behavior concerns (Langley et al., 2015; Santiago et al., 2018).

While CBITS and Bounce Back are the most researched school-based trauma programs, a number of other small group interventions have been created and studied (see Table 1.1). Support for Students Exposed to Trauma (SSET) and the Mental Health for Immigrants Program (MHIP) are CBITS-based interventions modified for use in culturally diverse classrooms (Jaycox et al., 2009; Kataoka et al., 2003). Both interventions are associated with student-reported decreases in depressive symptoms (Jaycox et al., 2009; Kataoka et al., 2003). Improvements in other areas of functioning have been inconsistent. Middle school students who participated in SSET noted decreased symptoms of PTSD (Kataoka et al., 2003). Decreases in PTSD symptoms were not found in a similar sample of students who completed MHIP (Jaycox et al., 2009). Significant decreases in adult-reported behavior problems were not noted in either study.

The effectiveness of other lesser-known small group trauma interventions varied across studies, with some finding improvements in emotional and social functioning (e.g., anxiety, depression, grief, social engagement) and others reporting nonsignificant results (Blanchet-Cohen & Nelems, 2013; Gudino et al., 2016; Mendelson et al., 2015; Salloum & Overstreet, 2012; Saltzman et al., 2001). There is limited research supporting the effectiveness of general small group interventions on trauma-related outcomes. In one study, nine out of 13 middle school students who participated in a relaxation group were still in need of more intensive treatment due to continued symptoms of PTSD (von der Embse et al., 2019).

Tier 2 of the NCTSN model also addresses the principles of trauma-informed care via team-based problem solving and trauma-specific screenings. Clinicians in the Healthy
Environments and Response to Trauma in Schools (HEARTS) program provided targeted consultation through participation on schools’ coordinated care teams (Dorado et al., 2016). This team-based consultation was associated with decreased disruptive behaviors and disciplinary referrals, as well as increased student engagement and instructional time (Dorado et al., 2016). However, a direct link between targeted consultation and student outcomes could not be determined, as results may have been partially attributed to additional trauma-informed practices.

In a separate study, mental health professionals provided classroom consultation in conjunction with staff professional development and individual interventions (Holmes et al., 2015). Although statistical data could not be analyzed, an observation measure indicated overall improvements in classroom relationships.

**Tier 3**

Tier 3 interventions entail individualized services that are made possible through partnerships among schools, families, and community agencies. Inter-agency care requires collaboration, transparency, and trust among everyone involved to ensure that services are coordinated and benefit the child in need.

While individual treatment is often included in the presented MTSS model, it is not widely provided in schools due to time constraints and gaps in school professionals’ competency (Chafouleas et al., 2016; Fitzgerald & Cohen, 2012). Two studies examined the effectiveness of individual trauma treatment as part of a tiered school-based continuum (Brown et al., 2006; Holmes et al., 2015). Students who participated in individual therapy reported decreased PTSD symptoms and did not differ from their peers on scales measuring depression (Brown et al., 2006). However, they continued to display higher levels of anxiety, anger, and overall PTSD when compared to students who did not receive this support. Further, their caregivers did not
report significant decreases in internalizing or externalizing behaviors (Brown et al., 2006). In a separate study, Head Start teachers reported increased attention and decreased externalizing behaviors in children who received individual trauma therapy (Holmes et al., 2015).

**School Psychologists and the Need for Training**

The articles reviewed demonstrate increasing evidence for school-based TIPs. Although school psychologists have been called on to implement TIPs, they are largely omitted from the school-based trauma literature (Little & Akin-Little, 2013). Of the 29 studies reviewed in the current paper, only two identified school psychologists as intervention implementers (see Table 1.1). Instead, researchers often employed other mental health professionals, such as school social workers, clinical psychologists, and unspecified mental health professionals (e.g., Kataoka et al., 2003; Langley et al., 2015; Perry & Daniels, 2016).

This omission may initially seem at odds with professional standards and proposed areas of practice, as school psychologists are broadly trained to engage in many of the practices cited in Table 1.1. Per the National Association of School Psychologists’ (NASP) comprehensive practice model, school psychologists may be expected to implement mental health services to students, consult with teachers and school administrators, provide staff coaching and training, and participate in school-wide practices (National Association of School Psychologists [NASP], 2020; NASP, 2016). NASP made explicit reference to trauma in its most recent Professional Standards, directing school psychologists to collaborate with school staff to reduce the adverse effects of trauma (NASP, 2020). For example, urban school psychologists in a recent study noted that they work with teachers, administrators, and other school-based mental health professionals to support school-wide TIPs and deliver therapeutic services (Kearney, 2021).
School psychologists’ absence from the school-based trauma literature may reflect their reduced implementation of TIPs. In a recent national study, 85% of school psychologists reported they did not deliver TIPs in the past year (Gubi et al., 2019). Limited training was the most commonly cited barrier to intervention implementation, with 75% to 80% of participants reporting minimal training in trauma and TIPs (Gubi et al., 2019). While school psychologists are generally trained in a range of practices, they receive limited guidance on how to apply these skills when working with student trauma. A number of studies have identified gaps in graduate trauma training across psychology and related mental health disciplines (Cook et al., 2011; Cook et al., 2017; Kearney, 2021). In examining school psychology graduate programs specifically, Little and Akin-Little (2013) found only a few that required coursework in trauma or crisis intervention.

Given current training limitations and the subsequent effects on professionals’ practices, researchers have charged graduate programs with providing increased knowledge and skill-building regarding trauma (Cook et al., 2017; Courtois & Gold, 2009; Layne et al., 2011). In response to these calls, trauma experts established professional competencies that were later adopted as part of the American Psychological Association’s official trauma training guidelines (Cook et al., 2017). These competencies, known as the New Haven Competencies, outline five broad skillsets for entry-level psychologists (American Psychological Association [APA], 2015; Cook et al., 2019). An overview of these competencies is presented in Table 1.2. While there is general acceptance of the New Haven Competencies, there has been some debate regarding optimal ways in which they can be incorporated into graduate training curricula. For example, some researchers have proposed specialized courses or seminars on trauma and related topics (e.g., assessment, counseling, interventions; Cook et al., 2017; Newman, 2011). Others have
advocated for the infusion of trauma knowledge throughout graduate courses, assigned readings, practica, and internship experiences (e.g., Courtois & Gold, 2009; Layne et al., 2011; Simiola et al., 2018; VanAusdale & Swank, 2020).

Table 1.2

*Five Broad Core Trauma Competencies*

<table>
<thead>
<tr>
<th>Core Competency</th>
<th>Related Skills</th>
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<tbody>
<tr>
<td>Scientific Knowledge About Trauma</td>
<td>Understand current research on trauma and its effects, critically evaluate trauma research, apply scientific trauma knowledge to clinical situations</td>
</tr>
<tr>
<td>Psychosocial Assessment</td>
<td>Utilize assessment tools to measure cognitive, behavioral, and personality dimensions of individuals with a trauma history; understand how environmental factors affect assessment</td>
</tr>
<tr>
<td>Psychosocial Intervention</td>
<td>Select and implement evidence-based interventions for individuals with trauma history; create treatment goals, plan, and progress monitoring tools; collaborate with relevant care systems, such as families and schools</td>
</tr>
<tr>
<td>Professionalism</td>
<td>Address legal and ethical issues with individuals with trauma history, utilize culturally responsive practices with diverse groups, participate in creating trauma-informed policies, seek information and consultation as needed</td>
</tr>
<tr>
<td>Relational and Systems</td>
<td>Listen to and interact with individuals with trauma history, work in interdisciplinary settings</td>
</tr>
</tbody>
</table>
Researchers who espouse the infusion of trauma knowledge throughout coursework have considered it to be a cost-effective and time-efficient approach to training (Layne et al., 2011; VanAusdale & Swank, 2020). This method may be suitable for school psychology training programs that are already tasked with developing a wide array of skillsets, including intervention, psychoeducational assessments, counseling, consultation, systems-level theory, program evaluation, and ethics (Flanagan, 2020). Adequately covering these areas becomes even more daunting when discussing specialist-level training due to its limited duration (Flanagan, 2020). By incorporating trauma knowledge throughout courses and applied learning experiences (i.e., practica, internships), training programs can begin to prepare future professionals to address student trauma without overburdening graduate curricula (Layne et al., 2011; VanAusdale & Swank, 2020). Given time constraints in school psychology graduate programs, trainers can also provide students with resources for continued learning. Table 1.3 presents an overview of commonly referenced resources, some of which include targeted interventions examined in Table 1.1 (e.g., CBITS, Bounce Back; Jaycox et al., 2009; Santiago et al., 2018; Stein et al., 2003).
### Table 1.3

**Online Trauma-Informed Training Resources**

<table>
<thead>
<tr>
<th>Organizational Resources</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NASP</strong></td>
<td></td>
</tr>
<tr>
<td>• Free resources for creating trauma-sensitive schools; outlines school psychologists’ role</td>
<td><img src="https://www.nasponline.org/resources-and-publications/resources-and-podcasts/mental-health/trauma-sensitive-schools" alt="Link to NASP resources" /></td>
</tr>
<tr>
<td><strong>NASP – PREPaRE Training Curriculum</strong></td>
<td></td>
</tr>
<tr>
<td>• Training in school crisis prevention and response</td>
<td><img src="https://www.nasponline.org/professional-development/prepare-training-curriculum" alt="Link to PREPaRE training" /></td>
</tr>
<tr>
<td><strong>NCTSN</strong></td>
<td></td>
</tr>
<tr>
<td>• Free resources and webinars on a range of trauma-related topics</td>
<td><img src="https://www.nctsn.org/" alt="Link to NCTSN" /></td>
</tr>
<tr>
<td><strong>NCTSN – Creating Trauma-Informed Schools</strong></td>
<td></td>
</tr>
<tr>
<td>• Free overview of a tiered trauma-informed schools framework</td>
<td><img src="https://www.nctsn.org/resources/creating-supporting-and-sustaining-trauma-informed-schools-system-framework" alt="Link to NCTSN trauma-informed schools" /></td>
</tr>
<tr>
<td><strong>SAMHSA – Trauma-Informed Care in Behavioral Health Sciences</strong></td>
<td></td>
</tr>
<tr>
<td>• Free manual that provides an overview of trauma and creating trauma-informed organizations</td>
<td><img src="https://store.samhsa.gov/product/TIP-57-Trauma-Informed-Care-in-Behavioral-Health-Services/SMA14-4816" alt="Link to SAMHSA trauma-informed care manual" /></td>
</tr>
<tr>
<td><strong>Trauma and Learning Policy Initiative</strong></td>
<td></td>
</tr>
<tr>
<td>• Resources and manuals on trauma-sensitive schools</td>
<td><img src="https://traumasensitiveschools.org/tlpi-publications/" alt="Link to Trauma and Learning Policy Initiative" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Evidence-Based Interventions</th>
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<tbody>
<tr>
<td><strong>Bounce Back</strong></td>
<td></td>
</tr>
<tr>
<td>• Free treatment manual and online training; intended for elementary schools</td>
<td><img src="https://bouncebackprogram.org/" alt="Link to Bounce Back" /></td>
</tr>
<tr>
<td><strong>CBITS</strong></td>
<td></td>
</tr>
<tr>
<td>• Free treatment manual and online training; intended for middle and high schools</td>
<td><img src="https://cbitsprogram.org/" alt="Link to CBITS" /></td>
</tr>
<tr>
<td><strong>SSET</strong></td>
<td></td>
</tr>
<tr>
<td>• Free treatment manual and online training; delivered by teachers or school counselors</td>
<td><img src="https://ssetprogram.org/" alt="Link to SSET" /></td>
</tr>
<tr>
<td><strong>Trauma-Focused Cognitive Behavioral Therapy (TF-CBT)</strong></td>
<td></td>
</tr>
<tr>
<td>• Online training modules for students who experience trauma; can be implemented by mental health professionals in a variety of settings</td>
<td><img src="https://tfcbt2.musc.edu/" alt="Link to TF-CBT" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Screening Guidelines</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Guidance for Trauma Screening in Schools (Eklund, 2016)</strong></td>
<td></td>
</tr>
<tr>
<td>• Free resource on trauma screening and linking data with school-based interventions</td>
<td><img src="https://www.nasponline.org/x37269.xml" alt="Link to Guidance for Trauma Screening" /></td>
</tr>
</tbody>
</table>
Conclusions

Given their increased rate of PTE exposure and environmental risk, youth in low-income urban communities are vulnerable to developing trauma and its associated sequelae. Despite limited funding and resources, schools in these communities are charged with providing interventions that improve student outcomes and limit the effects of trauma. By infusing TIPs into an MTSS framework, UHNS can better utilize resources needed to support students and eliminate barriers that restrict access to mental health services. School psychologists can play an integral role in the delivery of TIPs. However, limited trauma training often limits their engagement in such practices. Given high rates of PTE exposure and subsequent trauma, it is imperative that school psychology training programs provide graduate students with foundational knowledge needed to meet the needs of diverse students and families with trauma histories.
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**SCHOOL-BASED TRAUMA-INFORMED PRACTICES: HOW URBAN SCHOOL PSYCHOLOGISTS SUPPORT STUDENTS**


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and alcohol, drug, and mental health disorders. *Social Science & Medicine, 65*(9), 1867–1881. https://doi.org/10.1016/j.socscimed.2007.05.045


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https://doi.org/10.1177/1534765612438947
Nearly one in six children in the United States under the age of 18 lives in poverty, with higher rates found among youth in urban neighborhoods (Children’s Defense Fund, 2020; United States Census Bureau, 2016). Childhood poverty has been associated with a range of stressors, including increased exposure and vulnerability to potentially traumatic events (PTEs; Collins et al., 2010; Garo et al., 2018; Kiser, 2007; Maguire-Jack & Font, 2017). Across studies, PTE prevalence rates in high-need communities are as high as 70 to 100% (e.g., Dempsey et al., 2000; Fitzpatrick, 1993; Jaycox et al., 2002; Pastore et al., 1996). In comparison to youth in middle-class neighborhoods, children in low-income urban communities experience greater exposure to PTEs involving violence, such as maltreatment, physical threats, and assault with a weapon (Gladstein et al., 19929; Maguire-Jack & Font, 2017).

Contextually-bound PTE prevalence rates are apparent early in childhood. Briggs-Gowan and colleagues (2010) found that as early as two to three years of age, children living in poverty were more likely to experience both family violence and community violence. By the time such children enter formal schools, they may have already experienced multiple PTEs. Students exposed to one violent PTE are at higher risk for later and more severe victimization exposure to one violent PTE predicts later and sometimes more severe victimization (Salzinger et al., 2002; Smith & Patton, 2016). While most youth exposed to one PTE will not experience long-term impairments in functioning, those exposed to multiple or chronic PTEs are at risk of developing trauma and related disorders (Copeland et al., 2007; Edwards et al., 2003; Finkelhor et al., 2007).

Schools have been charged with remedying the effects of trauma by incorporating trauma-informed practices (TIPs) throughout all policies and procedures (Hoover et al., 2018;
Little & Akin-Little, 2013; Overstreet & Mathews, 2011; Substance Abuse and Mental Health Services Administration [SAMHSA], 2014). In trauma-informed schools, all staff understand the effects of trauma and utilize this knowledge to establish safe environments that build upon youth strengths, promote resilience, foster empowerment and collaboration, and facilitate trauma recovery (Chafouleas et al., 2016; Hodas, 2016; SAMHSA, 2014). Researchers identified school psychologists’ integral role in implementing trauma-informed services given their backgrounds in mental health and evidence-based interventions (Little & Akin-Little, 2013; NASP 2016). However, little is known about school psychologists’ use of TIPS in urban high-need communities. The current qualitative study was designed to better understand the training urban school psychologists receive on TIPS, and explore how this training affected their perceived competency in and use of trauma-informed strategies.

**Effects of Trauma on Student Functioning**

Researchers have extensively studied the effects of trauma on child development. However, high covariance between trauma and poverty make it difficult to delineate the unique impact of each. For example, studies have found that both trauma and poverty are associated with poor inhibitory control, increased internalizing and externalizing behaviors, and academic difficulties (e.g., Santiago et al., 2011; Slopen et al., 2010; Strohschein, 2005). The research presented in this article will focus specifically on trauma outcomes in low-income urban youth.

In their definition of trauma, the Substance Abuse and Mental Health Services Administration (SAMHSA, 2014) delineated between what they termed the “3 E’s” – the event, the experience, and the effects. Per this definition, trauma is not present in all youth exposed to potentially traumatic events (PTEs). Rather, youth must experience overwhelming emotional
stress and perceived threats to safety, as well as adverse long-term effects following PTE exposure in order for trauma to occur.

Numerous studies have documented the effects of PTE exposure and subsequent trauma on school functioning. Trauma disrupts typical brain development and decreases learning opportunities, leading to impaired verbal comprehension, working memory, processing speed, and executive functioning skills (Davis et al., 2015; DePrince et al., 2009; Enlow et al., 2012; Viezel et al., 2015). Impaired cognitive functioning may explain decreased reading and math performance in children who experienced PTEs (e.g., De Bellis et al., 2013; Wodarski et al., 1990). In several studies, exposure to community and family violence was associated with low reading scores in African American children living in urban neighborhoods (Delaney-Black et al., 2002; Hurt et al., 2001; Thompson & Massat, 2005). Trauma has also been correlated with poor attendance, decreased academic engagement and independent learning, low test scores, increased need for special education services, and heightened risk of grade retention (Eckenrode et al., 1993; Fantuzzo et al., 2011; Hurt et al., 2001; Reyome, 1994; Shonk & Cicchetti, 2001; Wodarski et al., 1990). The long-term effects of trauma on academic performance has been argued to be more significant for children in lower grades (Eckenrode, Laird, & Doris, 1993; Fantuzzo, Perlman, & Dobbins, 2011).

The association between trauma and maladaptive behavior is well-documented. In a number of studies, students in urban neighborhoods who were exposed to violence and other forms of maltreatment displayed more externalizing behaviors, resulting in increased school disciplinary referrals (De Bellis et al., 2013; Eckenrode et al., 1993; Wodarski et al., 1990; Thompson & Massat, 2005). Further, the interpersonal nature of certain PTEs disrupted typical social development, resulting in social skills deficits, impaired relationships, and increased peer
rejection (Briggs-Gowan et al., 2012; Briscoe-Smith & Hinshaw, 2006; Fantuzzo et al., 2011; Shonk & Cicchetti, 2001). When significant PTSD symptoms are present, youth have been found to be at increased risk for developing internalizing problems such as withdrawal, anxiety, depression, low self-esteem, poor self-concept, dissociation, and poor ego resilience (Briggs-Gowan et al., 2012; De Bellis, et al., 2013; Delaney-Black et al., 2002; Hurt et al., 2001; Overstreet & Mathews, 2011; Shonk & Cicchetti, 2001; Wodarski et al., 1990).

**Trauma Services in Schools**

Despite the potential for maladaptive outcomes, the effects of trauma can be mitigated through protective factors that promote resilience (Fergus & Zimmerman, 2005; Kiser et al., 2010; Masten & Coatsworth, 1998). By providing trauma-informed services, school personnel can circumvent barriers to mental health care access, increase the number of students who receive assistance, and promote resilience (Allensworth et al., 1997; Fitzgerald & Cohen, 2012; Little & Akin-Little, 2013; National Association of School Psychologists [NASP], 2015; Ridgard et al., 2015). Per NASP (2016) guidelines, *trauma-informed schools* a) promote the physical and emotional safety of students, b) ensure all staff understand the effects of trauma, c) provide access to school-based mental health and behavioral services, d) establish positive and culturally-sensitive discipline policies, and e) partner with community agencies.

Several researchers and professional organizations have recommended that trauma-informed schools utilize a multi-tiered systems of support (MTSS) framework in the provision of services (e.g., Cole et al., 2005; Cole et al., 2013; NASP, 2016; National Child Traumatic Stress Network [NCTSN], Schools Committee, 2017; SAMHSA, 2014). In MTSS trauma-informed schools, all students benefit from receiving TIPs, with those exhibiting significant distress receiving more intensive interventions at higher tiers (see Fig. 1; Chafouleas et al., 2016;
Overstreet & Mathews, 2011; NASP, 2016; NCTSN, Schools Committee, 2017). In determining supports across tiers, it is important to distinguish between TIPs and *trauma-focused interventions (TFIs)*. TIPs are infused throughout all tiers of the MTSS model to foster an organizational culture that considers the effects of trauma on youth, staff, and families. For example, schools may provide trauma training to staff, and ensure discipline policies and student behavior plans are sensitive to students who have experienced trauma. *TFIs*, such as trauma-focused cognitive behavioral therapy (TF-CBT), are therapeutic treatments that directly target trauma recovery. These intensive interventions are provided at higher tiers of support (i.e., Tiers 2 and 3) to students who exhibit significant traumatic stress (see Figure 2.1).

**Figure 2.1**

*Tiered Trauma-Informed School Model*
Recent studies have provided varying levels of evidence for TIPs across tiers of the MTSS model. Students who participated in universal social-emotional learning curricula demonstrated improved communication, relationship building, self-regulatory, and problem-solving skills (Brown et al., 2012; Ijadi-Maghsoodi et al., 2017; NASP, 2015; Upshur et al., 2017). In one study, universal TIPs included staff professional development, universal instruction on coping skills, trauma-informed behavior support plans, and individualized trauma-specific interventions (Dorado et al., 2016). Further, TIPs increased student engagement during instruction, decreased suspensions and disciplinary office referrals, and improved staff trauma knowledge over time (Dorado et al., 2016).

While there is a strong literature base for Tier 1 resilience-building and staff development programs, research on other universal practices is scant. Universal trauma screening recommendations vary due to lack of awareness of screening tools and limited evidence advocating their use in schools (Eklund & Rossen, 2016; NASP, 2015). Findings from initial studies have indicated screening can identify students in need of support before they exhibit significant distress (Saltzman et al., 2001). However, this early identification may present challenges for schools that do not have the resources to serve all the students identified (Chafouleas et al., 2010).

Several scholars have examined Tier 2 TIPs that may be included within MTSS. TFIs based on cognitive behavioral principles remain the most widely studied and effective treatment for youth in need of more intensive supports (Fitzgerald & Cohen, 2012; Little et al., 2009; Rolfsnes & Idsoe, 2011). Interventions created for implementation in the school setting, such as Cognitive Behavior Intervention for Trauma in Schools (CBITS) and Bounce Back, have been demonstrated to reduce symptoms of anxiety, traumatic stress, depression, and anger for students
in low-income urban elementary schools (Jaycox et al., 2010; Kataoka et al., 2003; Langley et al., 2015; Rolfsnes & Idsoe, 2011; Salloum & Overstreet, 2012). Results from one study indicated that elementary school students with significant traumatic stress reported decreased overall PTSD symptomatology after participating in CBITS, though they continued to meet diagnostic criteria in at least one symptom area (Perry & Daniels, 2016).

Literature on Tier 3 TIPs is scarce given barriers to implementing interventions with this high level of support (Chafouleas et al., 2016; Fitzgerald & Cohen, 2012). Preliminary evidence suggests school-based individual therapy leads to decreased PTSD symptoms and externalizing behaviors (Brown et al., 2006; Holmes et al., 2015). Further research is needed, as Brown and colleagues (2006) found students continued to exhibit significant anger and anxiety after receiving TF-CBT. At Tier 3, school evaluators consider trauma regardless of the original referral question, assess for a variety of PTEs and related impairments, and link PTEs to factors that may trigger disruptive behaviors (Wyoff & Franzese, 2019). Although there is little research on trauma-informed evaluations for students who may warrant specialized services, Wycoff and Franzese (2019) outlined guidelines for such assessments in school and community settings. Several of their recommendations, such as obtaining data from multiple informants and the use of a variety of valid assessment tools to measure functioning across domains, align with longstanding professional guidelines (NASP, 2020; Wycoff & Franzese, 2019).

The Role of School Psychologists

Little and Akin-Little (2013) charged school psychologists with addressing student trauma given their mental health competencies and access to youth. NASP (2016) recommended that school psychologists help create trauma-informed schools by a) providing mental health care to all students, b) consulting with teachers to address negative effects of trauma, c) collaborating
with administrators to establish systems-level TIPs and policies, d) considering data when delivering services, and e) providing trauma-related training to parents and school staff. While school psychologists’ participation in TIPs was once only a recommendation, it is increasingly becoming an expected area of practice. NASP’s 2020 Professional Standards (2020) hold that school psychologists should understand the effects of trauma and collaborate with school staff to reduce these effects.

Although school psychologists are increasingly urged to support school-wide TIPs, their actual engagement in such practices is unclear (Diamanduros et al., 218; Overstreet, 2015). Most school-based studies on TIPs employ school social workers and clinical psychologists rather than school psychologists (e.g., Kataoka et al., 2003; Kataoka et al., 2011; Langley et al., 2015; Rolfsnes & Idsoe, 2011). Similarly, school psychologists were not explicitly identified in studies of school-wide TIC. Instead, researchers used outside clinical community partners, unspecified special education professionals, and general master’s level clinicians to enact critical components of TIPs (e.g., Blitz & Lee, 2015; Blitz et al., 2016; Dorado et al., 2016; Holmes et al., 2015). For example, although Perry and Daniels (2016) collaborated with a university school psychology program to develop a school-based continuum of TIPs, services were provided by an unspecified pre-licensed professional psychologist, social worker, and other unspecified master’s level clinicians.

**Limited Training and Competence**

Several factors may explain the frequent omission of school psychologists from applied studies on TIPs. School psychologists often have limited opportunities to participate in mental health and consultation services because they spend at least half of their time engaged in special education assessments, report writing, and meetings (Lewis et al., 2008). This is particularly true
in urban schools, where high student to psychologist ratios result in large caseloads and a high demand for psychoeducational evaluations targeting special education eligibility rather than mental health services, as students in high-need urban schools perform worse than their peers on reading, math, and science assessments (Graves et al., 2014).

Limited trauma-related training and competency has been identified as a significant barrier for school psychologists (Gubi et al., 2019; Kobi et al., 2008; U.S. Attorney General, 2013). Little and Akin-Little (2013) reported that few American Psychological Association (APA)-accredited school psychology programs required specific courses in trauma. Although additional trauma training may be available through specialized courses or internships, graduate students must explicitly seek out these experiences (Courtois & Gold, 2009; Gubi et al., 2019; Layne et al., 2011). Data from a national sample of school psychology practitioners, trainers, and trainees suggested that 75% of participants reported zero to minimal training on the effects of trauma and more than 80% reported zero to minimal training on TIPs (Gubi et al., 2019). This limited training had negative implications on participants’ self-competencies and engagement in TIPs.

This trauma training gap is not unique to school psychology, as many other psychologists who work with trauma did not receive formal training on evidence-based trauma treatments (Cook et al., 2011; Cook et al., 2017). The need to seek special training occurs because such training opportunities are often only offered through specialized tracks or provided based on faculty interest rather than embedded in required curricula (Layne et al., 2011). In a recent study, only one third all psychology doctoral programs (i.e., school, clinical, counseling) offered trauma courses (Cook et al., 2017). Most often, trauma training was available through practicum options, seminars, or special workshops (Cook et al., 2017).
Limitations in professional trauma competency across mental health fields have prompted calls for increased continuing education and graduate training on trauma (Cook et al., 2017; Courtois & Gold, 2009; Layne et al., 2011). During a 2013 national conference, 60 trauma experts developed professional competencies that were later adopted by the American Psychological Association as part of its official trauma training guidelines (Cook et al., 2017). Known as the New Haven Competencies, the five broad competencies and nine cross-cutting competencies outlined trauma skillsets psychologists should develop before entering the workforce (American Psychological Association [APA], 2015; Cook et al., 2019). The five broad competencies included a) scientific knowledge about trauma, b) trauma-informed psychological assessment, c) TFIs, d) professionalism, and e) trauma-informed systems and relational work (APA, 2015). Graduate programs can infuse these competencies throughout coursework, assigned readings, applied learning experiences, and supervision (Courtois & Gold, 2009; Gold, 1997). Specialized trainings, additional internships, and secondary trauma processing groups can be offered for trainees interested in developing advanced competency in trauma and related topics (Cook et al., 2019; Courtois & Gold, 2009; Gold, 1997). To date, NASP has not provided guidelines concerning graduate trauma training.

**Purpose of the Study**

Although school psychologists have been called to provide school-based TIPs, many do not provide such treatment due to limited training, conflicting responsibilities, and a lack of specific professional guidelines concerning trauma-informed services (Graves et al., 2014; Gubi et al., 2019; Lewis et al., 2008; NASP, 2016). While recent studies have noted the gap between school-based trauma research and practice, none to date have explored school psychologists’ current implementation of strategies to address student trauma. Such information may be
particularly important in low-income urban neighborhoods given disproportionate rates of PTE exposure and subsequent traumatic distress (Black & Krishnakumar, 1998; Dempsey et al., 2000; Fitzpatrick, 1993; Howard, 1996; Jaycox et al., 2002; Jaycox et al., 2012; Kiser et al., 2010). The current qualitative study explored the ways that urban school psychologists in Title I eligible elementary schools addressed student trauma by asking the following research questions: 1) How do urban school psychologists become trained to deliver trauma-informed strategies? 2) How does school psychologists’ training influence their perceived competence in providing TIPs? 3) What strategies do urban school psychologists use to address student trauma?

**Methodology**

**Research Design**

The study utilized a rigorous consensual qualitative research (CQR) design to understand how urban school psychologists receive trauma training and identify ways they address student trauma (Hill, Knox, Thompson, Williams, Hess, & Ladany, 2005). CQR is based on a constructivist approach, which holds that reality is subjective and heavily influenced by individuals’ culture, language, experiences, and interactions (Hill et al., 1997; Patton, 2002). Researchers applying a CQR method therefore capture the perspectives of multiple individuals to better understand a single complex phenomenon (Hill et al., 1997; Patton, 2002). Like other qualitative methods, CQR presents data from participants’ viewpoints and utilizes researchers as the main instruments for data analysis (Hill et al., 1997). Hill and colleagues (2005) noted that the core components of CQR include a) the use of open-ended interviews or questionnaires, b) consensus among three to five researchers about the meaning of the data, c) an external auditor, and d) the utilization of domains, core ideas, and cross-analyses to analyze participant responses. The consensual process is a critical element of CQR, and is implemented in order to gain
multiple perspectives, reduce researcher bias, and obtain the most accurate interpretation of participants’ experiences (Hill et al., 1997).

**Participants**

In their description of CQR, Hill and colleagues (1997) recommended that researchers obtain a homogenous sample of eight to 15 individuals with experience in the phenomenon being studied. As extant data indicate most school psychologists do not consistently use trauma-informed strategies to support students, the researchers anticipated some difficulty obtaining a sample of urban school psychologists who regularly use TIPs (Gubi et al., 2019). To address this potential obstacle, the current study utilized snowball sampling, a technique used to obtain in-depth information from hard-to-reach or “hidden” populations (Geddes et al., 2018; Handcock & Gile, 2011; Heckathorn, 1997). Through snowball sampling, researchers use established social or professional networks by recruiting an initial group of eligible participants who are members of the community being studied. These initial participants then identify additional eligible potential participants. This process is repeated until the desired sample size is obtained or the recruitment period ends (Geddes et al., 2018; Handcock & Gile, 2011; Heckathorn, 1997).

Inclusion criteria for this study included a) current employment as a school psychologist in a Title I eligible elementary school and b) employment in one of the 25 U.S. cities with the highest rates of crime. A list of cities was created using data from the Federal Bureau of Investigation’s 2017 Uniform Crime report, which based its calculations on the rates of murder/manslaughter, rape, robbery, and assault in areas with at least 100,000 residents (Sauter, Frohlich, & Lodge, 2018). All participants were also identified as implementing TIPs through colleague nomination or self-report.
Initial participants were identified by grantees and affiliates of the National Child Traumatic Stress Network (NCTSN) who indicated that they a) provide school-based services or collaborate with school districts (e.g., provide consultation or training) and b) work in or near one of the target cities. The primary researcher randomly selected three such individuals from the created NCTSN list and asked them to forward an email with the study details to school psychologists who met inclusion criteria. This indirect recruiting protected nominee’s confidentiality, as their names and contact information were only known if they responded to the forwarded email. Nominees who responded and agreed to participate then were asked to forward the recruitment email to additional school psychologists who met inclusion criteria.

While this process continued until all eligible NCTSN grantees and affiliates were contacted, it yielded only three participants. To increase the study’s sample, a description of the study was posted on an online school psychology forum. Four forum members who responded to the post and met eligibility criteria served as additional participants. These four participants then nominated five school psychologists who met study criteria. In total, 12 certified school psychologists participated in the study. All participants were females. Participant demographic information is presented in Table 2.1.
Table 2.1

Participant Demographic Information

<table>
<thead>
<tr>
<th>ID</th>
<th>City</th>
<th>Ethnicity</th>
<th>Highest Degree</th>
<th>No. of Schools</th>
<th>Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>City A</td>
<td>Black</td>
<td>Ph.D.</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>City A</td>
<td>Caucasian</td>
<td>Ph.D.</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>City B</td>
<td>Caucasian</td>
<td>Specialist</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>City C</td>
<td>Caucasian</td>
<td>Ph.D.</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>City C</td>
<td>Caucasian</td>
<td>Specialist</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>6</td>
<td>City C</td>
<td>Caucasian</td>
<td>Specialist</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>7</td>
<td>City C</td>
<td>Black</td>
<td>Specialist</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>City D</td>
<td>Caucasian</td>
<td>Specialist</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>City C</td>
<td>Caucasian</td>
<td>Specialist</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>City D</td>
<td>Caucasian</td>
<td>Specialist</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>11</td>
<td>City D</td>
<td>Caucasian</td>
<td>Specialist</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>12</td>
<td>City D</td>
<td>Caucasian</td>
<td>Specialist</td>
<td>1</td>
<td>13</td>
</tr>
</tbody>
</table>

School and community demographics were obtained. Half of the participants were employed at two or more schools that sometimes served secondary (i.e., grades 6 – 12) and higher income populations. In these instances, participants were asked to focus their responses on strategies utilized in their Title I eligible elementary schools. Eleven participants reported most of their students come from low-income backgrounds. While one participant indicated economic diversity among her students, publicly available data confirmed the school met the Title I eligibility criteria that low-income families make up at least 40% of the student population. Six participants stated their schools serve predominantly Black or Latino students. Seven participants noted their schools’ cultural and linguistic diversity. Most of the target elementarschools were small, with 11 having fewer than 700 enrolled students. Seven participants identified environmental stressors present in their communities, including homelessness/housing...
insecurity, violence, parent substance use, parent mental health concerns, and increased lead exposure. Ten of the participants estimated high trauma prevalence rates among their students.

**Research Team**

The composition of the research team is critical to the CQR method, as participants’ “truths” are determined collectively by team members through the consensus process (Hill et al., 1997; Patton, 2002). It is beneficial that team members have some variation in their backgrounds, previous experiences, and theoretical orientations to prevent bias and promote the inclusion of diverse perspectives (Hill et al., 1997). The research team was comprised of three African American females pursuing advanced degrees in the field of school psychology. The primary researcher was a doctoral student from a northern U.S. city with several years of experience working with students in public schools and alternative education programs, as well as experience providing therapeutic services to youth and adults in community settings. She has worked as a school psychologist for two years. Two of the researchers were master’s-level students from southeastern and mid-western U.S. cities who have worked with children in public schools, non-profit organizations, and community agencies. One of the master’s-level researchers has also provided support to adults with disabilities in community and home settings. All three researchers have participated in at least one trauma-related training offered through their university, place of employment, or local organizations. Two of the researchers had experience supporting individuals with traumatic stress.

Power differentials were discussed before data analysis and throughout the consensus process. Master’s-level team members were encouraged to voice their ideas and dissent to obtain the most accurate and valid analysis possible. To maintain consistency, the primary researcher coded and reviewed all data.
**External Auditor**

Consistent with CQR, an external auditor was used to increase objectivity and provide alternate perspectives that were less vulnerable to potential groupthink. The auditor was a White male who served as a research faculty member at a university in the southeast U.S. He had a background in school psychology practices, extensive experience working in schools, familiarity with qualitative methods, and an interest in professional practices in high-need schools. The auditor checked the team’s work at several points during the data analysis process and ensured that the domains, core ideas, and categories emerged from the data as opposed to being superimposed. The auditor provided feedback and made suggestions on how team members could alter their analyses. Team members accepted the auditor’s minor revisions and re-coded data based on group consensus.

**Semi-Structured Interview**

Burkard and colleagues (2012) recommended that interview protocols consist of the following three sections: a) rapport-building questions broadly related to the topic of study, b) questions centering on the topic of interest, and c) questions on broader issues related to the topic (e.g., advice about the topic). The current study incorporated these sections into a two-series interview format that enabled researchers to build stronger relationships with participants and understand their experiences within the broader context of their lives (Burkard et al., 2012; Seidman, 2006). The primary researcher developed two semi-structured interview protocols that included open-ended questions, structured questions, and a list of general probes to elicit a detailed understanding of participant responses (Hill et al., 1997; Hill et al., 2005). The two interview protocols were collectively treated as one “case.”
The primary researcher completed pilot interviews with one doctoral-level school psychology student and one school psychology specialist who has completed most requirements of his doctoral program. Both pilot interviewees had experience working in urban schools. The interview protocols were modified based on feedback from the pilot interviewees and an analysis of interview transcripts (Burkard et al., 2012; Hill et al., 1997). Data from the pilot interviews were not included in the study.

The first interview asked participants to provide general background information and a focused life history, facilitating rapport and establishing the context for their current experiences (see Appendix A; Patton, 2002). Interview questions elicited information on how participants’ professional, education, and personal experiences led to their current work in urban school psychology. The second interview concentrated on participants’ trauma-related training opportunities and current implementation of trauma-informed services in the school setting (see Appendix B).

Procedure

After eligible school psychologists volunteered to participate, online informed consent was obtained, and interviews were scheduled. Prior to each interview, the primary researcher provided participants a copy of the interview for review. Data were collected via telephone and video conferencing interviews, platforms shown to reduce geographical barriers, help establish rapport, and provide increased flexibility when collecting data (Archibald et al., 2019; Hill et al., 2005; Lobe & Morgan, 2020; Matthews et al., 2018). Interview one lasted for an average of 48 minutes across participants, while interview two lasted for an average of 72 minutes across participants. At the end of each interview, the primary researcher conducted a short debriefing during which participants asked any additional questions about the study or provided follow-up
commentary on their responses (see Appendix A and B). All interviews were digitally recorded, de-identified, transcribed verbatim, and reviewed for accuracy (Hill et al., 1997).

**Data Analysis**

Data analysis through CQR consists of three steps: (a) develop domains, or topic areas, to cluster the data; (b) identify core ideas to summarize the main ideas expressed by participants through extracting direct quotes; and (c) perform a cross-analysis of cases to identify categories and label the findings based on prevalence among participants (Hill et al., 2005). Data from both interview protocols were analyzed and coded.

**Domains**

The research team used an inductive approach to create a list of domains represented in the data (Hill et al., 2005; Thompson, Vivino, & Hill, 2012). Each member of the research team independently reviewed the same randomly selected case, identified sections that contained similar ideas or topics, and created a suggested domain title for those identified sections. Using a consensual process, the team discussed the domains created by each team member and created a single list of initial domains for that case. To test that this list of domains captured the best “fit” of the data, the researchers independently applied it to another case (i.e. additional two transcripts). In subsequent consensus meetings, researchers worked to modify domains as needed (Hill et al., 1997). Once the list of domains stabilized, coding and consensus were completed in pairs rather than by the entire research team, with the primary researcher participating in the coding of all cases (Hill et al., 1997). The domain list was considered stabilized once all three research team members demonstrated a clear and consistent understanding of each domain’s definition, as well as the distinction between domains (Hill et al., 1997). After domains for all
cases were created, data sheets were shared among all group members for continued feedback and discussion as needed.

**Core Ideas**

After all data were coded, the researchers selected one case and collectively reviewed the data in each domain to construct core ideas, concise summaries of the content within domains. Once the case was completed and consensus was reached, the team independently created core ideas for two additional sets of transcripts and met to reach consensus to ensure confidence in the process. During all consensus meetings, each researcher practiced creating core ideas and received feedback from team members. After all researchers demonstrated understanding of core ideas for several cases, core ideas for remaining transcripts were completed in pairs rather than as a team. The primary researcher identified core ideas for all 12 cases and created a consensus version of domains, core ideas, and coded transcript excerpts for each participant. Consensus versions for all cases were shared among all members of the research team for continued feedback and analysis.

**Cross-Analyses**

To begin analyzing data across all participants, the research team examined all participants’ data within a single domain and collectively clustered core ideas into categories. This process was repeated for two additional domains to ensure understanding of the process. Each member then independently sorted data in each domain into categories and met to reach consensus on category content and title. To identify themes within the data, categories were labeled as *general* (10 – 12 cases), *typical* (6 – 9 cases), or *variant* (3 – 5 cases), or rare (1 – 2 cases) based on the frequency of each category across participants (Hill et al., 1997; Ladany et al., 2012).
Trustworthiness and Bias

Prior to data analysis, the auditor and all research team members independently reviewed the CQR process outlined in the training guide developed by Hill and colleagues (2005). Research team members also engaged in a bracketing exercise by recording their expectations regarding participant demographics and responses to interview questions (Hill et al., 1997). Researcher bias was discussed. For example, team members processed how their identifications as African American females with experience both attending and working in urban schools could affect their interpretations of data. Further, team members discussed ways in which their previous trauma work and their support for trauma-informed services could influence their analyses when examining participants’ use of such strategies. The external auditor participated in these discussions and asked probing questions to advance the conversation. During subsequent consensus meetings, team members acknowledged when biases may have influenced analyses and referenced transcript excerpts to ensure interpretations were based on data.

Member checking, a process through which participants confirm the accuracy of collected data, was conducted to ensure trustworthiness (Lincoln & Guba, 1985). Each participant received a list of their coded domains and all corresponding core ideas. By reviewing and providing feedback on domains, participants ensured the accuracy and credibility of data analyses. Feedback provided by all 12 participants was minimal, and often consisted of clarifying information regarding intervention or assessment measure names, demographic information, and the verbiage of core ideas. Core ideas were modified as needed.

Essential components of CQR, such as observing fidelity of the interview protocol (available upon request of the first author) to ensure replication, reaching consensus among research team members, addressing researcher bias during consensus meetings, and receiving
input from an auditor, were also used to monitor trustworthiness of the method (Hill et al., 2005; Strauss & Corbin, 1998). The use of category labels (i.e., general, typical, variant) served as an additional form of trustworthiness, as only results triangulated across multiple participants are reported.

**Results**

As the first interview focused on background information and participants’ life histories, several domains and categories centered on topics related to these areas. Further, participants provided a wealth of information on trauma and its effects across interviews. Consistent with the current study’s research questions, only domains and categories related to participants’ trauma training, their perceived competence in TIC, and their current use of TIPs are reported here. These domains and their associated categories are presented in Table 2.2. Definitions of all domains and core ideas are provided in Appendix C.
Table 2.2

Trauma Domains, Categories, and Frequencies

<table>
<thead>
<tr>
<th>Domain and Category</th>
<th>Frequency</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant trauma training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independently sought post-graduate training</td>
<td>General</td>
<td>11</td>
</tr>
<tr>
<td>Received training through work</td>
<td>General</td>
<td>10</td>
</tr>
<tr>
<td>Need for additional training</td>
<td>Typical</td>
<td>7</td>
</tr>
<tr>
<td>Trauma training during applied graduate learning experience</td>
<td>Typical</td>
<td>7</td>
</tr>
<tr>
<td>Limited training in graduate courses</td>
<td>Typical</td>
<td>6</td>
</tr>
<tr>
<td>Trauma addressed in several graduate courses</td>
<td>Typical</td>
<td>6</td>
</tr>
<tr>
<td>Trauma not addressed during applied graduate experiences</td>
<td>Variant</td>
<td>5</td>
</tr>
<tr>
<td>Training in TFIs or assessments</td>
<td>Variant</td>
<td>4</td>
</tr>
<tr>
<td>Trained in order to train others</td>
<td>Variant</td>
<td>3</td>
</tr>
<tr>
<td>Benefits of training</td>
<td>Variant</td>
<td>3</td>
</tr>
<tr>
<td>Perceived competence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limited competence after graduate school</td>
<td>Typical</td>
<td>7</td>
</tr>
<tr>
<td>Current limitations in competence</td>
<td>Variant</td>
<td>5</td>
</tr>
<tr>
<td>Competent providing trauma-informed services</td>
<td>Variant</td>
<td>5</td>
</tr>
<tr>
<td>Addressing trauma in evaluations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informal screening for trauma</td>
<td>General</td>
<td>10</td>
</tr>
<tr>
<td>Uses trauma lens in interpretation and eligibility decisions</td>
<td>Typical</td>
<td>9</td>
</tr>
<tr>
<td>Reporting trauma in evaluations</td>
<td>Typical</td>
<td>7</td>
</tr>
<tr>
<td>Privacy and family preference when reporting trauma</td>
<td>Variant</td>
<td>5</td>
</tr>
<tr>
<td>Use of formal assessment tools</td>
<td>Variant</td>
<td>5</td>
</tr>
<tr>
<td>Provides trauma-informed recommendations</td>
<td>Variant</td>
<td>4</td>
</tr>
<tr>
<td>Building relationships</td>
<td>Variant</td>
<td>4</td>
</tr>
<tr>
<td>Limited use of trauma-focused assessments</td>
<td>Variant</td>
<td>3</td>
</tr>
<tr>
<td>Collaboration with adults</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ongoing coaching and consultation with teachers</td>
<td>General</td>
<td>11</td>
</tr>
<tr>
<td>Collaborating with families</td>
<td>General</td>
<td>10</td>
</tr>
<tr>
<td>Consults with other school-based mental health professionals and support staff</td>
<td>Typical</td>
<td>8</td>
</tr>
<tr>
<td>Provides staff training on trauma</td>
<td>Typical</td>
<td>7</td>
</tr>
<tr>
<td>Teacher receptivity</td>
<td>Typical</td>
<td>7</td>
</tr>
<tr>
<td>Change adult mindsets about trauma and student behaviors</td>
<td>Typical</td>
<td>6</td>
</tr>
<tr>
<td>Need for staff training</td>
<td>Typical</td>
<td>6</td>
</tr>
<tr>
<td>Participation on problem-solving teams</td>
<td>Typical</td>
<td>6</td>
</tr>
<tr>
<td>Systems-level work</td>
<td>Variant</td>
<td>5</td>
</tr>
<tr>
<td>Collaborating with administrators</td>
<td>Variant</td>
<td>5</td>
</tr>
<tr>
<td>Collaborating with community agencies</td>
<td>Variant</td>
<td>5</td>
</tr>
<tr>
<td>Creating a common language and consistency across settings</td>
<td>Variant</td>
<td>5</td>
</tr>
<tr>
<td>Direct work with children</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationship building</td>
<td>General</td>
<td>10</td>
</tr>
<tr>
<td>Counseling provided by other mental health professional</td>
<td>General</td>
<td>10</td>
</tr>
</tbody>
</table>
How Do School Psychologists Become Trained in TIPs?

Domain 1: Participant Trauma Training

Participant Trauma Training domain categories centered on graduate coursework, applied graduate training experiences (i.e., practicum, internship, research), and professional development opportunities (see Appendix C). After acknowledging the relatively recent spotlight on TIPs, half of the participants indicated trauma was either not addressed in their graduate courses at all or was covered briefly in a single assessment or psychopathology course. When asked if trauma was discussed in her graduate coursework, Participant 11 (Specialist) responded:

... I really don't think so. I don't know if it's become more of like a... I don't want to say hot topic, but I feel like I started hearing more about trauma-sensitive training, things like that, maybe a couple years into working

The other half of participants noted trauma was mentioned in several classes but few had opportunities to enroll in courses dedicated specifically to trauma. Participant 12 (Specialist) stated:

I remember that one of my professors was really involved with understanding trauma.

And so she would incorporate it into classes at various points, but we never had one
specific class just on TIPs… But yeah, it was kind of sprinkled in I think throughout, but mainly from one professor

The two participants who took trauma-focused classes were enrolled in a doctoral program that provided ample trauma training opportunities. One such participant stated, “So we had formal coursework in trauma. We had a class specifically in trauma and… then there were opportunities for trainings in different interventions.” (Participant 2, Ph.D.).

Seven participants had some form of explicit trauma training during their practica or internships. Three of these participants were Ph.D. practitioners who took many more courses and received more intensive training opportunities in conducting trauma-informed assessments; implementing TFIs such as CBITS, TF-CBT, and child-parent psychotherapy (CPP); and providing trauma-informed consultation and professional development to staff. Three specialist participants primarily received trauma training during their practicum or internship due to the needs of the student population or through opportunities provided by their training site (i.e., school district). While these participants varied in their years of experience in the field (i.e., between eight and 13 years), they were all trained in City D. When asked if trauma was acknowledged during training experiences, Participant 8 (Specialist) responded:

… that wasn't the sole purpose obviously of the practicum or internship, but just being in School District F, I feel like they were probably among the first in the area to really adopt a trauma-sensitive approach and so… because a lot of their kids experience a lot of trauma just because of the urban setting.

Specialist training experiences often consisted of seminars or professional development workshops on TIPs, observable effects of trauma, and the relationship between TIPs and social-emotional learning. While one specialist also received training in the NASP PREPaRE model,
she obtained this professional development years into her career after noticing the effects of trauma on student development.

Five specialist participants noted that TIPs were not addressed during their practicum or internship. During Participant 11’s (Specialist) applied learning experiences, challenging environmental factors were discussed but the term ‘trauma’ was not explicitly used. While Participant 6 (Specialist) identified student trauma, she was not trained to apply trauma knowledge when conceptualizing students or making decisions regarding programming. She stated:

Well, it [trauma] was basically things you talked about in the background information, but we really didn't address it in any intervention or maybe some programming considerations. It just wasn't done.

Most participants received the bulk of their trauma training through their places of employment after entering the workforce. Eight participants worked in school districts that mandated training in trauma and TIPs for school psychologists and other school-based mental health professionals. District-provided training ranged from a single presentation to series of workshops provided over the course of several years. Training topics often included a) an overview of trauma and its effect on functioning and b) a review of school-based TIPs. In addition, two participants received training on trauma-related diagnoses, the Adverse Childhood Experiences (ACEs) questionnaire, and self-care strategies. Five of the eight participants were trained in order to re-deliver professional development to school staff. Through this training model, districts promoted a shared understanding of trauma among all school employees.

Three participants received most of their training when working at trauma-informed community agencies rather than through their school districts. In addition to receiving
professional development, these participants provided TIPs to students and collaborated with staff to implement systems-level trauma-informed interventions, such as the Sanctuary model and the SELF model.

Eleven participants independently sought additional trauma trainings offered through local, state, and national school psychology associations. Several participants also attended webinars or received training provided by universities and community mental health agencies. Participants sought more advanced professional development after observing the utility of initial trainings and noting the effects of trauma on their students. When asked why she paid for additional trauma training through NASP, Participant 6 (Specialist) responded:

*Well, when I looked at a lot of the kids that were being referred for special education, I noticed a lot of it, their academics were suffering from circumstances beyond their control. And it wasn't so much of a 'oh it's poor attention or it's some kind of inability to learn,' it was more a factor of what was going on with them emotionally, the social-emotional kinds of things that were interfering with their ability to learn.*

Participants noted additional professional development helped them better conceptualize students, increased their knowledge of TIPs and local referral options, and provided them with opportunities to network with mental health professionals outside of the school setting. Four participants indicated a preference for professional development on systems-level work and strategies for supporting school staff (e.g., assisting with classroom interventions, promoting staff self-care).

When asked what advice they would give urban school psychologists who work with trauma, seven participants recommended additional training on trauma and TIPs. Several referred to the vast amount of resources currently available to school psychologists seeking to
advance their trauma skillset. Participant 12 (Specialist) expressed her desire for training that is more intensive than is typically provided during professional development workshops or conferences. She stated:

I wish that those of us who were not more recently trained had some way to get access to that coursework if that makes sense. I don't know. I feel like we need addendums to all of our grad programs… And that’s where it comes into play with going to the conferences and accessing my own PD (professional development), but I still feel like it’s just not the same as having a semester long course on it.

How Does Training Influence School Psychologists’ Perceived Competence in Providing TIPs?

Domain 2: Perceived Competence

Training reportedly influenced the participants’ perceived competence in providing TIPs. Seven specialist interviewees expressed limited competence upon entering the workforce. Of those, four reported zero to minimal training in TIPs in both their graduate coursework and applied learning experiences. Of the remaining five participants who felt confident in their ability to deliver TIPs after graduate school, three received advanced training through their doctoral programs. Participant 11 (Specialist) was confident in creating trauma-informed accommodations and behavior plans after graduate school, but reported limited competency in delivering TFIs. Although Participant 8 (Specialist) reported initial confidence in her trauma-informed skillset, she recognized the limitations of her competence as she learned more about TIPs. She noted that after graduate school:

…I felt pretty good about it. But now looking back, there's so much that I didn't know and that I still don't know. So I think I felt adequately prepared, but only because at that
point… maybe that was the threshold that I had for being adequately prepared. It was pretty low just based on how aware people in my program were of the importance of the incorporation of trauma-sensitive practices into your service delivery.

Although all interviewees had trauma professional development, five specialists identified continued gaps in their competency and discussed how this influenced their work with students. Three of these participants noted that they did not provide TFIs due to role constraints and limited training in TFIs. After noting that she does “not have the tools to be a trauma therapist,” Participant 12 (Specialist) stated her supervisors reminded school psychologists of their limited competence in TFIs and discouraged their use of such practices to minimize the potential for student harm. Before discussing her low confidence in delivering TFIs, Participant 9 (Specialist) explained:

That always feels frustrating because I don't feel like I'm able to sit down with the student and really get deep into it and then… because it takes time and trust and multiple encounters and therapy sessions and I really don't feel adequately trained in that area, so that’s why I kind of cast them off to the mental health agencies

What TIPs Do Urban School Psychologists Use?

**Domain 3: Addressing Trauma in Evaluations**

Categories under the Addressing Trauma in Evaluations domain focused on how participants incorporated trauma screeners, privacy, relationship building, and a trauma-informed lens into their psychoeducational evaluations (see Appendix C). Participant 7 did not administer psychoeducational or psychosocial assessments when data were collected, and provided limited information on the subject. Of the eleven remaining participants, 10 indicated that in completing psychoeducational or psychosocial evaluations, they assess for PTE exposure through interviews,
questionnaires, and records reviews. Participant 8 described interviewing as “an art, it’s not a science,” and discussed the benefits of establishing rapport with parents prior to asking questions about trauma. Three other participants also discussed how they build relationships with parents and students throughout the evaluation process to gain information on students’ backgrounds and current concerns.

Nine participants explained how they consider trauma when interpreting evaluation data and making special education eligibility decisions. Five of these participants discussed their use of a trauma-informed lens when considering special education eligibilities (e.g., Emotional (Behavior) Disturbance), as criteria for these eligibilities overlap with trauma symptoms. For example, Participant 1 (Ph.D.) explained how she applies her knowledge on trauma and brain development when interpreting cognitive scores. In discussing low spatial and verbal scores commonly observed in students with trauma, she noted:

And so I always make sure to qualify those scores by talking about how the brain develops and how the brain develops around language. And so that is probably why their score is suppressed. It's not like they have a language disability or a listening comprehension disability… Does it mean that they have borderline intellectual abilities? No, so let's talk about this.

While nine participants discussed how they consider trauma when interpreting evaluation data, only seven of these interviewees indicated that they denote students’ trauma histories in reports. One doctoral-level participant stated that she reports students ACEs when she is aware of these experiences, while another doctoral-level participant “say(s) whether I think it's relational trauma or actual situational trauma in terms of an event or events plural” (Participant 1, Ph.D.). The five remaining specialists indicted that they consider family privacy and elicit
caregiver input to determine the level of detail they include in reports. When parents voice concerns with confidentiality, participants refer to trauma using vaguer language. Participant 11 (Specialist) stated

I usually ask what they want me to write up in my report. Sometimes I put more details and sometimes I just say the family has experienced… the student has experienced trauma that may be impacting them or something, just put a pat phrase in there. So I kind of leave it up to the family.

Five participants discussed their use of formal assessment measures. Of these interviewees, three employed trauma-focus measures. One specialist and one Ph.D. level practitioner noted that they use items from the ACEs questionnaire to determine students’ trauma histories. In administering trauma-focused assessment tools to caregivers, these participants help facilitate a shared understanding of PTEs and work to obtain more comprehensive views of students’ backgrounds. In explaining the benefits of formal assessment tools over open-ended interview questions, Participant 4 (Ph.D.) stated:

So I like the ACEs because it asks those trauma questions… I've had people tell me, “No, we've never experienced trauma” and then gone through the ACEs with them and every single one they confess to… So I do like that it’s a little bit more specific too, answering some of those questions without having to hope that they know what I’m talking about.

Another Ph.D. level participant identified similar benefits when speaking about her use of the Traumatic Events Screening Inventory (TESI) and PTSD screeners. Participant 4 (Ph.D.) noted that while she administered a variety of trauma-focused assessments during her doctoral internship, these measures are not available in her current school district. The other two
specialists in this category described their use of more broadband social-emotional and behavioral rating scales when conducting evaluations.

Four participants stated that they address trauma when making recommendations at the end of their reports. Include trauma-informed recommendations in their reports when applicable.

Participant 1 (Ph.D.) stated:

The other way is really thinking about when you do recommendations, even if Emotional Disturbance due to PTSD or other things is not part of what their exceptionality is, I know that if they've experienced trauma or have had some situations going on, the way that I talk about a lot of the recommendations – especially if they need a behavior plan or something like that – is really around some TIPs.

Participants indicated their recommendations often include relationship-building between students and staff, trauma-informed strategies, and referrals to outside resources.

**Domain 4: Collaboration with Adults**

Categories under the Collaboration with Adults domain primarily centered on educating staff about trauma and partnering with other professionals to support students (see Appendix C). Eleven participants described ongoing coaching and consultation they provide to teachers. In meeting with teachers individually, participants validate their concerns, encourages their efforts to address challenging behaviors, and support their implementation of Tier 1 social-emotional interventions such as Second Step, PATHS, the Zones of Regulation, and Love and Logic.

Several participants indicated that they regularly bring up trauma when consulting with teachers. For example, Participant 3 (Specialist) stated:

I think some teachers can get easily frustrated about their behavior. And be like ‘Why can't they just get together?’ sort of thing. So reminding them that a student has gone
through all this trauma and you need to be mindful of that and that their behavior isn't going to just change overnight.

In addition to consulting with teachers individually, half of the participants indicated they collaborated on problem-solving teams to address student concerns, review data, create behavior intervention plans, and facilitate consistency in adult responses to trauma-related behaviors. Team members often included teachers, administrators, school counselors, school social workers, families, and any other staff who have a relationship with the target student. Seven participants provided school staff with professional development on the physiological effects of trauma, symptoms of trauma and related disorders, TIPs, and the importance of educator self-care. Most interviewees noted professional development is provided to staff periodically, with new topics building upon those that were previously taught.

Ten participants indicated they collaborated with family members by providing psychoeducation on trauma, validating caregiver concerns, assessing caregiver stress, including families throughout problem-solving and intervention implementation, and connecting families to outside resources. Participants often identified family involvement as a critical aspect of TIPs. Participant 2 (Ph.D.) stated:

The parent needs to feel safe with us; they need to feel like they have a relationship with us before they’re going to sit down and really give us a lot of information, and then be willing to work with us on different interventions.

Similarly, Participant 4 (Ph.D.) noted:

…the number one thing I learned, was that if you don't have that parent or caregiver involvement, then it's really not going to see much change or much difference.
Six participants noted that through their work with families and school staff, they strive to change the way adults perceive trauma and TIPs. Participant 8 (Specialist) stated:

I think the most effective change that you can create in a building is in mindsets. So if you can impact staff members’ mindsets or re-conceptualize the way you're thinking about something, I think that has the most powerful potential for impacting students who have experienced trauma.

Participant 1 (Ph.D.) indicated that in changing mindsets, she helps shift adults’ views of trauma from a one-time incident to a continuum of experiences that can include housing insecurity, systemic racism, and relational trauma. Participants often discussed the importance of relationship building when consulting with staff and changing their ideas about trauma.

Participant 11 (Specialist) noted:

I think the most effective thing for me is the relationships, having good relationships with students and families and staff and everybody being able to work together as a team and building that trust with students and families. I think if you don't have that, you can do any curriculum in the world, the most beautiful behavior plan, the [greatest] research-based curriculum, but if you don't have a good relationship and trust with the students and families and teachers, you're not going to get anywhere.

Eight participants stated that they consulted with other school-based mental health professionals and support staff, including school counselors, school social workers, behavior specialists, occupational therapists, school-based mental health therapists, and other school psychologists. Through these partnerships, participants facilitate intervention implantation, create behavior plans, manage crises, and discuss alternative supports and resources. Several
participants noted the utility of speaking with like-minded professionals who already see the value of TIPs.

And then I think too, knowing that other school psychs, social workers, are all kind of... have this training and background...I feel like talking with other people sometimes that's one of the easiest ways to get some perspective and learn some simple things to try first before you jump into a larger plan. So kind of using those resources and talking with others who kind of have that same mindset or perspective. (Participant 10, Specialist)

**Domain 5: Direct Work with Children**

Ten participants discussed the importance of building relationships with students and establishing a sense of safety prior to implementing interventions. Participant 2 (Ph.D.) stated:

They have to feel like you are a safe person first – like they’re safe in the environment – and then they can start to build a relationship with you, and then start building skills, instead of coming in and just trying to do some evidence-based intervention with them.

Participant 10 (Specialist) presented a similar idea and indicated:

I think kind of starting small and with trauma, we don't always know how it affects, but trying those smaller strategies of routine, consistency, that relationship, I think sometimes those are the most powerful…

Six participants identified student-adult relationships as the most effective component in supporting students who have experienced trauma. These relationships include those participants have with students on their caseloads, as well as relationships teachers have with their students.

Nine participants discussed their role in supporting Tier 1 TIPs, including restorative practices, classroom calm down corners, PlayWorks, Edible Schoolyards, community circles, and school-wide yoga. Seven participants discussed evidence-based Tier 1 interventions
implemented in their schools, such as Positive Behavior Interventions and Supports (PBIS) and universal social-emotional learning curricula.

Eight participants described individual services they provide to students. Only Participant 2 (Ph.D.) indicated that she incorporates elements of trauma-focused therapies, such as TF-CBT and parent-child interaction therapy (PCIT) into her current work with students. Two additional participants reported that they utilize cognitive behavioral techniques when working with students individually. Most participants indicated that they do not address trauma directly, and instead support students by completing check-ins, teaching them emotion-regulation and coping skills, and providing them with a safe space in which they can de-escalate after crises. Participant 12 (Specialist) explained:

So a lot of my practice working with students in relation to trauma has just kind of been in a roundabout way in terms of providing them with relationship, with safe space… tools for calming down… working on self-confidence, self-reliance, goal setting. So just a lot of best practice therapeutic tools, but I'm not sitting down with a student saying, “So tell me about that one night when the cops burst open your door.”

Six participants described a similar framework when conducting restorative circles or small groups centered on specific topics such as self-esteem, social skills, emotion-regulation skills, and mindfulness. Participant 8 (Specialist) indicated:

And then in terms of the small groups that I do, like I said they don't directly target trauma, but it's more they might target discrete skills and in the back of my mind, I'm always thinking about ‘could trauma be playing a factor in how the student’s responding to this?’ How can I adjust my intervention to be more sensitive to their needs?
Ten participants indicated counseling services are provided by other mental health professionals. In at least five cases, these were the primary school-based therapeutic services that students received. Two participants noted that they co-facilitate small groups and restorative circles with school social workers. Additional school-based staff who provide counseling services included school counselors and milieu specialists. Several participants indicated that counseling services were provided through university and community partnerships. In discussing trauma-focused therapies, Participant 1 (Ph.D.) reported:

…we have LCSWs – licensed clinical social workers – in our buildings and licensed counselors, licensed school counselors. And so a lot of them do that as well. And I also have a practicum student from [a university in the southeast] working under me now at the schools… So they're doing TF-CBT with kids and stuff like that.

**Discussion**

There is a substantial gap between school-based trauma research and practice (Graves et al., 2014; Gubi et al., 2019; Lewis et al., 2008; NASP, 2016). To date, scholars have not fully explored urban school psychologists’ trauma training and practices that support students impacted by PTEs. Such information may be particularly important in low-income urban schools given high rates of PTE exposure and subsequent traumatic distress (Black & Krishnakumar, 1998; Dempsey et al., 2000; Fitzpatrick, 1993; Howard, 1996; Jaycox et al., 2002; Jaycox et al., 2012; Kiser et al., 2010). The current study used CQR to better understand how 12 practicing school psychologists used TIPs to serve students and families in high-need urban schools.

Findings indicated that despite clear applicability to vulnerable populations and school psychologists’ interest in trauma-informed work, training in TIPs is inconsistent and often relies on circumstance and practitioners’ initiative. Consistent with previous findings, half of the
participants reported zero to minimal graduate training in trauma and TIPs (Gubi et al., 2019). Of the three specialists who reported trauma training across multiple courses, two noted that this information was provided based on professor interest and the urban-education focus of their graduate program. Due to the incidental nature of this training, trauma instruction was often isolated and addressed in a few intervention or assessment courses rather than infused throughout the curriculum.

Work and training settings seemed to have a large influence on participants’ training opportunities. The majority of interviewees received most of their training through experiential learning (i.e., practicum, internship) or employment in low-income urban school districts. Many of these districts had developed trauma-informed training initiatives due to increased PTE exposure rates and high student need. Several district-provided trainings were intended to prepare participants to educate school staff without mental health backgrounds. Accordingly, professional development consisted of trainings and workshops that presented broad overviews of trauma, its effects, classrooms TIPs, self-care strategies, and ways to apply a trauma-informed lens to social-emotional learning. Trainings also helped further participants own expertise, as several reported improvements in their ability to conceptualize cases and support staff in addressing student trauma.

While participants’ trauma training may initially seem passive or happenstance, the large majority independently sought additional professional development after observing its utility in their high-need communities. Although mental health professionals’ perceptions of trauma training have not been extensively studied, preliminary studies suggest adequate trauma training can be empowering and lead to increased self-efficacy (e.g., Layne et al., 2011), resulting in a desire for additional learning. Given recent increased attention to trauma and its effects on youth
functioning, the amount of professional development available for mental health professionals has grown exponentially. Results of the current study indicated urban school psychologists may seek out these opportunities, even if they require payment.

Practitioner initiative may help explain training differences noted between specialist and doctoral-level participants. The three doctoral-level participants were more intentional in seeking trauma training. Two interviewees enrolled in the only APA-accredited school psychology program that offered a specialized trauma certificate at the time of this study. Trauma-related topics were interwoven throughout multiple courses. Further, these two participants took trauma-centered courses that provided advanced knowledge and training in evidence-based TFIs. The third doctoral interviewee’s graduate program did not offer courses dedicated to trauma. However, she sought an advanced internship that served students who exhibited traumatic stress and other severe behaviors. Given their increased interest in and opportunity for specialized training, all three doctoral-level participants developed more advanced clinical skills in implementing TFIs, differentiating between trauma-related disorders and other diagnoses, and conducting trauma-informed consultation with families and school staff when compared with specialists.

Training had direct effects on participants’ perceived competence, with differences noted across degrees. While all three doctoral participants reported competence in TIPs upon entering the workforce, seven of the nine specialists noted limited confidence after completing graduate training. This may be partially due to the shortened timeframe and generalist approach to specialist school psychology training. Although some specialist programs reviewed trauma and its relation to different scopes of practice, they did not help participants develop specialized skills in TIPs or TFIs. Discussions on trauma without training in specific interventions may
“muddy things up quite a bit,” (Participant 12, Specialist) leading to decreased confidence in implementing such techniques.

The generally broad district-provided trainings may help explain the number of specialists who identified continued gaps in their knowledge of TIPs and trauma-focused assessments. As district professional development was often intended to increase trauma knowledge among all school staff, it did not focus on practices more exclusive to school psychology, such as trauma-focused assessments or TFIs. Limited competency in these areas seemed to have direct implications on participants’ current practices. Most participants noted that they often assessed PTE exposure through open-ended caregiver interviews and informal questionnaires rather than trauma-focused measures. Moreover, specialist participants widely endorsed use of interventions and therapeutic techniques that ameliorate trauma-related symptoms rather than directly address PTE exposure. These findings are consistent with those presented in recent literature. Results from a national sample of school psychologists indicated that approximately 85% reported that they did not implement TFIs when working with students (Gubi et al., 2019). Further, about 80% did not administer trauma-focused assessment tools when collecting data for psychoeducational evaluations (Gubi et al., 2019). As in the current study, limited training in such interventions was cited as a barrier to service delivery.

Participants also identified varying role identities as a barrier to TFI service delivery. Five interviewees noted that they did not provide counseling to students. Supervisors in one district cautioned school psychologists from providing TFIs due to limited training and the potential for student harm. In the provision of more clinical interventions, school districts may prefer to rely on other school-based mental health professionals or community therapists with more extensive trauma backgrounds. Several participants discussed school-community
partnerships that increased access to mental health care for students who experience trauma. These therapeutic services were offered both in conjunction with and as an alternative to those provided by school-based mental health professionals. While these partnerships may benefit students, they may also create a level of tension when school psychologists want to provide therapeutic services but are unable due to barriers common in urban settings, such as competing demands, large caseloads, and limited administrative support (e.g., Gubi et al., 2019; Hanchon & Fernald, 2013; Langley et al., 2010). One participant noted that school psychologists in her district did not immediately welcome a school-community partnership, and instead wanted additional training so they could provide therapeutic interventions themselves. Buy-in reportedly increased after school psychologists recognized their constraints (e.g., limited time) and observed improvements in student functioning.

Participants reported a range of alternative techniques they use to support students individually or in small groups. Although research on cognitive behavioral therapy in youth trauma treatment is extensive, few participants discussed application of this concept (Fondren et al., 2020; Rolfsnes & Isdoe, 2011). Instead, participants often noted their use of games, play activities, art, problem-solving strategies, and emotion-regulation skill building to help students function within school. Many of these strategies are incorporated into evidence-based interventions such as CBITS and Bounce Back, and can be combined with CBT techniques when full implementation of packaged interventions is not feasible (Fondren et al., 2020). This may require additional school psychologist training, as one participant noted that despite her interest in CBT, she has limited competency using these techniques with students. Several participants identified use of mind-body techniques in the school setting, including yoga, sensory activities, and mindfulness. Given the physiological and neurological effects of trauma, interventions
strengthening the mind-body connection in children have gained increased attention in recent years (Mayer, 2019; Starr Commonwealth, 2019). Though research in this area is somewhat limited, several studies have demonstrated improvements in students’ interpersonal and intrapersonal functioning after participation in yoga and mindfulness practices (Beltran et al., 2016; Jee et al., 2015). Additional research is needed on the use of mind-body interventions within the school setting.

A number of participants identified relationship-building as the most effective strategy in supporting student trauma. In their critique of APA guidelines concerning trauma treatment, Norcross and Wampold (2019) took a similar stance, arguing that favorable client outcomes are more dependent on the therapeutic relationship and responsiveness of care than on any particular treatment modality. This emphasis on relationship-building coincides with the nature of trauma, which often disrupts youth’s sense of safety, limits their ability to trust others, and impairs their ability to form meaningful relationships (Souers & Hall, 2018; SAMHSA, 2014). In establishing positive and trusting relationships with youth, adults can remedy some of the negative effects of trauma and help children feel both cared for and understood (Mayer, 2019). To date, most studies have examined the relationship between the therapeutic alliance and trauma treatment outcomes in adult clients (Ellis et al., 2018; Norcross & Wampold, 2019; Sullivan et al., 2020). Research on relationship-building among children and adults has largely discussed the construct in the context of resilience. Studies on resilience – especially those conducted in an educational context – have primarily focused on relationships students form with their teachers and caregivers. For example, positive student-teacher relationships have been associated with decreased psychosocial distress, peer difficulties, and disruptive behaviors in students exposed to peer victimization and those with behavioral challenges (O’Donnell et al., 2002; Sulkowski &
Simmons, 2018). Additional research on the effects of child-school psychologist relationships on student outcomes is needed.

Most participants also highlighted the importance of building relationships and collaborating with parents and school staff in implementing Tier 1 interventions (e.g., positive behavioral supports, social-emotional learning curricula), creating behavior plans, and conducting evaluations. The benefits of an indirect service delivery model have long been touted in school psychology literature (e.g., Gutkin & Conoley, 1990; Sheridan & Gutkin, 2000). Through building a supportive and ongoing relationship with key adults, school psychologists can increase the probability that parents and school staff will be receptive to information provided during consultation and professional development. The frequent reference to adult partnerships in the current study is consistent with findings from a recent systematic review, in which 11 of 13 studies on school-based TIPs mentioned use of consultation or staff training (Berger, 2019). Following consultation and staff trainings in several studies, teachers have reported improved understanding of the effects of trauma and how it affects behavior, as well as increased self-efficacy in addressing trauma-related behaviors (Anderson et al., 2015; Crosby et al., 2015; Dorado et al., 2016; McConnico et al., 2016; Meyer, 2015; Perry & Daniels, 2016). Several participants discussed the ongoing nature of their consultation services, which may be critical in ensuring teachers’ abilities to apply trauma knowledge to their classroom practices (Anderson et al., 2015; RB-Banks & Meyer, 2017; Crosby et al., 2015).

Half of the participants further noted that in working with adults, they strive to change their mindsets regarding trauma and TIPs. This shift in adult mindsets is critical, as school-wide trauma-informed care entails a) a lens that shapes all practices and policies throughout the school building and b) cooperation and shared trauma knowledge among all school staff (Anderson et
As educators become increasingly aware of the effects of trauma, they may become more open to a cognitive shift regarding trauma and TIPs. After various types of trauma trainings, teachers have reported their desire for additional training, more culturally responsive school-wide systems to address trauma, and increased mental health services for students and families (Alisic, 2012; Blitz & Mulcahy, 2016; Blitz et al., 2016; Crosby et al., 2015). In one study, teachers who received trauma training also expressed interest in helping to establish more trauma-informed school environments (Meyer, 2015).

**Limitations**

Several limitations to the current study were noted. While the small sample size followed CQR guidelines, it limits the external validity of the results. However, the small nature of the study allowed for more in-depth analyses that might be helpful when conducting additional research that aims to increase generalizability. The generalizability of results may also be limited to the experiences of urban school psychologists working in high-need communities. Moreover, results may not apply to school psychologists in secondary schools given potential differences in service delivery, developmental stage, and school size. Many of the participants worked in one or two schools with fewer than 700 students. Practitioners who serve larger or greater numbers of schools may find it difficult to implement strategies identified by participants. A final limitation concerns the sampling techniques implemented. Researchers did not use formal criteria to assess participants’ understanding of TIPs before the interviews. As several participants were identified through self-report or colleague recommendation, their definitions of TIPs may have differed from that presented in the literature.

**Future Research**
The current study highlighted ways that school psychologists address trauma across areas of practice and identified continued gaps in training and treatment. In discussing best-practices on trauma training in psychology and related disciplines, researchers and professional organizations have underscored the benefits of infusing information on trauma, its effects, and related interventions throughout generalist learning opportunities (Cook et al., 2017; Layne et al., 2011; Simiola et al., 2018; VanAusdale & Swank, 2020). For example, Layne and colleagues (2011) found that presenting trauma-related case scenarios throughout a problem-based learning model increased social work students’ self-efficacy in supporting children and families with trauma histories. By incorporating trauma into existing coursework on theory, assessment, and counseling, graduate programs can assist trainees in cultivating a trauma-informed lens across areas of practice without adding additional classes into what are oftentimes full training curricula (VanAusdale & Swank, 2020). Incorporating information on trauma and TIPs across multiple courses may be particularly beneficial for specialists given the shortened length of their training.

Findings suggest many current practitioners attended school psychology graduate programs that did not employ these trauma training recommendations. Consistent with previous research, several participants identified discrepancies between their current and desired engagement in TIPs, and expressed their need for additional training (Gubi et al., 2019). Given recent calls for increased trauma training and treatment across mental health disciplines, current graduate curricula may provide more ample opportunities than those previously available (Cook et al., 2017; Courtois & Gold, 2009; Little & Akin-Little, 2013). Future studies can investigate how current school psychology training programs address trauma by inspecting courses offered or surveying interns and practicum students. This examination can also help elucidate the extent to which research trends influence school psychology training curricula. Studies can also explore
differences in graduate trauma training across environments (e.g., urban, suburban, rural) given possible differences in the number and type of PTEs youth experience.

Participants’ trauma training opportunities were partially attributed to their education or employment in urban settings. However, personal factors that led them to work in urban communities may also help explain their openness to trauma training and their proclivity for TIPs. Haberman (1995) identified key personal dimensions that distinguish effective urban educators in high-need schools. These dimensions include characteristics such as persistence, respect for at-risk students, and an acceptance of student fallibility (Haberman, 1995). To date, there is a paucity of research on the application of Haberman’s research to school psychologists (Grishby, 2020). Future studies can determine whether certain dispositions increase the effectiveness of urban school psychologists, and whether these factors in turn influence school psychologists’ use of TIPs.

Few participants reported implementation of trauma-specific interventions, despite the fact that training for several programs is offered for free through virtual platforms. Future studies can provide insight on school psychologists’ ostensibly limited implementation of such supports and in cases where school psychologists do deliver trauma-specific interventions, outline ways in which practitioners address treatment barriers. To date, most studies have tasked school social workers, counselors, therapists, and clinical psychologists with facilitating school-based trauma-specific interventions (e.g., Allison & Ferreira, 2017; Goodkind et al., 2010; Jaycox et al., 2010; Kataoka et al., 2003; Santiago et al., 2013).

A number of participants in the current study provided corroborating data and discussed school-community partnerships through which outside mental health professionals provide school-based therapeutic services. Studies can explore whether students are in fact exposed to
more intensive trauma-specific interventions during the school day when working with these clinicians.
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APPENDICES

Appendix A

Interview One Protocol

Demographic/Background Info

For this interview, I will start by asking you simple questions about your personal and professional background:

1. How do you identify racially or ethnically?
2. What is your gender?
3. How old are you?
4. What is your current city and state of residence?
5. Did you pursue any other jobs/careers before entering school psychology?
   a. If so, which ones?
6. What school psychology program did you attend?
7. What is your current occupation/title in the schools you serve?
8. How long have you been a school psychologist?
9. How many schools do you currently serve? What levels (e.g., elementary, middle, high)?
10. In regards to the elementary school(s) you serve:
    a. What is the name of the school(s)?
    b. How long have you worked at this/each school?
    c. How many students attend the/each school?
    d. How would you describe the racial or ethnic make-up of the students?
    e. How would you describe the socioeconomic make-up of the students?

Focused Life History

1. Now I would like to get to know about any K through 12 and undergraduate experiences you had that led you to school psychology.
   a. Were there any early educational experiences that influenced your decision to pursue school psychology?
   b. Were there any early personal experiences that influenced your decision to pursue school psychology?
   c. Were there any professional experiences that influenced your decision to pursue school psychology?
2. You currently practice in (name of city). Were there any personal experiences that influenced your decision to work with urban students?
   a. Were there any professional experiences that influenced your decision to work with urban students?
3. I want to end this interview by asking you to define ‘trauma.’

*Debrief 10-15 minutes:
1. We have completed the interview and will now debrief. What might you think is
important for me to know that I didn’t ask you?
2. What, if any, questions or concerns regarding our upcoming interview do you have?

Interview 2 Preparation: That was the end of our interview and debriefing. When we meet again, I will be asking you questions about how you became trained to work with students who experience trauma. I will also ask about trauma-informed practices you use in your elementary school(s) to support students.
Appendix B

Interview Two Protocol

During the first interview, you also defined trauma as (go over participant’s response). Is there anything you would like to change or add to that definition before we start interview two?

For interview two, we will first focus on ways in which you were trained to deliver trauma-informed practices.

Trauma Training Experiences

1. How did you become trained to provide trauma-informed services to students?
2. Now I’d like to focus specifically on your graduate training program. Did your graduate program include coursework that provided any training on trauma-informed services?
   a. If so, what courses and how did they relate to trauma?
3. Did your graduate program include practica or internship experiences that provided any training on trauma-informed services?
   a. If so, tell me about those experiences.
4. Looking back to when you first entered the work force, how confident did you feel in providing trauma-informed services?
5. Since entering the work force, what trauma-related professional development opportunities have you had (e.g., workshops, webinars, conference presentations)?
   a. How have these professional development opportunities helped you in your work with students?

Current Trauma-informed Practices

6. How prevalent is trauma among the students you currently serve in your elementary school(s)?
7. In thinking about your elementary school(s), how does the overall system support student trauma?
8. You have been identified as a school psychologist who provides effective trauma-informed services. What specific strategies do you use when working with student trauma? (if any of the areas are not mentioned, probe)
   a. Do you address trauma when completing psychoeducational evaluations? In what way?
   b. Do you provide direct interventions, such as counseling, to support students who experience trauma? Which ones?
   c. How do you support or collaborate with staff (e.g., consultation, professional development)?
9. What have you found to be most effective when addressing student trauma?
10. What are some of the benefits of providing trauma-informed services to your students?
11. What are some of the challenges in working with urban students who experience trauma?
12. What advice would you give other school psychologists who work with urban students who experience trauma?
13. Why do you think it is important for school psychologists to be involved in the implementation of trauma-informed services?

14. How do you think urban schools can be more effective at meeting the needs of students who experience trauma?

*Debrief 10-15 minutes:

1. *We have completed the final interview and will now debrief. What, if any, additional information would you like to add or discuss regarding our conversation today?*

2. *What are any final thoughts you have about school-based trauma services and the role that school psychologists play in their delivery?*

We have completed the final debriefing. Thank you again for your time. I truly enjoyed talking with you and learned a lot about your experience. Your contribution to this study is greatly appreciated.
Appendix C

Domain and Core Idea Definitions

<table>
<thead>
<tr>
<th><strong>Participant Trauma Training</strong> – any trauma training participants received during college or graduate school, or upon entering the workforce</th>
</tr>
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<tbody>
<tr>
<td>• <strong>Independently sought post-graduate training</strong> – participants independently sought additional trauma training opportunities</td>
</tr>
<tr>
<td>• <strong>Received training through work</strong> – participants received trauma training through their employment in schools or community agencies</td>
</tr>
<tr>
<td>• <strong>Need for additional training</strong> – participants discussed their personal need or general school psychologist need for additional trauma training</td>
</tr>
<tr>
<td>• <strong>Trauma training during applied graduate learning experience</strong> – participants received trauma training during their practicum, internship, externship, or graduate research assistantship</td>
</tr>
<tr>
<td>• <strong>Limited training in graduate courses</strong> – trauma was not addressed in participants’ graduate courses or was briefly addressed in one class</td>
</tr>
<tr>
<td>• <strong>Trauma addressed in several graduate courses</strong> – trauma was addressed in two or more graduate courses</td>
</tr>
<tr>
<td>• <strong>Trauma not addressed during applied graduate experiences</strong> – participants did not receive trauma training during their practicum, internship, or graduate research assistantship</td>
</tr>
<tr>
<td>• <strong>Training in TFIs or assessments</strong> – participants received training in trauma-focused interventions or trauma-focused assessments</td>
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<tr>
<td>• <strong>Trained in order to train others</strong> – participants received trauma training in order to disseminate trauma information to school staff</td>
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<tr>
<td>• <strong>Benefits of training</strong> – participants identified benefits trauma training had on their understanding and practice</td>
</tr>
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<thead>
<tr>
<th><strong>Perceived Competence</strong> – participants discussed their perceived competence in delivering trauma-informed practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>• <strong>Limited competence after graduate school</strong> – participants reported limited competence in trauma upon completing graduate school</td>
</tr>
<tr>
<td>• <strong>Current limitations in competence</strong> – participants identified current gaps in their trauma knowledge and competence</td>
</tr>
<tr>
<td>• <strong>Competent providing trauma-informed services</strong> – participants felt competent providing trauma-informed practices after graduate school</td>
</tr>
</tbody>
</table>

| **Addressing Trauma in Evaluations** – participants discussed how they address student trauma when completing psychoeducational or psychosocial assessments |
- **Informal screening for trauma** – participants use informal assessment tools (e.g., interviews, record reviews) to determine students’ trauma histories
- **Uses trauma lens in interpretation and eligibility decisions** – participants consider trauma when conceptualizing cases and determining special education eligibility
- **Reporting trauma in evaluations** – participants indicate in their reports when students have a trauma history
- **Privacy and family preference when reporting trauma** – participants maintain privacy in reports and get family input to determine the extent to which trauma histories are written in reports
- **Use of formal assessment tools** – participants use rating scales and formal screeners to measure trauma and related behaviors
- **Provides trauma-informed recommendations** – participants incorporate trauma-informed practices into evaluation recommendations
- **Building relationships** – participants build relationships with students and families throughout the evaluation process
- **Limited use of trauma-focused assessments** – participants do not use trauma-focused assessment tools

**Collaboration with Adults** – participants collaborate with adults when addressing student trauma

- **Ongoing coaching and consultation with teachers** – participants consult with teachers and provide ongoing consultation when supporting students who experience trauma
- **Collaborating with families** – participants work with families to address student trauma
- **Consults with other school-based mental health professionals and support staff** – participants consult with other non-educators in the school (e.g., school counselors, social workers, occupational therapists, other school psychologists) to address trauma
- **Provides staff training on trauma** – participants provide trauma training to school staff
- **Teacher receptivity** – teachers are receptive to trainings and participants’ information on trauma
- **Change adult mindsets about trauma and student behaviors** – participants attempt to change adult (e.g., teachers, administrators, caregivers) mindsets regarding trauma and challenging student behaviors
- **Need for staff training** – school staff (e.g., teachers, administrators) need additional training on trauma
- **Participation on problem-solving teams** – participants collaborate on problem-solving teams to address trauma
- **Systems-level work** – participants currently address trauma on a school-wide level or recommend that other school psychologists work at this level of support
- **Collaborating with administrators** – participants work with school administrators to address trauma
- **Collaborating with community agencies** – participants partner with community agencies to provide outside referrals and receive support in implementing interventions
- Creating a common language and consistency across settings – participants work to ensure all adults (e.g., school staff, caregivers) have a shared understanding of trauma and trauma-informed strategies

### Direct Work with Children

- **Relationship building** – participants build relationships with students and encourage positive teacher-student relationships
- **Counseling provided by other mental health professional** – other mental health professionals (e.g., school counselor, social worker, outside therapists) provide therapeutic services
- **Tier 1 TIPs** – school staff implement trauma-informed practices (e.g., restorative practices, calm down corners, classroom sensory boxes)
- **Individual skill building and support** – participants work with students individually to provide support and help develop coping strategies
- **PBIS and evidence-based SEL curricula** – schools adapt PBIS and implement evidence-based SEL curricula (e.g., PATHS, Second Step) with students
- **Group services** – participants work with students in groups to provide support and help develop coping strategies
- **Targeted supports provided by teachers and support staff** – teachers and support staff (e.g., milieu specialists, intervention specialists, special education staff) work directly with students to address trauma-related behaviors
- **Does not currently provide therapeutic services** – participants do not currently provide counseling to students
- **Individualizing student supports and behavior plans** – participants individualize trauma interventions and reward systems based on students’ input and needs
- **Crisis intervention** – participants respond to student crises (e.g., help them deescalate)