

Review of Research

Meeting Students Where They Are: Trauma-Informed Approaches in Rural Schools

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Twenty-five percent of U.S. schoolchildren attend a rural school. Yet, rural school issues are typically subsumed by debates focused on urban problems and the misguided notion of ample resources available for their remediation. These assumptions belie the reality of the spatial mismatch that exists for rural schools, especially around mental health supports. Adverse childhood experiences and trauma disproportionately affect rural schoolchildren, putting them at greater risk of academic underachievement and other negative sequelae throughout the lifespan. Trauma-informed approaches in rural schools may mitigate the effects of childhood adversity and help close achievement gaps for rural students. Rural schools and students have needs and challenges distinct from those of urban and suburban schools, but only 2% of peer-reviewed publications address trauma-informed approaches or social-emotional learning in rural schools. More research is needed to help our 13 million rural schoolchildren develop the resilience necessary to overcome adversity and achieve healthy outcomes.

Schools are institutions for educating children, shaped by social, economic, cultural, and political forces that attempt to define what it means to educate or to be educated (Donaldson, 2014). Donaldson (2014) defines moments of transformation as times in which “disrupting events . . . reshaped in some ways the structures, practices, and understandings of public schooling . . . months and even years during which the conditions surrounding public education changed in substantial ways” (Donaldson, 2014, p. 15). Such a transformational moment is taking place in rural schools in the early decades of the 21st century, spearheaded by information gleaned from a landmark study around childhood adversity (Felitti & Anda, 1997) and urged forward by an increasing body of evidence that correlates childhood adversity with undesirable aftereffects throughout the lifespan (e.g., Anda et al., 2006; Blodgett & Lanigan, 2018; Campbell et al., 2016; Felitti et al., 1998; Freeman, 2014). According to Noell and Gansle (2009), “the most profound systemic changes in American education have been initiated based wholly or in part on strong assertions regarding equity and human dignity” (p. 79). Today’s reform efforts echo those earlier calls for equity for our most vulnerable students. Schools are being challenged to reshape their structures and practices in response to recent advances in knowledge around the physiological, psychological, and social consequences of adversity, stress, and trauma (Bethell et al., 2017; Bethell et al., 2014; Cantor et al., 2018; Cherewick et al., 2015;

Frydman & Mayor, 2017; Jones et al., 2018; Osher et al., 2017).

Childhood traumatic experiences affect our schoolchildren at an alarming rate. Across the United States, 46% of youth under age 18 have experienced one or more traumatic events that may impact development throughout the lifespan (Bethell et al., 2017; Sacks & Murphey, 2018). Commonly referred to as adverse childhood experiences (ACEs), potentially traumatic events include violence, mental illness, and/or substance abuse in the home; psychological, physical, or sexual abuse; and neglect (Anda et al., 2006; Dube et al., 2001; Felitti et al., 1998; Moore & Ramirez, 2016). The impact of ACEs on rural students cannot be overstated. According to a 2018 report of the National Advisory Committee on Rural Health and Human Services, 29% of rural children under age 17 have experienced two or more ACEs. Because of the cumulative nature of these traumatic experiences, rural children are at increased risk of negative outcomes throughout the lifespan (Bethell et al., 2017; Hair et al., 2015, 2016; Moore & Ramirez, 2016; Sacks & Murphey, 2018).

The experience of childhood trauma is associated with undesirable effects on lifespan development across the cognitive, behavioral, and health domains (Bell et al., 2013; Bethell et al., 2014; Brunzell et al., 2015; Cavanaugh, 2016; Masten et al., 2005; Perfect et al., 2016). This occurs through several mechanisms, including maladaptive internalizing and externalizing coping strategies developed in response to biological stress (Larkin et al., 2012; Mersky et al.,

2013; Osher et al., 2017). Concerns about the negative effects of childhood trauma are amplified in rural spaces, where the incidence of compounding factors such as low socioeconomic status and chronic disease are greatest (National Advisory Committee on Rural Health and Human Services, 2018), and rates of suicide (National Advisory Committee on Rural Health and Human Services, 2017), substance abuse (Substance Abuse and Mental Health Services Administration, 2018), and child abuse (Meit et al., 2014) exceed those of more urban areas.

Ecological factors such as chronic poverty contribute to the challenge of educating students affected by ACEs (Showalter et al., 2019). In the school setting, the impact of trauma may manifest as lower academic performance, including delayed language development and below age-typical reading ability; increased rates of referral for special education services; more instances of exclusionary discipline such as office referral, suspension, or expulsion; increased absenteeism; and higher drop-out rates (Brunzell et al., 2015; Cook et al., 2005; Iacobi et al., 2016; Morrow & Villodas, 2018; National Child Traumatic Stress Network, 2014; National Child Traumatic Stress Network Schools Committee, 2008).

Rural schools often struggle to meet the needs of their students. Access to resources is challenged by remote location, inadequate transportation infrastructure, lack of adequately trained service providers, and high poverty levels (Fox et al., 1999; Mader, 2018). These challenges contribute to the self-sufficiency of many rural communities, which are sustained by the strong interpersonal relationships that are their hallmark (Butera & Costello, 2010; Corbett, 2016; Starrett et al., 2021; Tiekens, 2014). Positive developmental relationships help young people become resilient to traumatic experiences (Cantor et al., 2018; National Scientific Council on the Developing Child, 2004; Osher et al., 2018; Search Institute, 2018) and may be leveraged to support the development of place-based interventions designed to enhance rural student success (Goodwin & Taha, 2014).

Over 56 million children and adolescents attend the nation's elementary and secondary schools (National Center for Education Statistics, 2018)—including 13 million students attending rural schools (Showalter et al., 2019)—where positive relationships between teachers and students are foundational to *conditions for learning*, which “encompass the relational dimensions of learning (including trust,

attachment, attunement, and congruent perceptions with adults and peers), physical and emotional safety, and a sense of belonging and purpose” (Cantor et al., 2018, p. 13). Schools offer a compelling institutional setting in which to provide interventions that not only mitigate the effects of trauma but also support students in the development of resilience factors that promote learning and healthy outcomes throughout the lifespan (Cantor et al., 2018; Chafouleas et al., 2016; Cole et al., 2013; Overstreet & Chafouleas, 2016). According to Woodbridge et al. (2016), “the need for school-based intervention is deep and broad” (p. 102).

The national movement toward the creation of trauma-informed schools was advanced by the 2015 reauthorization of the Elementary and Secondary Education Act (ESEA—now referred to as the Every Student Succeeds Act (ESSA)—which supports the use of evidence-based, trauma-informed approaches in public schools (“ESSA,” 2015; Forman et al., 2009; Overstreet & Chafouleas, 2016; Phifer & Hull, 2016; Plumb et al., 2016). Trauma-informed provisions of ESSA promote reductions in high-stakes testing and overuse of exclusionary discipline practices. Section 4108 establishes Student Support and Academic Enrichment (SSAE) Grants that provide funding for “comprehensive school-based mental health services and supports and staff development for school and community personnel working in the school that are based on trauma-informed practices that are evidence-based [as well as] high quality support for . . . effective and trauma-informed practices in classroom management” (“ESSA,” 2015). Further, Sections 2102 and 2103 address training of teachers and other school personnel in “the techniques and supports needed to help educators understand when and how to refer students affected by trauma, and children with, or at risk of, mental illness” (“ESSA,” 2015). Along with the Individuals with Disabilities Education Act (U.S. Department of Education, 2018b), ESSA governs the educational opportunities that are afforded to all students in Grades K-12 (Forman et al., 2009; Plumb et al., 2016). Federal legislation encouraging the implementation of trauma-informed approaches in public schools underscores the urgency of alleviating the impact of ACEs and other types of traumas on the developmental trajectory of the nation's children.

In this review, I will examine the current state of research around trauma-informed approaches in rural schools. I will begin by reviewing the foundations of our understanding of trauma and its impact on

students. I will then review the development of trauma-informed approaches and the inclusion of positive youth development and social-emotional learning components to foster resilience. Finally, I will review an exemplar of a trauma-informed program developed by and for the rural community it serves.

Trauma and its Impact on Schools

The ACEs Study

A landmark study conducted between 1995 and 1997 shed light on the correlation between adverse childhood experiences and negative health outcomes in adulthood (Felitti & Anda, 1997; Felitti et al., 1998). Exposure to such experiences is often quantified as an ACE score, which ranges in value from zero to 10. Grouped into three categories—abuse, neglect, and family/household challenges—the ACE score provides an indication of the experience of trauma before age 18. It has been estimated that approximately two-thirds of the adult population has an ACE score of at least one, with over 12% of adults in the United States having an ACE score of four or more (Center for Disease Control and Prevention, 2018b; Cook et al., 2005; Nealy-Oparah & Scruggs-Hussein, 2018; Spinazzola et al., 2017).

While initial findings of the ACEs study revealed a direct correlation between ACE score and obesity, subsequent examination of the data pointed toward additional direct correlations between ACE scores and risky behavior and other long-term health problems (Anda et al., 2006; Campbell et al., 2016; Felitti & Anda, 1997; Felitti et al., 1998; Nealy-Oparah & Scruggs-Hussein, 2018). Alarming evidence indicated increased risk of negative outcomes secondary to (a) repeated exposure to a single type of adverse experience, (b) clusters of adverse experiences that tend to co-occur, and (c) the compound disadvantage that results from adverse experiences layered on top of other chronic stressors such as economic insecurity (Cook et al., 2005; Nealy-Oparah & Scruggs-Hussein, 2018; Spinazzola et al., 2017).

As ongoing research pointed toward a myriad of troubling consequences related to adverse childhood experiences, the United States Attorney General convened a national task force charged with examining the risks associated with ACEs and recommending mechanisms for protecting children from traumatic events and healing those who suffered such exposure (Listenbee et al., 2012). The task force

framed childhood exposure to violence as “a national crisis that affects approximately two out of every three of our children” (Listenbee et al., 2012, p. 3). Task force recommendations included the development of cross-sector partnerships to help curtail childhood exposure to violence while also beginning the healing process for those children who had already experienced one or more ACEs. As the report emphatically stated, “our children’s futures are at stake . . . the time for action is now” (Listenbee et al., 2012, p. 6).

Ecological Factors Play a Role

The retrospective ACEs study uncovered the impact of early childhood trauma on adult health outcomes. Because it did not explore the immediate impact of traumatic experiences, additional research was required to understand the mechanisms by which childhood adversity influences child development.

Mediating factors began to emerge when, in 2001, the New York City Board of Education commissioned a team of mental health professionals to examine the impact of the tragic events of September 11 on the city’s public schoolchildren. The team’s findings were unexpected: “while 68% of the children . . . observed have experienced trauma sufficient to impair their functioning in school, it is from their ongoing experience of growing up in poverty, not from what they witnessed that terrifying September day” (Turnaround for Children, 2019).

Turnaround for Children responded by pairing students and teachers with community mental health providers on school campuses to ensure that high-need students would receive the care necessary to succeed emotionally and academically. Answering the call to action around childhood trauma from the U.S. Attorney General’s national task force, Turnaround soon spread from New York City to other urban locales including Washington, D.C. In 2016, “Turnaround released [its] framework for the development of evidence-based skills and mindsets proven by research to predict academic achievement” (Turnaround for Children, 2019).

Although expansion of the Turnaround model was limited to urban schools, the impact of their findings led the identification of factors that contribute to the traumatic experiences of children across geospatial contexts. Examination of (a) the within-group interaction effects of ACEs and (b) the between-group interaction effects of ACEs with various ecological risk factors including

socioeconomic status, geographic isolation and resource availability, and institutionalized racism uncovered a clear dose effect. The likelihood of negative outcomes is directly correlated with the number of traumatic experiences and ecological risk factors to which a child is exposed (Carter, 2007; Cook et al., 2005; Courtois, 2012; National Child Traumatic Stress Network, 2014; Souers & Hall, 2016; Spinazzola et al., 2017). The threat of detrimental impact throughout the lifespan is heightened for rural students who may disproportionately experience the consequences of cumulative risk (Talbot et al., 2016).

Cumulative Risk

According to Felitti et al. (1998), children who have been exposed to one ACE have an 80% chance of being exposed to additional ACEs. Such multiple exposure, often referred to as *complex trauma*, results in undesirable consequences throughout the lifespan (Cook et al., 2005; National Child Traumatic Stress Network, 2014; Spinazzola et al., 2017), including “a loss of core capacities for self-regulation and interpersonal relatedness” (Cook et al., 2005, p. 390). The probability of poor outcomes increases as risk factors accumulate (Cook et al., 2005), a phenomenon referred to as the *cumulative risk hypothesis* (Chartier et al., 2010).

Studies based on the 2016 National Survey of Children’s Health have shown a correlation between multiple risk factors and unsatisfactory childhood development (Bethell et al., 2017; Moore & Ramirez, 2016; United States Census Bureau, 2019). The experience of complex trauma has been associated with a seven-fold increase in poor academic outcomes (Chartier et al., 2010), and children with multiple ACEs are three times less likely to complete high school than those with no ACEs (Metzler et al., 2017; National Child Traumatic Stress Network, 2014). Tests of a developmental model that included behavioral, emotional, and cognitive components demonstrated that academic achievement and school engagement are mutually predictive (Bowers et al., 2014). The correlation between ACEs and school engagement parallels that of health status, highlighting the link between a child’s physical, social, and emotional well-being (Bethell et al., 2017).

The cumulative risk of ACEs has an intergenerational component, as lower educational attainment, increased rates of unemployment, and

poor maternal health in one generation threaten the health and well-being of subsequent generations (Gopnik, 2014; Kalil, 2015; Keating, 2016; Metzler et al., 2017; Simmons, 2008). Tyler and Lofstrom (2009) underscored the cyclical effects of poverty by noting that children who are raised in economically-disadvantaged households in which parents are undereducated are themselves at increased risk for the poor educational outcomes that lead to underemployment and lower incomes. Reflecting on this reproduction of social inequality, Metzler et al. (2017) concluded that “multiple early adverse experiences are associated with an increased likelihood of diminished life opportunities . . . [which] can have lasting, generational effects” (p.147). These concerns are particularly salient in rural settings, where cycles of poverty, substance abuse, and domestic violence may combine to negatively impact student aspirations and achievement of their potential (National Advisory Committee on Rural Health and Human Services, 2018; Parker et al., 2018; Sacks & Murphey, 2018; Ukaga et al., 1998).

Rurality and ACEs

Although there is disagreement in the literature around differential exposure to ACEs between urban and rural residents (Lukens, 2017; Talbot et al., 2016; U.S. Department of Health and Human Services, 2015), there is no debate around the disturbing prevalence of ACEs in rural settings. Over half of rural adults have experienced one or more ACEs and 25% report exposure in the highest risk category of four or more (Talbot et al., 2016). Contributing factors may include high rates of poverty (Cromartie et al., 2020; Lukens, 2017), underfunded local health systems compounded by geographic isolation and limited access to medical and mental health care providers (Center for Disease Control and Prevention, 2018a), and underdevelopment of the technology infrastructure essential for participation in telehealth services (U.S. Department of Health and Human Services, 2015). Local norms around resilience and independence may dissuade rural residents from accessing the services that are available to them (Sherman, 2009; U.S. Department of Health and Human Services, 2015), thereby increasing the risk of intergenerational transmission of the negative outcomes associated with adverse childhood experiences.

Trauma Defined

As understanding of the multidimensionality of

childhood adversity unfolded, it became evident that trauma could not be described simply by an ACE score. Debate raged around how to broadly define a construct that seemed so individualistic in nature (Dalenberg et al., 2017; Perfect et al., 2016; Rolfsnes & Idsoe, 2011). Underlying most working definitions was the broad concept of trauma as a life event that threatens one's physical or emotional well-being (American Psychiatric Association, 2013; National Child Traumatic Stress Network, 2014; Perfect et al., 2016). Yet, this definition did not explain why trauma is agnostic to the event—the same event may cause contrasting responses in those who experience it. A more nuanced definition was required.

In 2014, the Substance Abuse and Mental Health Services Administration (SAMHSA) developed a framework around childhood trauma for use in multiple child service sectors, including education. Based on a synthesis of knowledge from researchers, healthcare practitioners, and survivors of traumatic childhood experiences, the SAMHSA framework became the standard for both defining trauma and creating trauma-informed approaches (Chafouleas et al., 2016; Overstreet & Chafouleas, 2016; Perfect et al., 2016; Substance Abuse and Mental Health Services Administration, 2014). The SAMHSA framework defines trauma in terms of three E's: 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. (Substance Abuse and Mental Health Services Administration, 2014, p. 7)

Trauma Impacts Learning and Teaching

In the years since the initial ACEs and Turnaround studies, the impact of trauma on child development has been recognized as a public health crisis (Cole et al., 2013; Frydman & Mayor, 2017; Magruder et al., 2017; Substance Abuse and Mental Health Services Administration, 2014). According to the National Child Traumatic Stress Network, approximately 40% of students in grades K-12 have experienced or witnessed traumatic stressors (Brunzell et al., 2015; National Child Traumatic Stress Network Schools Committee, 2008).

Numerous studies correlated the experience of childhood trauma with negative academic outcomes

(Bell et al., 2013; Brunzell et al., 2015; Cavanaugh, 2016; Perfect et al., 2016). While some of these studies sought to understand the mechanisms underlying the physiological and psychological response to trauma (Anda et al., 2006; Cantor et al., 2018; Handley et al., 2015; Osher et al., 2017), others specifically examined the effect of childhood trauma on students' ability to learn (Blodgett & Lanigan, 2018; Iacobi et al., 2016; Osher et al., 2018).

Students who have experienced trauma often suffer from challenges with executive functioning and relationship building (Perfect et al., 2016; von Sneidern et al., 2017). Consequences that may directly impact students' academic performance include inability to concentrate and diminished attention spans, underdeveloped organizational skills, school disengagement, and chronic absenteeism (Brunzell et al., 2016; Brunzell et al., 2015; Cole et al., 2013). Trauma-affected students may exhibit externalizing maladaptive behaviors that may result in exclusionary discipline and associated increased drop-out rates (Anderson et al., 2019; Brunzell et al., 2016; Cole et al., 2013; Marchbanks et al., 2014; Perry & Morris, 2014)

The risk to low socioeconomic status (SES) students, who experience chronic economic insecurity, is especially concerning (Chartier et al., 2010; Lupien et al., 2001; Moore & Ramirez, 2016). In addition to the negative consequences directly related to living in poverty—increased incidence of internalizing and externalizing disorders, decreased engagement with school and diminished academic success, and increased risk of many physical health problems that persist throughout the lifespan—there is an increased likelihood that economically-disadvantaged students will be exposed to other adverse experiences that often co-occur with economic insecurity such as violence in the home, parental incarceration, and/or substance abuse (Chartier et al., 2010; Cook et al., 2005; Moore & Ramirez, 2016; Spinazzola et al., 2017). Because rural children are more likely to live in poverty than their urban peers (Cromartie et al., 2020; Lukens, 2017), the risk for rural students is amplified.

Adults who work with students who have experienced trauma are at risk of compassion fatigue and burnout (Figley & Ludick, 2017; Sprang et al., 2011; Walkley & Cox, 2013; Wolpov et al., 2009). According to Figley and Ludick (2017), “helpers breathe in the emotions of those who have experienced trauma” (p. 573). This concern is particularly salient in rural schools, where

multiplexity and boundary crossings challenge the ability of teachers to divorce themselves from the trauma history of their students (Randall, 2019). Without sufficient self-care, teachers may burnout and exit the profession (Cavanaugh, 2016; Perry, 2014; Randall, 2019; Souers & Hall, 2016), a consequence of significant concern for rural schools where the shallow pool of qualified teachers makes it difficult for schools to fill vacant positions (Cross, 2017; Morton, 2021).

In this section, I reviewed the development of a definition for trauma that reflects its agnostic nature, and the recognition of the short- and long-term negative effects of adverse childhood experiences. In the next section, I will discuss the development of interventions designed to mitigate and foster resilience against these negative sequelae.

Trauma-Informed Approaches

A Policy Window Opens

As the impact of trauma on student success has become increasingly evident, a movement toward bringing trauma-informed approaches into schools has emerged (Chafouleas et al., 2016; Forman et al., 2009; Overstreet & Chafouleas, 2016). The lack of a blueprint for trauma-informed interventions initially led to a spate of unintended consequences. Programs were developed and implemented without employing a common language around trauma and, often, without empirical evidence of program effectiveness (Clark et al., 2012; Coalition for Evidence-Based Policy, 2003; Forman et al., 2009; Overstreet & Chafouleas, 2016; Phifer & Hull, 2016). Evans et al. (2014) lament that, during implementation, “feasibility and acceptability [were] sometimes held as priorities over effectiveness” (p. 65). Despite these challenges, increased awareness of the impact of trauma on students and learning led to action (Cole et al., 2013). According to Jones et al. (2018), “given the prevalence of trauma and the impact on learning, schools are paying more attention and looking at ways to address the needs of trauma-exposed children” (p. 2).

Widespread adoption of trauma-informed care in schools was encouraged by the passage of the Every Student Succeeds Act in 2015 (U.S. Department of Education Office of Safe and Healthy Students, 2017). This federal legislation supports the use of trauma-informed approaches in school settings but does not endorse any individual program or suggest how such

programs may best be implemented (Perfect et al., 2016; Phifer & Hull, 2016; Plumb et al., 2016; U.S. Department of Education, 2016). Instead, ESSA Title IV, Part A provides for block grant funding to state educational agencies in support of safe and healthy students, including trauma-informed practices in schools. States then distribute these funds to school districts according to the Title I formula (U.S. Department of Education Office of Safe and Healthy Students, 2017). This funding mechanism is expected to promote the development and adoption of programs that are congruent with the needs and capacities of the communities in which they would be implemented. Local control and flexibility over program decisions are salient issues for rural schools, where it is often a challenge to find the resources necessary to implement urban-centric programs with fidelity (Jimerson, 2005; Wallin & Reimer, 2008; Yettick et al., 2014). Even with adequate funding, human capital remains an issue for rural schools that struggle to hire and retain qualified staff for teaching, administrative, and student support positions (Cross, 2017; Morton, 2021)

The SAMHSA Framework

Simply understanding trauma is not sufficient to effect change (Forman et al., 2009). According to SAMHSA (2014), “the context in which trauma is addressed or treatments deployed contributes to the outcomes for the trauma survivors, the people receiving services, and the individuals staffing the systems” (p. 9). SAMHSA (2014) notes that trauma-informed approaches must include not only specific interventions but also the incorporation of key assumptions into organizational culture. Collectively referred to as the Four R’s, these assumptions include *realization* about trauma, *recognition* of the signs and symptoms of trauma, *responses* that incorporate knowledge of trauma, and *resistance* of re-traumatization. In turn, the Four R’s inform the six underlying principles of a trauma-informed approach: (a) safety; (b) trustworthiness and transparency; (c) peer support; (d) collaboration and mutuality; (e) empowerment, voice, and choice; and (f) cultural, historical, and gender issues. Recognizing that these conceptual and cultural changes within an organization require a paradigm shift at multiple levels, the SAMHSA framework was developed for implementation across ten domains common to most organizations, including schools and school districts (Substance Abuse and Mental Health Services

Administration, 2014).

The movement of organizations toward adoption of trauma-informed practices has accelerated in recent years. Youth-serving organizations of all kinds—including schools, childcare centers, state child protective agencies, and the juvenile justice system—have begun creating and/or adopting trauma-informed, whole-systems approaches that not only recognize the impact of trauma but also actively seek to avoid re-traumatization (Baker et al., 2017; Bloom & Sreedhar, 2008; Brown et al., 2012; Ko et al., 2008). Plumb et al. (2016) emphasized that, regardless of approach, “the most efficient way to make trauma-sensitive education and complementary research-based interventions available to all students in America is through the public-school system” (p. 43).

Competing Models

Trauma-informed care forms a critical component of trauma-informed approaches. Taken together, these interventions comprise a systems-based methodology for service delivery, aligned with the SAMHSA framework, that incorporates “an understanding of the pervasive biological, psychological, and social sequelae of ACEs and trauma with the ultimate aim of ameliorating, rather than exacerbating, their effects” (Baker et al., 2016, p. 62). Given the high percentage of children and adolescents enrolled in public schools, as well as the opportunity for a holistic approach to service delivery in the school setting, schools have been identified as high-leverage institutional settings for the implementation of trauma-informed programs (Bloom & Sreedhar, 2008).

Two models of trauma-informed, school-based interventions are most frequently described in the literature. In collaborative models, schools provide space for independent mental health professionals, such as psychologists and clinical mental health counselors, to provide targeted interventions and services during the school day to students who have been identified by parents and/or teachers as *at-risk*. Programs such as trauma-focused cognitive behavioral therapy (TF-CBT) and cognitive behavioral intervention for trauma in schools (CBITS) have been shown to be effective for these at-risk students but must be delivered by qualified mental health professionals with specific training in these techniques (Morsette et al., 2009).

Collaborative models that provide services

during the school day may be especially effective in rural places, where there may be a stigma around accessing mental health services (Morsette et al., 2009; Nichols et al., 2017; Shamblyn et al., 2016; Sherman, 2009). Challenges of collaborative models include the availability of qualified mental health providers, uncertainty around screening of students, and lack of teacher support because of the negative impact on instructional time when students are pulled out of the classroom to receive services (Chafouleas et al., 2016; Clark et al., 2012; Jimerson, 2005; Overstreet & Chafouleas, 2016; Rolfsnes & Idsoe, 2011).

Increasingly, schools are employing trauma-informed models that integrate into their pre-existing multi-tiered systems of support (MTSS). The same federal legislation that supports trauma-informed interventions also requires schools to use MTSS, such as positive behavioral interventions and support (PBIS), to provide each student with a free and appropriate public education in the least restrictive environment (“ESSA,” 2015; U.S. Department of Education, 2018a, 2018b). MTSS programs are delivered via three tiers of intervention. Tier 1 is comprised of universal supports that are provided to all students; these interventions are typically sufficient for 80- 90% of students. Tier 2 are targeted group supports and interventions for students who demonstrate high- risk behaviors; this group typically includes 5-15% of the student population. Tier 3 interventions are individualized services provided to the highest-risk students (Positive Behavioral Interventions and Supports, 2018). According to Taylor et al. (2017), “the goal of universal school-based approaches is to reach all students rather than targeting specific subgroups” (p. 1159). Because MTSS-integrated programs are delivered to all students with appropriate differentiation for students who require Tier 1, Tier 2, or Tier 3 support, this model follows the *rising tide lifts all boats* aphorism: *all* students are expected to benefit from participation. In a study of 82 school-based universal trauma-informed social- emotional learning interventions involving over 97,000 students, Taylor et al. (2017) found significant positive effects across all demographic groups.

Unlike the collaborative model, MTSS-integrated programs are delivered by educators and specialized student support personnel such as school counselors (Cavanaugh, 2016; Dorado et al., 2016; Nichols et al., 2017; Plumb et al., 2016; Zakszeski et al., 2017). While Tier 1 supports are expected to be

available to all students, there is disagreement in the literature around the value of universal screening for Tier 2 and Tier 3 supports (Chafouleas et al., 2016; Frydman & Mayor, 2017; Plumb et al., 2016; Woodbridge et al., 2016). Tier 2 and Tier 3 supports are typically delivered by special educators or specialized student support personnel. The use of the MTSS infrastructure allows trauma-sensitive interventions to be provided without further reducing instructional time, a major concern of the collaborative model. The availability of sufficient numbers of special educators and specialized student support personnel to accommodate a larger population of students requiring higher level Tier 2 and Tier 3 interventions may be a barrier for some schools, especially in the rural setting (Jimerson, 2005; Wallin & Reimer, 2008; Yettick et al., 2014).

Program Components

Most research around trauma-informed approaches in schools has been conducted in urban locales, highlighting an inequitable research agenda that fails to recognize the unique strengths and needs of students in more remote settings. As schools strive to adopt trauma-informed practices, consideration should be given to program components that may be expected to provide support for students across geospatial contexts (Search Institute, 2019).

Positive Youth Development

A paradigm shift in approach to adolescent development has occurred over the past decade. Traditionally viewed from a deficit perspective, adolescence has now been reframed as a time of complex changes and growth in the physiological, psychological, social-emotional, and cognitive domains (Bleck & DeBate, 2016; Bowers et al., 2014; Tilley, 2011; Zimmerman et al., 2008). The positive youth development (PYD) model is an asset-building paradigm within the relational developmental systems framework that “emphasizes the manifest potentialities rather than the supposed incapacities of young people—including young people from the most disadvantaged backgrounds and those with the most troubled histories” (Damon, 2004, p. 15). Because it takes a strengths-based approach that views youth not as problems for society but instead as a resource that requires development, positive youth development “seeks to enhance the developmental outcomes for all children and adolescents” (Tilley, 2011, p. 42). Eccles and Gootman (2002) described the attributes of

positive development as the Five C’s of positive youth development: competence, confidence, character, connection, and caring.

Positive youth development focuses not only on asset development but also on prevention of typical adolescent risk factors and maladaptive behaviors (Bowers et al., 2014). Much of the initial interest around positive youth development was in the context of community-based organizations that sought to foster youth engagement with what Benson et al. (2006) referred to as ecological developmental assets. Contrary to earlier developmental models that focused simply on the nature-vs-nurture dichotomy, these new models propose a relational, systems approach to child development. Bowers et al. (2014) noted that these models suggest “mutually influential relations among all levels of organization, ranging from internal-to-the-person levels through social relationships, relations involving the community and its institutions, through to culture, the designed and natural physical ecology, and history” (p. 860). Such relationships between person and context are considered to be adaptive when they benefit both the individual and the context. Positive youth development, then, may be conceived as a specific type of adaptive development in which there is a bidirectional relationship between youth and the contexts in which they are raised, especially vis-à-vis the Five C’s of positive youth development (Bowers et al., 2014).

Social-Emotional Learning

Social-emotional learning (SEL) plays a critical role in student success because it helps students develop *resilience*, the “capacity to acknowledge and attend to personal difficulties while working toward expectations” (Souers & Hall, 2016, p. 154). According to Taylor et al. (2017), “SEL interventions are a form of PYD [positive youth development] asset development that focuses primarily on positive outcomes including school, career, and life success while also showing evidence of effective protection from negative outcomes” (p. 1157). The Collaborative for Academic, Social, and Emotional Learning (CASEL) further describes social-emotional learning as “the process through which children and adults understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions” (Collaborative for Academic, 2019). The CASEL Framework identifies

five core competencies of social-emotional learning: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making (Collaborative for Academic, 2013, 2015, 2019).

Sometimes referred to as *noncognitive* or *soft skills*, these interrelated cognitive, affective, and behavioral competencies are essential for student success, the development of college and career readiness, and promotion of healthy outcomes throughout the lifespan. Schools are high-leverage sites for the development of social-emotional competencies. Social-emotional learning programs are associated with improved student engagement, behavior, and academic achievement (Zins et al., 2004), yielding reductions in conduct problems while promoting enhanced self-efficacy beliefs, connection and commitment to school, prosocial behaviors, and improved relationships with peers and adults (Durlak et al., 2016; Durlak et al., 2011). The most effective programs improve not only student SEL skills but also the school climate and teacher-student relationships (Durlak et al., 2016). In a recent meta-analysis of school-based SEL programs, Taylor et al. (2017) found an 11-point improvement in academic outcomes across diverse racial, geographic, and socioeconomic demographic groups. Longitudinal studies of students who participate in school based SEL programs found continued positive outcomes as long as 195 weeks following program participation (Taylor et al., 2017). Belfield et al. (2015) found that every dollar invested in school-based SEL programs produced a return of 11 dollars due to favorable outcomes such as decreased special education placements and increased rates of on-time high school graduation.

Developmental Assets

Developmental assets promote positive youth development (Anda et al., 2006; Bowers et al., 2014; Scales, Benson, Leffert, & Blyth, 2000; Tilley, 2011). Using data sets from extant positive youth development studies, including the landmark longitudinal 4-H Study of Positive Youth Development (Lerner & Lerner, 2012), Search Institute identified 40 Developmental Assets that promote healthy development of adolescents (Search Institute, 2006, 2019; Tilley, 2011). The developmental assets framework suggests a positive correlation between the accumulation of developmental assets and quality of life throughout the lifespan (Bleck & DeBate, 2016). Scales, Benson,

Roehlkepartain, Sesma Jr, and van Dulmen (2006) found a similar positive correlation between accumulation of developmental assets and levels of academic achievement. According to Scales et al. (2000), congruence between internal and external assets predicts a variety of positive long-term wellness indicators including school success.

There are 20 internal assets and 20 external assets, clustered into eight categories. The internal assets are described as “the personal skills, commitments, and values [young people] need to make good choices, take responsibility for their own lives, and be independent and fulfilled” (Search Institute, 2019). The four categories of internal assets are commitment to learning, positive values, social competence, and positive identity (Search Institute, 2006). The external assets are “the supports, opportunities, and relationships young people need across all aspects of their lives” (Search Institute, 2019). The four categories of external assets are support, empowerment, boundaries and expectations, and constructive use of time (Search Institute, 2006).

Instead of existing in isolation, the presence of external assets may positively influence the development of internal assets (Bartlett, Wilson, Moore, & Redd, 2016; Berkowitz, Moore, Astor, & Benbenishty, 2017; Moore & Ramirez, 2016). Together, these protective factors not only directly influence student success but also may mitigate the negative influence of risk factors such as trauma history, poverty, geographical location, and im/migrant status. Further, the *accumulation of assets* principle postulates a cumulative effect, suggesting that the additive impact of developmental assets leads to not only decreased high-risk behaviors but also adoption of healthier behaviors (Bleck & DeBate, 2016).

Developmental Relationships

According to Search Institute (2018), “developmental relationships are close connections through which young people discover who they are, cultivate abilities to shape their own lives, and learn how to engage with and contribute to the world around them.” Developmental relationships may be fostered in anchor institutions, defined as “trusted organizations grounded in the community that are constant in their presence and resources, despite other changes in the community” (NORC Walsh Center for Rural Health Analysis, 2018, p. 4) and exemplified by rural schools. Recent studies have shown a

positive correlation between academic outcomes and strength of the relationship between teachers and students (Scales et al., 2020; Sethi & Scales, 2020). It is at this fundamental level in which rural schools may be expected to shine. Strong interpersonal relationships are hallmarks of rural schools (Butera & Costello, 2010; Corbett, 2016; Starrett et al., 2021; Ticken, 2014). Therefore, vulnerable rural students may be expected to have access to the supportive adults and positive relationships necessary for them overcome the negative outcomes associated adverse childhood experiences.

Trauma-Informed Social-Emotional Learning

Relationship-building is a core skill developed by social-emotional learning programs (Collaborative for Academic, 2019). However, students with a trauma history often experience lack of trust and low self-efficacy beliefs, which may interrupt their ability to form positive developmental relationships and resilience necessary to overcome the impact of childhood adversity (Cook et al., 2005). Because it is impossible to identify each student who has a trauma history, all SEL should be implemented through a trauma-informed lens. Using a strengths-based approach, teachers and other adults can help improve the self-concept of traumatized young people. Recognizing that traumatized students lack the ability to self-regulate, adults must be capable of co-regulating with the student. Therefore, it is essential for trauma-informed SEL to also address the emotional stability and mental health needs of teachers and staff (Pawlo et al., 2019). Rural teachers may benefit from supportive services due to their high degree of multiplexity with students and other staff members (Randall, 2019) and the risk of re-traumatization reflective of their practice in a context that may offer little escape from their own trauma histories (Classen & Clark, 2017; Nealy-Oparah & Scruggs-Hussein, 2018).

In this section, I described trauma-informed approaches in schools, including the components of positive youth development, social-emotional learning, developmental assets, and developmental relationships. In the next session, I will present a trauma-informed program designed by and for a rural community in support of positive student outcomes.

A New Model for Rural Schools

The Unique Nature of Rural Schools

Schools are not only places of learning but also “places that exist within the space of a regional geography” (Allen & Roberts, 2019, p. 29). Twenty-five percent of United States public elementary and secondary schools are located in rural settings; approximately 20% of the nation’s children attend a rural school (National Center for Education Statistics, 2017; Showalter et al., 2019). According to Biddle and Azano (2016):

The lived realities of students, teachers, administrators, and community members happen within the context of a school, situated in a place, and in the current American system of public schooling, much of the local economic and social realities of that place determine the opportunities and constraints of local schooling. (p. 316)

Yet, most trauma-informed approaches have been designed for, and evaluated in, schools situated in urban and suburban settings (Beehler et al., 2012; Bloom & Sreedhar, 2008; Dorado et al., 2016; Perry & Daniels, 2016; Stein et al., 2003; Zakszeski et al., 2017). The unique character of rural communities, schools, and students calls out for specialized approaches (Allen & Roberts, 2019; Azano & Biddle, 2019; Baker et al., 2017; Biddle & Azano, 2016; Corbett, 2016; Hargreaves et al., 2015; Shamblin et al., 2016).

Recognition of the unique nature of rural schools is not a recent phenomenon. Typically considered to be subpar and in need of overhaul, rural schools were considered to be the foundation of a broader rural-life problem in the early 20th century. Cubberley (1922) described rural schools as:

Lacking in effective supervision, controlled largely by rural people, who, too often, do not realize either their own needs or the possibilities of rural education, and taught by teachers who, generally speaking, have but little comprehension of the rural-life problem or of the possibilities of a reorganized and redirected rural school. (p. 106)

A redesign of rural schools to bring them into alignment with modern, urban-centric standards was seen as the essential first step toward solving the rural-life problem.

Hegemonic perspectives like Cubberley’s persist almost one hundred years later. Schafft (2016) decries the “peripheralization of the rural” (p. 138) while noting attempts to shoehorn rural schools into urban-centric federal policy:

These programs are geared toward helping rural

schools overcome structural disadvantages in meeting federal policy goals and achievement outcome guidelines established for all public schools. They do not, in and of themselves, constitute a coherent vision or set of rural school-specific policies. (Schafft, 2016, p. 138)

Placism—discrimination based on the region in which someone lives—threatens the educational opportunities for rural students when legislative mandates presume a uniformity of resources that belies the realities of rural schools and their communities (Jimerson, 2005).

Rural schools are distinguished from their urban and suburban counterparts by several shared characteristics. Economically-disadvantaged students are overrepresented in rural schools, a reflection of the economic distress suffered by many rural communities. Funding for teacher salaries, repairs to physical plants, transportation, and support for both curricular and extracurricular programs suffer from the depressed tax base of small, rural communities. Inequitable federal and state funding formulas further compound the financial distress of rural districts faced with implementing urban-centric policies with fidelity (Bryant, 2010; Jimerson, 2005; McLean, 2016). Increasingly diverse student bodies and skyrocketing numbers of students enrolled in special education programs also challenge the ability of rural schools to provide an appropriate education to all students (Carr et al., 2012). Rural schools struggle to attract and retain highly qualified teachers and specialized student support professionals such as school counselors and nurses (Bryant, 2010; Jimerson, 2005). This is especially concerning because “compared to urban children, rural children are at greater risk for mental health problems and have less access to mental health care” (Nichols et al., 2017). The effects of trauma, compounded by economic disadvantage, are rampant (Perfect et al., 2016).

Despite these challenges, rural schools have many assets that distinguish them from urban and suburban schools. Each rural school reflects the character of its setting, typically benefitting from deep ties with its community. Schafft (2016) highlights “the central social, institutional, and economic role of the school. More than in urban places, rural schools function as the centers of community” (p. 139). Treating the rural community as an asset permits capitalizing on its affordances in support of advancing educational opportunities for all students (Hartman et al., 2017).

A Rural Exemplar

Rural schools suffer when “solutions geared toward urban issues are foisted on schools of all demographics” (Bryant, 2010, p. 56). Instead, place-based programs honor the unique nature of the communities in which they are embedded while harnessing their affordances in response to their self-identified needs. An example of such a program is being piloted in Seabrook, a high-poverty rural community in northeastern New England.

According to its prospectus, the program “is informed by innovations in educational theory, research, and practice from around the U.S. while arising from the unique context and needs of [its community]” (Ray et al., 2019b, p. 3). Its transformative program design emerged following a lengthy developmental process that included input from university researchers, K-12 educators, mental health professionals, and community members. Among the challenges uncovered in this community were insufficient access to service providers such as mental health clinicians, changing regional demographics and economic opportunities, difficulty recruiting and retaining educators and school administrators, and an alarming rapid local increase in substance use disorder and its negative repercussions (Biddle et al., 2018).

After two years of listening to the needs identified by various stakeholders, a research-practice partnership team was established. Comprised of researchers from the flagship campus of the state university system and a nearby private liberal arts college working collaboratively with experienced educators throughout the county, the team began to construct a model of education designed to mitigate the impact of poverty, trauma, and childhood adversity on local students (Ray et al., 2019a). Three elements form the foundation of their model: (a) partnering with rural schools to effect trauma-informed systems change; (b) working with community organizations to support trauma-informed practices; and (c) providing training around trauma-informed practices for teachers, staff, school leaders, and community organizations (Ray et al., 2019b).

As a “trauma-informed, whole-child, student-empowered, and equity-centered [approach that] promotes social, emotional, and academic development” (Ray et al., 2019a, p. 1) of rural elementary school students, this approach focuses on meeting basic needs, supporting the whole child, fostering developmental relationships, and improving

instruction and leadership. Core elements of the program include in-school mental health services available to all students, administrators, teachers, and staff, plus a resource coach dedicated to meeting the diverse needs of teachers and families (Ray et al., 2019b).

There are precious few interventions designed by rural residents to address the specific needs of their own rural schools using the resources of the community in and for which it was designed. The catchphrase *rural schools* belies the heterogeneity of these institutions, each a unique reflection of the community in which it is located. A one-size-fits-all program template cannot hope to meet the needs of all rural schools, but the principles of programs such as that at Seabrook may serve as inspiration for others, potentially having a positive impact on the educational experience of over nine million rural public-school students nationwide.

Conclusion

Twenty-five percent of U.S. schoolchildren attend a rural school (Showalter et al., 2019). Yet, rural school issues are typically subsumed by debates focused on urban problems and the assumption of ample resources available for their remediation. Rural schools and students have needs and challenges distinct from those of urban and suburban schools yet are typically expected to simply adapt urban-centric programs to fit their needs (Bauch, 2001; Yettick et al., 2014). These programs seldom address the most salient issues facing rural schools, including the difficulty of fulfilling their designs with fidelity in light of the limited resources available in rural communities (Jimerson, 2005; Yettick et al., 2014). This constitutes placism—discrimination based on the region in which someone lives—in educational policy formulation (Jimerson, 2005).

Programs designed by and for rural schools and their stakeholders may be expected to better meet the needs of their students and families. Cross-sector partnerships between schools, universities, and communities provide the expertise and resources needed to generate and implement new ideas specific to the schools for which they were designed (Bauch, 2001; Hartman et al., 2017; Wilcox et al., 2017; Wilcox & Zuckerman, 2019). Trauma-informed approaches are particularly salient for rural schools, where limited access to resources compounds the disadvantages of poverty and co-occurring traumatic experiences. The Seabrook program serves as an

exemplar of a place-based, cross-sector partnership model that may lead to an improved educational experience for all rural students.

Ecological models postulate a direct correlation between the development of social-emotional learning and participation in positive developmental relationships within a trauma-informed environment designed to meet the unique needs of a rural school and its students. The strength and quality of the relationship between teachers and students is directly correlated with student-reported engagement which, in turn, leads to improved outcomes in the academic, attendance, and behavior domains (Murray, 2009). Rural schools may provide a relationship-rich environment that supports the social-emotional learning associated with improved student engagement, behavior, and academic achievement (Zins et al., 2004).

Blodgett (2015) stated the challenge succinctly: “Not every student has a significant trauma history, but the needs of those who do can define the success of the entire classroom” (p. x). Fortunately, a trauma-informed learning environment supports the positive development of all students, not just those with high ACE scores (Bartlett et al., 2016; Goldstein & Brooks, 2013). Trauma-informed approaches have the potential to overcome the negative effects of ACEs, close achievement gaps in rural schools, and help children lead more healthy adult lives. However, research around these issues is focused on resource- and population-dense urban spaces. Keyword searches of Academic Search Complete, ERIC, and PsycInfo in October 2020 point toward insufficient attention paid to the needs of rural students. For example, a keyword search of “trauma informed approaches” and “school” yielded 276 peer-reviewed results. Adding the keyword “rural” brought the number of results down to 5, representing 2% of the total volume of research. Similarly, a search using the keywords “social emotional learning” and “school” yielded 2,180 peer-reviewed results. Adding the keyword “rural” to this search brought the number of results down to 41, also representing a mere 2% of the total volume of research. Given the spatial mismatch in rural locales between risk factors and resource availability, especially around mental health supports (Fairman & Frankland, 2020), more attention must be paid toward researching social-emotional learning and trauma-informed approaches in rural schools. The futures of 13 million rural schoolchildren hang in the balance.

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