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The Paramountcy of Trauma Informed Classrooms

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Abstract

Students impacted by trauma make up a substantial portion of the overall population. Yet, schools throughout the United States have failed to adequately meet the needs of trauma-impacted youth and the teachers who support them. As a result, many students who might have otherwise developed academically, socially, and emotionally are dropping out and becoming maladjusted, which has wide-ranging, lasting impacts on society overall. Additional resources and training must be provided to the educational community, especially in areas where trauma is prevalent. Healthcare professionals such as psychologists and therapists have proven to be essential partners able to contribute their skills in confronting trauma in education. When school leaders administer this collaborative approach between specialists across various fields, teachers become less overwhelmed and the needs of trauma-impacted students are more likely to be met.

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CHAPTER I: INTRODUCTION

Imagine yourself as a naive and nervous, yet bright-eyed and optimistic new teacher arriving to the classroom on your very first day of your new job. With your newly earned degree in hand, you hoped you were prepared and equipped with what it took to be a successful and effective teacher. In your mind were images of curious, eager students looking up at you, captivated by your charm, wit, and innate ability to entertain while passionately imparting meaningful content with mastery and ease. You embraced this rosy vision as you entered your classroom for the first time. You made your way up to the front of the empty room waiting for your students to arrive. And then, suddenly, reality walked through the door.

In complete and confounding contrast to your optimism, students come pouring into your classroom like a tornado of terror. Profanity fills the air as they yell, talk on phones, throw up gang signs while posing for selfies, rap to songs with unsettling explicit, violent, and sexual content; they even verbally and physically threaten each other, while ignoring any of your attempts at redirection. The previously cheerful expression on your face now fades into one of horror like Van Gogh's painting, "The Scream." Your dream to save and inspire young people has become more like a fool's nightmare. Yet you still attempt to pull yourself together and muster up the courage to get the students' attention despite the voice in your head that warns, "I was not prepared for this." Your heart begins to sink, your body begins to panic, and everything you've learned up to this point becomes meaningless as you realize it is your overwhelming responsibility to successfully educate these students and prepare them for life socially, emotionally, and academically.

This scenario is not an exaggerated account of my own and many other teachers' first day in a trauma-impacted classroom. My first teaching job was at a school with a predominant - if not absolute - demographic of youth at-risk who have been impacted by trauma at some point in their lives; the majority of them were still being exposed to and surrounded by trauma on a daily basis. When first hired, it was made clear to me by the administration that some of the student population would consist of "at-risk" youth. But for me, like many other educators, "at-risk" simply meant an opportunity to help those who needed it most. The term itself was nothing more than an educational buzzword, and its implications had never been considered outside of the expectation that the students would be tough and difficult to reach. It never occurred to me to prepare myself for the profound impact their behavior, their lives, their story, and their struggle would have on me. My idealism kept me focused on helping them; and it did not take long before my physical, mental, and emotional well-being was also "at-risk."

My formative teaching experience revealed early on the importance of proper training and support for staff who hope to work with and support trauma-impacted youth. It was clear that educators such as myself needed to be adequately trained in trauma-informed practices, and continuous support by professionals both within and outside of the educational community were essential for helping teachers understand and tackle the social-emotional needs of trauma-impacted students.

This literature review will explore how to ensure the success of trauma-impacted students, beginning with the understanding of what defines trauma and where it originates. It will research trauma's influence on the brain, and consequently how that affects behavior and learning. There are striking statistical correlations between trauma and factors like attendance

and academic success, and there is a direct relationship between trauma and graduation rates, suspensions, expulsions, and dropouts. It is the foundation for failure. And most importantly, it prevents many young people from ever living a life of happiness. Trauma is a powerful force that pushes young people out of the classroom and away from learning how to make responsible decisions, form positive relationships, and self-manage.

Rationale

Research indicates as many as 68% of children experience at least some form of trauma (Cavanaugh, 2016). Children who experience trauma become maladjusted and will exhibit intense behaviors that follow them into the classroom. If undiagnosed by trained educators and professionals in health care, students displaying symptoms of trauma get misinterpreted as simply "bad kids." Unless these "bad kids" have caring adult support and trauma-informed school systems advocating for them, they will most likely be expelled or drop out due to a lack of a sense of belonging, in which case there will be little to no chance of completing their education or becoming successful members of society. Statistics show that dropouts are sixty-three times more likely to end up in the criminal justice system than to become college graduates (Sohoni, 2017).

Research also shows that schools must be intentional about supporting teachers as well. Teachers who work with trauma-impacted youth are exposed to behaviors that are competitive, hot-tempered, impulsive, extremely hyper-vigilant, or opposingly withdrawn, dissociated, and numb (Sander, 2016). Due to secondary traumatic stress endured by educators, burnout rate is high, and the causes and effects will also be addressed in this literature review. Many educators who have worked with trauma-impacted students share a sense of isolation in their effort to

address the problem and feel helpless to solve it. Even though they are doing their best work, they struggle with the realization that they alone are not enough and may develop a sense of despair or even depression. Despite the fact these teachers are facing insurmountable, systemic failures, many cannot help but put the fault squarely on their own shoulders. They are the ones who face the students every day. Research indicates it takes a village of adult support including teachers, social workers, counselors, administrators, and even health care professionals all coming together if the needs of these students are to be met. Case studies of successful trauma-informed schools reveal how to adequately train, prepare, and support teachers who are willing to work on the front line fighting against the persistent failures in our educational system, especially in urban schools. If more schools used metrics like the Adverse Childhood Experiences (ACEs) survey, which is a model used to describe all types of abuse, neglect, and other potentially traumatic experiences that occur to people under the age of 18 (Center for Integrated Health Solutions, 2019), they would have the potential to become transformative places where educators could provide the necessary skills for struggling youth. Substantial achievement gaps between white students and students of color, like the one in Minnesota, will close or become smaller. Instead of schools being places where students are lost, they can become places where students are found**.**

Definition of Terms

Trauma-impacted: Individual trauma results from an event, series of events, or set of circumstances experienced by an individual as physically or emotionally harmful or life-threatening with lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being. (Center for Integrated Health Solutions, 2019).

Trauma-sensitive School: A trauma-sensitive school prioritizes developing trusting relationships, teaches students social and emotional skills, and addresses behavior with positive and compassionate approaches (Trauma, n.d.).

Adverse Childhood Experiences: ACEs is a widely used survey that generates a number-based score depending on the number of traumatic experiences an individual has experienced. The higher the number, the more significant an impact on an individual's ability to be successful (Center for Disease Control and Prevention, 2019).

Emotional Behavioral Disorder: An emotional and behavioral disorder is an emotional disability characterized by the inability to build or maintain satisfactory interpersonal relationships with peers and/or teachers, an inability to learn which cannot be adequately explained by intellectual, sensory or health factors, consistent or chronic inappropriate type of behavior or feelings under normal conditions, displayed pervasive mood of unhappiness or depression, or displayed tendency to develop physical symptoms, pains or unreasonable fears associated with personal or school problems (Still, 2019).

Post-traumatic Stress Disorder: Post-traumatic stress disorder (PTSD) is a mental health condition that's triggered by a terrifying event — either experiencing it or witnessing it. Symptoms may include flashbacks, nightmares, and severe anxiety, as well as uncontrollable thoughts about the event (Post-traumatic stress disorder, 2018).

Secondary Trauma: Secondary trauma is defined as indirect exposure to trauma through a firsthand account or narrative of a traumatic event. The vivid recounting of trauma by the survivor and the clinician's subsequent cognitive or emotional representation of that event may result in a set of symptoms and reactions that parallel PTSD (Zimering & Gulliver, 2003).

Social-emotional Learning: SEL is the process through which children and adults learn about self-awareness, self-management, responsible decision-making, relationship skills, and social awareness. Current pedagogy connects SEL with quality of life and overall happiness.

Pennebaker Paradigm: A written emotional disclosure paradigm suggests that emotional disclosure about stressful events leads to improvements in physical and psychological health as well as positive reactions from participants about the perceived impact of disclosure (Pennebaker & Beall, 1986).

Research Question

Both novice and experienced teachers alike are finding themselves overwhelmed by trauma's prevalence and the consequent behaviors it manifests in the classroom. There is an urgent need for schools to be more supportive towards teachers, and for all educators to be more adequately trained to understand and tackle the social-emotional needs of trauma-impacted students as well. Brunzell with Stokes, and Waters (2018) emphasize that many schools are managed in a manner that reflects they are not aware of secondary adverse effects on teachers and, as a result, do not provide direction, encouragement, and support for teachers working with trauma-impacted teachers. The researchers also state that many teachers who quit their jobs cite student misbehavior as a reason (Brunzel et al., 2018).

There also needs to be additional support from other professional communities that come in and assist teachers. Currently, many schools are operating in reaction to the signs of trauma, versus embracing a proactive approach. Research indicates it is essential that professionals from various fields - not only in education - assist schools with the persistent problem of trauma and its impact on the brain, behavior, and learning. Research indicates there is a need for "The

provision of a multi-tier intervention that involves teacher training and consultation with certified therapists, peer mentoring, and individualized interventions for trauma-affected students referred by teachers" (Fondren et al., 2020, p.9). Without diagnosing and addressing this issue, it cannot be resolved. This literature review will answer the following two research questions surrounding the paramount need for trauma-informed classrooms. What is trauma's impact on students and teachers in the educational setting? What are effective restorative practices, and how can school districts best train and support teachers in these practices?

CHAPTER II: LITERATURE REVIEW

The Prevalence of Trauma

More than half of all young people have reported exposure to violence or abuse, and by the age of 16, more than two thirds will have experienced a potentially traumatic event (Center for Integrated Health Solutions, 2019). Trauma can impact a child's cognitive abilities and impede their development, which limits their success both academically and personally. Trauma can impact people of any age and presents itself in many forms. A common theme found in various academic journals, papers, and articles concludes that trauma is widespread across all demographic and socio-economic communities.

Research indicates that once children have reached the age of nine, 13% will have encountered at least four traumatic events, with as many as 79% of adults having experienced trauma at some point in their lives (Cummings, Addante, Swindell, & Meadan, 2017). Statistically, in urban centers around the country, the prevalence of trauma-impacted youth increases drastically. Another survey, sampling 119 seven-year-old students in Philadelphia, concluded that "75% had heard gunshots, 60% had seen drug deals, 18% had seen a dead body outside, and 10% witnessed a stabbing or shooting in their homes," (McInerney & McKlindon, 2014, p. 3). Another wider-ranging survey cited "68% of children experience at least some form of traumatic event," (Cavanaugh, 2016, p. 41). The Center for Integrated Health Solutions concluded a staggering prevalence of trauma-impacted youth to the extent that nearly every school has students who have endured devastating and detrimental experiences (CIHS, 2019).

Because trauma presents itself in so many forms, it can often be difficult to succinctly define. The Substance Abuse and Mental Health Services Administration's definition of trauma states:

> Individual trauma results from an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life-threatening and that has lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being. (CIHS, 2019, p. 1)

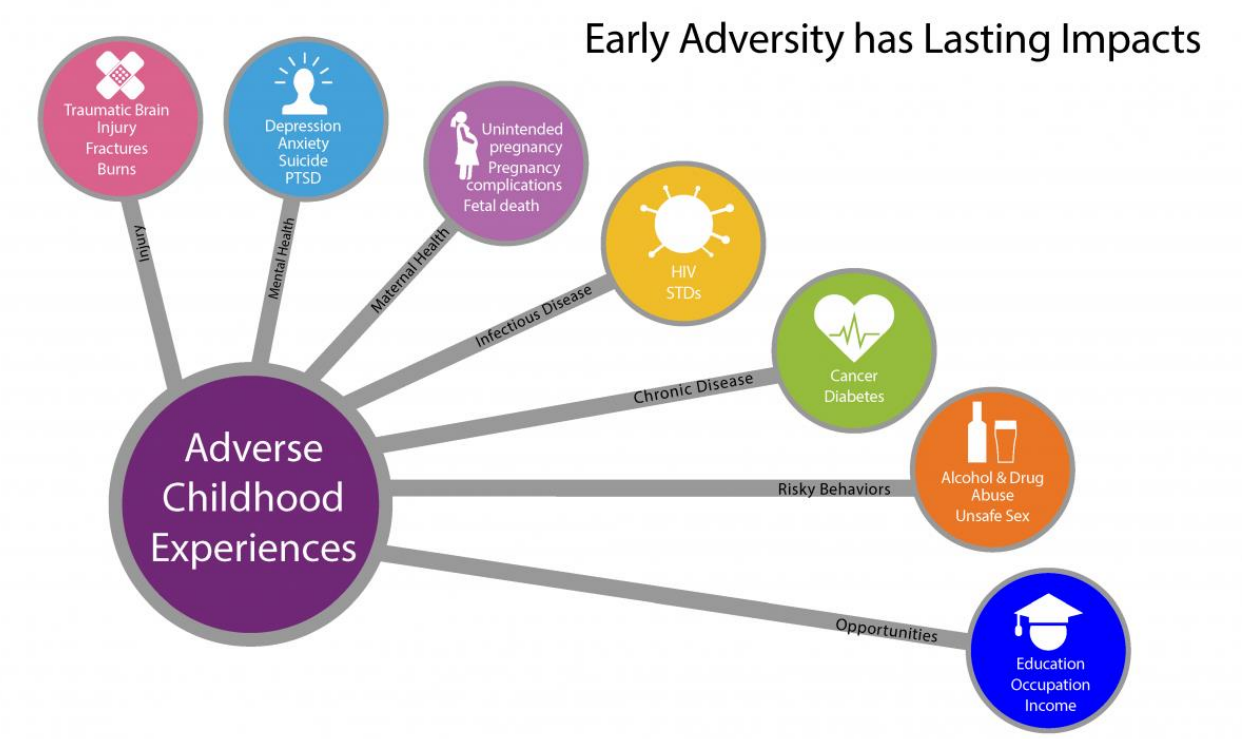
Some examples of trauma include homelessness or unstable living situations, hunger, and witnessing or experiencing violence or death (CIHS, 2019). Additional examples of trauma are defined as "experiencing physical, psychological or sexual abuse; violence against one's mother; or living with household members who are mentally ill, suicidal, substance abusers, or were ever incarcerated," (McInerney & McKlindon, 2014, p. 2). Responses to trauma may also cause adverse emotions such as fear, horror, or helplessness, which - in children - result in disorganized or agitated behavior (McInerney & McKlindon, 2014).

Adverse Childhood Experiences (ACEs) is a survey model used to describe all types of abuse, neglect, and other potentially traumatic experiences that occur to people under the age of 18 (Center for Integrated Health Solutions, 2019). The concept of ACEs was conceived through a study conducted by the Center for Disease Control and Prevention (CDCP) that examines and correlates traumatic childhood encounters in terms of adverse childhood experiences. The ACEs study connects trauma with various forms of health issues, including substance use, behavioral problems, and suicidal tendencies (Center for Disease Control and Prevention, 2019). The results of the study also uncovered that "survivors of childhood trauma are up to 5,000 percent more

likely to attempt suicide, have eating disorders, or become IV drug users" (Center for Disease Control and Prevention, 2019, para. 4). The mere fact that the CDCP has conducted so much research on childhood trauma speaks to its pervasive nature in our society today.

The graphic below illustrates where adverse childhood experiences impact its victims and displays how traumatization is linked to a list of lasting issues. According to the CDCP, as the number of ACEs increases, so does the risk for these outcomes (CDCP, 2019).

Figure 1



(Center for Disease Control and Prevention, 2019, p. 1)

The graph shows relationships between adverse childhood experiences and the ways in which they lead to maladjustment and poor health. These connections include susceptibility to injury, mental health, maternal health, infectious disease, chronic disease, and risky behaviors (Center

for Disease Control and Prevention, 2019). The graph also illustrates how opportunities can bridge the gap to a happier, more peaceful life through education, occupation, and income.

Trauma and the Nervous System

Neuroscience helps us understand how persistent, adverse childhood experiences influence the body's nervous system; stating that it is the nervous system that orchestrates body functions and perceptions (Sander, 2016). These functions and perceptions react differently based on whether the person's nervous system interprets the world as benevolent or malevolent. The nervous system of a person who perceives the world to be benevolent benefits from robust and efficient emotion processing regions, abundant happy hormones, and high-density white matter - especially in the midbrain. Young people who grow up believing the world to be a good and safe place are laid back, relationship-oriented, and reflective. They live in a predictable world with moderate stress. Conversely, the nervous system of a person who perceives the world to be malevolent struggles with smaller and less efficient emotion processing regions, the active production of stress-related chemicals, dysregulated hormones, fewer calming receptors, and less white matter. They are competitive, hot-tempered, impulsive, extremely hyper-vigilant, or opposingly withdrawn, dissociated, and numb; they live in an unpredictable world that is dangerous and filled with continuous stress (Sander, 2016). As a result of discovering the prevalence of trauma throughout our communities and revealing the lasting and destructive effects it has on its victims, it is equally important to uncover how trauma's malignant stronghold equally affects learning and behavior.

The Impact of Trauma on Learning

We know trauma impacts learning in various ways. However, it is important to note the specific ways in which student learning is impacted by trauma. There are a few categories the research explores, including cognitive responses, which show how trauma literally impacts the brain's ability to process information without the influence of maladjusted emotions. Another maladjustment caused by trauma is how students process emotions, and the behavioral responses that come from this condition. Last, it is worth looking at post-traumatic stress disorder and how it also has an impact on student learning.

Cognitive Responses

There is a clear correlation in physiological changes to children's brains as a response to trauma. A profound and measurable relationship exists between traumatic events and their obstruction to cognitive and behavioral development regarding learning. Researchers have found that in the early months and years the brain is most "plastic" therefore, trauma experienced in the early years will impact brain development (McInerney & McKlindon, 2014). Some examples of the way brain development is hindered due to experiences with trauma in the early years include "cognitive losses, physical, emotional, and social delays, all of which undermine learning" (McInerney & McKlindon, 2014, p.3).

As children mature into adolescence, trauma continues to affect brain development. "Youth who have experienced trauma secrete higher levels of the glucocorticoid cortisol than youth with no trauma history" (Carrion & Wong, 2012, p.1). During brain development, higher than normal levels of cortisol lead to damage in the brain's hippocampus and prefrontal cortex, both of which play an essential role in new learning and memory formation (Carrion & Wong,

2012). The researchers also point out that in individuals unaffected by trauma, the hippocampus is engaged when encoding and retrieving information, which is a task essential to learning.

Youth who have been exposed to trauma experience hyperarousal in the hippocampus, forcing memories to process irregularly and abnormally. Intrusive thoughts, nightmares, suppression, inability to recall memories, and selective amnesia are all examples of hyperarousal in the hippocampus (Carrion & Wong, 2012). The prefrontal cortex also affects the brain's ability to form associations and responses to stimuli, as well as its ability to shift attention. “In healthy individuals, the prefrontal cortex supports cognitive control - the ability to filter and suppress information and actions in favor of shifting attention to relevant information and responses” (Carrion & Wong, 2012, p.524). Individuals with exposure to trauma have a difficult time sustaining attention and are easily distracted. They may also experience intrusive memories of the trauma and have a difficult time regulating fear responses (Carrion & Wong, 2012). Considering the findings that a student affected by trauma is struggling with impaired ability to pay attention, learning new things, memorizing information, responding “correctly” to stimuli, filtering information appropriately, deciphering relevant information, understanding appropriate responses, and suppressing intrusive memories, neuroscience clearly reveals there is a profound, measurable, and devastating relationship between traumatic events and their obstruction to cognitive development regarding learning.

Emotional and Behavioral Responses

Physiological changes in the brain have been scientifically proven to influence emotional and behavioral responses as well as learning, and impede academic success (McInerney & McKlindon, 2014). An example of this includes the fact that students affected by trauma often

exhibit Emotional Behavior Disorders in the classroom. The exact definition of an Emotional Behavioral Disorder can be challenging. “It’s difficult to define emotional or behavioral disorders without cultural bias” (Solar, 2011, p. 41). However, the following characteristics listed in the Individuals with Disabilities Education Act illustrate the most inclusive and comprehensive definition of an emotional or behavioral disorder:

> The defined characteristics are: (a) an inability to learn that cannot be explained by intellectual, sensory, or health factors; (b) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers; (c) inappropriate types of behavior or feelings under normal circumstances; (d) a general pervasive mood of unhappiness or depression: (e) a tendency to develop physical symptoms or fears associated with personal or school problems. (Individuals with Disability Act, 2017)

Some symptoms of Emotional Behavioral Disorders include: refusing to participate in class, struggling to stay on task, work avoidance, difficulty demonstrating verbal, emotional, and physical self-regulation, difficulty maintaining relationships with peers and teachers, hypervigilance, anxiety, debilitating depression, and a myriad of other impediments to their academic and social-emotional success in school (Rumsey & Milsom, 2019). Solar (2011) reinforces the fact that students who exhibit emotional or behavioral disorders are often misunderstood but iterates that they should not be. Solar presents a fully accurate example of the way students with Emotional or Behavioral Disorders are often misunderstood in the following scenario:

> An 18-year-old senior in high school walks into the classroom with a hood pulled over his eyes, his earbuds screaming heavy metal music, carrying no textbooks, and

> acknowledging no one in the classroom. The teacher speaks up and says, "What's up Andy?" Andy picks up a binder that was left in the classroom the previous day and before he walks out of the class quietly says, "the ceiling." Is this an example of defiant behavior or would it be considered a form of disruptive behavior? Or is this just Andy's way of saying hello? (Solar, 2011, p. 40)

This encourages educators to be aware that students with emotional or behavioral disorders may ask questions searching for deeper answers as opposed to simply seeking attention (Solar, 2011, p.42). Perhaps the student is doing both in the best way they know-how and it is up to the teacher to interpret and then direct the student by affirming the positive. For example, if a teacher generically requests a student with an emotional or behavioral disorder to be respectful during a guest speaker's presentation, the student may respond with a seemingly oppositional "Why?"- but may actually be asking in all earnest, "How?" (Solar, 2011, p. 42). This suggests that an educated response be thorough and assumptive of a desire to gain specific, helpful information. As opposed to simply responding with, "Because I told you and that's the rule," a teacher could explain how looking at the speaker and thinking of questions to ask lets the speaker know you value what they're saying (Solar, 2011, p. 42).

Out of all the disabilities, emotional disabilities are the last to be addressed because students with emotional disabilities have an invisible handicap and look normal (Hewitt, 2018). Hewitt concludes there are erroneous beliefs regarding the level of control students have over their emotional disorder, and that people believe that they could control their problem through the use of sheer will power (Hewitt, 2018, p.3). In other words, behavioral and emotional disorders are a legitimate disability and should be treated as such:

> Just like no one wakes up in the morning and says, 'I think I'll have cerebral palsy today,' no one wakes up in the morning and says, 'I think I'll be depressed today.' They just are. The students who suffer from depression or any other form of emotional disability have no more control over having that disability when they wake up than the person who has a physical handicap. (Hewitt, 2018, p.8)

Post-Traumatic Stress Disorder

The effects of trauma can also be identified in the emotions and accompanying behaviors of students exhibiting post-traumatic stress disorder (PTSD). Trauma sensitizes the brain's fear system resulting in hyper-arousal, inducing primitive behaviors such as temper tantrums and other reactive behaviors that are well beyond age appropriate. When too much cortisol is produced during times of stress, neural networks are damaged, resulting in "intrusive and persistent negative emotional memories associated with PTSD " (Stien & Kendall, 2004, p.111). The generally agreed-upon symptoms associated with PTSD include dissociation, amnesia, flooding of memories and feelings, flashbacks, numbing or feeling emotionally constricted, inability to plan for the future, poor self-esteem, tendency to self-mutilate, tendency to repeat being a victim of abuse, and depression (Foran, 2009). When the body's nervous system is in crisis, it creates a perpetuating cycle of craving a crisis to release the feeling of calm that kicks in afterward (Foran, 2009).

This information certainly helps explain how students seemingly go from zero to one hundred in a matter of seconds, but what, if anything, can an educator do to help a student who is experiencing a nervous system in crisis? According to La Doux (1996) we can rewire the brain by training the cortex to gain control over the amygdala. This most effective way to do this is by

helping students to process their trauma using many different modalities (Stein & Kendall, 2004). Routines and relaxation and meditation techniques that incorporate visual images, thoughts, movement, emotions, and sensations have proven the most successful (Stein & Kendall, 2004). We may expect students to learn these new ways to process their feelings very quickly, however, research has shown that it takes repeated efforts to learn to consciously manage feelings (Stein & Kendall, 2004).

The Impact of Trauma on Society

There are clear consequences when students' needs are not met, and the results have a tremendous impact on society when looking at dropout rates and school-to-prison pipelines. Perhaps the biggest challenge in tackling trauma is cultivating a sense of belonging and forming learning partnerships between staff and students. Yet, as stated before, when these important connections and relationships are not made, many students become further disenfranchised and simply leave their educational institutions. The choice to quit school early on has a drastic impact on the likelihood a student will experience incarceration later in life.

Dropout Rates

There is a growing concern for the increasing dropout rates in U.S. schools. As of 2016, approximately 5.2 million Americans 18-24 years old (17%) had either not graduated on time or not graduated at all (U.S. Census Bureau, 2017). Rumsey and Milsom (2019) reinforce trauma's link to school dropout rates, stating youth who have experienced trauma drop out of school at a rate of 19.79%, compared to students who have not experienced trauma dropping out at a rate of 12.97%. Actively participating in class, being on task, and demonstrating self-regulation are areas where students affected by trauma and displaying emotional behavioral disorders in the

classroom struggled to find success; yet these were the exact measures Rumsey and Milsom (2019) used to define successful school engagement. Students affected by trauma are working twice as hard to stay engaged in school. Rumsey and Milsom (2019) state that according to theories on dropout prevention, successful school engagement is fundamental.

Associated with lack of engagement are the many distractions inherent in trauma-impacted students. Rumsey and Milsom discuss how trauma-impacted children commonly experience health-related issues, distractions in education, and low attendance caused by their involvement in child welfare programs and juvenile justice systems (Rumsey & Milsom, 2019). As a result, these effects of trauma contribute to poor attendance, poor grades, and poor behavior, which eventually lead to the inevitable dropping out of or getting expelled from school as an ironic consequence of poor attendance, grades, and behavior. In fact, the dropout rate for trauma-impacted students is even higher than those with severe disabilities (Dunn, Chambers, & Rabren, 2004). This phenomenon is also statistically reflected in the *23rd Annual Report to Congress*; in regards to national retention rates, 28.9% of students with learning disabilities, 24.9% of students with mental retardation, 11.8% of students with visual impairments, and 9.5% of students with autism drop out of school compared to 50.6% of students with emotional disturbances (U.S. Department of Education, 2002). There are clear correlations between the dropout population and students who had a history of disciplinary problems in large part due to their trauma-induced behaviors. Students who had one or more disciplinary incidents, such as suspension, expulsion, and incidents with the law, were significantly more likely to fail classes and drop out (Dunn, et al., 2019) than any other student with a disability (U.S. Department of Education, 2002). This not only poses problems for each individual dropout but society.

Dropping out of school creates economic and social repercussions that have persistent, far-reaching consequences. Dropouts cost the nation anywhere from 60 to 228 billion dollars each year in welfare, lost revenue, unemployment expenditures, and crime prevention. High school dropouts also earn $6,415 less per year than high school graduates, have limited job opportunities, and are at greater risk for low-self-esteem (Dunn, et al., 2019).

If research shows that dropping out of high school has detrimental effects not only on the individual but society as a whole, educators and politicians must address the fact that more dropouts are the result of trauma-impacted, emotionally and behaviorally disturbed youth than any other group.

Clear links have also been made between the relationship of exposure to violence-related trauma to the consequent adaptation of violent behavior of those who were exposed (Kleiwer et al., 2011). In fact, a five year longitudinal Mobile Youth Study, which surveyed 349 nine-to nineteen-year old youth living in high-poverty areas in Mobile, Alabama, showed that youth who had been exposed to chronic violence were 31.5 times more likely to exhibit a trajectory of displaying chronic violent behavior themselves (Spano, Rivera, & Bolland, 2010). Kliewer et al. (2011) petition that breaking this cycle between violence exposure and resulting violent behavior is a critical social and public health goal.

The School-to-Prison Pipeline

Considering the complex and overwhelming evidence presented regarding trauma's impact on cognitive reasoning and emotional and behavioral responses (Elias, 2013) , one can see how teachers and staff who are not informed about the behaviors that accompany trauma could easily misinterpret trauma's symptoms. Misunderstanding the behaviors of trauma can lead

to profoundly serious effects when examining the use of punitive consequences versus restorative practices when dealing with misunderstood behaviors. Unfortunately, what often happens is trauma-affected students are often labeled as problem students and consequently written off, suspended, expelled, or even incarcerated for in-school behavior. School districts are pushing students out of the classroom and inadvertently into the criminal justice system at alarming rates (Elias, 2013). Statistics show that high school dropouts are sixty-three times more likely to end up in the criminal justice system than to become college graduates (Sohoni, 2017). This statistic reflects a growing phenomenon referred to as the school-to-prison pipeline.

The school-to-prison pipeline also illuminates a disproportionate tendency of minors and young adults from disadvantaged backgrounds, often including traumatic experiences, to become expelled from school and incarcerated due to rigid school and municipal policies. Nelson and Lind (2015) revealed "out-of-school suspensions have increased about 10 percent since 2000… students who have been suspended are more likely to be held back a grade and drop out entirely" (para. 2). We are learning that there is a growing connection between school discipline and juvenile detention and court involvement (Yaroshefsky & Shwedel, 2015). Trouble at school is leading students more and more into their initial contact into the juvenile justice system - even going so far as having students arrested at school (Nelson & Lind, 2015). In fact, about 92,000 students were arrested in school during the 2011-2012 school year according to US Department of Education statistics (Nelson & Lind, 2015).

New York state, among others, has begun to devote resources to try and change the culture and practice in the juvenile justice system, switching from punitive discipline to a more trauma-informed and restorative approach (Yaroshefsky & Shwedel, 2015). Research and data

"overwhelmingly demonstrate that the punitive approach that was operational for scores of years is counterproductive and dangerous, and all but ensures that these children are doomed to failure as measured by any criteria - education, jobs, family, and community involvement" (Yaroshefsky & Shwedel, 2015, p. 99). New York and other states are adapting therapeutic models in youth detention facilities including behavior management programs, and trauma-informed care (Yaroshefsky & Shwedel, 2015). The researchers state "Trauma-informed care calls for us to examine the underlying trauma in a child's life and the ways that incarceration contributes to the impact of trauma. Its implementation leads to an examination of ways to provide services to youth in lieu of punitive detention" (Yaroshefsky & Shwedel, 2015, p. 100). Several other states and districts have also begun to incorporate trauma-informed care into their schools, producing positive effects. Although there are multiple approaches to implementing these programs into schools, they are all dependent on the awareness of the need for trauma-informed care (Yaroshefsky & Shwedel, 2015).

Celebrities, philanthropists, academics, activists, and educators are more recently attaching their names to shedding a light on the importance of juvenile justice reform and the travesty of the school-to-prison pipeline. Jay Z, an influential musician and rapper, produced a documentary entitled, "Time: The Kalief Browder Story;" this poignant documentary sheds a personal light on the injustice of the school-to-prison pipeline. Kalief Browder was arrested for allegedly stealing a backpack when he was sixteen years old. Browder's story was also covered in a compelling documentary about systemic racism, entitled "13," where he was sent to the Rikers Island Prison Complex and spent three years there before he was eventually set free; Kalief did not have the opportunity to go to trial for the entire three years (DuVernay & Averick,

2016). While in prison, Kalief faced constant physical and mental abuse, and committed suicide two years after he was released (DuVernay & Averick, 2016). Before being incarcerated, Kalief was constantly cited as a "problem child" and faced many out of school suspensions by school administrators (Jean-Jacques, 2017). Kalief Browder was a victim of the school-to-prison pipeline and his story sheds a personal light on the need for more trauma-informed practices in schools, including mental health support.

The Deputy Legal Director at the Southern Poverty Law Center iterates the need for trauma-informed practices and insists that "instead of pushing children out, teachers need a lot more support and training for effective discipline, and schools need to use best practices for behavior modification to keep these kids in school where they belong" (Elias, 2013, p.3). All this ties back to the importance of addressing both students' and teachers' needs. With additional help from outside communities, and an inclusive approach regarding training and support, schools can be lifted to meet more needs for all students.

The Impact of Trauma on Teachers and Schools

Many well-intentioned teachers are leaving the field due to things like secondary traumatic stress, persistent systemic failures, or feelings of isolation, hopelessness, and depression. Case studies show how teams of supportive adults must collaboratively work together with teachers and the young people they serve to promote peaceful, productive lives (Cummings et al., 2017). Unfortunately, research also shows the current situation is not meeting the needs of the students or the teachers who work with trauma-impacted youth every day. Schools with the greatest need for qualified teachers who specialize in trauma-informed practices are the same schools that are repeatedly working to find staff to fill their classrooms (Yiu &

Gottfredson, 2013). One of the reasons for the high turnover rate and desperate need for more qualified teachers is the lack of support and training that help equip teachers to endure the emotional challenges of working with these types of young people. Lack of trauma-awareness and training in schools has major negative impacts on the teachers themselves, which in return results in a high attrition rate due to teacher burnout (Yiu & Gottfredson, 3013).

Brunzell et al. (2018) state that many teachers who quit their jobs cite student misbehavior as a reason. Unfortunately, it is the schools that require the most help that continue to lose well-intended, capable teachers. Brunzell et al., (2018) hypothesized that if sources of meaningful work can be identified, they may serve as an aid in increasing trauma-informed practices and workplace well-being. The survey concluded that teachers described their work as meaningful when their pedagogical strategies were effective for student learning; conversely, when unmet, the needs of trauma-affected students negatively impacted their attempts at effective pedagogy (Brunzell et al., 2018). When teachers were able to apply effective coping, positive relational interactions and professional identities, they recognized their work as meaningful; however, teachers' well-being decreased when secondary traumatic stress exposure and overwhelming workplace demands took precedence over everything else (Brunzell et al., 2018).

Brunzell et al., (2018) conducted a survey with eighteen educators who work in schools identified as having a large population of trauma-impacted students. The method research was based on interpretive phenomenological analysis (Smith, 1996). This adaptation of qualitative content analysis recognized teachers' voices and self-given meanings as worthy of analysis and discussion (Brunzell et al., 2018). While collecting data, four themes emerged regarding how

teachers might find meaning in their work: these included individualization, self-connection, contribution, and unification (Rosso, Dekas, & Wrzesniewski, 2010). Individualization as a mechanism of meaningful work occurs when the teacher feels a sense of self-efficacy through autonomy and control at work (Rosso et al., 2010). Self-connection as a mechanism of meaningful work occurs when one's work feels authentically aligned to the "true" self (Rosso et al., 2010, p.108). Contribution as a mechanism of meaningful work occurs when one's work contributes to a sense of significance, impact, and interconnection in something greater than the self (Rosso et al., 2010). Unification as a mechanism of meaningful work occurs when an individual feels guided by their purpose, the purpose has a significance for others, and the individual feels a sense of belonging, harmony, and social identification at work (Rosso et al., 2010).

Other research confirmed that teachers felt their well-being was at risk due to secondary traumatic stress responses from being exposed to a trauma-affected classroom. Some secondary traumatic stress responses include dysregulation, isolation, distraction, sickness, inadequacy, and distressing emotions after work (Stamm, 2010). These secondary traumatic stress responses also lead to burnout, in many cases as a direct result of the disparity between the resources and support provided weighed against the expectations demanded (Stamm, 2010). Newell and MacNeil's (2010) research concluded that teachers felt the demands of their professional environment exceeded the resources that teachers were given. Newel and MacNeil's (2010) surveys showed teachers believed they did not have enough trauma-informed training or proper support and could not balance their professional and personal lives as a result.

Time and time again, research indicated there was a consensus among teachers that their schools were complex places where the demands of the workplace were coupled with scarce resources. Unfortunately, this consensus was most prevalent in trauma-organized schools working with trauma-affected children (Bloom, 1995). In other words, multiple studies illustrated a persistent problem; teachers working in schools with high numbers of students requiring additional support were under supported themselves in terms of training and resources provided.

Furthermore, Brunzell et al. (2018) emphasized that many schools are managed in a manner that reflects that administrators are not aware of secondary adverse effects on teachers, and as a result do not provide direction, encouragement, and support for teachers working with trauma-impacted students. This suggests that teachers may need to advocate for schools to begin focusing on the wellbeing of educators whose very focus tends to be on the wellbeing of their students (Brunzell et al., 2018). Although the researchers' findings provide a road map, getting there is easier said than done. In trauma-impacted schools, systemic failures that exist from the top down regarding funding and providing staff support are prevalent, and teachers are tasked to independently correct course on their own. This lack of support combined with the pressure to meet the demands in a manner that benefits their own welfare is overwhelming for teachers; it is the root cause of high attrition rates from teacher burnout (Day & Hong, 2016). The teacher's initial passion, commitment, and resilience to serving students with high needs are unsustainable when unsupportive working conditions curb their capacity to perform at their highest (Day & Hong, 2016). This problem persists because teacher well-being isn't nurtured, resulting in high attrition rates where consequently schools are staffed with "underqualified teachers who are not

only less prepared to teach but also migrate and leave schools at higher rates than their certified peers," (Olsen & Anderson, 2007, p.6). How can schools serving trauma-impacted students remain filled with experienced teachers who specialize specifically in working with high needs students when by nature the experience itself, when unsupported, forces these teachers out? How can students, trauma-impacted or otherwise, meet the academic needs of high school when the stability, structure, and consistency so desperately needed is void? Herein lies the paramount importance of providing support for teachers, so they can balance professional demands with their personal wellbeing.

When addressing the issue regarding whether or not schools could adequately identify how trauma affects learning, every source agreed that the needs of the students could not be met without a proactive, collaborative, and coordinated approach (Cummings et al., 2017). This involved creating awareness first and foremost in how trauma impacts learning followed by multi-tiered training of staff in identifying the needs and applying the strategies necessary to accommodate all learners. This is especially true for those impacted by trauma as well as the rest of the school's community (Cummings et al., 2017). Many studies illustrated the importance of school staff to create trauma-informed schools along with educators - primarily teachers - being equipped with strategies to effectively facilitate trauma-informed classrooms.

If the issue of trauma is neglected, its negative impact on schools goes unaddressed and, more importantly, an opportunity is missed. "By understanding and responding to trauma, school administrators, teachers, and staff can help reduce its negative impact" (McInerney & McKlindon, 2014, p. 1). Whether schools practice promoting awareness on the issue of trauma or instead choose to focus on managing observable behavior without identifying the underlying

causes has no relevance to trauma's prevalence. In other words, regardless of the level to which schools address trauma, the trauma still exists and can have a tremendous impact on learning for the individual as well as the classroom (McInerney & McKlindon, 2014). Without the necessary tools required and support needed for processing powerful responses, most trauma-impacted youth will disrupt classroom flow on a regular basis.

Successful Trauma-Informed Practices

At the heart of addressing trauma and its impact on education is the learning partnerships formed between teachers and students. Practices that support the teacher and the student have shown to be the essential ingredient in addressing trauma. Due to the amount of time teachers spend with students every day, teachers tend to have the closest relationship with all students, including those impacted by trauma. So, bringing in specialists that can promote best practices for the teacher, while also providing support as the teacher continues working with trauma-impacted students helps to alleviate the isolated sense of hopelessness many teachers experience. There are also new strategies that have come forward in addressing the students' needs beyond traditional one-on-one dialogue. There are new creative ways to activate the whole brain through other forms of expression, including expressive writing, music therapy, and dramatherapy. These approaches, although proven to be beneficial, are only being used in limited areas and with limited scope. It's important to focus on and foster these learning partnerships from the outside in, and case studies show how effective certain approaches can be in supporting both student and teacher.

Providing Training and Support

To implement successful trauma-informed practices in schools, teachers need more training and support. Most districts do not provide systemic, in-service training to prepare staff, students, and community members; as a result, educators are not equipped to work successfully to meet the needs of EBD students (Hewitt, 2018). Hewitt states that teachers (even those certified in special education) were not required in the state of New York to take a course in classroom management until the beginning of the school year in 2001; and they are still not required to take any coursework in a specific disability area, even at the master's level (Hewitt, 2018, p.4). She believes schools and communities using the proper interventions will aid students with emotional disabilities to achieve a high degree of success (Hewitt, 2018, p.8). Suggestions for successful intervention include:

> Assessing and discussing the questions, beliefs and concerns of all parties involved before the students arrive, providing basic level training for all members of the school community in what emotional disabilities are and strategies to deal with these, hiring trained staff and providing in-service training and support on the job, providing advanced level training for those most responsible for helping students with EBD learn how to compensate for their disability, hiring full-time professional staff, proactively examining policies and procedures and discussing what reasonable accommodations may be required, consideration of environmental factors and encouragement of continual open discussion to talk about successes, problems, concerns and questions. (Hewitt, 2018, p. 20)

Perhaps one of the most glaring omissions in schools today is the absence of any staff member who can be the expert on providing the support necessary for EBD students. Research echoes the importance of having at least one expert or professional in fostering trauma-informed environments (Cummings et al, 2017). The importance of collaborating with healthcare workers to support training and implementation will be outlined further when looking at successful trauma-informed schools. With that said, Cummings et al. (2017) found that service providers who realize the impact of trauma and recognize the signs of trauma can respond by integrating knowledge about trauma within the environment. Service providers who can actively combat the re-traumatization of individuals with a history of trauma are essential for helping teachers and other staff within a school implement school-wide, effective approaches (Cummings et al., 2017).

To guide the training and implementation of a trauma-informed school, research indicates a key component in providing direction and assessing success is data-collection. This is usually in the form of a needs assessment. Usually conducted through surveys given to the students, this information steers content for workshops and gives guidelines for approaches (Anderson, Blitz, & Saastamoinen, 2015). These surveys also help target effectiveness, whereby school-wide implementation of prevention and promotion strategies can be assessed and used to guide additional professional development for teachers (Cavanaugh et al., 2017). In other words, an effective trauma-informed school must conduct a comprehensive restructuring, and proper training and support must be provided before strategies can be discussed.

Implementing Health Care Framework and Multi-Tiered Support

One of the most essential components regarding coordination is direct support from and collaboration with professional healthcare workers. Numerous case studies illuminated that when professional healthcare workers were directly involved in the training and support of implementing a multi-tiered system in trauma-affected schools, students demonstrated improvement and teacher burnout decreased (Fondren et al., 2020).

Research validates using a public health framework in schools where trauma is prevalent. In fact, a multitude of studies have shown using a public health framework will promote prevention, early identification, and data-driven investigation and yield broad-based intervention on a policy and communitywide level (Chafouleas et al., 2016). Considering how detrimental traditional, punitive approaches have been shown to be, it is also interesting to consider how very few traditional approaches in the past searched for underlying causes. Restorative practices and strategies are being enacted throughout more schools across the country. However, in many cases these strategies attempt to understand behavior and restore relationships but fail to deeply examine the true root of the problematic behavior (Lepore, 1997). With the help of professionals in the fields of psychology, child development, and more, we see a level of assistance for educators that encourages best practices and alleviates stress on the teacher.

Most successful trauma-informed schools work directly with healthcare professionals when training teachers and other staff. One successful pre-K case study illustrates “the provision of a multi-tier intervention that involved teacher training and consultation with certified therapists, peer mentoring, and individualized interventions for trauma-affected students referred by teachers” (Fondren et al., 2020, p.9). This model reflects that teachers are not left alone after

their training; in fact, the same healthcare professionals conducting the training also provided assistance when teachers were put in a position where they needed to use these new skills. Even if teachers were provided additional training during their education, one should not expect that they would be experts in a field that traditionally lives outside of education. Although the field of education itself is shifting towards requiring a myriad of skill sets outside of teaching, with a focus on social-emotional learning now more than ever before; dealing with trauma effectively requires a completely separate skill set in and of itself. Therefore, the support from the healthcare community is so essential for the proper implementation of trauma-informed strategies while also assisting the teacher with continued assistance. A recent study conducted in an elementary school "incorporated policy changes, consultations with trauma-focused mental health professionals for student disciplinary plans, and individualized interventions for students suffering from trauma exposure within the school setting" (Fondren et al., 2020, p.9). These specific policy changes and disciplinary plans are made in coordination with healthcare workers so that both fields can come together to address both the academic and emotional needs of the students. Again, based on the extent to which social-emotional learning has been brought to the forefront, we see the need to put a student's wellbeing ahead of their academic progress. This rings true in all schools, not only the ones with a high rate of trauma-impacted youth. However, in schools with high rates of trauma, research shows it is essential to have outside support from professionals in healthcare (Fondren et al., 2020).

A public health approach that provides direct instruction and assistance from health care professionals best equips educators to provide professional support, focusing not only on how to develop interventions - which is an important component in this model - but also seeking out the underlying explanations for social, emotional, and cognitive maladjustment (Frydman & Mayor,

2017). A public health framework is inclusive and opens dialogue with the entire student population, providing the groundwork for psychoeducation, assessment, and prevention. (Frydman & Mayor, 2017).

Most teachers are aware of the many hats they wear, and at first glance it might seem unreasonable to expect them to perform the same function as child psychologists or other professionals. However, teachers are already expected to act as psychologists every time they develop relationships with trauma-impacted students or redirect behavior and manage classrooms. Bringing in people who are experts in mental health lessens the burden on the teacher and results in better approaches (Fondren et al., 2020). The public health framework enables educators to stay ahead of the behavior as opposed to dealing with them reactively.

When healthcare professionals could provide aid, many successful programs implemented in trauma-informed schools used a multi-tiered approach. In most case studies reviewed, three tiers were implemented, although the tiers sometimes targeted and outlined different issues and goals. A nonexclusive approach includes universal dissemination as the foundation on the lowest part of the pyramid (tier one), while the next level focuses on targeted dissemination (tier two), and the pinnacle of the pyramid addresses individualized dissemination (Fondren et al., 2020). The three tiers allow for professional development for all staff and general skill-building for all students as the foundation; at the middle are structured programs for students who are at-risk; and individual support is provided at the top for students who have been severely affected by trauma. These approaches are also addressed at every level within the school, from the administration on down. In fact, one of the goals of the administration is to address behaviors without removing school resources from the student (Fondren et al., 2020).

One of the purposes of providing these different tiers (or approaches) is to integrate various forms of support for various degrees of severity where trauma is concerned (Fondren et al. 2020). When examining student needs, research has shown the need for a plethora of approaches. Assisting students on multiple levels ensures each individual student will receive the proper amount of attention and care as it relates to their unique situation.

Unfortunately, most schools are not using a multi-tiered approach even though studies have shown their success rates to be much higher than those that do not. In an article examining sixty-three case studies of schools that are working with trauma-informed strategies, only eight were classified as multi-tiered (Fondren et al., 2020). Yet the two most essential components are support from professional healthcare personnel and using a three-tiered approach.

The last essential ingredient for successful trauma-informed schools is relevancy when it comes to training. In their study across six New Orleans schools and 210 participants, researchers looked at the relationship between acceptability and how it fit the system (McIntyre, Baker, & Overstreet, 2019). While observing and scoring "teachers' approval and enthusiasm for implementing trauma-informed approaches...higher scores indicated positive perceptions of acceptability" (McIntyre et al., 2019, p.98) and were directly related to whether or not the teachers felt the training had real application in their classrooms. In this case, the two-day training was centered on the four criteria outlined by SAMHSA (Substance Abuse and Mental Health Services Administration) and borrowed from existing trauma-informed programs that had shown success. Screening knowledge scores from before and after the training results showed how significant teacher buy-in was in relation to how much knowledge they had gained over the training period (McIntyre et al., 2019). As stated above, most teachers are eager to get as much

support as possible when addressing trauma. Due to a relatively high level of desire to learn more and have more support, the pre- and post-training reflect the staff development was successful. Due to the fact that schools are essentially "ground zero" for addressing this problem in a way not found anywhere else, providing information on multi-tier approaches and allowing healthcare workers to participate ensures what is already considered to be an essential skill for teachers to be adequately addressed. The hope is that these skills will foster learning communities and the building of relationships necessary to support trauma-impacted youth.

Building Relationships and Social-Emotional Learning

At the heart of addressing the diverse challenges students bring with them to school is the relationships they form with the staff within the school. In fact, the importance here is not just limited to trauma-impacted students; research shows attempts to build relationships with students is not only the most important missing ingredient in our educational system, the absence of connection, association, or a feeling of belonging is the largest cause of dropouts overall (Ayalon, 2011). Studies indicate students with various traumatic experiences benefit from learning to make connections between themselves and others. Hewitt (2018) explains that in an educational environment there is not enough emphasis put on training and providing educators for this daunting task despite it being the single-most-important factor (Ayalon, 2011). Many students come to school with stored anger, anxiety, or an inability to understand and respond to their emotions. Having spoken with many elementary school teachers, it is clear there is much more focus on teaching social-emotional learning at a young age. Yet, any teacher in a high school with a high number of trauma-impacted students will tell you there is a continued need to address social-emotional learning. Researchers have found evidence that supports teachers'

opinions regarding the need to incorporate social-emotional learning in classrooms. Meta-analytic literature reviews reveal that about 65% of students with emotional-behavioral disorders show improvement after being provided with interventions focusing on social skills (Gresham, 2014).

The importance of social-emotional learning has been emerging more and more over the last ten years. Many randomized controlled trials (RCTs) have shown the significant, transformative results of addressing those specific needs, yet early studies showed mixed results. (Gresham, 2014). Regardless, these early studies, as well as the ongoing studies being conducted, are important when considering how emotional needs must be met before academic goals can be achieved. Early trauma has a significant effect on self-regulation of behavior and attachment, as well as brain development (Carrion & Wong, 2012). Considering the evidence, targeting student growth academically while neglecting the social-emotional needs is not only detrimental to a substantial number of students' academic performance, it actually hinders or even prevents the learning process from taking shape (Carrion & Wong, 2012). While it is quite possible for students to learn, and in turn use their learning to understand themselves and their experiences, it's simply asking too much and, more importantly, avoiding an opportunity for neural change.

Goleman (2014) defines neuroplasticity as "the brain's ability to continually grow and shape itself through repeated experience" (p. 2). From a young age, children's brains are sponges, and throughout their formative years as students, there are countless opportunities to teach social-emotional learning in order that they will be more self-aware and understanding of their feelings. In an elementary classroom, this can be an activity as simple as naming emotions as illustrated with faces on a handout. At the high school level, this process might come from

mediations and the restorative process. However, if recognizing one's emotions while learning to seek understanding, as opposed to solely seeking to be understood, were done through activities built into the coursework of every classroom and facilitated by well-trained teachers every day, the continuous nature of that inner understanding would promote tremendous growth not just academically, but socially as well. In short, it would help students live happier lives. The sooner this type of learning can start, the better. "Particularly during our early years, our experience - and the neural networks this activates - either strengthens this circuitry or winnows it" (Goleman, 2014, p. 3). However, studies show it's never too late, "The brain is the last organ of the body to become anatomically mature; it doesn't take its final shape until the mid-20s." (Goleman, 2014, p. 3). Again, high school educators who are trained with the necessary tools to address social-emotional learning, self-awareness, and how to process trauma in a healthy way will be one of the most important mentors to their students, as long as they also have the natural ability combined with training to build relationships with the students themselves.

Engaging the Right Side of the Brain

For decades, psychologists and neuroscientists have debated about the relationship between the analytical centers of our brain and the emotional centers (Foran, 2009). In contrast to logical thinking, verbal communication is not the only way to help trauma survivors heal from their experiences. Instead, it has been proven that working with the right side of the brain improves social interactions and relationships for students suffering from trauma (The Right Brain and Healing Trauma, 2019). When a traumatic experience occurs, the right side of the brain does the processing and the left side of the brain shuts down (The Right Brain and Healing Trauma, 2019). Dr. Bessel Van der Kolk performed a study in which he analyzed the relationship

between trauma and memory. Van der Kolk (1994) used Functional Magnetic Resonance Imaging (FMRI's) to learn how the brain functions during activity. Trauma survivors were asked to lie inside an MRI machine while the researchers would ask them to recall traumatic memories to find out where their brain was being stimulated. The researchers found that the right side of the brain activated while the left side of the brain shut down completely. As a result, trauma survivors were not able to put into words or logic what happened to them (Van der Kolk, 1994). One study explains the reasoning behind this is a result of the loss of executive functioning (Van der Kolk, 1994). A second explanation for this phenomenon is that "People with traumatic memories reduce their healthy interactions with others. The right side of the brain develops our relationships… our ability to empathize with others, trust others, identify with them, read emotions, form healthy attachments, and know non-verbal communication" (The Right Brain and Healing Trauma, 2019, para.3). Children who have experienced trauma may have difficulty with social interactions if the traumatic memories teach the right side of a person's brain (The Right Brain and Healing Trauma, 2019). The researchers state, "Practitioners in settings with trauma survivors should focus on the activities which are right brained in nature. Less talk, more doing" (The Right Brain and Healing Trauma, 2019, para.4). They recommend incorporating activities such as art, drama, poetry, journaling, psychodrama, dancing, and movement. These activities help a trauma affected youth feel like a whole person by integrating mind and body - combining the right and left side (The Right Brain and Healing Trauma, 2019).

Currently, there are three arts-related interventions that have been proven to activate the right side of the brain and tremendously benefit students suffering from the burdens of trauma by giving victims ways to retell and reshape their trauma experience into a memory they can accept (Lepore, 1997). Using expressive writing, music, and dramatherapy, researchers and

practitioners are finding unique and creative ways to holistically approach trauma beyond traditional methods.

Expressive writing. Expressive writing is an example of an intervention that meets the criteria of helping youth manage their affective, cognitive, and behavioral responses (Lepore & Smith, 2002). There was an extraordinarily successful expressive writing intervention pioneered by Dr. James Pennebaker whose results proved to provide extensive mental and physical health benefits (Pennebaker & Beall, 1986). There are different theories on how expressive writing improves psychological and behavioral adjustments to stressors. One theory introduced by Lepore et al. (2002), concludes that expressive writing facilitates emotion-regulation processes. They found that writing about stressful experiences and the emotions that are associated with those experiences, individuals can regulate their emotions by focusing on different aspects of the experience and their responses. This can help them desensitize their internal memories of those experiences and cognitively reappraise them. When expressive writing, individuals revisit events they might normally avoid thinking about. When they experience these events through habitual writing, they learn to look at the event in less threatening ways (Lepore, 1997). Imagine the benefits of practitioners of this field of study working with educators, especially Language Arts and Creative Writing teachers, to help train and facilitate this therapeutic writing approach.

Studies surrounding Expressive Writing Theory show how using expressive writing as a form of communication can help trauma-impacted people process in ways separate from verbal communication. Researchers reason that “expressive writing could potentially increase emotional regulation and reduce aggressive behavior in at-risk youth” (Kliewer et al., 2011, p. 694). Using Pennebaker’s written emotional disclosure paradigm, Kliewer et al. conducted four trials in a

school setting with nonclinical populations and found benefits of expressive writing on internalizing symptoms such as anxiety. They also found that when students were in the expressive condition they were more optimistic and less negative relative to students in the control condition; students in the expressive writing condition had significantly lower levels of anxiety symptoms relative to control students (Kliewer et al., 2011). Expressive writing has been proven to be a powerfully successful intervention regarding reducing levels of anxiety, regulating emotions, and reducing aggressive behavior (Kliewer et al., 2011). Kliewer and her colleagues concluded that the only drawback to expressive writing interventions is they are not being embraced as widely and aggressively as they should be; their research shows the benefits of this approach and the benefits of using it on a larger, more widespread scale (Kliewer et al., 2011).

Music Therapy. Music therapy was first used in the United States to treat returning veterans of World War II for rehabilitation purposes (Foran, 2009). Before post-traumatic stress disorder (PTSD) was given its official term, music as therapy was being used to treat patients with currently accepted symptoms of PTSD such as traumatic brain injury and battle fatigue (Sacks, 2007). What is interesting is that the positive effects up until this point were only observed through behaviors, and the cause of music being an emotional experience was still largely a mystery (Sacks, 2007). Regardless, the positive effects were clear. When focusing on adolescents who have experienced trauma, a 2004 study showed that trauma's impact on the brain was associated with challenges in regulating emotions, behavior, and concentration as well as loss in verbal memory (Stein & Kendall, 2004). Meanwhile, work with music has proven to be helpful in cases of trauma (Stein & Kendall, 2004), yet the origins as to why it is so powerful

still remain a mystery with the exception between the relationship with music and memory. So why is this research not reflected in our K-12 school music programs?

In 2006, a neuroscientist and former musician named Daniel J. Levitin conducted a study on how music affects thoughts and emotions. Levitin found that music engages the sensory areas in the brain, aids their differentiation and development, and plays a key role in language development (Levitin, 2006). Music activates more parts of the brain than almost any other activity. In fact, although associated with the right side of the brain, music activates both hemispheres of the brain, allowing information to pass from one side to another (Stein & Kendall, 2004). Considering the way trauma manifests itself in deep parts of the brain, activating those parts might prove helpful in surfacing dramatic experiences. Considering the brain's pathways are wired to hear music and improve feeling (Levitin, 2006), combining music with the difficult reflection associated with trauma might be safer than any other method. There are a multitude of case studies where children with a history of trauma who had previously responded negatively to conventional therapy became more engaged and opened up when music therapy was used. However, most teachers aren't trained in music therapy, which is why it's imperative for musical therapists and schools to unite and to create programs that can be implemented in schools to foster this scientifically proven magical key to unlocking trauma's stronghold.

Drama Therapy. The third approach combines all the elements associated with acting, theater, and drama with therapy. Drama therapy is "a unique form in which creativity, play, movement, voice, storytelling, dramatization, and the performance arts have a central position within the therapeutic relationship" (Leigh, 2012, p.4). One of the most exciting things about drama therapy is that it deals both in individual trauma and collective trauma, where the latter

shows great promise in areas where trauma exists in epidemic proportions. Traditional approaches to trauma are considered suppressive, which focuses on symptoms and reducing their onset and effect (Sajnani & Johnson, 2014). More recently, trauma has been treated expressively, where patients are encouraged to express positive and negative emotions openly (Sajnani & Johnson, 2014). Drama therapy draws from both suppressive and expressive approaches; however, when expression is the focus it can be dangerous when not conducted and handled properly (Sajnani & Johnson, 2014). This is yet another reason it would be essential to bring experts into schools to help with the implementation. So, what does drama therapy look like in action? Sajnani and Johnson (2014) provide an incredible description:

> Therapeutic theater productions, in which traumatized clients develop and present a play about their experiences or confronting a social ill, almost always perform their play (1) a few times; (2) to an audience consisting of their families, staff members, and supportive guests; (3) with little attention to discovering or measuring the degree to which the audience members' attitudes have been changed by the production. (p. 18)

Although this description is not definitive nor specific to schools, a modified approach using the same strategies could be applied. The concept is hardly new. Drama therapists have been working in schools for over twenty years (Leigh, 2012). In areas where this approach has shown the most success is when the drama therapist works "in schools alongside and in tandem with teachers" (Leigh, 2012, p.4). In fact, a large portion of drama therapists work directly with students in schools (Leigh, 2012). The work they do is metaphorical, and sessions use many different approaches including games, storytelling, drawing and painting, and the use of materials to create stories and plays (Leigh, 2012). In many cases, the activity does not have to

target a specific student's trauma but can be a collective way of addressing a particularly common occurrence of trauma. The key here is what drama therapy provides; it is "an ideal medium to explore the difficult, painful issues, to build resilience in children and young people" (Leigh, 2012, p.6). Although it has been around for quite some time, like the other forms of art therapy, it is not commonly being used throughout education. "This underuse of drama therapy in our schools is notable and disappointing, particularly when there is growing evidence of its value and benefit" (Leigh, 2012, p.262-3).

When exploring creative approaches towards dealing with trauma, and considering how comprehensive the approaches must be if intended to produce real, measurable outcomes, the opportunities that expressive writing, music, drama and many other arts-related therapies offer along with the benefits of activating the right side of the brain appear to be revolutionary. Because trauma affects all areas of the brain, the right side of the brain must also be incorporated in conjunction with the left when processing trauma in a controlled, healthy way. Aside from trained educators doing their part, therapeutic measures should be advanced with specialists who focus on artistic, expressive ways to process feelings associated with trauma, as well as feelings associated with overcoming trauma. Again, it is a collective, collaborative, and comprehensive approach. And it is the only way the persistent prevalence of trauma will be adequately addressed.

CHAPTER III: DISCUSSION AND CONCLUSION

Summary of Literature

This literature review sought to look at the prevalence of trauma in schools and how best to support students and the teachers who work with them every day. The issue of trauma in young people requires an all-hands-on-deck approach. Because the causes and effects of trauma do not exist solely within a classroom, nor should the strategies used to address it. As teachers continue to struggle with the weight of trauma affected youth, schools are encouraged to reach out for support from outside professional communities, including health care professionals, and art therapists (Fondren et al., 2020.

Perhaps one of the most astounding standouts in the statistics is the prevalence of trauma. By the age of nine, 13% of children will have encountered not one but four traumatic events, with that number escalating to 79% for adults (Cummings et al., 2017). Using measuring metrics like ACEs, the need to address trauma is clear, yet many schools are still operating as though teachers will be able to combat the epidemic in the classroom without additional support beyond social workers, counselors, and behavioral interventionists. However, there is a need for intentional, prepared approaches rather than responses aimed towards targeting behaviors. Due to the current inadequacies in schools, we see a strong correlation between trauma, dropouts, and crime. Many districts have now been coined as “school-to-prison” pipelines.

Some schools are incorporating the right type of interventions with a proactive, inclusive approach by bringing professionals from outside the educational community into schools to help both students and teachers using a multi-tiered public health model (Frydman & Mayor, 2017). To understand the needs of each school, a key component is data-collection, whereby support

can then be provided specifically for the areas of concern (Cavanaugh et al., 2017). In all cases, when a healthcare professional could come into the school to train and support the staff, while implementing a multi-tiered approach, results showed improvement in overall student health and teacher wellbeing.

At the heart of proactively dealing with trauma in young people is teaching them the social-emotional skills to live happy lives. Social-emotional learning (SEL) is one area of education that has come to the forefront and begins at an early age in elementary schools. The strategies associated with SEL target the emotional needs before addressing academic needs.

Moving forward, three types of art therapy are complimenting current strategies while using completely new approaches (Lepore, 1997). Using written expression, music therapy, and art therapy, research shows we can target more areas of the brain and go beyond traditional methods to address the problem in other ways (The Right Brain and Healing Trauma, 2019). Ultimately, the goal is for schools to be more creative and inclusive when looking for strategies and support.

Professional Application

What exists in schools throughout the United States currently is not enough in addressing trauma. This is made clear by the persistent failures to meet the needs of trauma-impacted students as well as the rate of teacher attrition and subsequent turnover in certain areas. More training and more intentional strategies need to be administered from the top down, and they must be proactive like the SEL strategies that start early on in education. A collaborative, comprehensive reform must take place that includes healthcare professionals and other specialists.

Compelling evidence in case studies have demonstrated how engaging the healthcare community to work directly with educators will provide the necessary skills to assist in addressing the trauma epidemic (Frydman & Mayor, 2017). Minnesota is one of the leading locations in the world in terms of health care including housing The Mayo Clinic, Medtronic, and 3M. How can trauma-informed schools profit by taking advantage of the amazing professionals who work in our communities and are willing and eager to help? Lack of incorporating healthcare professionals such as therapists and psychologists into schools regularly has been brought to light as a missing link in progression toward healing the trauma epidemic in schools. Utilizing healthcare professionals can reduce the burden on teachers and provide students with more resources as a variety of professionals and experts become available to help them. Professionals could literally work alongside K-12 teachers in a transparent way that reflects the value of social-emotional learning and self-awareness for both students and their educators. From elementary school on, when concepts such as SEL are addressed not as a secondary response to traditional academia but as a necessary part of the student's development, students' awareness of their emotional needs will become more intrinsic and consequently they will become empowered to take more ownership of their feelings.

It is also important to provide opportunities for young people, especially in urban communities, to express themselves and guide them in healthy manners of expression. In a controlled, safe environment, students can learn to discover how to communicate their experiences and manage their emotions in new ways, which will replace the negative habits caused by trauma such as play fighting, foul language, and other forms of lashing out. The stored anger is there, yet with the help of therapists providing artistic and creative ways to interpret

emotions such as fear, pain, and anger, students will become healthier in their manner of expression.

Current developments in trauma informed practices continue to be limited in scope. Schools that address the behavior, while also providing social work and counseling, are still addressing the issue from a reactive position. Yet trauma is everywhere. It is a constant we know exists in all communities and schools. Everyone who works in education should expect trauma will find its way into every school and every classroom and have an impact. Due to the inevitable existence of trauma, schools should begin to proactively focus on how to set up the necessary frameworks and structure for supporting students impacted by trauma. This includes having at least one professional, full-time "trauma specialist" who has access to healthcare workers, therapists, and other qualified individuals to help bring creative approaches to school staff in advance. If every school had a professional "trauma specialist" whose sole purpose was to provide training and expertise to the rest of the staff, while having the aforementioned access to outside support, this would be a successful preemptive measure taken towards tackling trauma before its impact can override all other efforts in education. This position is the missing link that would work with teachers, social workers, and other educational professionals.

Limitations of the Research

The research for this literature review focused primarily on urban populations and did not explore suburban areas much nor did it investigate rural populations. The reasoning for this was due to numbers and demographics. Urban areas provide a greater sample size when looking into the issue of trauma. In fact, where we see the highest number of secondary trauma in teachers is

in urban schools. There are also a larger percentage of minorities in urban areas, which tend to be an underrepresented group in most cases, yet unfortunately this is not the case where trauma is concerned. It is worth noting the prevalence of trauma in suburban and rural areas is not addressed specifically in this paper, despite its existence being described as everywhere.

Specific strategies for teachers were also not researched because the focus of the paper was on how to provide additional resources for teachers as opposed to looking into what teachers could do better. So, although training was mentioned regarding providing teachers additional support in terms of instruction and self-care, the specific approaches were not included. The focus instead was concentrated on the idea that bringing in healthcare professionals and other specialists would result in specific strategies not mentioned.

Educational policies implemented at the national and state level were not included as well. Initiatives such as the Every Student Succeeds Act, signed into law by former President Obama, which replaced No Child Left Behind, is a relevant and comprehensive initiative. However, reforms in the past have resulted in little to no change where the persistent failures in urban schools are concerned, and in some cases created more barriers in already low performing schools where the majority of success is measured with biased standardized tests. There continues to be huge gaps in performance between white populations and minority populations. In fact, Minnesota has the largest racial gap in terms of academic performance in the entire country.

The research also did not investigate the racial demographics of trauma-impacted youth. Because minorities continue to be underrepresented, the expectation was that there would be larger percentages of trauma-impacted youth among minorities.

Implications for Future Research

In further studies, more research on measuring social-emotional intelligence versus academic performance would incentivize schools to explore non-traditional interventions such as art therapy. Having explored how powerful art therapy is in processing trauma, one must ask why schools are not utilizing these creative strategies more. Current and conventional "trauma toolkits" seem to only scratch the surface of processing trauma, acting as a band-aid versus healing wounds that have been inflicted by trauma. Written expression, music therapy, and drama therapy can repair and rewire a trauma-affected student from the inside out using all parts of the brain. Aside from case studies, there was little to no comprehensive data to show the impact of art therapy in schools across the country, because these methods simply are not commonly used.

Additionally, how different cultures perceive different forms of trauma might shed light on why trauma is prevalent in some communities more than others. There might also be generational gaps between what is perceived as trauma. Further research on trauma and how it relates to different demographics might help when allocating future reform.

Conclusion

Educators work on the front line dealing with the many issues young people face today caused by trauma. As students form essential learning partnerships with their teachers, these relationships can only be sustained with support. It is essential that administrators and leaders in education bring more resources and qualified professionals into schools to directly provide the right types of care and support for trauma-impacted students, as well as train and assist teachers

in providing support to students while practicing their own self-care. Trauma must be addressed proactively and holistically by a team of specialists in various fields using social-emotional learning strategies and various forms of trauma therapy. By bringing together a “village” of collaborative professionals invested in supporting young people who have experienced trauma, schools can become a place where students are no longer lost, but they are found.

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