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Trauma-Informed Schools: Impacts for Students and Applications for Educators

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Abstract

Students exposed to trauma face a range of negative outcomes from poor adult physical and mental health, behavioral and emotional problems, and difficulties performing in the classroom. Trauma-informed schools attempt to break that cycle by identifying students early, providing interventions to promote healing, and preventing future trauma from happening. In order to meet this goal, schools must make systematic changes and collaborate with parents and mental health agencies. Teachers make changes to their classroom practices and environment to ensure that students feel safe and connected. In this literature review, the negative impacts of trauma and history of trauma research are discussed. Next, the principles of trauma-informed schools and possible frameworks are explained. Finally, considerations for school districts, including possible roadblocks, strategies for teachers, and outcomes for students are explored.

Trauma-Informed Schools: Impacts on Students and Applications for Educators

With the prevalence of school shootings, childhood trauma is beginning to gain attention (Cavanaugh, 2016). Trauma can take the form of natural disasters or school shootings, but trauma is more often the result of neglect, abuse, or witnessing violence (Felitti et al., 1998). Paccione-Dyszlewski (2016) notes that about three million children report maltreatment and yet, many more cases are not reported. Additionally, over three million children are witnesses to domestic violence each year (Paccione-Dyszlewski, 2016). These are only some of the numbers of students that have experienced trauma.

While all students will experience developmentally appropriate stress from time to time, more traumatic experiences have real impacts on brain development and the ability to learn (Walkley & Cox, 2013). When trauma affects a quickly developing brain, long-term consequences can occur. Students that have experienced trauma can even have long-term health effects (Felitti et al., 1998). In order to save the student academically and physically, something must be done.

Some students that have experienced trauma are not going to receive treatment for it, making schools the only place where they can receive mental health services per school counselors (Cavanaugh, 2016). Schools have the unique position of reaching almost all children in a community. Therefore, teachers and schools need to be trauma-informed in order to meet the needs of all students and to serve as a place where mental health help is available.

Studies have been done involving the effects of trauma or the effects of a given practice with students that have experienced trauma (Bethell, Newacheck, Hawes, & Halfon, 2014; Bjorkenstam et al., 2013; Goldner, Peters, Richards, & Pearce, 2010; Holmes, Levy, Smith, Pinne, & Neese, 2014; Ijadi-Maghsoodi et al., 2017). However, there is limited information for

teachers in how to best serve this population of students. In this literature review, the principles

of trauma-informed schools are examined. Effects of trauma on the developing brain and body

and implications of trauma-informed schools for students and communities are discussed.

Special considerations for school districts are brought forward. Finally, practical applications for

educators are described.

Review of the Literature

While the effects of trauma on various parts of life have been studied, the research of the effects of trauma on children and their learning is beginning to gain more traction (Bethell et al., 2014; Felitti et al. 1998; Liming & Grube, 2018). In order to understand the need for trauma-informed schools, one must understand not only the effects that trauma can have for children while they are in school, but as those children grow up to be adults. With better understanding of the challenges face by those that have experienced trauma, schools and communities can better serve their members with regards to learning and wellbeing outcomes.

Adverse Childhood Experiences

The connection between childhood trauma and adult health outcomes was first discovered by Felitti and Anda (Felitti et al., 1998). Adverse childhood experiences, or ACES, were first coined by Felitti and Anda in their 1998 ACEs study. In their questionnaires, they divided ACEs into three categories of abuse and four categories of household dysfunction (Felitti et al., 1998). The categories of abuse studied were physical, sexual, and psychological abuse (Felitti et al., 1998). The household dysfunction categories were use of drugs or excessive use of alcohol by someone in the home, mental illness or suicide attempt of someone in the home, witnessing violence against the mother, and arrest of a family member (Felitti et al., 1998).

In more recent research, the ACE study has been used in order to determine an individual's exposure to trauma (Baglivio & Epps, 2015; Bethell et al., 2014; Bjorkenstam et al., 2013; Grasso, Dierkhising, Branson, Ford, & Lee, 2015; Kuhlman, Robles, Bower, & Carroll, 2018; Liming & Grube, 2018; McKelvey, Edge, Fitzgerald, Kraleti, & Whiteside-Mansell, 2017; Moore & Ramirez, 2015). The higher a person's ACE score is, the more trauma that they have experienced. These events had to be experienced before the age of 18 in order to be recorded.

According to Felitti et al. (1998), just over half of the participants in their study had an ACE

score of at least one. Four or more ACEs were reported by just over six percent of participants

(Felitti et al., 1998).

Felitti et al. (1998) conducted their studies with a mostly white, well-educated, middle

class population with good health insurance. While these statistics are alarming, they are more so

for other populations. Baglivio & Epps (2015) studied the rates of ACEs among adolescents

involved with the Florida juvenile justice system. They found that just under half of females

reported five ACEs, while just under half of males reported four ACEs (Baglivio & Epps, 2015).

This population was most likely to experience the ACEs of family violence, divorce, and having

a member in jail (Baglivio & Epps, 2015). Additionally, a majority of youth that reported one

ACE reported additional ACEs (Baglivio & Epps, 2015). This multiple exposure pattern has

been discovered by other researchers as well.

In Mykota and Laye's (2015) study of youth living in rural Canada, they found that

exposure to violence was a risk factor for future violence exposures. Bjorkenstam et al. (2013)

discovered a clustering pattern in ACE exposure. Very few participants had experiences only one

ACE, but instead, a majority had either no ACEs or multiple ACEs (Bjorkenstam et al., 2013).

McKelvey et al. (2017) found that one third of their participants had no ACEs, and almost forty

percent had two or more ACEs. Grasso et al. (2015) found that if young children had

experienced multiple ACEs, they were more likely to face additional ACEs as they got older.

Research has found patterns in the types of ACEs most likely to be experienced at

different ages and socioeconomic statuses (Bjorkenstam et al., 2013; Grasso et al., 2015). Grasso

et al. (2015) found that early and middle childhood was associated most with ACEs involving

family dynamics. Adolescents were more likely to experience community and physical violence

and emotional abuse (Grasso et al., 2015). Bjorkenstam et al. (2013) found that children whose parents had a low socioeconomic status were more likely experience ACEs than those from higher income homes.

Effects of Trauma on the Developing Brain

Trauma not only leaves emotional scars in children, but changes to the brain as well. When individuals experience traumatic stress, their fight, flight, or freeze response is activated (Shonkoff et al., 2011). When this response is activated repeatedly, the brain adapts to always be on alert (Brunzell, Stokes, & Waters, 2015). These changes take place in the lower, more primitive parts of the brain associated with survival, which decreases the brain's ability to determine whether or not perceived threats are valid (Shonkoff et al., 2011; Swick, Knopf, Williams, & Fields, 2012). Later in life, these brain changes lead to problems with physical and mental health, learning, and behavior (Substance Abuse and Mental Health Services [SAMHSA], 2014; Shonkoff et al., 2011).

Exposure to trauma impacts executive functioning, which has implications for both learning, and self-regulation (Blitz, Anderson & Saastamoinen, 2016; Shonkoff et al., 2012). Children that have experienced trauma have difficulties with memory, attention, and organizing new information (Blitz et al., 2016; Rumsey & Milsom, 2018; Swick et al., 2012). All of these are important skills needed for learning new content in the classroom. Bethell et al. (2014) found that children that had multiple ACEs were more likely to repeat a grade, which suggests the extent to which trauma can impact learning.

Additionally, children that have experienced trauma may have difficulties with regulating their behavior (Shonkoff et al., 2011). Rumsey & Milsom (2018) explain that children that have experienced trauma may exhibit both externalizing and internalizing behaviors. Externalizing

behaviors have been attributed to children's inability to articulate their experiences due to their

underdeveloped language skills or inability to communicate their needs (Cummings, Addante,

Swindell, & Meadan, 2017; Brunzell et al., 2016; RB-Banks & Meyer, 2017). Instead, children

use behavior to communicate. Internalizing behaviors have been associated with increased risk

for depression, anxiety, and post-traumatic stress disorder (Grasso et al., 2015; Heinze, Cook,

Wood, Dumadag, & Zimmerman, 2017; Lepore & Kliewer, 2013).

Health Outcomes

While knowing the prevalence and risk factors for trauma and how they impact the brain

is important, it is also necessary to understand how trauma can have continuous, physical effects.

Links between biological changes that are a result of traumatic stress have been associated with

negative health impacts in adults (Bjorkenstam et al., 2013). Additionally, traumatic stress is

associated with chronic health conditions in children (Bethell et al., 2014).

Adult health outcomes. In a landmark study conducted in 1998 in connection with

Kaiser medical group, it was discovered that adverse childhood experiences led to negative adult

health outcomes (Felitti et al., 1998). Further research has found this link between childhood

trauma and adult health outcomes as well (Bjorkenstam et al., 2013; Heinze et al., 2017;

Shonkoff et al., 2011). Adults that had experienced trauma as a child have a higher risk of

cardiovascular disease, depression, insomnia, obesity, and suicide attempts (Felitti et al., 1998).

Kuhlman et al., (2018) found an increased risk for cancer in women who experienced trauma in

childhood and strongly correlated depression with childhood trauma. Shonkoff et al. (2012)

found increases in rates of cardiovascular disease, asthma, depression, autoimmune disease, and

others. Bjorkenstam et al. (2012) found a higher use of psychotropic medications among those

with higher ACE scores, highlighting negative mental health outcomes in adults that had

experienced trauma in childhood.

Part of the connection between childhood trauma and adult health can be explained with

that fact that those with higher ACE scores are more likely to engage in risky behaviors that

could increase that person's chances for negative health outcomes (Felitti et al., 1998; Shonkoff

et al., 2011). Shonkoff et al. (2012) has noted an increased rate of underage drinking, tobacco

use, and promiscuity in those with higher ACE scores. Felitti et al., (1998) noted smoking and

drug and alcohol use as possible coping mechanisms that would lead to poor health in adults.

In addition to unhealthy coping mechanisms, the link between childhood trauma and

negative adult health outcomes can be explained by biological changes that occur as a result of

that toxic stress (Danese et al., 2010; Shonkoff et al., 2012). Danese et al. (2010) describe an

increase in inflammation biomarkers in adults that had experienced toxic stress as children.

These higher inflammation levels, which are linked with physical and mental health problems,

are capable of changing gene expression that can even be passed on to future generations

(Danese et al., 2010).

Researchers have also discovered a dose-response relationship between ACEs and risk

factors for various medical conditions (Bethell et al., 2014; Felitti et al., 1998; Heinze et al.,

2017). This means that the higher ACE score a person has, the more likely that person is to

develop conditions like heart disease, cancer, or emphysema. The effects of childhood trauma

can be felt in adulthood, but the effects are more pervasive than just that.

Childhood health. Not only does trauma have negative health outcomes for adults, but it

also can have immediate negative outcomes for children. Multiple studies have found that the

more ACEs a child has, the more likely they are to have a chronic health condition (Bethell et al.,

2014; Liming & Grube, 2018; McKelvey et al., 2017). Children that had multiple ACEs are also more likely to need emergency or urgent medical care (McKelvey et al., 2017). When children are dealing with a combination of trauma and health issues, they may not be ready for the demands of learning.

Emotional Disturbance Misdiagnosis

Children that have experienced trauma will demonstrate a variety of behaviors, and not all children will have the exact same behavioral response to the same trauma (Blitz et al., 2016; Crosby et al., 2018). Unfortunately, these behaviors tend to match the criteria put in place for a special education placement for emotional disturbance (Buxton, 2018). Students that may have been placed in special education for this reason may have a trauma problem rather than a true emotional disability (Buxton, 2018). In trauma-informed schools, however, it is assumed that students have experienced trauma (SAMHSA, 2014). With a different lens and different treatment of negative behaviors, it is possible that students that have experienced trauma will be correctly identified rather than placed into special education for their behaviors.

The Need for Trauma-Informed Schools

Financially, early intervention and prevention makes sense for communities. Baglivio & Epps (2015) explain that early intervention and prevention could lessen the amount of taxpayer dollars that are spent on health care needs, special education, and the juvenile justice system. Additionally, tax payer dollars would not need to be spent on medical issues that arise as a result of lifestyle choices that serve as negative coping mechanisms, such as smoking (Shonkoff et al., 2011). As these children grow up to be adults, they can prevent the cycle of trauma from

continuing (Baglivio & Epps, 2015). However, services are not readily available for all who need them.

Trauma-informed schools are needed because they have the unique capacity to reach almost everyone in a community. Not all children that experience trauma will receive mental health support outside of school (Cavanaugh, 2016). Therefore, services should be provided at school for these children. Even though schools do not have the primary goal of increasing the health of the community, early interventions and supports in a location that reaches so many can ultimately have a positive effect on the health and economy of the larger community (Baglivio & Epps, 2015).

Four Principles of Trauma-Informed Schools

Trauma-informed schools are rooted in the four principles of trauma-informed systems: realize, recognize, respond, and resist re-traumatization (SAMHSA, 2014). These principles have been previously used in the mental health field, but they can be adapted to the school environment (Cavanaugh, 2016; SAMHSA, 2014). When schools work to build these principles into their school culture, positive effects can happen.

Realizing the impact of trauma. The first principle of trauma-informed schools is to realize that trauma is out there and that it has real effects for students (SAMHSA, 2014). In trauma informed schools, realization of trauma means that teachers assume that all students have experienced trauma due to its prevalence (Paccione-Dyszlewski, 2016). RB-Banks & Meyer (2017) stress the importance of realizing the impact of trauma and using that as a lens through which to view students in order to improve outcomes for students.

In a study conducted by Cummings et al., (2017), participants, who worked in the mental health field were asked to define trauma in their own words. Ninety-three percent of the

participants mentioned biological, emotional, or behavioral changes (Cummings et al., 2017).

These are changes that can have real impacts on student learning and functioning in the

classroom. Blitz et al. (2016) found that most teachers were aware of the trauma that their

students faced and how that decreased their readiness to learn. Through awareness of what

students go through, teachers can better understand how to help them.

      Recognizing the signs of trauma. Next, people that work in a trauma-informed system

must be able to recognize the signs of trauma (SAMHSA, 2014). In Cummings' et al., (2017)

study, all participants mentioned specific types of behaviors that might come out of traumatic

experiences. Children may become more aggressive, clingy, or hypervigilant (Cummings et al.,

2017). Children do not yet have the verbal capabilities to verbalize what they have experienced

in order to process it. Instead, their trauma may have to be processed through physical means

(RB-Banks & Meyer, 2017).

      In a study by Holmes et al. (2014), staff were taught about specific types of behavior that

could be exhibited by a traumatized child and how to understand those behaviors as signs of

trauma rather than misbehavior. Baglivio & Epps (2015) argue that if there is more awareness of

behaviors associated with trauma, children will be more likely to be provided with treatment

rather than punishment. However, recognizing the signs of trauma is easier said than done.

      Identifying students impacted by trauma. Due to the variety behavioral challenges

posed by trauma-exposed children, it can be difficult to identify students that have experienced

trauma. The large variety of possible behaviors is one challenge (Cummings et al., 2017).

Teachers are used to discipline for children that exhibit disruptive behaviors, despite the fact that

these behaviors may be due to trauma (Rumsey & Milsom, 2018). Additionally, defiant and

aggressive behaviors may be viewed as the result of an emotional or behavioral disability rather

than a response to trauma (Buxton, 2018). For untrained teachers, it can be difficult to differentiate among true disruptive behavior, behavior due to disability, or behaviors due to traumatic experiences.

Responding to trauma. The way in which caregivers respond to behavioral responses to trauma is arguably the most important principle of trauma-informed schools, because it can determine whether or not the root cause of trauma is dealt with (Rumsey & Milsom, 2018). Cummings et al., (2017) mention that teachers should maintain a positive attitude with the child and family. Teachers can offer students fresh starts after a bad day. They should also remain calm to avoid escalating situations (Cavanaugh, 2016). In a study conducted by Brunzell, Stokes, & Waters (2016), students and teachers were taught de-escalation strategies to diminish the severity and length of behaviors. Ultimately, the behavior is a response to what has happened, not an attempt to be malicious or disruptive.

Avoiding re-traumatization. Finally, re-traumatization must be avoided in order to contribute to healing of traumatized students (SAMHSA, 2014). This could involve avoiding triggers that remind the student of the trauma that they have experienced, such as a loud noise or physical contact (Cummings et al., 2017). Schools need to be safe, predictable spaces for students in order for healing to happen (Brunzell et al., 2016).

Legislation for Trauma-Informed Schools

Despite a need for trauma-informed schools and widespread trauma-informed practices and available frameworks to build from, legislation is minimal (Blitz et al., 2016; Brunzell et al., 2016; Crosby, Howell, & Thomas, 2018; SAMHSA, 2014). The Trauma-Care for Children and Families Act of 2017 (S.774) called for the encouragement of states to screen for ACEs and for the Department of Education to offer grants to educational settings that make trauma-informed

changes. The state of Washington has also made moves toward trauma-informed schools

(Eklund, Rossen, Koriakin, Chafouleas, & Resnick, 2018). Concerning Adverse Childhood

Experiences (Washington, H.B. 1965, 2012) calls for prevention of Adverse Childhood

Experiences. While this state law does not necessarily concern schools specifically, it does draw

attention to the need to prevent future trauma from happening. Schools can help in that role.

Considerations for School Districts

In order to implement trauma-informed practices, districts must determine how all of the

pieces of trauma-informed schools will fit into the current school culture and structure (Ijadi-

Maghsoodi et al., 2017; SAMHSA, 2014; Swick et al., 2012). Staff must be trained to implement

the new practices with fidelity (McIntyre et al., 2019). Policies need to be put into place that

promote feelings of safety and prevent re-traumatization, create a positive school culture, and

allow for collaboration with outside agencies (SAMHSA, 2014; Walkley & Cox, 2013). Finally,

districts need to consider not only the needs of students that have experienced trauma, but also

the needs of staff that interact with those students each day (Borntrager et al., 2012). Ultimately,

these systemic changes take time and effort from all parties involved in order to be successful.

Tiered supports. The most common framework presented in the literature involved

tiered supports. These tiers closely resemble the tiered supports offered by Response to

Intervention or School-Wide Positive Behavior Supports. Horner, Sugai, & Anderson (2010)

found that SWPBS led to increased feelings of safety and better academic outcomes. SWPBS

involve universal instruction and expectations for all students at the bottom tier of support

(Horner et al., 2010). Students that need tier II support may receive additional behavioral

incentive or instruction (Horner et al., 2010). Students that require tier III supports receive

individualized supports and instruction (Horner et al., 2010).

Specific trauma-informed curricula have been developed that follow a multi-tiered

framework. In Frydman & Mayor's (2017) study, a program called ALIVE was implemented in

order to meet the needs of middle school students that had experienced trauma. At the universal

tier, students received lessons from the Miss Kendra curriculum. Students learn about Miss

Kendra's struggles after losing her son, and they learn coping strategies (Frydman & Mayor,

2017). Meanwhile, students are observed by facilitators and identified as possibly having

experienced trauma by their words and actions during lessons (Frydman & Mayor, 2017). These

students then receive additional support and even individual interventions, if necessary (Frydman

& Mayor, 2017). This tiered approach meets the needs of students school-wide and provides

extra support to the students that need it most.

Rumsey & Milsom (2019) suggest that school counselors can help create multi-tiered

systems in schools in lieu of adopting a specific curriculum. Counselors that teach classes to all

students can teach lessons in stress management or executive functioning skills (Rumsey &

Milsom, 2019). At the second tier, group counseling may be offered, and at the third tier,

students may take part in individualized counseling (Rumsey & Milsom, 2019). Regardless of if

a purchased curriculum is used, tiered supports provide the appropriate instruction and support to

students that need it.

Policing. School policing can also be trauma-informed. School resource officers play an

important role in schools in promoting feelings of safety, and they can help identify at-risk

students (SAMHSA, 2014; Gill, Gottfredson, & Hutzell, 2016). Seattle's School Emphasis

Officer program was found to be beneficial for students in the schools studied (Gill et al., 2016).

Officers taught classes identified and intervened with students that were possible victims of trauma (Gill et al., 2016). Officers implemented trauma-informed practices by maintaining safety for students in their assigned buildings, teaching universal curriculum, and connecting at-risk students with outside agencies that could help them stay out of the juvenile justice system (Gill et al., 2016).

       Screening. Regardless of what framework is used, students need to be screened for trauma exposure (Bethell et al., 2014). When students are identified, steps can be taken to prevent future trauma and promote healing from previously experienced trauma (Eklund et al., 2018). Although screening is a necessary first step to heal students, school districts must carefully consider when and how to screen.

       While early intervention is usually most desirable, Kuhlmann, Robles, Bower, & Carroll (2017) found that the most cost-effective age to screen for trauma would be in early adolescence. Less than ten percent of their participants had experience trauma in early childhood, and almost forty percent had their first exposure by age thirteen (Kuhlmann et al., 2017). Cost may come into consideration for tight-budgeted school districts, especially for measures that may or not be practical in a school setting.

       Time is valuable in schools and the amount of time needed to screen students for trauma must be considered. In Eklund et al.'s (2018) review of screening measures, administration time and practicality were downfalls of available screening measures. Of the measures reviewed, time ranged from five minutes to a lengthy interview (Eklund et al., 2018). Not all screening measures were meant to be used with a varied population, like there would be in a school, but instead were meant to be used in a clinical setting for diagnostic purposes (Eklund et al., 2018).

Therefore, schools would need to carefully consider all measures before attempting to implement them school-wide as screening measures.

Staff training. Some school districts offer staff-wide trainings for teachers in trauma-informed practices, reaching all staff at one time (McIntyre et al., 2019). Blitz et al. (2016) found that teachers felt that they needed more training and tools available to them to support their students that had experienced trauma. Trainings should be used to ensure that teachers are both aware of the impacts of trauma as well as recognize the signs of trauma (McIntyre et al., 2019; SAMHSA, 2014). Holmes et al. (2014) found that training can even be used effectively with staff in early childhood settings.

Another avenue that could be taken is through training pre-service teachers before they enter the workforce. In a study by RB-Banks & Meyer (2017), pre-service teachers worked with a sand play therapist to learn about trauma. This therapist taught the pre-service teachers how to recognize trauma, how trauma impacts students' development, and how movement can be used as a way to express and move forward from the trauma (RB-Banks & Meyer, 2017). These pre-service teachers felt prepared to enter the workforce and to work with populations of students that had experienced trauma (RB-Banks & Meyer, 2017).

Secondary traumatic stress. In addition to needing support in the form of training, school staff may also require support in mitigating the effects of secondary traumatic stress. Secondary traumatic stress, also known as compassion fatigue, has received attention in the mental health field, but is just now beginning to receive attention in the education field (Borntrager et al., 2012). Secondary traumatic stress involves the behaviors and emotions that come with helping traumatized individuals (Borntrager et al., 2012). With the high numbers of

students that have experienced trauma, it is likely that secondary traumatic stress is prevalent in the population of adults that work with and support them.

Blitz et al. (2016) found that staff in their study felt stressed and worn down because of the emotional burden of caring for their students. Borntrager et al. (2012) explain that secondary traumatic stress can cause individuals to feel numb, to be hyper-aroused, experience intrusive thoughts, and feel depressed. Individuals may also exhibit avoidance behaviors (Borntrager et al., 2012). Based on their results from subscales in avoidance, arousal, and intrusion, Borntrager et al. (2012) found that three-fourths of their participants met criteria for a PTSD diagnosis. These alarming findings call for schools to provide supports not only for students, but for staff as well.

Behavior policies. Schools districts need to ensure that proposed and enforced behavior policies are trauma-informed (SAMHSA, 2014). Students that have experienced trauma may exhibit behaviors that lead to office referrals and removal from class (Rumsey & Milsom, 2019). Punitive punishments may lead to further traumatization, rather than healing (SAMHSA, 2014). Additionally, children that have experienced trauma benefit from connections with the adults in their lives, so removal from the school severs these connections (Brunzell et al., 2016). Therefore, efforts should be made to avoid isolating and punishing the student for effects of their trauma through carefully-developed and thoughtful behavior policies.

Community Collaboration

The goal of trauma-informed schools to intervene and provide healing services for students is a daunting task for schools that already have so many other responsibilities and obligations. However, with collaboration with community members and outside mental health services, it is possible (Rumsey & Milsom, 2019; SAMHSA, 2014). Felitti et al. (1998) called for community partnerships to better health outcomes in communities, and schools can use that

advice to better academic outcomes. Additionally, schools can partner with families in order to

offer the best outcomes for students (Rumsey & Milsom, 2019; Swick et al., 2012).

Mental health service/school collaboration. Schools cannot provide all services needed

in a trauma-informed system without the help from outside agencies. In the study conducted by

Holmes et al.(2014), mental health agencies were brought in to provide services to young

children at Head Start education centers and to train staff on trauma-informed practices. The

researchers found that this combination of expertise was very effective for students and staff as

reported by teachers and parents (Holmes et al., 2014).

Mental health service providers can play a role in tiered supports. Frydman & Mayor

(2017) found that if schools were unable to provide the level of individualized support necessary

for students that had the most needs, they could be referred to outside mental health agencies. At

the universal level of support, Holmes et al. (2014) described a model where mental health

professionals served as consultants to help teachers with setting up therapeutic classroom

environments. Mental health professionals have expertise that can be useful for all teachers,

including those that have not begun teaching in their own classroom yet.

RB-Banks & Meyer (2017) found that collaboration with mental health services could

also aide in the training of pre-service teachers. The participants initially felt that the two fields

were very different but grew in their understanding of how therapists and teachers may work

together in the classroom (RB-Banks & Meyer, 2017). If this model was available at more

universities, more teachers would have expertise on how to collaborate with mental health

professionals in a school setting.

Buffers. Studies have found relationships to act as buffers against trauma (Brunzell et

al., 2016; Goldner et al., 2011; Heinze et al., 2018; Moore & Ramirez, 2015). In a study

conducted by Goldner et al. (2010), researchers found that middle school students that spent

more time with their parents were more likely to receive protective factors from their support.

Heinze, Cook, Wood, Dumadag, & Zimmerman (2017) found similar results with friendship

attachments. Adolescents in this study that had experienced violence but had securely attached

friendships were more likely to have better mental health outcomes as adults (Heinze et al.,

2017). Hines (2014) found relationships as buffers to be a common theme in her own study of

children that had witnessed family violence.

Shonkoff et al. (2019) explains these improved outcomes as the result of decrease stress

responses. Buffers, such as supportive adults and friends can help the individual cope with the

stressful situation (Shonkoff et al., 2019). This positive coping can keep stress from getting to the

point or continuing to be toxic, which eliminates long-term negative effects of toxic stress

(Shonkoff et al., 2019). Moore & Ramirez (2015) also found that buffers, such as parents, could

mediate the effects of ACEs. Finally, buffers have been found to promote resilience (Bethell et

al., 2014; Brunzell et al., 2015).

Parent/school collaboration. Since parents can offer such positive effects for children

that have experienced trauma, schools should collaborate with them for the benefit of students. In

a study conducted by Cummings et al. (2017), over half of participants described family

partnerships as a good way to support students that had experience trauma. Swick et al., (2013)

also stress the importance of family engagement in helping students heal from trauma. Schools

can collaborate with parents through providing information on how to best help their children

with school work and providing parents with opportunities to make important school decisions (Rumsey & Milsom, 2019).

Blitz et al. (2016) noted the frustration that teachers feel when working with parents that seem uninvolved in school. However, Blitz et al. (2016) described the importance of viewing families through a trauma-informed lens, just like students would be. This view helps teachers better understand the adversity that families may be facing and how those struggles impact the student (Blitz et al., 2016).

Roadblocks to Implementation

Despite the promising benefits that trauma-informed practices in schools can offer students, there are roadblocks that keep schools from making necessary changes. Since schools are not identical, serving the same population, there is no trauma-informed program that has been developed that will be perfect for every school (Ijadi-Maghsoodi et al., 2017). Schools must make programs fit their needs, and teachers must be on board with the changes (Ijadi-Maghsoodi et al., 2017; McIntyre, Baker, Overstreet, & New Orleans Trauma-Informed Schools Learning Collaborative, 2019).

School fit. When implementing school-wide, systemic changes, it is important that they reflect the needs of the school and its student population. In a study conducted by Ijadi-Maghsoodi et al. (2017), a resilience-building curriculum originally designed for children of military families was adjusted to fit the needs of urban high schools in the southwest United States. The researchers found, while the program had less fidelity due to the changes made to its

implementation, the changes were effective and met the needs of that particular student

population (Ijadi-Maghsoodi et al., 2017).

In a study conducted by McIntyre et al. (2019), teachers attended a training on trauma-

informed practices. The authors found that teachers rated the trainings with more acceptability if

they felt that the strategies could fit into their current school and placement (McIntyre et al.,

2019). The amount that the teachers learned about the strategies was not as strong of a predictor

for acceptability as perceived school fit (McIntyre et al., 2019). Not only do the practices have to

fit the needs of the schools and students, but they have to fit the staff that have to implement

them.

Teacher buy-in. In order for teacher training on trauma-informed practices to be

effective, teachers and administrators must buy into the practices being presented to them

(Crosby, Howell, & Thomas, 2018). In a study conducted by Blitz et al. (2016), teachers did not

value a culturally responsive teaching training that the district provided. The teachers felt that

they were already culturally sensitive since they treated all students the same, and some of the

teachers even took offense to it (Blitz et al., 2016). Without staff buy-in, trainings cannot be

effective (Walkley & Cox, 2013).

Applications for Teachers

Teachers make the day-to-day decisions of how their classroom will run within the

district and school-wide policies put in place. Teachers should strive to develop classroom

environments that promote feelings of safety, consistency, and attachment (Swick et al., 2012).

This can be done through adjustments in academic practices, relationship building, and classroom environment (Holmes et al., 2015).

Academic practices. Teachers that are aware of the effects of trauma understand the effects that it can have on learning processes (Blitz et al., 2016; Frydman & Mayor, 2017). These teachers use academic supports for memory and concentration as well as other learning processes (Blitz et al., 2016). Crosby et al. (2018) also suggest that the use of immediate feedback creates a safe, predictable learning environment where students can focus their attention on learning tasks.

Teachers that understand trauma can help their students understand how trauma effects them and how to build resilience through integrated lessons (Baglivio & Epps, 2015). Instruction in social skills and coping skills can be combined with other content lessons (Blitz et al., 2016). Teachers can also model the use of these strategies and provide students with opportunities to practice their skills (Crosby et al., 2018).

Children may need to use physical means to express themselves and work through trauma since they lack the verbal capacities to do so (RB-Banks & Meyer, 2017). Instead of having a student sit down and be quiet, they may need movement to work through difficult situations and get ready to learn again. Movement was also used as a way to cope with trauma in a study conducted by Brunzell, Stokes, & Waters (2016). Students were given brain breaks and taught about the body's physical responses to stress (Brunzell et al., 2016). Finally, mindfulness activities can help students to regulate their emotions and focus (Brunzell et al., 2016).

Relationship building. Like parents, teachers can serve as buffers through building relationships with students (Shonkoff et al., 2019). These relationships where teachers demonstrate warmth and genuineness can help students to feel connected to others and ready to learn new information (Brunzell et al., 2016). These relationships can be built through Check In-

Check Out. In CICO, teachers meet with students before and after school about a given goal

(Horner et al., 2010). They are encouraged to meet their goal and praised for their progress

(Cavanaugh, 2016).

RB-Banks & Meyer (2017) and Cummings et al. (2017) both stress the importance of

positive interactions with students that have experienced trauma. This requires teachers to be

aware of trauma and respond in appropriate ways (SAMHSA, 2014). Roughly half of

participants in a study described appropriate reactions as being slow to anger or judgement when

a student misbehaves (Cummings et al., 2017). These behaviors may be signs of trauma.

Brunzell et al. (2015) suggest the use of unconditional positive regard to help students to feel

cared for, regardless of their behaviors.

Classroom environment. Finally, teachers that understand trauma create safe and

predictable classrooms that resist re-traumatization through behavior management strategies and

clear expectations (Cummings et al., 2017; Holmes et al., 2015; SAMHSA, 2014). Keeping a

consistent schedule each day and preparing students for upcoming changes in the schedule ahead

of time helps students reach their need for consistency (Swick et al., 2013).

The physical environment of the classroom can also be used to make students feel safe

(Cummings et al., 2017). Triggers, like loud noises, can make students feel re-traumatized, so

efforts should be made to minimize possible re-traumatization (Cummings et al., 2017). Teachers

may also need to be aware of the tone of their voice and proximity to students to avoid triggering

stress responses (Crosby et al., 2018).

Finally, teachers can proactively avoid escalated behaviors by closely monitoring

students and having a safety plan in place for when students feel escalated (Brunzell et al., 2016;

Crosby et al., 2018). Plans may involve short breaks out of the classroom to get a drink or talk

with another teacher or the opportunity to listen to music (Brunzell et al., 2016). Students can

also be given choices with clear boundaries to help them feel autonomy in the classroom (Crosby

et al. 2018; Rumsey & Milsom, 2019). With positive changes to classroom practices, students

may begin to heal.

Potential Impacts of Trauma-Informed Schools on Students

While trauma-informed schools are just getting their start, they have the potential to

decrease the negative impacts faced by those that have experienced trauma. Negative adult

outcomes can be partially mitigated with early interventions that help students understand their

own triggers, the impacts of trauma on their bodies, and positive ways of coping with that stress

(Brunzell et al., 2016). Baglivio & Epps (2015) claim that early prevention may decrease the

number of children that are involved in the juvenile justice system. Additionally, students that

have experienced trauma are less likely to be incorrectly identified as having an emotional

disturbance (Buxton, 2018). Students can be better understood and served when they are viewed

through a trauma-informed lens.

Trauma-informed schools can even have positive effects for students that have

experienced trauma. Students have experienced great improvements in hyperactivity,

externalizing behaviors, and internalizing behaviors with trauma-informed practices (Holmes et

al., 2014). Students have also reported that they have learned ways to manage stress, reach their

goals, and deal with problems that they encounter day-to-day (Ijadi-Maghsoodi et al., 2017).

Finally, trauma-informed schools can lead to healing and prevention of re-traumatization

(SAMHSA, 2014).

Conclusion and Areas for Future Research

Despite the fact that trauma-informed schools are still in their infancy and there is insufficient legislation to mandate their adoption, they are needed for academic and behavioral success of the large portion of students that have experienced trauma (Eklund et al., 2018; Walkley & Cox, 2013). Trauma-informed schools are places where students feel safe and connected and can begin healing from their traumatic experiences through early identification and intervention (SAMHSA, 2014). Even though schools have primarily academic goals in mind, they serve as a unique location where a significant portion of communities can be reached (Cavanaugh, 2016). Additionally, the early interventions provided by trauma-informed schools can mitigate negative health outcomes and lessen the demand of tax payers to support other negative outcomes from experiencing childhood trauma (Baglivio & Epps, 2015; Brunzell et al., 2016).

Teachers and administrators that work in trauma-informed schools are well-trained and on board to meet the needs of their students (Crosby et al., 2018; Walkley & Cox, 2013). Policies are adopted that fit the school culture and student population being served (Ijadi-Maghsoodi et al., 2017). Staff that carry the emotional burden of their students are supported to alleviate the effects of secondary traumatic stress (Borntrager et al., 2012).

In trauma-informed schools, student behaviors are understood as effects of trauma rather than reasons for punitive punishment (SAMHSA, 2014). Since trauma is understood by teachers in a trauma-informed system, they recognize signs of trauma, structure their classroom environment carefully, and use behavior management strategies that avoid potential re-traumatization (Cummings et al., 2017; SAMHSA, 2014). These teachers create relationships with their students and collaborate with families and mental health professionals to increase

academic gains (Brunzell et al., 2016; Holmes et al., 2014; Swick et al., 2013). Finally, these

teachers utilize academic supports and resiliency building in their teaching (Blitz et al., 2016).

Although more and more evidence is being presented about the effects of trauma and

potential role of schools in mitigating those effects, there are still areas that need to be studied

further. Many studies conducted in the United States revolve around low-income, ethnically

diverse, urban populations or large-scale populations (Baglivio & Epps, 2015; Ijadi-Maghsoodi

et al., 2017). The only study that could be found that specifically targeted rural youth was

conducted in Canada (Mykota & Laye, 2015). Mykota & Laye's (2015) study demonstrated that

childhood trauma is not an issue left only to low income, urban areas, but that rural youth also

experience significant levels of trauma. More research is needed in the effects of trauma on

young people in rural America.

Additionally, the effects of interventions with early childhood populations lacks research.

Holmes et al. (2014) found promising results with their study involving an adapted program for

Head Start Programs. Additional research is needed to determine the immediate and long-term

effectiveness of trauma-informed, early intervention in early childhood programs.

Next, only one study could be found on the effects of secondary trauma on staff of public

schools (Borntrager et al., 2012). As noted, during their day, school staff are likely working with

a child that has experienced trauma, which can increase their risk for secondary traumatic stress

(Borntrager et al., 2012). More research is needed to determine how schools can best support

employees as they work with traumatized youth. Additionally, Borntrager et al. (2012)

conducted their study with teachers from rural area in the Midwest that may not reflect rates of

childhood trauma and secondary trauma that are similar to the national average. Therefore, more

research is needed to look into rates of secondary traumatization in subpopulations of teachers

that work in various geographic areas, grade levels, and with students of various levels of socioeconomic status.

The correlation between emotional disturbance diagnosis and trauma needs more attention. While Buxton's (2018) work is convincing, the study was done with a small population. More research with a larger population would better support those findings.

Finally, several studies that investigated the prevalence and effects of trauma were conducted with adults reflecting back on their childhood experiences (Bjorkenstam et al, 2013; Felitti et al, 1998; Grasso et al., 2015; Heinze et al., 2017). While subjecting children to trauma is immoral, more studies need to be conducted with interventions in place for children that have recently experienced trauma. If more research in this area is conducted, teachers will have research-based best practices for teaching students that have experienced trauma.

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