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The Importance of Trauma-Informed Practices in Schools

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Literature Review Presented

In Partial Fulfillment of the Requirements

For the Degree of Master of Education

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Table of Contents

Abstract……………………………………………………………………………..……4

Introduction………………………………………………………………………….…...5

Review of Literature…………………………………………………………….…..….6

Trauma………………………………………………………………………..…..6

Adverse Childhood Experiences…………………………….……..……..7

Toxic Stress……………………………………………………………...……..8

Trauma and Brain Development………………………………………..…..9

Childhood Well-Being and Trauma…………………………………...............…..10

Adult Health and Trauma……………………………………..............……11

Trauma-Informed Education and Principals………………………………..….12

Realizing the Impact of Trauma……………………………….……...13

Recognizing Signs of Trauma………………………………………..…..13

Responding to Trauma……………………………………………..…….14

Avoiding Traumatization………………………………….………..15

Steps for School Districts on Trauma Education……………………..……….15

Tiered Supports……………………………………………….………….16

Screening…………………………………………………….…………..17

Staff Training……………………………………………..………...18

Stakeholders and School Fit……………………………...........………………..…19

Misdiagnosis in Schools……………………………...........………..……...21

Teacher and Student Relationships………………………..........……...…...…21

Academic Practices……………………………………..........……..……….22

Community Involvement with a Trauma-Informed Approach…………...………..23

Mental Health Services…………………………………...………..23

Parent and School Collaboration…………………………………..……….24

Adult Support and Relationships…………………………………...….25

Positive Outcomes of Trauma-Informed Approach for Students…...…………..….26

Conclusion and Areas for Future Research………………………….……..27

References…………………………………………………………….…....29

Abstract

Students who have been exposed to trauma may face social/emotional, behavioral, or cognitive developmental delays, poor health, problems in school, and mental health issues. These effects may last into adulthood. The intent of a trauma-informed school approach is to break the cycle of trauma by identifying trauma in students, providing support and interventions to help students cope and heal, and helping prevent future trauma. In order to meet these standards, schools need to collaborate with families and mental health professionals. Teachers need the proper training in trauma recognition to be able to provide an environment for all students to feel safe and connected. In this literature review, the definition of trauma and the effects on brain development and health outcomes will be explained. Next, the principles of a trauma-informed school approach and steps for school districts will be discussed. Finally, obstacles for implementation, strategies for teachers, community involvement, and positive outcomes for students are described.

Keywords: Trauma, trauma-informed schools, social-emotional

Since the onset of the world-wide coronavirus pandemic during the winter of 2020 children have suffered silently. As the virus spread, people were forced to physically distance from friends and family. Schools closed and adults lost their jobs, worked from home, or worked as essential workers at risk for acquiring the virus. Children lost necessary routines, social interactions, and academic instruction. A global pandemic and other traumatic events lead to long-lasting developmental challenges in children (Brunzell, Stokes, & Waters, 2015; Barr, 2018; Holmes et al., 2014). These challenges can negatively impact academic and social skills and last well into adulthood (Felitti et al., 1998; Shonkoff et al., 2011).

Trauma is defined as an emotional response to an event (Cavanaugh, 2016). Abuse, neglect, violence, poverty, war, long-term illnesses, and other stressful events cause traumatic responses in children (Barr, 2018). Whereas many children exposed to a traumatic event recover, those exposed to multiple events, with prolonged exposure to high amounts of stress, are at risk for developmental delays (Shonkoff et al., 2011). These delays can lead to challenges academically, emotionally, and socially. According to the 2017 survey done by the Substance Abuse and Mental Health Services Administration (SAMHSA, 2019), 28% of children and adolescents, in the United States, under the age of 17 are receiving mental health services for trauma and stress-induced illnesses. The actual number of children experiencing traumatic events is much higher with many cases going unreported until children reach adulthood (SAMHSA, 2019).

Fortunately for children experiencing trauma, schools are positioned to reach almost all students in a town or city (Terrasi & de Galarce, 2017). Some families are unaware that their children need help, are unable to find services, or are uncertain about how to seek help. Schools may be the only place those children could receive help. Teachers and staff need to have knowledge of trauma signs to be able to meet the needs of these students (Terrasi & de Galarce, 2017). Teachers need the proper training by professionals skilled in the practices of trauma-

informed schools. A trauma-informed school prepares staff with training in trauma education, collaborates with mental health services, creates a safe and caring environment for all students, and focuses on building strong relationships with students and families (Blitz, Anderson, Saatsamoinen, 2016; Cavanaugh, 2016). This environment uses trauma as the lens through which every behavior is viewed (Cavanaugh, 2016). The purpose of this literature review is to share research about the effects of trauma on brain development and its long-lasting effect on children into adulthood. In addition, trauma-informed educational practices, strategies, and interventions will be shared.

Literature Review

Trauma

The word trauma comes from the Greek word for wound, which refers to a physical injury (Danase & Baldwin, 2017). For many centuries, it was believed if someone suffered from trauma, a physical injury would be present. It was not until the nineteenth century that views began to change. French neurologists Jean-Martin Charot and Pierre Janet theorized that child abuse could cause emotional issues in some patients (Danase & Baldwin, 2017). The Austrian psychiatrist Sigmund Freud expanded the theory to a widely accepted belief that distressing experiences or psychological trauma can impact brain development (Danase & Baldwin, 2017).

The American Psychological Association describes trauma as “an emotional response to a terrible event” (Cavanaugh, 2016). Trauma has been known to lead to challenges with social interaction, emotional regulation, and the development of physical symptoms due to anxiety and stress (Cavanaugh, 2016). Trauma takes many forms such as physical or sexual abuse, neglect, severe illnesses, witnessing or experiencing domestic violence, poverty, school violence, terrorism, war, or natural disasters (Felitti et al, 1998; Baglivio & Epps, 2015).

Many studies have examined the consequences of trauma on a child’s development (Paccione, 2016; Kulhman et al., 2018; Blitz, Anderson, Saatsamoinen, 2016). The prolonged

stress caused by trauma can have a significant impact on brain development. (Paccione, 2016) Research by Barr (2018) determined that early trauma can impair the development of executive functioning, which is responsible for inhibitory control, cognitive flexibility, and working memory (Barr, 2018). When executive functioning is not fully developed, problems present in the form of weaknesses in short-term memory, self-regulation, and completion of multiple tasks.

Adverse Childhood Experiences

A study about the correlation between childhood trauma and adult health outcomes was first done by Felitti and Anda (Felitti et al., 1998). It was during this study that Felitti (1998) developed the term “adverse childhood experiences” or ACEs. Adverse childhood experiences are a form of trauma, but usually the term does not include environmental or world events such as war, poverty, or pandemics. ACEs include exposure to abuse either physical, psychological, sexual, and/or negative conditions at home such as chronic mental illness, domestic violence, criminal behavior, or substance abuse (Terrasi & de Galarce, 2017).

In recent studies, the work done by Felitti has been applied to new work to determine a child’s traumatic experience (Kulhman et al., 2018; Baglivio & Epps, 2015; Blitz, Anderson, Saatsamoinen, 2016; Grasso et al., 2016). Kulhman et al (2018) conducted a study looking at screening for ACEs and the age of a child. The higher score a person gets on the ACE survey, the more trauma experienced. The results of Kulhman et al.’s (2018) study showed that only a small percentage of the 4,036 participants had experienced an ACE by the age of 5. The majority of the participants reported at least one ACE by adolescence (Kulhman et al., 2018)

The relationship between race/ethnicity and trauma is complex. Felitti’s et al.(1998) study included mostly white, middle-class participants with health insurance. Whereas the results of this study show how the Caucasian population have experienced trauma, the results of other studies have illuminated the devastating numbers of diverse people also suffering from trauma. The study done by Baglivio and Epps (2015) was composed of over 64,000 participants

from Florida juvenile detention centers. According to this study, females experienced almost twice as many ACEs than males (Baglivio & Epps, 2015). The hypothesis on the larger number attributed to females is that they are more likely to be victims and/or it takes longer before they are "noticed" by the juvenile justice system (Baglivio & Epps, 2015). The black population was most likely to report at least one ACE exposure in 99% of participants but dropped down to 50% when reporting 4 or more ACEs. However, the white population reported higher exposure with four or more ACEs at 60% of participants (Baglivio & Epps, 2015). The ACEs that were reported the most were family violence, divorce, and a family member in jail (Baglivio & Epps, 2015).

Patterns in the type of ACEs at different age levels and socioeconomic levels have been found in several studies (Grasso et al., 2015). Grasso et al (2015) found that children in middle childhood or adolescence report ACEs dealing with family dynamics and violence. Children in middle and high school are more likely to report school and physical violence and emotional abuse (Grasso et al., 2015). Holmes (2015) found that the majority of children in Head Start programs have been exposed to at least one ACE and many have multiple ACEs.

Toxic Stress

According to the National Scientific Council of Developing Children, there are three different variations of stress (Shonkoff et al., 2011). The first type of stress is positive stress or developmentally appropriate stress. This stress comes in the form of getting a vaccination, entering a new environment, or having to wait for something special (Shonkoff et al., 2011). With the support of a nurturing caregiver, this stress builds self-regulation in the brain (Wakely & Cox, 2013). The second form of stress is tolerable stress, which comes in the form of the death of a loved one, a natural disaster, a serious illness, or a divorce (Shonkoff et al., 2011). With parental support to help a child cope with these events, the damage to development will be minimal or nonexistent (Shonkoff et al., 2011).

The last form of stress is toxic stress, which occurs when a child is exposed to strong, frequent, and prolonged adversity (Wakley & Cox, 2013). These adversities range from physical abuse, school violence, to family violence. Adverse childhood experiences can create stressors that are capable of producing a toxic stress response (Shonkoff et al., 2011). In studies conducted by Swick et al. (2013) and Mckelvey et al (2017), the results show that exposure from toxic stress can alter how the brain functions and cause developmental delays. These developmental delays in cognitive, behavioral, social, and emotional skills can leave a long-lasting impact on a child's life (Swick et al., 2013). The research from Swick's et al. (2013) study shows that the younger a child is when they experience toxic stress, the more prevalent the delays will be. However, Mckelvey's et al. (2017) study goes a step further in showing how this stress can also negatively impact heart health, the immune system, and one's sense of survival.

Trauma and Brain Development

The wounds that trauma can produce are not easily seen, especially when it comes to the changes in the brain. The brain develops from the bottom up, starting at the brain stem. The brain stem controls our survival systems such as heart rate, respiration, blood pressure, and temperature (Brunzell, Stokes, Waters, 2016). The next part of the brain that develops is the midbrain, which is in control of appetite, motor abilities, sleep, emotional reactivity, and attachment. The last part of the brain development is the neocortex, which controls cognition and affiliation (Brunzell, Stokes, Waters, 2016).

Childhood trauma can delay the development of these areas in the brain. Prolonged trauma that occurs early in life will raise stress levels in the brain and slow down the development of the midbrain. Research provided by Wakley & Cox (2013) shows that raised stress levels in the brain can cause a child to be hypervigilant; this hypervigilance can cause the flight, fight, or freeze response to become frequently activated. The changes in brain development from hypervigilance can lead to problems with learning, behavior, and physical and

mental health (Brunzell, Stokes, & Waters, 2016).

In middle childhood and adolescence, the brain is developing the three major areas of executive functioning (Cook et al., 2017). These areas are in charge of inhibitory control, cognitive flexibility, and working memory; exposure to trauma can affect executive functioning, leading to issues with learning and behavior control (Barr, 2018, Cook et al., 2017). Children who have experienced trauma may have problems with memory, attention, storing new information, and self-regulation (Barr, 2018). These are skills needed for a classroom setting and can directly impact a child's education.

Research provided by Iacona & Johnson (2018) show that self-regulation and triggers are another area that can cause behavior problems for children who have experienced trauma. Children who have been exposed to ACEs may develop triggers that can cause a child to relive the traumatic situation (Iacona & Johnson, 2018). These triggers may further the struggle of self-regulation and cause a child to engage in risky behavior or to not consider the consequences of an action (Iacona & Johnson, 2018). However, Cummings and his partners (2017), as well as Brunzell, Stokes, & Waters (2016) both found that if there is a lack of development with language skills, a child may use behaviors to communicate feelings. Children's behavior may be disruptive or uncontrollable when they are unable to communicate using words how they are feeling (Cummings et al., 2017)

Childhood Well-Being and Trauma

The understanding of the prevalence of trauma and how it impacts the brain is important; it is also imperative to understand the long-term effects it can have on one's emotional and/or physical well-being. Traumatic stress can lead to chronic health conditions in children (Liming & Grube, 2018). Additionally, the changes from traumatic stress that affect the brain can have negative health impacts on adults (Shonkoff et al., 2011).

Many studies have found a correlation between the number of ACEs a child has and

chronic health conditions (Liming & Grube, 2018, Mckelvey et al., 2017). Liming & Grube (2018) found that children with two or more ACEs were three times more likely to need medical attention for serious illnesses. Prolonged levels of toxic stress can override a child's immune system leaving them susceptible to chronic health conditions and infections (Liming & Grube, 2018). These health conditions can include anxiety, depression, heart issues, and eating disorders, just to name a few (Liming & Grube, 2018).

In the study by Mckelvey and team (2017), results show a correlation between the lack of preventative care and the number of ACEs a child experiences. Almost half of the parents had reported their child experiencing at least two ACEs (Mckelvey et al., 2017). In the parent surveys, parents who reported sporadic check-ups and doctor visits were more likely to have reported multiple ACEs their child encountered (Mckelvey et al., 2017). Mckelvey's et al. (2017) results also showed that children with multiple ACEs were more likely to need urgent medical care and some may be seen in an emergency room.

In addition to the physical well-being, a child's social, emotional, and cognitive skills are also affected (Terrasi & de Galarce, 2017). Research conducted by Terrasi & de Galarce (2017), found children who have been exposed to violence may not feel safe in their environment. This fear not only affects their ability to learn, but also prevents them from building relationships. Some children may internalize how they are feeling and display signs of anxiety, depression, and post-traumatic stress disorder (Grasso et al., 2015). When children are exposed to multiple traumatic events, these events becomes a pattern in their lives, and as they grow older it seems that they tend to seek out these experiences because it is what they know (Grasso et al., 2016) The effects of trauma on a child's brain and well-being may not only affect their ability to learn, but also the effects could last well into adulthood.

Adult Health and Trauma

Felitti's and the research team (1998) found that adverse childhood experiences can lead

to negative adult health outcomes. In recent studies, this link was confirmed by other researchers (Shonkoff et al., 2011, Liming & Grube, 2018). Adults that suffered adverse childhood events are more likely to develop obesity, insomnia, higher blood pressure, and depression. They also have a higher risk of suicidal attempts (Felitti, 1998). Shonkoff et al. (2011) also found increases in cardiovascular disease, depression, autoimmune disease, asthma, and substance abuse. Nearly half of early deaths in adults have been attributed to behavioral or lifestyle patterns (Shonkoff et al., 2011).

The correlation between unhealthy adult lifestyles and trauma has been shown to stem from the fact that a higher number of ACEs leads to more risky behaviors, ones that increase an adult's negative health outcome (Felitti et al., 1998; Shonkoff et al., 2011). Shonkoff et al. (2011) identified these risky behaviors as underage drinking, tobacco use, and unprotected sex, which were more common with those that had a higher number of ACEs. Felitti et al. (1998) and Shonkoff et al. (2011) both found these behaviors to be a potential coping mechanism to deal with the trauma, but they also lead to poor health outcomes.

Trauma-Informed Education and Principles

With the prevalence of trauma in children's lives, schools and communities need to step in and provide support. Unfortunately, there has been little being done to provide services for those who need them (Brunzell, Stokes, & Waters, 2016). Schools need to implement a trauma-informed approach, as they reach so many children and adults in the community. There are many students who will never receive mental health services outside of a school (Cavanaugh, 2016). It has become necessary for schools to offer these services for students. In Cavanaugh's (2016) research, a trauma-informed school is not just special services for specific students; It is built into every aspect of the school and curriculum. If schools were to implement interventions and support for students with traumatic exposure, it would not just change a child's education but the rest of their life. This change will also be felt in the community with a positive effect on

health care and the economy which was found in the study Baglivio & Epps (2015) conducted with juvenile offenders.

A trauma-informed school is based on four principles of trauma-informed systems: realizing, recognizing, responding, and avoiding re-traumatization (Blitz, Anderson, Saatsamoinen, 2016). These principles have been used in the mental health field and are now being adapted for a school setting (Cavanaugh, 2016). Schools that have implemented these principles have seen a positive change happen.

Realizing the Impact of Trauma

The first principle in a trauma-informed school is to realize the widespread effects of trauma and how it can greatly impact a child's life (Cavanaugh, 2016). In a trauma-informed school, teachers and staff have been taught to realize and act under the assumption that all students have experienced trauma (Paccione, 2016). Teachers are instructed by a therapist the importance of realizing the effects of trauma and to use that perspective when working with students in order to improve student outcomes (R.B. Banks & Meyer, 2017).

Blitz et al. (2016) discovered that while some teachers were aware of the trauma their students faced, they were not fully aware of the impact it can have on an education. Training teachers to be aware of trauma is the first step to truly helping their students. In a study done by Cummings et al. (2017), mental health workers were asked about their definition of trauma and its effects. The majority of participants said that trauma can affect the emotional, behavioral, biological areas of a person's life (Cummings et al., 2017). Understanding the areas that trauma can impair, it is easy to see how students can have difficulties in an educational setting.

Recognizing signs of trauma

The next step in a trauma-informed school is to recognize the signs and symptoms of trauma. In Cummings et al. (2017) study, the participants explained the emotional and behavioral signs children may display when they have been exposed to trauma. Some behavioral

patterns may include aggression, anxiety, lack of self-control, just to name a few (Cummings et al., 2017). Emotional signs may include withdrawal, emotional overreaction, and signs of depression (Cummings et al., 2017). However, not all children will show the same signs, and some may not show outward signs at all (R.B. Banks & Mayer, 2017).

The signs of trauma are important for teachers to know. In a study done by Holmes et al. (2015), it was found that 78% of students in a Head Start classroom have experienced at least one traumatic experience. When teachers understand the signs, they can work towards addressing behavioral problems as trauma problems. Children are more likely to respond to supportive interventions rather than punishment when they are dealing with trauma (Cavanaugh, 2016).

Responding to Trauma

How teachers respond to trauma is just as important as realizing the impact it can make in children's lives. Children who feel that their environment is a dangerous place may react with extreme withdrawal or serious behavioral outbursts (Terrasi & de Galarce, 2017). Teachers have the tough task of responding in a positive way when interacting with children and adults (Cummings et al., 2017). Teachers also have the unique opportunity to help students turn a bad day into a good one every day. Teachers set the tone for the classroom: they have the ability to create a calm, safe, and ready-to-learn environment (Brunzell, Stokes, & Waters, 2016).

In the study by Brunzell, Stokes, & Waters (2016), teachers were taught de-escalation techniques to help lessen the severity and length of behavior outbursts. Behaviors are a child's way of trying to communicate and express how they are feeling (R.B. Banks & Meyer, 2017). Teachers need to remember that a child may not be acting out to be disruptive. Instead, this child may be responding to an unexplored trauma. However, many teachers felt torn in managing the behaviors of some students, while trying to educate others (Terrasi & de Galarce, 2017). Some may feel they are giving in to the behaviors and are creating students who feel they can act

anyway they want (Terrasi & de Galarce, 2017). Brunzells, Stokes, & Waters (2016) state that there is a delicate balance between maintaining normal classroom routines and meeting the needs of individuals. The use of de-escalation techniques and sensory materials are tools to help students have the best chance at learning (Brunzell, Stokes, & Waters, 2016) Many of the techniques and strategies used in a trauma sensitive classroom will benefit all students, not just those dealing with trauma (Brunzell, Stokes, & Waters, 2016).

Avoiding Traumatization

Lastly, teachers and staff need to be aware of re-traumatization and how to avoid it to allow traumatized students a chance to heal (Cavanaugh, 2017). Children who have experienced trauma may suffer from reliving that trauma through triggers (Cummings et al., 2017). Triggers could include loud noises, altered schedules, or even physical contact (Cummings et al., 2017). Teachers can learn what a student needs and the triggers they experience through building strong relationships with them (Brunzell, Stokes, & Waters, 2015).

In the study conducted by Brunzell (2015), teachers discussed strategies they use to diffuse a difficult situation: maintaining a calm demeanor, showing empathy, and offering choices. Teaching students' strategies that help reduce the stress students are feeling and that promote positive behavior choices is imperative. These strategies could include physical activities such as kicking a ball, ripping paper, or doing yoga. Strategies could also include social/emotional activities such as deep breathing, going to a calm down area, or talking with a trusted adult (Brunzell, Stokes, & Waters, 2015). Providing students with choices of activities and the option to leave the room to de-escalate may be needed (Brunzell, Stokes, & Waters, 2015). These healthy coping strategies will benefit the child not only in school, but in adulthood as well.

Steps for School Districts on Trauma Education

School districts will have to take a look at the current school structure, needs, and culture to determine how trauma-informed practices will work within the school (Ijadi-Maghsoodi et al., 2017; Swick, Knopf, Williams, & Fields, 2013). Many of the studies that have been done are based in urban schools. Smaller, rural schools will need to take a close look at what the needs of the school are and what resources are available. Administration and teachers will have to look at how the tiered supports will fit in with the current curriculum. Tiered supports will allow all students to receive the foundational instruction, yet students needing more help will move up to the next tier for additional supports. School policies will have to be adapted to create a positive environment, encourage feelings of safety to avoid re-traumatization, and collaborate with outside support agencies (Wakley & Cox, 2013). All of these changes will take time, and the entire school will have to be supportive of these changes if the plan is to be successful.

Tiered Support

The majority of all trauma literature for schools involves a tiered support approach. School-wide positive behavior supports (SWPBS) are a set of intervention practices and behavioral supports needed for all students to achieve academic and social success (Horner, Sugai, & Anderson, 2017). The bottom foundational tier of this system includes clear expectations with the focus on acknowledging those students that meet those expectations (Horner, Sugai, & Anderson, 2017). The second tier adds in more supports to help students who need more behavioral incentives or instructions (Horner, Sugai, & Anderson, 2017). The third tier of SWPBS is for students that require individualized supports and instruction (Horner, Sugai, & Anderson, 2017). Honer, Sugai, & Anderson (2017) found this system of interventions to provide feelings of safety and increased academic success.

The ALIVE program is another intervention school a support team could implement. The ALIVE program is a multi-tiered, trauma-informed intervention that incorporates a public health

framework (Frydman & Mayor, 2017). In Frydman & Mayor's (2017) study this program was implemented in a middle school to help meet the needs of the students who had experienced trauma. All students start in the bottom tier learning about Miss Kendra, a woman who lost her young son. This program provides the opportunity for students to have dialogues about trauma, how someone might feel, and ways to cope (Frydman & Mayor, 2017). During these conversations, social workers are taking notice of students who may have experienced trauma by observing their body language or what they are saying during the lessons (Frydman & Mayor, 2017). Those students may receive additional support and individual interventions if necessary (Frydman & Mayor, 2017). This tiered system has proven to be effective and takes the pressure off teachers to guide students through coping with their trauma (Frydman 7 Mayor, 2017)

Screening

No matter which tiered framework is used, screening students for trauma exposure is a necessary step. Identifying students who have been exposed to trauma allows the school to help prevent any further trauma and to help the student cope with the experience (Kulhman, Robles, Bower, & Carroll, 2018). Schools need to consider when and how to screen students. These considerations include the age of screening, the cost, and how much time to take for screenings.

Early intervention is the ideal situation. According to a study conducted by Holmes et al. (2015) over three fourths of children in a Head Start study had at least one traumatic experience dealing with community violence. These children had witnessed either a beating, stabbing, shooting, or a robbery; even though the violence was not directed at them, the event still left its mark (Holmes et al., 2015). A study by Liming & Grube (2018) had similar results with a high percentage of young children experiencing at least one traumatic event. The evidence in this study also showed that multiple exposures to adverse childhood events creates a greater risk of children having behavioral, social, emotional, or developmental delays (Liming & Grube, 2018). According to both of these studies, screening at an early age allows teachers to provide support

and interventions to help combat the delays and will help to lessen the long-lasting effects (Holmes et al., 2015; Liming & Grube, 2018).

However, according to Kulhman et al. (2018) and Mckelvey et al. (2017) screening children early is not the most feasible method. Screening children at too early of an age may require caregivers to provide the information, possibly skewing the results if the caregiver is causing the trauma (Mckelvey, Edge, Fitzgerald, Kraleti, & Whiteside, 2017). Kuhlman et al. (2018) found in their study that the best time to screen for adverse childhood experiences is around early adolescence. Only 10% of the children screened had experienced trauma before the age of 5, while over 50% of the participants experienced trauma by the age 13 (Kulhman et al., 2018). The cost involved with screening children includes bringing in professionals to conduct the surveys and having the results analyzed. Screening too early increases the risk of missing children who experience trauma later in life, and it is more costly to keep screening children every year (Kulhman et al., 2018; Mckelvey et al., 2017). The cost of screening is one consideration for schools that have tight budgets.

Time is valuable in a school when there is so much academic content to cover. The time needed for students to be screened for trauma needs to be considered. Eklund's et al. (2018) review of screening measures states the time it took to administer the screening varied greatly. Some group screenings could be done in 5-10 minutes while some screenings had lengthy interviews (Eklund et al., 2018). Some of the screening measures are not meant for such a large and varied population of a school and are better suited for clinical settings (Eklund et al., 2018). Schools will need to consider all areas of screening before choosing and implementing them school-wide.

Staff Training

Only a few schools offer training for staff and teachers in trauma-informed practices, and this training is usually done in one session (McIntyre, Baker, & Overstreet, 2019). In a study

conducted by Blitz et al. (2016) teachers voiced their concerns over not having enough training and tools to be able to support the students who have been exposed to trauma. Training for teachers and staff need to emphasize the effects trauma can have on students and also the signs/symptoms of trauma a student may display (McIntyre, Baker, & Overstreet, 2019). While screening for trauma in an early childhood setting may not be the most effective idea, educating early childhood teachers in the signs of trauma is beneficial. Holmes et al. (2015) found that training early childhood educators is very effective. Early childhood teachers would then have the knowledge of the signs of trauma and know ways to help the student heal and cope at an early age, interventions that could help bridge the gap in developmental delays (Holmes et al., 2015).

A new way to train teachers is to invest the time while they are still in college. A study done by R.B. Banks & Meyer (2017) looked at the relationship between student teachers and a sand play therapist. The therapist educated the student teachers on how to recognize trauma, how it affected development, and how students could cope using movement (R.B. Banks & Meyer, 2017). These student teachers would be able to enter a classroom of their own with the knowledge of how trauma impacts students and ways they can help. This study also suggested that there is a necessary relationship needed between therapists and educators if students are to receive the best support when facing traumatic experiences (R.B. Banks & Meyer, 2017).

Stakeholders and School Fit

Before implementing school-wide changes, there needs to be a reflection on the needs of the student population, the culture of the school, available resources, and the leadership in the school (Ijadi-Maghsoodi et al., 2017). Ijadi-Maghsoodi et al. (2017) completed a study adapting a military youth trauma program to fit an urban school setting in the southwest United States. The results from this study show that while there is more research needed to discover the reliability of the study, there were positive changes taking place with the students (Ijadi-

Maghsoodi et al., 2017). The students learned that even though changes do take time, they were learning valuable coping skills and moving forward to a better emotional well-being (Ijadi-Maghsoodi et al., 2017).

In a study done by McIntyre, Baker, & Overstreet (2019), teachers attended a professional development training on trauma-informed practices. When teachers felt the trauma-informed practices would fit into their school culture, they were more willing to accept the change (McIntyre, Baker, & Overstreet, 2019). The results also showed that a teacher's knowledge of trauma and its effects did not show more acceptance of implementation, especially if a teacher didn't feel it would fit in with their school (McIntyre, Baker, & Overstreet, 2019). This information is important because it shows knowledge is not enough if a teacher doesn't see how the change will fit within what a school already does.

Teachers are the backbones of the education system, and without their support any program or curriculum has little chance for success. Blitz et al. (2016) conducted a study on trauma and how it relates to culture. The teachers in this study attended a training on culturally responsive teaching and did not see the merit of some of the information (Blitz, Anderson, Saatsamoinen, 2016). During the interviews after the training, many of the teachers claimed they already felt they were being culturally responsive towards their students and that all students were treated the same no matter what their race was. However, a few teachers were offended by the issue of racial bias and felt criticized by the school district with this training.

A study conducted by Terrasi & de Galarce (2017) found teachers were also apprehensive towards helping students with trauma. Many of the teachers felt inept to help with the mental health of these students (Terrasi & de Galarce, 2017). Terrasi & de Galarce (2017) also found that teachers felt torn between educating a class while seeing to the intensive, individual needs of some students. Schools need teachers to be supportive of a trauma-informed program if it is to be successful.

Misdiagnosis in Schools

There are many signs/symptoms of trauma that children may display. Even if children experience the exact same trauma they may show different behaviors (Blitz, Anderson, Saatsamoinen, 2016;Kiesel et al., 2014). Many of these behaviors tended to correlate to certain criteria that warrant a special education placement (Buxton, 2018). Buxton's (2018) study looked at the relationship between students on IEPs and trauma backgrounds. The findings showed that 83% students were placed in special education for a behavior or emotional disorder when they really were displaying signs of trauma (Buxton, 2018).

Kiesel et al. (2014) studied Buxton's (2018) research and discovered one fourth of the 16,000 students were misdiagnosed with learning disabilities and placed into special education. Children received medication for symptoms of a behavior disorder instead of the trauma support and interventions needed (Kiesel et al., 2014). In a trauma-informed approach, trauma is the first aspect teachers and staff look at when considering the needs of a student (Buxton, 2018). Using a trauma-informed perspective, students who have suffered trauma will not be misdiagnosed and placed in a special education setting but will receive the help they need to cope with their trauma and regulate their behaviors (Kiesel et al., 2014).

Teacher and Student Relationships

A school district may implement policies and curriculum, but it is the teacher who is planning lessons and executing these plans in the classroom. Teachers are to provide students the opportunity to have feelings of safety, consistency, and attachment in the classroom (Cavanaugh, 2016). With adaptations to the classroom environment, teacher-student relationships and academic practices, students who have been exposed to trauma will be able to develop those positive feelings (Cavanaugh, 2016).

Teachers can help students cope with trauma by developing a relationship with them. The relationship between a student and teacher may be the only positive relationship a child may

have with an adult (Brunzell, Waters & Stokes, 2015). These strong relationships are built on empathy, warmth, genuineness, and encouragement (Brunzell, Waters, & Stokes, 2015). One strategy Horner, Sugai, & Anderson (2017) found that was successful in the school-wide positive behavior system was a check in and check out. Students checked in with the teacher at the beginning of the day and recorded how they were feeling, and at the end of the day they would check out and go over the day (Horner, Sugai, & Anderson, 2017). This system could also be used for a behavioral management system to encourage a student to make positive choices throughout the day and be rewarded at the end of the day with a prize. No matter what strategy is used, a student needs positive encouragement to feel a sense of self-worth (Brunzell, Waters, & Stokes, 2015).

Positive interactions with students who have experienced trauma are necessary (Cummings et al., 2017). These students may display behavior that is disruptive to a class, and teachers need to know how to respond to be able to de-escalate the situation (Stateman-Weil, 2015). Cummings et al. (2017) describes in his study that teachers need to be slow to express anger or show judgement when a student misbehaves. When a student feels cared for despite their behaviors, they will be more willing to open up (Brunzell, Waters, & Stokes, 2015). These positive relationships between a student and teacher, allow a student to create stronger relationships with others and an atmosphere where they are ready to learn.

Academic Practices

Teachers can also help students with building their social and resilience skills. Lessons revolving around social skills and coping techniques can be integrated into other lessons in the curriculum (Baez et al., 2019). In the study conducted by Baez et al. (2019), there was a small increase of social skills among students in middle and high school after two years of incorporating social skills lessons into the curriculum. These skills and techniques will not only be helpful for students who have experienced trauma, but for all students to understand what

others are going through (Baez et al., 2019).

Students who have had exposure to trauma may need to express their needs and work through their trauma via movement (R.B. Banks & Mayor, 2017). Movement breaks help with transitions, and physical activity to break up long periods of sitting have shown to help some students cope with trauma (Brunzell, Stokes, and Waters,2016). Yoga and other stretching activities are a great way for students to get physical activity in a focused setting.

Another approach that can also be helpful is building upon students' strengths when working with students who have experienced trauma. Whereas it is important to help students build up areas where they are struggling, it is necessary for them to experience moments of success throughout the school day (Cavanaugh, 2016). Teachers can provide students with choices that allow them to explore what they are interested in and build upon these skills. Students need time during the day to explore their strengths and be able to showcase what they have learned or done (Cavanaugh, 2016).

Community Involvement with a Trauma-Informed Approach

With the limited amount of resources, a school has, and the little time teachers have for extra training, community involvement is necessary to help with trauma education. Early intervention will not only shape the future of a child's life but will have a beneficial impact on the community. Baglivio & Epps (2015) explained in their study that early intervention and prevention is needed to decrease the amount of taxpayer dollars needed for special education, health care, and the juvenile justice system. Funding for substance abuse programs would also decrease due to lifestyle changes in adults who no longer need to cope with childhood trauma by overusing drugs and alcohol (Shonkoff et al., 2011).

Mental Health Services

Teachers are not therapists and the majority are not trained to recognize the signs and symptoms of trauma or have the knowledge of how to help students who have experienced

trauma (Terrasi & de Galarce, 2017). In a study by R.B. Banks (2017), student teachers gained knowledge from a therapist on some of the signs of trauma and strategies that may help those children. Not only did those future teachers gain knowledge on trauma, they also learned how valuable it is to have a working relationship with another profession that can provide resources for their classrooms (R.B. Banks, 2017)

Early intervention and prevention are key in helping children deal with trauma. This knowledge started the Head Start Trauma Smart program where teachers and staff of the school paired up with mental health professionals to be able to offer support for students (Homes et al., 2015). Not only did the teachers attend trauma training, but all staff that worked in the school or with the students learned the signs and symptoms of trauma and ways to respond to it (Holmes et al., 2015). The results of this study show a five percent decrease in attention problems, behavior problems, and a ten percent increase in parental involvement during the school year. This program also reached out to the families and offered services and support to them. Training sessions were held to educate parents and other adults on the effects of trauma and how they can help children cope.

Frydman & Mayor’s (2017) study was conducted in a middle school, where social workers taught students lessons on understanding trauma and learning ways to cope with it. The social workers would come into classrooms and meet with the students once a week. The teachers were able to stay in the room, listen to the information, and gain the knowledge as well (Frydman & Mayor, 2017). Teachers found these sessions beneficial in the knowledge and language they obtained and to create a consistent dialogue to help students cope with the trauma they have experienced (Frydman & Mayor, 2017).

Parent and School Collaboration

Teachers need to have open communication with parents to keep them apprised of academic progress, upcoming programs or events, and behavior issues. This open

communication is even more necessary when a student is coping with trauma (Cummings et al., 2017). This collaboration also provides the teacher with information on the home life of the student that might explain why they react the way they do (Cummings et al., 2017). In the study conducted by Cummings et al. (2017), teachers explained how parents were more receptive to trying strategies with their child and using the same dialogue as teachers do when they felt respected and included in the process.

Parent education is also necessary to help children cope and heal from trauma. Parents need to be educated on how stress and trauma can affect their child's development and how they can help them work through it (Swick et al., 2013). In early childhood education, many programs have home visits that allow teachers to meet with students in their homes to be able to see how they are in their home environment and gain a better understanding of the family dynamics (Holmes et al.,2015). Consistent home visits are another way for parents and families to get the support they need. During these visits, parents and children can be introduced to different activities they can do together to help their bond strengthen and respond positively to stress (Swick et al., 2013).

Adult Support and Relationships

Supportive relationships can have a positive effect on children who have been exposed to trauma (Hines, 2015; Shonkoff et al., 2011). Shonkoff et al. (2011) explained how these relationships can help decrease the amount of stress in a child's life. Relationships with adults or friends who provided support can help a child learn to cope with the adversity they are facing and the stress that it causes (Shonkoff et al., 2011). The stability these relationships provided may make the difference in how a child rises above the adversity (Hines, 2015).

Supportive interactions with adults can help children build resilience despite the adversity they face (Hines, 2015). These children felt that their opinions matter and will listen to a trusted adult when they talk (Hines, 2015). Hines (2015) found that children who faced adversity need

more services that will allow them to tell their stories, strengthen their self-esteem, provided a safe environment, and enhance their ability to protect themselves and other family members. Children who faced adversity need to know that life does not need to continue this way and that there is a light at the end of this tunnel.

Positive Outcomes of a Trauma-Informed Approach for Students

Whereas there are only a few schools that have adopted a trauma-informed approach, there have been positive impacts. A high school in Washington state noted an 85% decrease in suspensions, a 40% decrease in expulsions, and a 50% decrease in disciplinary problems in the one year after implementing a trauma-informed approach (Wakley & Cox, 2013). The teachers and students are approaching problems with compassion and understanding (Wakley & Cox, 2013). In the study conducted by Brunzell et al. (2016), teachers described that many students see themselves as failures at times; this can lead to aggressive behaviors, resistance, and refusal. Offering students choices, providing opportunities for building on their strengths, and promoting feelings of self-worth creates a stronger relationship between the student and teacher (Brunzell, Stokes & Waters, 2016).

Not all schools see such a positive impact on student behaviors and disciplinary issues. In the study conducted by Baez et al. (2019), there was little change between the two years of implementing a trauma-informed approach in a middle school on student behaviors. Whereas the trauma-informed approach may have little impact on student behaviors, there was a larger impact on student social and emotional skills (Baez et al., 2019). Many of the students reported how it was helpful to have someone to talk to about what they are going through and how they feel encouraged to come to school more to get that support (Baez et al., 2019). Other students explained that while it may take time for them to feel changes in their lives, they do not feel as helpless as they once did (Baez et al., 2019). It is through these small steps that a brighter future is possible.

Conclusion

Trauma is not new and cannot always be avoided. However, more can be done to mitigate its lasting effects. The studies have shown how trauma can affect a child's social, emotional, behavioral, and cognitive development (Brunzell, Stokes, Waters, 2016; Liming & Grube, 2018; Mckelvey et al., 2017). Children who have experienced trauma will grow to be adults who could suffer from substance abuse, depression, health conditions, and risks of suicidal behavior (Felitti et al., 1998; Shonkoff et al., 2011). Schools and communities have the ability to step in and provide support and interventions. Not only will these interventions improve the lives of the children and adults suffering from trauma, but it will also decrease the amount of taxpayer dollars spent on special education, juvenile detention centers, and health care (Shonkoff et al., 2011).

Trauma-informed schools are a place that allow students the ability to learn because they feel safe and connected in their environment (Blitz, Anderson, Saatsamoinen, 2016; Cavanaugh, 2016). This approach takes the time to screen children for trauma and has tiered interventions in place to support students coping with trauma (Cummings et al., 2017). The goal of a trauma-informed school is to not only provide education in academics, but to also help students learn how to cope with trauma and lessen the effects it has created (Brunzell, Stokes, & Waters, 2016). Teachers use their understanding of trauma to identify the signs and symptoms of trauma, create a classroom environment that is structured and consistent, and use different strategies to handle behavioral issues to avoid traumatization (Cummings et al., 2017). Teachers also focus on building strong relationships with students and connecting with families (Brunzell, Stokes, & Waters, 2016). Collaboration with mental health services is crucial in providing the support students need when dealing with trauma (Holmes et al., 2015).

While there are studies that focus on trauma, its effects, and how schools are working on diminishing those effects, more research is still needed. There is a need for more research on

screening children for trauma in schools. There are still contrasting views on when is the best time to screen children. Holmes et al. (2015) and Liming & Grube (2018) view early childhood is the best time, while Kuhlman et al. (2018) and Mckelvey et al. (2017) view early adolescence is best. More research is also needed for the cost of screening and the best approach for a school setting.

Furthermore, there is little research done that focuses on early childhood education and trauma. In Holmes' et al. (2015) study, over 70% of children in a Head Start program had experienced a traumatic event. The Head Start program adapted a trauma education approach to fit the setting of early childhood and created their own program (Holmes et al., 2015). More research is needed to look into these strategies to see how they are working. Additionally, research can look into evidence of long-term impacts of trauma interventions and the effectiveness.

Finally, a closer look at the relationship between misdiagnosis of special education placement and trauma is needed. Many of the signs and symptoms of trauma fit the criteria for behavioral or cognitive disabilities that deem it necessary for a special education placement (Buxton, 2018). Students are given an IEP and some supports are put into place for students; however, the student is not getting the support needed if they are dealing with trauma (Buxton, 2018). Buxton's (2018) study was done within a small school setting, and further research looking at larger school settings is needed to give credibility to these findings.

Schools have the ability to reach a large population of a community and have the opportunity to provide support and interventions to students experiencing trauma. The support of a community is necessary for schools to provide these interventions. Physicians, mental health services, and social workers have the ability to step in and provide training and services to aide teachers (Holmes et al., 2015; R.B. Banks, 2017; Frydman & Mayor, 2017). Children will inevitably experience trauma; however, trauma does not have to re-write a child's life.

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