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# Children Overcoming Trauma through Trauma Informed Practices

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Children Overcoming Trauma through Trauma Informed Practices

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Northwestern College

A Literature Review Presented

in Partial Fulfillment of the Requirements

For the Degree of Master of Education

May 5, 2019

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### **Abstract**

Research indicates that children with a history of traumatic events in their lives have a significantly more difficult time focusing in the school setting than those who have experienced little to no trauma. Because of crucial brain development that occurs throughout childhood, children of trauma are more likely to have academic failures. In addition to academics, social and emotional difficulties become prevalent as children of trauma progress throughout their educational lives. Long term physical and mental health complications also follow these children into adulthood when interventions have not been implemented. Trauma informed practices allow educators to support students who have endured trauma throughout their lives. The following literature review identifies several trauma-informed programs and their use of the multi-tiered interventions to address the needs of trauma-exposed students. The programs highlighted throughout the literature review include The Neurosequential Model of Education, The Sanctuary Model, Healthy Environments and Response to Trauma in Schools, Collaborative Learning for Educational Achievement and Resilience, Supports for Students Exposed to Trauma, Positive Behavior Intervention Support, Trauma-Informed Positive Education, and Zones of Regulation. In addition to school interventions, there are measures that can be implemented to support not only children, but parents and families in the community through Trauma Informed Community Building. In the future, more active research on this imperative topic would be beneficial considering the information gathered in this review.

### **Children Overcoming Trauma through Trauma Informed Practices**

When children with adverse childhood experiences enter an educational setting, they are at a greater risk for academic failure. The risk occurs due to lack of growth and development in the brain that seemingly halts when a child has been exposed to trauma (Gray, 2017). Children who have experienced high amounts of trauma have a hard time self-regulating their emotions, causing them to be in fight or flight mode continuously. The child's body tends to be primarily concerned with survival and self-preservation; making learning, academic performance, and appropriate behavior something of very little importance. Consequently, this makes it hard for children with adverse childhood experiences to learn important content that is needed as a base for future academics (Plumb, Bush, & Kersevich, 2016). A study of 701 children by the Center for Youth Wellness found that children with a high number of adverse childhood experiences were thirty-two times more likely to be labeled with a learning disability or behavioral problems than children with little to no adverse childhood experiences (Plumb et al., 2016).

In addition to academic concerns, these children also have difficulty with social development, long-term health complications, and mental health issues as they development into adulthood. Children with adverse traumatic experiences may have difficulty forming and keeping friendships, often isolating themselves from their peers or resisting positive relationships with adults in the academic setting (McInerey & McKlindon, 2015). Research indicates that children who have been exposed to violence often have difficulty responding to social cues and may withdraw from social situations or actively engage in bullying their peers (McInerey & McKlindon, 2015). It is also noted that students who have experienced trauma in the past may feel as if authority figures have failed them throughout their childhood. Because of mistrust and

previous failed relationships, these children often have a hard time accepting and trusting teachers and other adult figures who are willing to help (McInerney & McKlindon, 2015).

This raises the question of what can be done to support these children in the task of overcoming such adverse experiences. How can we help children with adverse childhood experiences learn within the classroom, when their sense of security is nonexistent? There has been recent demand throughout the United States to answer these questions. Research indicates trauma informed practices within the educational setting and those strategies implemented to gauge those practices, can make a difference in the lives of the many children who have endured adverse childhood experiences (Overstreet & Chafouleas, 2016). Research has also shown simply understanding and responding to trauma, school administrators, teachers, and staff can help reduce its negative impact, support critical learning, and create a more positive school environment (McInerney & McKlindon, 2015). In the United States, 90 percent of students attend school within a public setting; therefore, public schools are the ideal medium for comprehensive intervention (Plumb et al., 2016).

### **Review of the Literature**

Childhood trauma has been defined by Maura McInerney and Amy McKlindon (2015) as a response to a negative external event or series of events, which render a child temporarily helpless and surpass the child's ordinary coping and defensive operations (p. 2). Trauma may include adverse experiences such as emotional abuse, physical abuse, sexual abuse, emotional neglect or feeling unloved and unwanted, physical neglect including poverty, parental separation or divorce, domestic violence, substance abuse within the family setting, living with a mentally ill family member, or having an incarcerated family member (ACEs 360, 2016). The effects of trauma will vary depending on the characteristics of the child. Those characteristics include

stage of development, personality, intelligence, prior history of trauma, environment, and experience. A vast majority of students across the United States have been effected by trauma in some form throughout their lives. Lilli Gray of St. Catherine University noted that in 2011, Child Protective Services received 3.4 million referrals representing around 6.2 million children that are currently living within the United States (2017). The reports included events of neglect, sexual abuse, and physical abuse. Of those 3.4 million referrals, only 19% were actually confirmed. These statistics show an overwhelming snapshot of the prevalence of child abuse and trauma that takes place within the United States (Gray, 2017).

Evidence states one in four children will experience some form of trauma by the age of four years old (Stevens, 2015). Much of the research and information-documenting trauma comes through the use of the Adverse Childhood Experiences (ACE) Study. Vincent Felitti, a physician and researcher at the Kaiser Permanente's Department of Preventive Medicine in San Diego (Stevens, 2015) created the ACE study. Dr. Felitti lead the charge in research into how adverse childhood experiences affect adults by first noticing the correlation between weight loss and reoccurring weight gain in women. When he further looked into this correlation, he found a direct link between the women within this facility losing weight, gaining it back, and some form of sexual abuse in their past (Stevens, 2015). This finding lead him to question the effects of childhood trauma and how it could play an active role in their adult lives.

The ACE study consists of a serious of questions asking about several types of abuse. These questions include inquiries about emotional abuse, physical abuse, sexual abuse, substance abuse, and incarceration of parents, mental illness in the home, domestic violence, or a separation or divorce while the child was growing up (ACE Study, 2016). If a person were to answer yes to four or more of these questions, research indicates, it would put them a much

higher risk to have a difficult time in school and overcome health issues as an adult. In addition to health concerns, children experiencing high amounts of trauma are more likely to smoke, binge drink, or suffer from poor mental health as adults than those children who did not experience such trauma (ACEs 360, 2016). Young children and babies may not fully recall the trauma they have endured within their short lives, although it does make an impact on their developmental progression. Dr. Jack Shonkoff from the Center on the Developing Child at Harvard University states, “The child may not remember (the trauma) but the body remembers” (ACEs 360, 2016, p. 11).

### **Impact of Trauma on the Brain**

The impact of trauma on the developing brain is significant and manifests differently during each stage of development. As people grow, their brains develop from the bottom up and inside out (Plumb et al., 2016). An infant’s brain doubles in size during the first year of development, making trauma that occurs within this timespan highly detrimental to growth and development (McInerey & McKlindon, 2015). By the age of three, the brain is nearly eighty percent of its adult size, meaning positive interactions during these are years crucial for proper development (ACEs 360, 2016). The central nervous system, including the brain and spinal cord develop in utero and through adulthood. Trauma has potential to affect all parts of the central nervous system, some of the most critically and directly affected by trauma include the limbic system, midbrain, and cerebral cortex (Van der Kolk, 2003). The limbic system regulates emotional control, heartbeat, and physical balance. The limbic system is also responsible for the flight or fight response (Van der Kolk, 2003). If trauma occurs throughout the development of the limbic system a person’s ability to respond to stress, interpret social cues and language may be affected. Another portion of the brain that can be affected by trauma includes the midbrain or



the central part of the brainstem, which develops between birth and the age of six. If trauma occurs during this stage of development, a person may have difficulty with motor function, spatial awareness, and overall coordination (Plumb et al., 2016). The cerebral cortex is the final part of the brain that can be highly affected by trauma during development. If this occurs, a person may experience difficulty in the areas of problem solving, planning, language use, and the ability to develop higher order thinking. Overall, a child experiencing high amounts of trauma for prolonged periods will operate in the lower orders of the brain (ACEs 360, 2016).

### **Impact of Trauma on Physical and Mental Health**

Not only does trauma affect the brain, but it tends to be harmful in terms of physical and mental health, as well. In terms of physical health, children who have experienced a four or more on their ACE score, without intervention, suffer from a long list of physical health problems and the potential to engage in risky behaviors as adults. It seems adults who experienced trauma as children are more likely to engage in binge drinking and excessive smoking (ACEs 360, 2016). It has also been noted that people with four or more on their ACE score are 1.6 times for likely to report they do not wear a seatbelt as compared to people with fewer ACEs (ACEs 360, 2016). Some of the physical health concerns correlated with traumatic stress throughout childhood into adulthood include diabetes, cancer, asthma, heart attack, arthritis, heart disease, kidney disease, stroke, and COPD (ACEs 360, 2016).

Trauma also has a significant impact on mental health. *Beyond Aces: Building Hope and Resiliency in Iowa* conveys that, “Iowa adults with four or more ACEs were six times more likely to have been diagnosed with depression compared to those with zero ACEs” (ACEs 360, 2016, p. 15). In addition to depression, these adults may also experience high levels of anxiety due to a heightened sense of stress throughout their childhood. They are also more likely to

experience suicidal thoughts (ACEs 360, 2016). Findings from a national study in Wales found adults who had suffered four or more types of ACEs were almost 10 times more likely to have felt suicidal or self-harm than those who had experienced none (Adverse Childhood, 2018).

Overall, the impact of childhood trauma is highly detrimental to a person's physical, emotional, and mental health.

### **Signs of Trauma in the Classroom**

It is important for educators to know the astounding numbers that go along with traumatic events in the lives of the children they are teaching. Many educators may believe they are only working with a handful of students struggling with such events and the affects that go along with those events. Unfortunately, many educators are wrong. Recent research indicates that between 20% and 50% of American children have been victims to violence while at home, school, or within their communities (Jaycox, Langley, Stein, Wong, Sharma, Scott, & Schonlau, 2009). In addition, not only are a large number of American children victims to such violence, but an even greater number of students have witnessed violence throughout their lives (Jaycox et al., 2009). Research from the School of Mental Health indicated that 34% of students in grades 1 to 5 have experienced one or more traumatic event in their life, while 75.4% of these students showed significant signs of posttraumatic stress symptoms (Jaycox et al., 2009). It was further stated that males reported to have higher number of trauma events and posttraumatic symptoms than the females participating in the study (Gonzalez, Monzon, Solis, Jaycox, & Langley, 2015). This research indicates that the majority of students within the classroom setting have experienced trauma and are fighting the effects of it daily (Gonzalez et al., 2015).

Before educators are able to begin implementing trauma informed practices within their classroom, they need to know the signs of a student who may be struggling. Because of the

neurological changes that occur when trauma takes place, these children may find it more challenging to pay attention and process new information than their peers (Plumb et al., 2016 ). Evidence also suggests that these children develop sensory processing difficulties, which can attribute to problems with learning reading, writing, and math concepts (McInerey & McKlindon, 2015). Children experiencing frustration while learning new concepts often act out in the form of negative self-talk or disruptive behaviors. Some behaviors that may evolve within the classroom include poor self-regulation, negative thinking, hypervigilance, trouble-forming relationships with teachers, and executive function challenges (Miller & Child Mind Institute, 2017).

Self-regulation is a learned behavior that occurs at an early age, most often with the guidance of an adult (McVittie, 2018). Children who have been neglected or abused lack the understanding of this skill and ability to fully learn how to calm themselves when certain situations occur (Miller & Child Mind Institute, 2017). When children struggle with self-regulation in the classroom it often presents itself in the form of hypersensitivity, aggression, physical acting out, frequent tantrums, destruction of the environment, lack of impulse control, irritability, belligerent or explosive behavior, or avoidance behavior (McVittie, 2018). Self-regulation can be taught but requires repetition and practice when children are learning later in life. These children need to be specifically taught how to control their emotions and regulate their feelings of frustration.

Another challenge children of trauma have to overcome is negative thinking. Many children who have been exposed to trauma feel as if they are responsible for the traumatic event that has occurred within their lives. This leads them to believe they are unlikeable or do not deserve to be treated fairly (Miller & Child Mind Institute, 2017). Children coming from

traumatic experiences also develop hostile attribution bias or the thought that everyone is out to get them. Caroline Miller states that trauma exposed children tend to process redirection or criticism much differently (2017). Miller explains when a child of trauma hears “Sit down in your seat,” they actually hear it as, “SIT DOWN IN YOUR SEAT!” Research suggests that what a child of trauma hears is actually exaggerated and angry and unfair (Miller & Child Mind Institute, 2017, p. 4). This causes them to act out quickly, in an irrational manner.

Another common sign of a student living with the effects of trauma is hypervigilance. Caroline Miller explains hypervigilance as being overly alert to danger (2017). She goes on to further explain in her research that these students have an exaggerated startle response or are overly jumpy (Miller and Child Mind Institute, 2017). These over exaggerated responses often lead to out of control behaviors due to the fight or flight response being triggered within their brains (Miller & Child Mind Institute, 2017). In some cases, hypervigilance looks a lot like hyperactivity, which often leads traumatized students misdiagnosed.

Educators may also find it very difficult to connect with students who have been exposed to trauma. Most often, these students are not comfortable with adult/child relationships and tend to pull away from those trying to help them overcome their experiences. Dr. Rappaport, a school consultant and associate professor of psychiatry at Harvard Medical School states, “These kids don’t have the context to ask for help. They do not have a model for an adult recognizing their needs and giving them what they need” (Miller & Child Mind Institute, 2017, p. 2). When a child is deprived of a nurturing and safe environment at home, the ability to form positive relationships greatly decreases with the educational setting, making it very hard to break through social and emotional barriers that they child has built up (Gray, 2017).

Signs of trauma within a classroom also consist of children having challenges with executive function. Because chronic trauma affects the memory of a child, they have a harder time paying attention, planning, and thinking things through completely (McVittie, 2018). The child may have a hard time acknowledging their behavior and planning accordingly to their feelings, often acting impulsively when presented with a challenge or new situation (Miller & Child Mind Institute, 2017). Educators may also find these children have difficulty expressing their needs and feelings in a calm manner. Due to a high number of children struggling with these specific signs of trauma, a classroom environment can often feel chaotic and in disarray. This leads educators to question how they can change the course of childhood trauma implications and what interventions can be done to help improve the overall health of so many suffering from traumatic experiences?

### **Trauma Informed Practices within the School Setting**

Trauma informed schools are defined by the Treatment and Services Adaptions Center (2015) as “schools that require a layered approach to create an environment with clear behavior expectations for everyone, open communication, and sensitivity to the feeling and emotions of others (p. 2).” Trauma informed schools should have the knowledge to engage with students impacted by the traumatic events in their lives. This should consist of not only tools to help these students deal with their trauma but also create an environment that is safe and supportive for them to learn and grow within the school setting (Treatment and Services Adaptation Center, 2015). Trauma informed schools should have a ‘whole child’ approach to fostering resiliency within their students. The whole child approach acknowledges that in order for a child to have academic success, they have to have their social and emotional needs met as well (Blodgett & Dorado, n.d.). Children who have recently experienced traumatic events are not able to fully

focus on specific tasks when in the school setting. Their minds may still be trying to process events that have occurred, making the worksheet that was just handed to them something of very little importance.

The concept of exposing children to an environment that involves open communication between children and faculty about feelings and emotions, along with clear expectations for all students is further defined and created by Fallot and Harris through the Wisconsin Department Public Institution. Fallot and Harris integrated five components that were integrated in the St. Paul, MN district. These five components include Safety, Trustworthiness, Choice, Collaboration, and Empowerment (Gray, 2017). Within these principals there was a universal protocol integrating each concept, these concepts are defined as the following: Safety as ensuring all students feel physically and emotionally safe within their school setting; Trustworthiness acknowledges the clear boundaries set between staff and students; Choices allows the students a sense of control and independence in their education; Collaboration involves the importance of students having the opportunity to express their needs, while also having some preferences in the activities they partake in throughout the day; and lastly is Empowerment by building on student's skills to gain resiliency from the trauma they may have experienced throughout their lives (Gray, 2017).

In addition to the work and trauma informed concepts of Fallot and Harris, many others have begun creating and assisting schools in the implementation of certain models to further help their students become resilient to the trauma they have faced. The programs noted are used to support a trauma informed whole school implementation by using adaptive but uniform practices. These programs include the Neurosequential Model of the Education created by Dr. Bruce Perry and colleagues, the Sanctuary Model developed by Dr. Sandra Bloom, the Healthy

Environments and Response to Trauma in Schools (HEARTS) formed by the Trauma and Learning Policy Initiative, the Collaborative Learning for Educational Achievement and Resilience (CLEAR) (Blodgett and Dorado, n.d.), Supports for Students Exposed to Trauma (SSET), Positive Behavior Intervention Support (PBIS), and lastly, Trauma-Informed Positive Education. All of these programs suggest professional development of the implementation of each particular model. They also emphasize the importance of guided support over several years in order to sustain proper practices and implementation (Blodgett and Dorado, n. d.). Although there are several similarities within each model, they all have their own distinct areas of importance that differ from the other models.

**The Neurosequential Model of Education.** The Neurosequential Model of Education is not a specific therapeutic technique or intervention. It is an approach that integrates core principles of neurodevelopment and trauma to inform work with children, families and the communities in which they live (The Neurosequential Model, 2015). Through this model, educators are supported by monthly calls facilitated by Child Trauma Academy professionals. This model is built around an evidence-informed integration of neuroscience with extensive clinical experience of Dr. Perry and his collegeagues (Blodgett and Dorado, n.d.). Within this approach, researchers believe education and treatment are more effective when interventions are done with mindful thought of how the brain organizes specific coping skills for optimal performance. It is further explained that a child with poor self-regulation skills will have a hard time expressing their emotions until self-regulation skills are fully comprehended (Blodgett & Dorado, n.d.). Neurosequential Model of Education seeks to build staff knowledge through local training and implementing supports around six key elements that include a strong emphasis on student/staff relationships to support the child feeling safe and secure (Blodgett and Dorado,

n.d.). This model also builds upon the concept of fostering new skills based on the student's individual developmental status. Children also receive repeated interventions to support mastery, with a strong emphasis on reinforcing experiences in teaching new skills. Adaptive timing of any intervention is important to align with the student's capacity at the current time of intervention with this model. In addition to timing, personalized and an adaptive approach to respect the student's needs and culture also (Blodgett and Dorado, n.d.). Overall, this model allows educators to help children with high ACE scores work through their trauma by using developmentally appropriate practices specifically tailored to each individual child. Presently, there are two case studies supportive of the Neurosequential Model of Education in a therapeutic preschool, but overall there no identified research addressing the benefits for schools adopting the Neurosequential Model of Education (Blodgett and Dorado, n.d.).

**The Sanctuary Model.** The Sanctuary Model was initially created for mental health treatment facilities with the goal of improving culture to better improve client experiences and overall outcomes (Bloom & Farragher, 2013). When used in the educational setting, this unique approach not only looks to improve the overall health of the school setting, but works to build community resilience as well (Bloom and Farragher, 2013). The intentional design of the community model under this approach supports learning opportunities through daily living and works with each student to reduce symptoms of trauma. While working through the trauma, this approach helps students become a contributing member of the community with responsibly for themselves and others (Blodgett and Dorado, n.d.). Through this approach, individuals are supported to by learning the skills needed to be a contributing member of the community in which they are in, whether it be the classroom, workforce, or treatment facility (Blodgett and



Dorado, n.d.). Overall, this model works to develop the whole child and encourages them to become successful models in all areas of their life.

The Sanctuary Model is a three-year process with the emphasis of increasing therapeutic benefits in an organizational environment using shared values and accountability to create peer and staff support for the decline in problematic behaviors (Blodgett & Dorado, n.d.). This model is based on an initial needs assessment within the educational setting which include five days of intensive training, collaboration to develop an implementation plan for the school or facility, creation of a leadership team, and whole staff buy in to implement the model with fidelity (Bloom and Farragher, 2013). The acronym SELF proposes four key areas of change within the organization to promote trauma recovery. The first key area involves safety with regards to respecting themselves and relationships. Emotional management is the next key area. This area involves addressing the appropriate expression of emotions that occur when students are faced with unwanted expectations (Bloom and Farragher, 2013). Loss is also included within the four keys areas. The area of loss allows the child to come to terms with the trauma they have endured and acknowledge a better understating of themselves. The last of the four key areas is looking towards the student's future. Within this area the trauma survivor accepts and explores the constructive roles and contributions of others (Bloom & Farragher, 2013).

**Healthy Environments and Response to Trauma in Schools.** Healthy Environments and Response to Trauma in Schools (HEARTS) began implementing services within schools in 2009. The overall development of HEARTS as a whole school implementation was led by the Trauma and Learning Policy Initiative to enforce a whole school reform and need for introducing trauma-informed practices within the school setting (Blodgett and Dorado, n.d.). There are several components of the HEARTS model drawn directly from the Sanctuary Model. The San

San Francisco Department of Public Health Trauma Informed Systems Initiative and HEARTS worked together to develop the key components to the trauma informed initiative. This initiative was created under the specific guidelines, which include understanding trauma and how it affects the learning community. The HEARTS model also involves establishing safety and predictability within the school setting and classroom environment, while fostering empathetic and dependable relationships with students (Blodgett and Dorado, n.d.). This model also promotes social emotional learning and the importance of resiliency, while practicing cultural responsiveness and humility for all staff and peers. Lastly, this model focuses on fostering and facilitating collaboration between students and educators, while also teaching empowerment (Blodgett and Dorado, n.d.).

**Collaborative Learning for Educational Achievement and Resilience.** Collaborative Learning for Educational Achievement and Resilience, also known as CLEAR is a consultation model used to develop the relationships within the school setting among staff and students (Washington State University, n.d.). CLEAR is a three-year intervention process that seeks to shift the practices of the staff that works within the schools (Blodgett and Dorado, n.d.). Educators need to understand that many students dealing with the after effects of trauma are not trying to make their lives more difficult, these students are merely working through their own trauma and navigating their thoughts and emotions as best they know how. Through the CLEAR approach, principles are not used as an addition to what is being taught in the classroom, but is embedded into the daily language and curriculum of the school (Washington State University, n.d.). Using this approach helps educators feel as if they are not being handed one more thing they have to pile on their long list of daily tasks. A kindergarten teacher in a CLEAR school

stated, “What you are telling me is that addressing trauma is not one more thing on my plate, it is the plate (Blodgett and Dorado, n.d., p. 71).

Much like the other programs that are implemented for trauma informed purposes, the CLEAR model consists of several key components. The first component includes physical and emotional safety. This type of safety involves a predictable environment and consists of authentic communication between staff, administration, and students. Within the predictability component, students are aware of school-wide expectations. Also when changes occur, those changes are made with consideration for the school-wide expectations and consistency throughout the program and the school environment (Washington State University, n.d.). Overall, CLEAR is a whole school intervention that balances formal implementation with principle-guided adaptations to fit the needs of the local school at hand (Blodgett and Dorado, n.d.).

**Supports for Students Exposed to Trauma.** Supports for Students Exposed to Trauma (SSET) is a program that consists of ten specific lessons to reduce post-traumatic and depressive symptoms, while improving overall function of middle aged youth within the school setting (Jaycox, et al., 2009). The core cognitive behavioral elements of the ten lessons include psycho-education or working through common reactions to stress or trauma, relaxation training, cognitive coping through positive thoughts and thinking, gradual mastery of trauma and generalized anxiety, processing traumatic memories, and social problem solving (Jaycox et al., 2009). Each lesson is designed to be completed within a 45-minute class period. Within that time frame, students start with a review of independent practice from the previous session, followed by a new lesson that involves engagement activities to promote mastery of the new skills and plan for independent practice got the following lesson (Jaycox et al., 2009). This

method was used for a pilot study in two schools in the Los Angeles Unified School District.

The outcomes of the study indicated that implementation of the program did appear to be feasible for staff to implement and acceptable for students to learn trauma-informed techniques (Jaycox et al., 2009). Parents and children reported high degree of satisfaction with the SSET approach and felt it to be very beneficial not only in the school setting, but at home as well (Jaycox et al., 2009).

**Positive Behavior Intervention Support.** Positive Behavior Intervention Support is used as an intervention within the school and classroom setting to help strengthen the relationships between teacher and student, as well as parent and child (Gray, 2017). In order to properly implement PBIS, schools form a leadership team of administration, educators, and faculty to oversee proper implementation and validity program expectations. Within the PBIS approach lies three tiers essential to the ecological model (Gray, 2017). The first tier focuses on the whole school, addressing a safe and supportive climate through modeling by staff of emotional regulation and caring behavior. Within this tier, they also focus on school wide policies to support behavior management skills within the school setting (Gray, 2017). Some students may not respond to the first tier interventions due to extreme situations and will progress towards the second tier (Plumb et al., 2016). The second tier consists of a supplemental piece that is targeted towards specific groups of students who need additional support through class intervention, parent education, or small group interventions (Gray, 2017). When the needs to individual students have not been met, they will progress to the third tier. The third tier consists of high-intensity work with individual students who have been identified to have chronic emotional or learning problems because of possible trauma that may have occurred within their lives (Gray, 2017). Through the PBIS model students' significant behavioral and emotional

needs take precedence over a student's academic needs, as research indicates students of trauma have difficulty learning when their brains are in a hypo-aroused state (Plumb et al., 2016).

The PBIS model is a beneficial system to manage classroom behaviors, although many question whether this approach is best to help children overcome adverse childhood experiences. PBIS fails to address the root cause of negative classroom behavior or the impact of complex trauma on the developing brain (Plumb et al., 2016). The PBIS model has shown to have immediate external benefits for teachers and schools because of its focus on positive relationships and behaviors. Regardless of its benefits in these two areas, this model does not help individual students with their self-regulation skills or underlying causes of inappropriate classroom behavior (Plumb et al., 2017). The PBIS approach tends to focus more on the whole school approach, rather than the individual approaches other models may utilize.

**Trauma-Informed Positive Education.** Trauma-Informed Positive Education is informed by positive psychology, involving the study of wellbeing, human strengths, and optimal functioning (Brunzell, Stokes, & Waters, 2016). The TIPE method aims to foster two conditions of wellbeing which include feeling well and doing well (Brunzel et al., 2016). The TIPE model works to build regulatory capacities and relational attachments, while also emphasizing practices that foster positive emotions, engagement, relationships, meaning, and accomplishment as psychological resources for vulnerable students (Brunzel et al., 2016). The main goal of the TIPE model is to assist teachers in promoting classroom-based interventions in a developmentally aligned manner through by increasing student capacity within regulatory readiness (Brunzel et al., 2016). The TIPE model emphasizes classroom intervention principles that build regulation, strengthen relationships, and prepare the student for learning of psychological strategies. These strategies include resilient thinking and learning with character

strengths (Brunzel et al., 2016). According to Tom Brunzell and colleagues, this model helps trauma-affected students to nurture growth and healing for successful learning in the classroom. They also provide significant intervention pathways for classroom adaptation to meet specific needs of students (Brunzel et al., 2016).

In terms of trauma-informed methods, best practice depends on a mix of factors and variables. It is important evaluate what works well with each individual child and tailor the model or trauma informed curriculum to meets their needs or severity of trauma endured (Brunzel et al., 2016). Regardless of the type or method of intervention used within the classroom, implementation of core components of trauma-informed practices can build on the strengths of each school and school district (Kataoka et al., 2018). The need for intervention is vital for all students who have endured trauma within their lives.

### **Trauma Informed Practices in the Preschool Setting**

Exposure to potentially traumatic events is an all too common experience for many children, including those who are preschool-aged (Holmes, Levy, Smith, Pinne, & Neese, 2014). A recent study exploring the prevalence of trauma exposure found that by their forty-eighth month, one in four children had experienced or witnessed an event that could be deemed potentially traumatic (Holmes et al., 2014). In addition to these astonishing numbers, a study of 155 Head Start participants found 78 % of the children's self-reports and 66 % of parent reports indicated exposure to at least one incident of community violence (Holmes et al., 2014). Early childhood is a period within a child's life that entails rapid brain development. This development paves the way for growth and development in many cognitive areas including social-emotional concepts and self-regulation (Katz, 2012).

Self-regulation seems to be the greatest approach to control strong emotions tied to early childhood trauma. When self-regulation skills are lacking for small children, these skills need to be taught with intention (Katz, 2012). Teaching these skills to traumatized children will aid them in regulating themselves at school, at home, and in the company of their peers. One of the greatest tools to teach this concept for small children directly involves The Zones of Regulation, also known as The Zones (Katz, 2012). The Zones is a curriculum developed by Leah Kuypers who is an occupational therapist and learning specialist. Kuypers developed this model which categorizes emotional control into four color-coded zones (Katz, 2012). The zones consist of a red zone, yellow zone, green zone, and blue zone with each color carrying specific emotions. The red zone is an area where children may feel extreme emotions such as anger, aggression, and terror. When children are in this zone, they may feel out of control, have trouble making positive choices and need to self-regulate (Katz, 2012). When children are in the yellow zone they may start to feel out of control with their emotions. Within this zone children often show feelings of frustration, anxiousness, worry, overly silly, or startled (Katz, 2012). The green zone tends to be an area where children feel a sense of calm. Children within the green zone feel focused, alert, and in control of their emotions. Children are most ready to learn when they are in the green zone (Katz, 2012). The final zone is the blue zone. Within the blue zone children as if they are in a low state of alertness. The body may be feeling too tired, sick, or sad to focus on academics or school related issues (Katz, 2012). The zones are explained in terms of traffic signs where red would mean stop, yellow would be a warning to be cautious or slow down, blue signifies a rest area where one could take a break, and signifies the child is ready to go or learn (Katz, 2012).

Kuypers explains, “There are no good zones or bad zones. All zones represent states that we’re all in from time to time. But our zones need to match the situation” (Katz, 2012). This is

where the curriculum begins to help children learn how to regulate their emotions based on the environment and social demands they are in (Katz, 2012). The curriculum consists of eighteen lessons, helping children identify their emotions and state of arousal. Through the use of the curriculum, they also learn different tools to help them get calm and remain calm throughout their school day (Katz, 2012). Overall, the curriculum offers students who have previously struggled with explaining or identifying their emotions a tool to verbalize how they are feeling with strategies to essentially get back into the green zone, allowing the opportunity to learn, play, and interact with their peers in a positive manner (Katz, 2012). The Zones of Regulation are easy for all children to understand, but work particularly well for smaller aged children, especially those in the preschool setting.

### **Overcoming Trauma through Community Involvement**

Professor Karen Hughes of Bangor University in Wales found that basic community measures help children build resilience, which can protect individuals from developing the mental health problems that ACEs can cause (Staff, 2018). It was also noted that resiliency could be further developed through access to a trusted adult in childhood, supportive friends, or being engaged in community activities, such as sports reduced the risks of developing mental illness. This is known to be true even in those that have experienced high levels of ACEs (Staff, 2018). One frequent concern for many trauma informed students and families is neighborhood safety throughout their communities. It seems adults who come from trauma; tend to stay in the same environment in which they experienced the trauma (Kataoka et al., 2018). This allows for history to repeat itself in many aspects.

Harmony Elementary School in a primarily Latino neighborhood noted that many residents had concerns in terms of neighborhood safety. Because of these safety concerns,



residents and school administration began asking questions in regards to creating a more positive community environment (Kataoka et al., 2018). They planned neighborhood walks to explore conditions, opinions, and resources within the area surrounding the elementary school. After this exploration, they demanded to be heard by the city council to discuss options for making their both their school and community safer environments (Kataoka et al., 2018). The school and community then took action, working together to implement ways to better their surroundings. They brought families together for peer support groups at house meetings. Within these meetings they developed plans for social action and empowerment. As a result of these measures, family engagement became more common within the school and parent involvement was heightened in terms of helping their children work through their trauma (Kataoka et al., 2018). In addition to parent involvement, Harmony was the first school in this community to reach California's standardized test score benchmark, indicating that Harmony Elementary was closing the gap in terms of academics, as well as trauma informed care (Kataoka et al., 2018).

Within the community aspect of trauma informed practices lies the significance and need for Trauma Informed Community Building (TICB) (Weinstein, Wolin, & Rose, 2014). This model was developed as a holistic approach to community engagement and empowerment (Weinstein et al., 2014). Through this model it recognizes that trauma impacts the community, as well as residents' lives. TICB acknowledges that community trauma hampers participation in traditional community and limits the impacts of broader community development efforts (Weinstein et al., 2014). Specifically, TICB strategies aide in de-escalating chaos and stress, build social cohesion, and foster community resiliency (Weinstein et al., 2014). These strategies essentially help create a foundation which is significant to maintaining community development efforts. The outcomes of TICB support long-term health and well-being of a community by

influencing the institutions that can support community improvements and meet community needs into the future (Weinstein et al., 2014). The TICB model can be applied to various types of communities facing hardships such as poverty, violence, various types of trauma, isolation, and limited resources (Weinstein et al., 2014). Trauma informed interventions within a community setting do not aim to treat trauma directly, but welcome community members, acknowledge their needs, and identify trauma in relation to other issues occurring within their lives (Weinstein et al., 2014).

Through the TICB model, there are four key principles that reflect the beliefs and practices in a community centered approach. These principles are not made to look like procedures but rather a base for influence of work that needs to be put in (Weinstein et al., 2014). The first principle emphasizes doing no harm, meaning TICB recognizes mental triggers in the community and works to create an environment that acknowledges the trauma experienced by the community in the past (Weinstein et al., 2014). It is also important for nonresident stakeholders to acknowledge how their own roles may have contributed to some of the harm and trauma that may have taken place in previous years (Falkenburger, Arena, & Wolin, 2018). It is important to openly discuss that history and make amends with those in the trauma affected community (Falkenburger et al., 2018). The second principle focuses on the importance of acceptance. Within this principle, they emphasize meeting the community members where they are and accepting the reality in which the community is currently in (Weinstein et al., 2018). TICB makes a strong effort to adapt activities to the realities of violence, mental health conditions, substance abuse, and other trauma related issues. Within this principle, the main focus is to set goals that will allow the residents to grow, while not pushing them past their capacity or understanding of specific issues (Weinstein et al., 2018). The third principle

recognizes the importance of empowerment, encouraging everyone within the community to become stakeholders. The process of empowerment begins at any stage in which community members feel in control of the changes that are taking place and a positive shift (Weinstein et al., 2018). The fourth and final principle involves a reflective process. Within this process, it is encouraged that members of the community take a sustained approach over multiple generations to improve outcomes in a trauma impacted community (Falkenburger et al., 2018). The TICB model encourages all members of the community to engage in ongoing reflective practices in response to new developments and knowledge bases. Through this reflection, active members are working to make adjustments in order to meet the needs of the community and overall vision of the neighborhood (Weinstein et al., 2018).

Although the principles of the model are clear and concise, there does tend to be challenges that arise within the community when putting these practices into place. One of the greatest challenges that occurs within the community coincides with the biggest challenge while working with children in the school setting. That challenge is lack of trust and social cohesion (Falkenburger et al., 2018). Social cohesion is a critical element of community building that tends to be absent when trauma experiences have created a lack of trusting relationships as individuals and throughout the community (Weinstein et al., 2014). The second challenge to establishing a trauma informed community involves lack of stability, reliability, and consistency within that community (Weinstein et al., 2014). A person who has experienced trauma may feel as if the world is unreliable, making new experiences that involves roles and activities proposed by community building intimidating and overwhelming (Weinstein et al., 2018). The third challenge involves disempowerment and lack of community ownership, causing members to disengage in community involvement (Weinstein et al., 2014). The fourth challenge involves

those in the community an inability to vision the future (Weinstein et al, 2014). Research indicates that due to poverty and mental burdens, there is little cognitive capacity available to plan and look towards the future where they and their family members excel in other aspects of life (Weinstein et al., 2014). The fifth hindrance involves breadth and depth of community needs (Weinstein et al., 2014). Within this challenge lies the obstacle of those affected by trauma to step away from leadership roles because of the inability to focus, low self-esteem, and shame (Weinstein et al., 2014).

Regardless of the challenges throughout this process, community building requires an investment of time and effort from all parties involved. Within all stages, TICB residents play a large role in the decision making process, allowing all members to feel a sense of belonging (Weinstein at al., 2014). Using Trauma Informed Community Building allows for small shifts in community expectations and activities to achieve the goal of strengthening their environment (Weinstein et al., 2014). Essentially, safer communities lead to safer schools. Having safer schools allows for children to feel comfortable within their environments, leading to great academic success (Cole, O'Brien, Gadd, Ristuccia, Wallace, & Gregory, 2005).

### **Analysis**

The significance of trauma informed intervention throughout American schools is imperative to the success of our students. There are a variety of models, programs, and curriculums to help address the need for intervention with little concrete research to prove which is best to fit the needs of all students. When comparing the models throughout, there tends to be several characteristics in which they all deem important. These similarities include ensuring safety, establishing trustworthiness, maximizing choice, and prioritizing empowerment (Carello

& Butler, 2015). Another common piece within all of the models entails professional development for implementation.

Two recent studies examined the school level implementation of trauma informed practices. Dorado and colleagues investigated the Healthy Environments and Response to Trauma in Schools, also known as HEARTS (2016). Perry and Daniels investigated a program of school-based services piloted by the New Haven Trauma Coalition (2016). Both of these studies used systematic intervention programs, involving multiple groups through the educational system. The key players within the systematic framework included students, parents, teachers and administrators (Dorado et al., 2016). Both studies demonstrate the importance of having a multilayered approach in trauma informed practices by offering training to school professionals, multidisciplinary support for students and families, and specific trauma interventions for students from suffering from post-traumatic stress symptoms (Dorado et al., 2016; Perry & Daniels, 2016). These studies highlight the need for more research in the area of trauma informed practices to fully investigate which trauma interventions were best suited for children in the educational setting. In studies exploring specific trauma interventions, a common theme in the conclusions and findings was that the interventions were associated with significant improvements in post-traumatic symptoms, anxiety-related symptoms, somatic complaints, depression, and functional impairments (Dorado et al., 2016; Perry & Daniels, 2016).

Shamblin, Graham, and Bianco conducted another study of trauma-informed practices in 2016 that also implemented a tiered approach but within an early education setting (Phifer & Hull, 2016). Similar to the other case studies, the program included a trauma-informed training component and a social-emotional curriculum. Within this study, there was targeted classroom consultation focused on giving teachers proactive strategies to reduce the occurrence of negative

behaviors within the classroom. Consultants also worked with educators to create specific plans to address specific issues that would arise throughout the day (Phifer & Hull, 2016). There was also on-site mental health support to children and families within the community. They found students within this rural area to be experiencing greater levels of poverty and mental health issues than national average (Phifer & Hull, 2016). Their needs for services was much higher and unfortunately, access to resources was limited due to physical distance (Phifer & Hull, 2016).

Based on the information presented throughout this literature review, it can be concluded that implementing an intervention proves far more beneficial than introducing no intervention at all. The vast majority of literature attending to trauma informed practices and models to teach self-regulation skills as it relates to educational practices is broad (Gray, 2017). Research indicates that the prevalence of childhood trauma is more common than what many educators and administrators may believe (Gray, 2017). The main goal within this highly crucial matter is to offer trauma informed care and continue to build the evidence base for both specialized treatment and trauma informed treatment programs for our students (Hodas, 2006). There is a strong need to ensure all systems of care recognize the major role trauma has played in the lives of children and families throughout our schools and communities. In addition, the need to incorporate trauma informed planning and program implementation within our schools is highly crucial, no matter the program or model chosen by individual districts (Hodas, 2006). Gordan Hodas, a child psychiatric consultant with the Pennsylvania Office of Mental Health and Substance Abuse Services states, “Addressing underlying trauma-related issues increases the likelihood that evidence based practices will prove effective in the real world setting and the benefits of those practices will be sustainable (2006, p. 66).

### **Application**

Trauma informed practices are absolutely necessary amongst communities in the state of Iowa and throughout the United States. Teaching in Appanoose County, educators see an abundance of children entering our buildings daily who display the signs of trauma. Beyond Aces: Building Hope and Resiliency in Iowa shows that 14% of the population within Appanoose County has experienced trauma with an ACE score of four or more (ACEs 360, 2016). When Appanoose County and Polk County are compared, we find that there is only a point one percent difference in total ACE scores for the two areas. These statistics show a much larger populated Polk County with essentially the same amount of trauma in a much smaller populated Appanoose County (ACEs 360, 2016). In addition to these numbers within Appanoose County we see that over 90% of the students entering our buildings each day are within the free and reduced lunch range, concluding that the poverty level is astounding. The need for trauma interventions is overwhelming due to these statistics and the behaviors displayed by our students daily. Sadly much like many of the other districts mentioned throughout this literature review, our resources in terms of mental health facilities are low, where the need is abundantly high.

Educators within my small community see the signs of trauma exposed children daily. Most often, the behaviors of these children come from lack of self-regulation skills or the inability to process redirection without behaviors or aggression. The information from Caroline Miller in regards to how children of trauma process simple redirection was astonishing and made perfect sense when reflecting upon certain behaviors in which children display. It is very typical for an educator to ask a child to “Please sit down in your seat” and observe that child respond in a hypersensitive manner. From the research, it is now evident that this child hears “SIT DOWN

IN YOUR SEAT” making their fight or flight response activated (Miller and Child Mind Institute, 2017). From this simple example, I was able to fully comprehend what is occurring in that young child’s mind and make sense of their miscue. Unfortunately, many educators are still teaching with the thought that these children are acting out because they are choosing to be defiant or resistant to structure and rules. There is a strong demand for educators in the area of professional development to fully understand the mindset of these children and the impact trauma has had on the brain and development. Educators must understand these children are simply fighting the effects of trauma, living in the flight or fight response and do not have the necessary skills to work themselves out of it.

Because of these frequent responses to redirection, our district is seeking to find strategies and models to help with these occurrences. We have been searching for answers as to how we can help our young learners with the effects of trauma and have felt as if we were falling short. After attending several conferences addressing trauma in education, many of us were frustrated that much of the information was simply speaking of the trauma these students had faced but there was very little being taught on how to address it. Through this literature review, I have been educated on the many programs, models, and curriculums there are to fully address resiliency in the lives of our youth. From the research obtained, it is evident that building strong relationships is a vital point in assisting children to overcome traumatic events regardless of the model or curriculum used. Positive relationships is an area where I feel our school district excels, working to form stronger bonds with our students, creating strong relationships with our students, while working to meet the emotional needs of all of our learners.

We also work to involve community members within the school to encourage lasting positive relationships, as we are currently in our first year of implementing the TeamMates



Mentoring Program. This program matches community leaders and members with at risk children throughout the district. The mentor and student then meet weekly within the school setting to play a board game, go for a walk, do a craft, or simply visit about their lives.

Throughout this first year of implementation we have seen positive results within the program thus far. This district truly feels these types of community and school relationships will benefit our students and the community in years to come.

Our district is also using the PBIS model to address school-wide behaviors. As the literature review states, the PBIS model is a great tool for addressing school-wide behavioral interventions but is not researched based in terms specifically working with children of trauma. The PBIS approach involves a three-tiered system including school-wide intervention, small group intervention, and finally personalized intervention for students who are not successfully responding to the first tiers (Plumb et al., 2009). Currently, we are seeing great results from students who simply needed a positive shift or motivation to control behaviors through this curriculum, meaning our one and two tier interventions are working. Unfortunately, we aren't seeing a positive shift with the students who have endured high amounts of trauma or those in the third tier. These students are receiving extra support, working with guidance counselors and students advisors but we still do not seem to be making the progress needed for those students, our schools, and small community. I believe our trauma endured children are not making substantial gains because we are lacking a specific trauma based program or curriculum to guide them in actually addressing the trauma they have endured.

After much research in the area trauma informed practices, I would conclude that the best model for trauma informed education within our school system would be the Supports for Students Exposed to Trauma (SSET). Essentially, this model fits the needs of our district with

students, parents, and educators in mind. Because many educators and colleagues see the demand for implementation, the SSET model would be highly welcomed within our rural community. We currently have guidance counselors and students advisors within each building to help support students in need. This group of trained professionals, educators, and administration would be the key to setting the SSET ideals into place after being fully trained in the specifics of the program. The SSFT model consists of ten lessons designed to reduce post-traumatic and depressive symptoms (Jaycox et al., 2009). Within these lessons, the children are taught about common reactions to stress or trauma, relaxation training, cognitive coping, learning how to approach difficult situations, how to process traumatic memories, and social problem solving (Jaycox et al., 2009). Essentially these skills are taught to the students who are considered to be the most at risk, which is determined through specific screening procedures.

Jaycox and colleagues conducted research on the implementation of the SSET model in 2009. Research from the study conducted within the Los Angeles Unified School District, indicated that the SSET model showed reductions in trauma symptoms for those students having the highest level of symptoms. Students in the high symptom group had profound effects in regards to intervention, with a ten point reduction in post-traumatic stress disorder, a five point reduction in depressive symptoms, and a five point reduction in behavioral problems (Jaycox et al., 2009). In addition to symptom reduction, Jaycox et al also found educators, students, and parents to have a high satisfaction rate with the program overall (2009). The study demonstrated that the SSET program could be successfully implemented by teachers and school counselors with fidelity to the program and high quality of lessons (Jaycox et al., 2009). Because of this profound research and ease of implementation, the SSET model would seemingly fit the needs of educators, students, and parents within my rural community.

Within my own preschool classroom, I see the Zones of Regulation being the greatest approach to reaching my young learners. The Zones of Regulation are an impeccable learning tool for teaching for all young learners how to control their feelings. Social and emotional learning in the early childhood setting is crucial and is a skill that must be specifically taught to all children of this age. As discussed throughout the literature review, there are different colors within each zone that correlates with specific emotions. Essentially, the goal is for all children to be working in the green zone, where they are at ease and ready to learn (Katz, 2012).

Implementation of this program would consist of myself and the associates within my classroom becoming more familiar with the zones and teaching those zones to the children. We would educate ourselves and our students with what feelings are associated with each zone and the proper tools to help children get back in to the green. After fully understanding the process and working with the Zone of Regulation, I would then introduce the concept to my colleagues within the building to implement the school-wide approach to teaching self-regulation.

Research indicates children who receive trauma informed practices within the school setting show reduction in behaviors associated with traumatic stress (Jaycox et al., 2009). Overall, our school district is making the necessary efforts to address resiliency in those who have endured trauma. We see the demand for change in hopes to reduce or stop the trauma cycle that is highly prevalent within our rural area. Educators within Appanoose County recognize there are a significant amount of students coming to us with ACE scores of four or more. Our goal is to implement additional support, professional development, and the proper trauma informed curriculum in hopes to reduce traumatic stress and symptoms. We are constantly striving produce community members who will contribute positively to our society, as they grow into adulthood.

### **Conclusion**

Evidence shows there is a strong need for trauma informed practices to be incorporated into any and all school districts throughout the United States. The statistics are overwhelming, indicating that a vast majority part of our nation's children have been negatively impacted through the trauma they have endured in their homes and communities. Children who experience trauma and ACE scores of four or more, have difficulty focusing on academics due to the significant impact trauma has on the brain. The emotional and physical impact of trauma is also highly detrimental, often carrying through adulthood when interventions have not occurred. This evidence brings educators to answer the question of how we help students with high ACE scores overcome their trauma while in the school setting. It seems the short answer to that question is through relationship building and making connections with students in the classroom. In addition to relationship building, it has been discussed that many of the appropriate interventions are essential in aiding the resiliency process for our students. Some of these models include the Neurosequential Model of Education, the Sanctuary Model, the Healthy Environments and Response to Trauma in Schools (HEARTS), Collaborative Learning for Educational Achievement and Resilience (CLEAR), Supports for Students Exposed to Trauma (SSET), Trauma Informed Positive Education, Positive Behavior Intervention Support (PBIS), and the Zones of Regulation curriculum. Although currently there is not enough data collected to say which model or intervention is best, we do know many of these programs are beneficial in supporting the needs of trauma impacted students, as well as helping their parents and educators guide those students in the proper direction. Overall, addressing underlying trauma-related issues within our schools increases the likelihood that evidence based practices will prove

effective in the school setting. Essentially the hope is for these practices will carry over into the real-world setting, making growth and development successful in our communities, as well.

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