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Trauma in the Elementary Classroom

by Leah Seal-Gray

A capstone submitted in partial fulfillment of the requirements for the degree of Master
of Arts in Teaching.

Hamline University

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CHAPTER ONE

Introduction

Introduction

The Center for Disease Control (CDC) (2020) reports that about 61% of adults report experiencing at least one kind of ACE (Adverse Childhood Experience), and 1 in 6 report experiencing multiple kinds. Impoverished and minority children experience ACEs at an even higher frequency (Maguire-Jack et al., 2020; Rawls, 2010). Trauma shapes those childrens' classrooms, sometimes in heartbreaking ways.

The following subsection, "He Won't Qualify for Special Ed," describes my personal experiences working with traumatized students. It provides the personal and professional context for my research question, and grounds its significance in the real life example of an acutely traumatized kindergartener whom I had the privilege of teaching. I've assigned him the pseudonym Marcus. The final section of this chapter provides a more formal rationale for my research question, and describes the content of upcoming chapters.

He Won't Qualify for Special Ed.

"He won't qualify for special ed," was the introduction and conclusion of every discussion about the student I will call Marcus. What that meant was that he qualified for nothing. No aids, no pull-out programs, no one-on one-attention. He could access only what resources were already spread too thinly across the rest of the school; our overburdened guidance counselor, our principal, our maximally yet insufficiently staffed

behavior team. It meant that in our classroom, my cooperating teacher Lisa and I were alone.

What could we do? How could we teach him, and have enough time and attention left over to teach our other twenty some kindergarteners? How could we ensure that he felt loved while everyone else felt safe? And when my student teaching placement ended in just a few months, how could Lisa manage by herself? In this Capstone project, I searched for an answer. Hence my research question, *What can individual elementary school teachers do to facilitate the success of traumatized students in their classrooms?*

Marcus entered a new foster home the week before he started kindergarten. Luckily, this foster mother was extraordinary. Several others had already failed him. We were never sure how many times he'd been relocated in his five short years, (estimated between three and seven), or what he'd experienced at the hands of various relatives and strangers. We could see now, though, that he was constantly hyperactive, frequently violent, extremely intelligent, and fundamentally sweet.

He was a child desperate for attention and control. Hurting other students was a way to meet those needs, and he did so intentionally, invading their space, pulling their hair, shoving them, and throwing scissors, or chairs, or anything else he could find. He was also fragile, with an oversensitive fight-or-flight response that would completely overtake him. Once triggered, he would lash out, attempt to destroy whatever was in sight, and attack whoever removed him from the room. Thankfully, he was too small to cause real physical harm to an adult, although once his nails broke Lisa's skin.

At night, he was afraid to close his eyes.

Lisa and I fell deeply, unconditionally in love with him. It was easy to adore his bright smile, his inquisitive mind. He was eager to learn, even if he was not necessarily eager to engage with the lesson. And he was agonizingly sweet. Desperate for nurturance, he would climb into my lap (or my arms, if I was standing). He would press his cheek to mine, or nestle his head in the crook of my neck, and cling, and cry. We received special permission from his social worker and foster mother to pick him up, because physical touch was often the only means of soothing him.

“He’s a good kid, beneath all that icky nasty trauma,” Lisa said to me. Empathy may have been unfamiliar to him, but he connected with the other children in the transient way kindergarteners do. His play was intoxicating, visionary, and ambitious. His marbleworks tower could touch the ceiling. He made a life-sized dance floor out of blocks, and made good use of it. These projects were prone to technical problems, mostly due to the nature of his building materials, but he persevered. His drawings expanded to fill their space, and were full of twisters and scribbled colors and siblings and “I love yous”. He depicted magnificent stories of parades and festivals and costumes and fireworks, of rollercoasters and cotton candy and company, the believable yet extraordinary experiences that young children treasure.

Lisa and I told all of our students that we loved them, and meant it. Marcus was one of the few who said it back.

As Marcus adjusted to his new classroom and foster home, the behaviors began to improve. Then they got worse again. There was a metal case with a glass window that contained a fire extinguisher, right at his eye level. He loved to play with it when he was

supposed to be taking a break; banging on it, opening and slamming the door, feeling the smooth cold cylinder of metal inside. In January, he punched his tiny fist through the pane of glass. The explosive shatter frightened him, but somehow, he wasn't cut. Lisa and I were upset, but not particularly surprised. Something like that had been a long time coming. But Marcus was surprised, not only in the moment, but the next day.

“What happened?” he asked, sticking his hand through the empty metal frame. I stared, shocked at his genuinely puzzled expression.

“Honey... you happened.” He blinked at me, looked back at the case, waved his hand in the freshly emptied space. The custodians had cleaned out the broken shards, so it looked as if the glass had just disappeared.

“What happened?”

“You happened. Don't you remember?”

“Where did the glass go?”

“Honey...”

“Oooohhhh!” Realization dawned on Marcus's face. He pulled his fist back, punched it through the empty window. “Pchhhoowwww!”

I sighed at the self-satisfied grin brightening Marcus's face. Whatever shock and fear he'd felt had evaporated along with the original memory of the experience.

Adverse childhood experiences, and other varieties of trauma, alter us on a neurological level, (Perry, 2009; van der Kolk, 2003, 2005). They transform our internal landscapes, and thus change how we experience the world. An example of this neurological change is dissociation, an experience characterized by a sense of detachment

from reality. It can result from trauma, acting as a protective mechanism against toxic stress. Dissociation sometimes results in memory loss.

This was not the first time we'd seen Marcus dissociate. Lisa had previously noticed that he seemed surprised by his own messes. Once triggered, he was so overwrought by his fight or flight response that he forgot he had tossed all those milk cartons on the floor, or those crayons, or that basket of folders. Or smashed his fist through glass.

Marcus' experience of trauma was especially severe, his behaviors especially disruptive. There were only a handful of other children, besides his siblings, who displayed similar behaviors. But trauma manifests differently in different children, (Perry, 2009; van der Kolk, 2005).

When confronted with an unfamiliar and angry guest teacher, a different student tucked herself between a cabinet and a wall in a space barely wide enough to fit her shoulders, which are narrow even for her age. It took me ten minutes to coax her out. A third student of mine walked into class and burst into tears more than once. She'd panic if she lost sight of her older brother in the breakfast line.

The elementary school these students attended is called, for the purposes of this paper, Capstone Elementary. It is 77% free and reduced lunch, which means more than three quarters of our students live in moderate to severe poverty. Such tightly concentrated poverty creates social pathologies: absent parents, drug abuse, homelessness, and violence (Rawles, 2010). Poverty itself can be traumatic, independent of these additional factors. Families are enveloped by toxic levels of stress, consumed

with the effort to subsist (Blair et al., 2011). According to the former Capstone principal, at least one child in every classroom lives with trauma acute enough to be easily identified by staff (C. Carty, personal communication, Dec 18, 2018). But subtler tendrils permeate our community. To teach at Capstone without understanding trauma is to teach without understanding our students.

“He won’t qualify for special ed,” we all agreed. Perhaps some day he would be labeled as EBD (emotional and behavioral disorder), but in kindergarten, it was too early to tell. As far as our school district was concerned, he had no disability, regardless of his neurological, emotional, and/or and behavioral distinctions.

Is trauma a disability? Should the answer to that question even matter? I wish it didn’t. I wish resources were abundant enough that we could provide for students without such an arbitrarily rigorous standard of need. But I am just one teacher, in just one classroom.

Conclusion

With this project I am asking *What can individual elementary school teachers do to facilitate the success of traumatized students in their classrooms?* I chose to ask this question because I feel responsible to children like Marcus, who need so much and yet receive so little. I also ask it out of love for the classmates of children like Marcus, whose instructional time and sense of security are constantly disrupted, and who would likely also benefit from any classroom level interventions created to support traumatized children. They deserve more than the extremely limited number of resources made

available to them at the school and district level. So I am asking: *What can I, one teacher in one classroom, do to help?*

The following chapter synthesizes what answers already exist in the literature. Chapter Three will describe the resource I've created to disseminate these answers. In chapter Four, I share my final reflections on this process.

CHAPTER TWO

Literature Review

Introduction

What can individual elementary school teachers do to facilitate the success of traumatized students in their classrooms?

First, teachers can work to understand the neurological and behavioral impacts of trauma, in order to recognize trauma within their classrooms, and can strive to empathize with students who display evidence of trauma. The first subsection of this chapter discusses the impacts of trauma. The second subsection deals with the relationship between parental attachment and childhood trauma in order to contextualize these impacts.

The third subsection focuses on resilience and the characteristics that insulate students from traumatic experiences and/or help them recover. Subsection four deals with trauma-informed practices that can cultivate resilience and help close the gaps between traumatized students and their peers. However, these practices are rendered ineffective if school becomes another source of trauma in a child's life. With this in mind, the fifth subsection discusses the importance of avoiding retraumatization.

The penultimate subsection focuses on the ways trauma can spread within school communities. Secondary, or vicarious, trauma is a very real burden for teachers, and it must be addressed if they are to continue teaching effectively (Blitz, Anderson, et al., 2016; Blitz, Yull, et al., 2020; Bloom & Sreedhar, 2008). Intergenerational trauma is another burden our students may carry (DeAngelis, 2019). This burden, like so many

others, is disproportionately carried by communities who have historically struggled and continue to struggle against oppression (DeAngelis, 2019). The final section discusses the traumatic impact of institutional racism and its implications for teaching.

Impacts of Trauma: The Body and The Brain

Childhood trauma transforms us, not just emotionally or behaviorally, but physically (Perry, 2009; van der Kolk, 2003, 2005). It inhabits our bodies, and alters our brains. The following section will explore what is known about these physical and neurological impacts, and discuss their implications.

The depth of the relationship between childhood trauma and quality of life was not clear to western scientific and medical communities until 1998, when The Adverse Childhood Experience (ACE) Study was published (Bloom & Sreedhar, 2008). This study, with its extensive questionnaire and incredibly large sample size, revealed a dose-response relationship between ACEs and a whole range of health problems. These included substance abuse, sexually transmitted diseases, obesity, depression, suicidality, heart disease and cancer (Felitti et al., 1998). Trauma, it turned out, is bad for your health.

The other major finding of the ACE study was the wide prevalence of ACE's in the population. The ACE study surveyed 8,056 adults in San Diego, 6,432 of whom were white, and 6,040 of whom had completed at least some college (Felitti et al., 1998). More than half of respondents had experienced at least one category of ACEs. One fourth had experienced two or more (Felitti et al., 1998). Other research has corroborated these findings: According to the Center for Disease Control [CDC] (2020) reports that about 61% of adults report experiencing at least one kind of ACE, and 1 in 6 report

experiencing multiple kinds. One must keep in mind that this measures the varieties of abuse individuals have experienced, and does not measure the extent of that abuse (CDC, 2020).

Felitti (1998) concluded that the relationship between ACEs and a shortened life span was behavioral. Exposure to ACEs resulted in “social, emotional and cognitive impairment,” which led to the adoption of unhealthy coping mechanisms such as drug abuse and reckless sexual activity, which in turn created chronic health problems and decreased life expectancy (p. 256). It suddenly became clear that ACEs, which include exposure to all varieties of abuse, violence and addiction, can lead to lifelong struggles with mental illness (Felitti et al., 1998). This revelation created opportunities for further research on the nuances of trauma’s behavioral, emotional and neurological effects, (Bloom & Sreedhar, 2008).

Areas of the brain impacted by trauma include the amygdala, hippocampus, brain stem, midbrain, prefrontal cortex, and corpus callosum. Traumatized children can also experience altered hemispheric lateralization, a process that occurs when the entire left half of the brain becomes significantly underdeveloped (van der Kolk, 2003). Early traumatic experiences also manifest within the parasympathetic and sympathetic nervous systems (van der Kolk, 2003). The neurological significance of ACEs, therefore, cannot be understated.

Brains develop in a “use-dependent fashion” (Perry, 2009, p. 243). This means that experience shapes our neurology, especially when we are very young (Perry, 2009). The neural pathways we use the most develop the strongest, and our brain organizes itself

based on the tasks we ask it to perform. So when a child experiences regular and prolonged periods of extreme stress, their brain adapts to what it perceives as normal, (Perry, 2009; van der Kolk 2003, 2005). “The end effect is an alteration in the baseline activity and reactivity of the stress response systems in the traumatized individual” (Perry, 2009, p. 244). Traumatized children live their lives in a state of hypervigilance, constantly on edge, always expecting danger. This fear is not necessarily conscious. It manifests through an elevated heart rate, chronic muscle tension, difficulty sleeping, and an inability to relax. Hyper-aroused children may be irritable and hyperactive. They are often diagnosed with ADHD. Or they may be numb, spaced out, incapable of engaging with anything, because everything is threatening (van der Kolk, 2003).

With chronic hyperarousal comes an oversensitive fight-flight-freeze response. The amygdala becomes trigger happy. It becomes prone to misinterpreting innocent stimuli as threatening, and so the fight-flight-freeze response is triggered easily, frequently, and usually, unnecessarily (van der Kolk, 2003). The fight-flight-freeze response displaces our much slower rational cognition with an instinctual survival response (van der Kolk, 2003). This can be life saving when, say, swerving to avoid an accident on the freeway. But when no true danger is present, it is excessive, irrational, and sometimes dangerous. Children in this state may throw furniture, bolt, scream, or become violent (van der Kolk, 2003).

When children cannot think, they cannot learn. Without help, they do not learn that their reactions are disproportionate. They become stuck within their own

hypervigilance, and their unnecessary fight-flight-freeze reactions can continue into adulthood (van der Kolk, 2005).

Victims of trauma also experience cognitive impairment related to memory, learning, and executive functioning. This is because the brain develops sequentially, “from the bottom up, from the least (brainstem) to the most complex (limbic, cortical) areas” (Perry 2009, p. 242). Although these distinct regions of the brain develop at different times and serve different functions, they are interconnected. “The organization of higher parts of the brain depends upon input from the lower parts of the brain,” (Perry, 2009, p. 242). Therefore, disruption to the limbic system, which includes the amygdala and is responsible for moderating one’s flight-flight-freeze response, has serious implications for the development of the cerebral cortex (Perry, 2009). “Having controllable stress reactions seems to be essential for the development of central nervous system connections that promote neural inhibitory mechanisms and long-range planning (executive function), generally, to coordinate cognition, emotion regulation, and behavior” (van der Kolk, 2003, p. 310).

As a result, traumatized children tend not to understand the relationship between their feelings, behavior and experiences. “They lack a good sense of cause and effect and of their own contributions to what happens to them ... they act instead of plan and show their wishes in their behaviors” (van der Kolk, 2005, p. 405). Combine this with their overactive fight-flight-freeze response, their general inability to regulate their own internal states, and their cognitive delays, and it becomes extremely difficult to learn from new experiences. Instead, the stage is set for trauma reenactments. Children may

communicate the nature of their traumatic experiences through play. They also, however, repeat traumatizing behaviors simply as a result of their poor self-regulatory skills and tendency to overreact to unfamiliar stimuli (van der Kolk, 2005). It does not help that, often, these behaviors have been normalized for them through continuous interaction with an abuser (Wareham et al., 2009).

These behaviors have extreme impacts on their interpersonal relationships. The significance of interpersonal relationships to creating, preventing, and healing trauma are discussed in the following section.

Relationships and Trauma: The Significance of Attachment

In the first few years of childhood the parent, or primary attachment figure, serves as a “psychoneurobiologic regulators” for the child (van der Kolk, 2003, p. 295). Parents not only protect their children from stressful stimuli, but soothe them when stressful stimuli is unavoidable. This is the mechanism through which children learn to regulate themselves (Honsinger & Brown, 2019; Perry, 2009; van der Kolk, 2003, 2005).

Trauma occurs when this system of co-regulation fails (Honsinger & Brown, 2019; Perry, 2009; van der Kolk, 2003, 2005). Perhaps the caregiver is the source of the trauma; are absent or neglectful; are themselves too dysregulated to soothe the child successfully; or are rendered impotent by the traumatizing event (Perry, 2009).

Regardless, the child’s self regulatory skills are insufficient, and so they experience the elevated stress response that is so damaging (Honsinger & Brown, 2019; Perry, 2009; van der Kolk, 2003, 2005). When the traumatic experiences are ongoing, or frequent, children spend large periods of time experiencing an intense stress response. Furthermore, the

self-regulatory skills of children with insufficient attachment networks do not improve at a developmentally appropriate rate. This makes it even more likely that they will experience prolonged periods of extreme stress (Honsinger & Brown, 2019; Perry, 2009; van der Kolk, 2003, 2005). This has a wealth of neurological consequences, including chronic hyperarousal, an overactive fight-flight-freeze response, and cognitive impairment related to memory, learning, and executive functioning.

An additional consequence of an insufficient attachment network is that healthy relationships are never sufficiently modeled for the child. Often, trauma and neglect are all they know. They therefore organize their worldview around their trauma. They perceive it as normal, and constantly expect it to reoccur (van der Kolk, 2005). This expectation takes root within their nervous system, and is reflected in their constant autonomic hyperarousal (van der Kolk, 2005).

An insufficient attachment network also makes it difficult for traumatized children to create their own interpersonal connections. On one level, they simply don't know how. On another, they do not believe it is possible. "They organize their relationships around the expectation or prevention of abandonment or victimization. This is expressed as excessive clinging, compliance, oppositional defiance, and distrustful behavior" (van der Kolk, 2005, p. 407).

For the same reasons that weak relationships with caregivers can facilitate trauma, strong relationships with caregivers protect against it. This dynamic and other factors that protect against trauma are discussed in the following section.

Resilience: Insulation from Traumatic Experiences

Despite the crippling potential of ACEs and toxic stress, many individuals not only survive, but thrive in the face of such adversity. We call these people resilient. But what does resilience actually mean?

Gardner and Stephens-Pisecco (2019) simply define resilience “as both a general recovery and any improvement subsequent to an encounter with one or more risk factors” where risk factors are potentially traumatizing experiences (p. 195). This definition highlights the most important characteristic of resilience- healthy development in the face of adversity. However, it does not describe what healthy development looks like, which limits the utility of this definition.

Masten and Coatsworth (1998) define resilience as “manifested competence in the context of significant challenges to adaptation or development” (p. 206). They define competence, in turn, as “a pattern of effective adaptation in the environment, either broadly defined in terms of reasonable success with major developmental tasks... or more narrowly defined in terms of specific domains of achievement, such as academics, peer acceptance, or athletics” (p. 206). Crosby (2015) offers a similar perspective, defining healthy development as adapting to meet the demands of one’s role within the ecosystem, where the ecosystem is composed of the physical, cultural, social and institutional environment (p. 224).

It is important to note that competency is context dependent. Different cultures expect different developmental milestones, and an effective adaptation to the one environment is often ineffective in another (Masten & Coatsworth, 1998). Many of the

behaviors of traumatized children display effective adaptation to the environment which produced the trauma. van der Kolk (2005) explains that children will “acclimate in any way they can to entrapment in abusive or neglectful situations” (p. 404). Hyperarousal is itself an adaptation to a chronic lack of safety, and being constantly alert may protect a child from an unreliable living situation. However, the deficits they experience in learning, memory, executive function, self-regulation and social skills are undeniable (Perry, 2009; van der Kolk, 2003, 2005).

Van der Kolk (2005) defines development as “ learning to master and ‘own’ one’s experiences and to learn to experience the present as part of one’s personal experience over time” (p. 404). This sense of mastery refers to being in control, to the capacity to regulate one's physical and emotional state; and to the ability to process stimulation from the environment and make decisions about it. This definition of development, as described by van der Kolk, 2005, draws on Piaget’s research around decentration and is more universally applicable than Massen and Coatsworth (1998), whose definition of competence is so context dependent (p. 206). However, I notice it does not touch explicitly on the traditional western developmental milestones which are so crucial to both academic and general success. Examples of the skills these milestones monitor include fine and gross motor coordination, speech, writing, critical thinking, abstract reasoning, empathy, and social skills (Masten & Coatsworth, 1998). These are the skills that are usually considered when discussing typical child development. One could consider these the tools necessary to accomplish van der Kolk 2005’s development, or perhaps they are symptoms of it. Regardless, they remain crucial for traumatized children

to master (Masten & Coatsworth, 1998), and are much more easily measured than a sense of mastery.

Resilience is a topic of great interest to those who work with traumatized children. We wonder if it can be nurtured—if we provide children with the tools to succeed in the face of toxic stress.

Masten and Coatsworth (1998) investigated what resilient children hold in common. Jennings (2019) synthesized their findings, and identified three major commonalities among resilient children: secure attachment networks, strong self-regulatory abilities, and good cognitive skills (p. 13).

Masten and Coatsworth (1998) found a correlation, but they warn the reader not to confuse this with causation. Are these children resilient because they have these characteristics, or do they have these characteristics because they are resilient? However, Perry's writing from 2009 on the sequential development of the brain suggests there is a causal relationship between these three features. A secure attachment network leads to the development of strong self-regulatory abilities, which in turn facilitate the acquisition of good cognitive functioning (Perry, 2009). It makes sense that a smart, well-regulated child would achieve their developmental milestones in a timely manner, therefore displaying the competence by which Masten and Coatsworth (1998) identified resilient individuals.

One of the keys to resilience, therefore, appears to be effective, consistent, loving attachment figures. However, self-regulation and cognitive abilities should not be overlooked. These are two skills that trauma actively destroys (Perry, 2009; van der Kolk

2003, 2005). Bolstering them is therefore especially crucial when working with traumatized children.

An additional characteristic of resilient children is a sense of self-efficacy (Gardner & Stephens-Pisecco, 2019; Masten & Coatsworth, 1998). The sense that one can affect one's situation ties back to van der Kolk 2005's concept of mastery, to the sense of being in control of one's body, one's choices, and therefore able to influence one's situation (p. 404).

In conclusion, resilience is the ability to develop healthily despite exposure to traumatic events (Gardner & Stephens-Pisecco, 2019; Masten & Coatsworth, 1998). Resilient children tend to possess a sense of self efficacy, secure attachment networks, strong self-regulatory abilities, and good cognitive functioning (Gardner & Stephens-Pisecco, 2019; Masten & Coatsworth, 1998). The causal links revealed by what is known of the neurobiology of trauma imply that secure attachment networks are the key to a resilient outcome (Perry, 2009; van der Kolk, 2003, 2005). However, because all of these qualities play a significant role in child development, and are especially challenging for traumatized children to develop (Perry, 2009; van der Kolk, 2003, 2005), none of them should be overlooked.

The next section will explore ways to nurture these qualities within the classroom. It will outline different ways teachers can support the development of resilience in their students.

Trauma Informed Practices: Fostering Resilience

Trauma and its attendant behaviors are extremely disruptive to the classroom, and

are sometimes dangerous to staff and students. Traditionally, schools have punished students in order to incentivize appropriate behavior. Punishment often takes the form of suspension, both in and out of school. The most extreme behaviors are often criminalized, and handled by police.

This strategy of behavior management has troubling ethical consequences. It deprives students of instructional time, tells them that they are not wanted, and feeds the school-to-prison pipeline (Mowen & Brent, 2016; Noltemeyer et al., 2015). The impacts on students are extreme. There is a strong correlation between suspension, academic underachievement, and dropping out (Noltemeyer et al., 2015). Students who have been suspended are also more likely to be arrested (Mowen & Brent, 2016). Punishment strategies are especially problematic because, much like trauma, these negative impacts accumulate with the number of suspensions (Mowen & Brent, 2016). Experiencing multiple suspensions is common, because the strategy is ineffective--student behavior does not change, or perhaps escalates, resulting in a cycle that exacerbates students' trauma instead of addressing it.

There is therefore a need for alternative practices, policies and attitudes to help set traumatized students up for success. RB-Banks and Meyer (2017) describe "specific interventions that fortify one's ability to learn strategies for living with trauma" as trauma informed practices (TIPs) (p. 63). These interventions will be explored in this section.

Defining trauma-informed

To effectively implement trauma-informed practices, an organization must have a trauma-informed culture. Jennings (2019) offers a helpful explanation of what it means to

be generally trauma informed. She explains that “when we realize that their behavior—especially, lack of self-control—is a symptom of the trauma, we can begin to understand them and provide them with the support they need” (p. 13). Bloom and Sreedhar (2008) explain that being trauma informed means ceasing to ask, explicitly and implicitly, “what is wrong with you” and instead asking “what happened to you” (p. 51). Shifting from a deficit-based mindset to one that recognizes that toxic behaviors are a result of previous injuries allows educators to separate the behavior from the child, to recognize the needs and the distress the behavior is communicating, and to respond in constructive ways (Bloom & Sreedhar, 2008; Jennings, 2019). When this outlook is accepted and implemented throughout an organization, the changes are profound (Bloom & Sreedhar, 2008). Taking this perspective helps traumatized students feel valued, respected, and safe. “It is this trauma-informed culture that provides the backdrop for specific interventions, but in many cases it IS the treatment” (Bloom & Sreedhar, 2008, p. 51).

Interventions

Interventions for traumatized youth should follow a sequence that mirrors the sequential development of their brains (Brunzell et al., 2019; Kinniburgh et al., 2005; Perry, 2009; van der Kolk, 2003). First, school staff must create both environments and relationships that foster well-regulated behavior. Once the child feels safe, staff can begin working intentionally with the child to develop self regulatory skills (Perry, 2009). After regulation comes relationships. The traumatized child can begin to play with other children, and to engage meaningfully with caretakers. This presents opportunities to

develop relationship skills and to pursue a sense of mastery through cooperative activities (Perry, 2009; van der Kolk, 2003). The more difficult cognitive work follows. In a therapeutic context this involves consciously processing their traumatic event. In school, it means engaging with the curriculum in more challenging ways and developing a growth mindset (Brunzell et al., 2019; Kinniburgh et al., 2005; Perry, 2009; van der Kolk, 2003).

Honsinger and Brown (2019) draw directly on Perry to apply this same process to a smaller scale: that of a teacher's response to an individual incident. They suggest that teachers regulate first, relate second, and reason third. They explain that "once regulated the teacher will be able to relate to the student, identify and validate feelings, and then move into problem-solving or reasoning with the student" (Honsinger & Brown, 2019, p. 141).

Cultivating Safety

Traumatized children are highly sensitive to external stimuli, and are likely to interpret anything unfamiliar as threatening (Perry, 2009; van der Kolk, 2003, 2005). It is therefore crucial that classrooms be predictable spaces, with consistent schedules, expectations, rituals, and routines. Rules should be consistently enforced, and have fair and predictable consequences (Fink & Halpern, 2019; Gardner & Stephens-Pisecco, 2019). Within this structured environment, however, it is also important to give students choice. Making simple choices gives traumatized children a sense of control, for which they are desperate. This helps them feel safe (McConnico et al., 2016; Perry, 2016).

Self Regulation and Social Emotional Learning

Self-regulation and social skills can and should be taught explicitly.

Social-Emotional Learning (SEL) is a powerful tool within the trauma-informed educators kit (Crosby, 2015; Gardner & Stephens-Pisecco, 2019; Pawlo et al., 2019).

Pawlo et al. (2019) explains:

“SEL programs provide systematic frameworks for identifying, discussing, and practicing age-appropriate social and emotional skills. Over time, they provide both educators and students with language and strategies they can use to address specific behavioral and emotional challenges related to issues such as perspective taking, empathy, emotional regulation (including stress management), and the role of emotion in the problem-solving process” (p. 39).

Traumatized students will often struggle to master these skills, which makes supporting them consistently and explicitly even more crucial (Perry, 2009; Pawlo et al., 2019; van der Kolk, 2003, 2005) SEL can also “teach nonviolent conflict-resolution and decision-making skills,” as well as feelings-identification, both of which are deeply beneficial for traumatized students (McConnico et al., 2016; Pawlo et al., 2019; van der Kolk, 2005).

Various trauma-informed SEL strategies include teaching lessons which explicitly teach social skills such as feelings identification, sharing, turn-taking, active listening, including classmates in play, and conflict resolution (Committee for Children). SEL also works to develop self awareness, empathy, and the ability to consider multiple perspectives (Committee for Children). Creating a calm-down corner, and stocking it

with a variety of calming sensory experiences can help teach self-regulation and adaptive coping (McConnico et al., 2016). School communities may work to establish cultural norms that highlight students strengths, including non-academic strengths such as musical, artistic or athletic ability (Pawlo et al., 2019). Mindfulness practices are also a powerful form of SEL, with the potential to help traumatized students manage their extreme stress responses when implemented in a culturally responsive way (Duane et al., 2021). SEL curricula can also help students “build a toolbox of strategies for when they are in crisis,” which they can access as needed (Duane et al., 2021, p. 8). These “tools” consist of a variety of strategies to “notice, observe, and understand their emotions when triggered,” and to find a sense of calm (Duane et al, 2021, p. 8).

Teacher student relationships

Just as crucial, if not more so, than the environment is relationship. Even in a safe and structured classroom, traumatized children will struggle with self-regulation. A responsive, or sensitive, teacher will be able to assist these students in regulating themselves (Jennings, 2019; McConnico et al., 2016). According to the CLASS framework, a model of student-teacher interactions that was developed by Bob Pianta and has been extensively validated (Jennings, 2019), teacher sensitivity “encompasses teachers’ responsiveness to students’ needs and awareness of students’ level of academic and emotional functioning (Hamre et al., 2010, p. 31). A sensitive teacher anticipates students’ distress and acts to ameliorate it. “She recognizes and acknowledges the students’ emotions and provides comfort and individual support when needed,”

(Jennings, 2019, p. 17). This level of attentiveness can go a long way toward keeping a traumatized student well regulated.

Jennings (2019) further explains that teachers and classmates can serve as “alternate attachment figures” (p. 12). She explains:

This is not to say that teachers become their surrogate parents and that their peers become surrogate siblings... but they can serve a similar function by helping trauma-exposed kids develop new models of relationships and new models of the self in relation to others (Jennings 2019, p. 12).

They do so by modeling strong interpersonal skills. This seems simple enough, but when faced with constantly disruptive behavior, it can be difficult for teachers to avoid reacting from a place of frustration. Many teachers neglect to follow their own rules, often behaving towards their own students in ways they would consider unacceptable between two children (Fink & Halpern, 2019; Jennings, 2019; Khalid, 2019). When teacher’s raise their voices, speak disrespectfully, take things from students' hands, or use their body language to intimidate, they are modeling bullying, and often recreating student’s traumatic histories (Jennings, 2019).

If teachers are to model prosocial behaviors, they need to form relationships with their students based on cooperation, not coercion. This does not require sacrificing one’s authority, or role as a disciplinarian. What it does require is that teachers regulate their own emotions effectively, (Khalid, 2019). It also requires an acknowledgement of the student’s autonomy. If one or two quiet, calm, kind reminders do not successfully redirect a student, instead of issuing a harsh command, a teacher may offer a choice between the

desired behavior and a negative consequence (Fink & Halpern, 2019; Perry 2016). Fink and Halpern (2019) suggest that teachers follow every choice with the phrase “I hope you decide to *desired behavior*” (p. 34). This gives the child a sense of control, and positions the teacher as an advocate for the child instead of an adversary, without sacrificing accountability or authority.

Loss of the teacher’s affection, however, is never an appropriate consequence. Unconditional positive regard is necessary to build a safe and reliable bond through the excessive fight-flight-freeze reactions, the trauma reenactments, and the self-protective antagonistic behaviors so many traumatized children exhibit (Crosby, 2015; Honsinger & Brown, 2019; van der Kolk 2003, 2005). Traumatized children constantly expect their trauma to recur. Because most adults in the past have harmed or abandoned them, these children expect their teachers to eventually do the same. As a result, they may cling tightly, or they may push teachers away preemptively (van der Kolk, 2005). Additionally, students’ disruptive and sometimes dangerous fight-flight-freeze reactions are completely out of their control (Perry 2009, van der Kolk 2003, 2005). If they are going to feel safe, they need to know that their teachers love them no matter what happens, no strings attached (Shevrin Venet, 2021). Speaking, thinking and acting in such a way that demonstrates that teachers do not believe that students’ behavior detracts from their worth, communicates this (Shevrin Venet, 2021).

Student to student relationships

Peer relationships can be just as crucial as student-teacher relationships. Peers have a massive impact on the classroom climate and play an important role in the

modeling of positive relationships (Gest et al. 2014; Hamre et al. 2010; Jennings, 2019). Furthermore, interpersonal competence is an aspect of healthy development (Kinniburgh et al., 2005; Masten & Coatsworth, 1998). Positive peer interactions help develop social skills, cooperation, problem-solving and empathy (Harris & Meltzer, 2015) and contribute to students' academic motivation and overall enjoyment of school (Gest et al. 2014; Harris & Meltzer, 2015). Positive peer interactions can also provide the kind of attention-consuming fun that calms children's hyperarousal, and builds toward a sense of mastery (Van der Kolk 2003, 2005).

Teachers have the power to influence peer-relationships within their classroom (Gest et al., 2014; Jennings, 2019). This support is crucial for traumatized students. Jennings (2019) explains "because trauma interferes with the development of relationship skills and emotion regulation, they often find themselves in conflict with peers, either victims or perpetrators of bullying" (p. 12). Van der Kolk (2005) elaborates on this dynamic. He explains "other people are sources of terror or pleasure but are rarely fellow human beings with their own sets of needs and desires" (p. 405). Therefore, traumatized students especially need positive peer contact, but have an especially difficult time creating it independently. A trauma-informed teacher will actively work to help these students cultivate constructive relationships with other children.

Simply being more aware of the social dynamics in ones' classroom is beneficial for students (Gest et al., 2014; Jennings, 2019). Gest et al. found "Teacher attunement to classroom friendship and victimization patterns, when combined with responsive teaching, was associated with more positive changes in school bonding/motivation" (p.

107). Responsiveness was measured by the CLASS framework, focusing primarily on “Positive Climate, Teacher Sensitivity, Quality of Feedback, and Instructional Learning Formats” (Gest et al., 2014). So, if teachers have the skills to provide quality emotional care for their students, their awareness of the social dynamics in their classroom can be a powerful predictor of the extent to which students enjoy coming to school and are motivated to learn.

More active strategies for supporting positive peer to peer relationships include managing student aggression and promoting prosocial behavior. These strategies include intentionally limiting opportunities for aggressive behavior, creating and enforcing firm limits around aggressive behavior, and helping aggressive students develop alternate behaviors (Gest et al., 2014). Another strategy is mitigating status extremes by creating multiple routes to status in the classroom, such as providing a variety ways for children to receive recognition from the teacher, or by structuring the classroom environment to deemphasize social status altogether (Gest et al., 2014). Teachers may also support isolated students by teaching them skills that support formation of friendships, and by creating opportunities for them to connect with others (Gest et al., 2014). Other vetted strategies for improving peer relationships include peer-assisted learning strategies (PALS), cooperative learning groups, peer mentoring, limiting materials and toys present so that students have opportunities to practice sharing, and peer-mediated intervention, where peers are trained in strategies to help their classmates develop prosocial skills (Harris & Meltzer, 2015).

Moving Toward Mastery

Once a traumatized child is sufficiently regulated, they can begin developing skills that require higher levels of cognitive functioning, as well as improving cognitive functioning itself (Brunzell et al., 2019; Kinniburgh et al., 2005; Perry, 2009; van der Kolk, 2003, 2005). In a school setting, this means engaging with academic challenges (Brunzell et al., 2019; Kinniburgh et al., 2005). Additionally, Brunzell, Stokes and Waters (2019) describe the final step of their developmental model of trauma informed education as “increasing psychological resources” (p. 602). This means developing a growth mindset, habits around goal setting, and techniques for focusing effectively and working productively to accomplish those goals. They also emphasize character education, which helps students identify strengths within themselves and work toward living their values (Brunzell et al., 2019). Kinniburgh et al. (2005) describes this step as focusing on “developmental competencies,” (p. 429). These competencies stretch across the interpersonal, intrapersonal, cognitive and emotional domains, and encompass the skills children ought to have mastered by their age. Examples include problem solving, executive functioning, language skills, academic proficiency, relationship skills, emotion identification, and communicating feelings (Kinniburgh et al., 2005).

Permeating all this difficult academic, social and intrapersonal work is the quest for mastery- the feeling of being in control of one’s body, one’s choices, and one’s situation that is the end goal of development (van der Kolk, 2003, 2005). The keys to achieving this are a positive self-concept and strong sense of self-efficacy. As such, it is crucial that students are given opportunities to experience success, and that these

successes are identified, celebrated, and reflected upon (Brunzell et al., 2019; Crosby, 2015; Gardner & Stephens-Pisecco, 2019; Kinniburgh, 2005; McConnico et al., 2016). Sometimes this requires redefining success, and often it involves co-creating goals that are both attainable and challenging (Kinniburgh et al., 2005).

Avoiding Retraumatization: Permitting Healing

All of this beautiful, grueling, arduous work can be destroyed if school becomes another source of trauma in a child's life. This is a very real risk. Because they demonstrate so many extreme and disruptive behaviors, traumatized children often experience punitive or retaliatory behavior from teachers and caregivers that mimic their traumatic histories (van der Kolk, 2005). Traumatized kids are especially sensitive to these negative reactions, because their overactive stress responses and the fact that they normalize their traumatic experiences leads them to expect their trauma to recur. Even slight reminders cause them to relive their traumatic pasts, and their trauma is thus reinforced (Perry, 2009; van der Kolk, 2003, 2005).

It is therefore crucial that schools take steps to avoid retraumatizing the children they are attempting to help. Treating students with patience, respect, and kindness is key (Fink & Halpern, 2019; Jennings, 2019). This is easier said than done. Traumatized children are driven to reenact their trauma. This means that their behavior can be both intentional and extremely distressing (van der Kolk, 2005). It may also, consciously or unconsciously, remind teachers of trauma they have experienced.

Separating Behavior from the Student

Separating the behavior from the student is one means of avoiding retraumatization. Habitually using language that communicates displeasure with the behavior, but not with the student, can over time reassure traumatized children that the attachment bond is not in danger, even when they are acting out. Shifting one's mindset in this way facilitates unconditional positive regard, and insulates the student-teacher relationship from frustration with repeated misbehavior. This helps prevent teachers from overreacting in the moment.

Consequences Over Punishment

Thankfully, corporal punishment is no longer widespread in schools. However, non-physical methods of punishment can still cause students significant distress, trigger power struggles, and erode student-teacher relationships (Fink & Halpern, 2019; Honsinger & Brown, 2019). A more trauma informed approach is to shift from punishment toward consequences (Blitz, Yull et al., 2020; Fink & Halpern, 2019). Punishment is an attempt to intentionally cause students discomfort in order to stop a behavior. Consequences, on the other hand, "are used to encourage student understanding," (Fink & Halpern, 2019, p. 58). They teach students that their behavior will have a predictable result. They are reasonable, and delivered privately and respectfully. Additionally, they are related to the behavior, and therefore encourage reflection by students on the relationship between the behavior and its consequence, (Fink & Halpern, 2019). Punishments will not stop the disruptive behavior of traumatized students. In fact, it may exacerbate it. Consequences, however, help teach responsibility

and self-regulation (Blitz, Yull, et al., 2020; Fink & Halpern, 2019). They thus preserve accountability while lowering the risk of retraumatization.

Positive Behavioral Interventions and Supports

Honsinger and Brown (2019) also recommend the use of School Wide Positive Behavioral Interventions and Supports (SWPBIS) to prevent retraumatizing students. They argue that SWPBIS is trauma informed because it is “proactive rather than reactive,” (Honsinger & Brown, 2019, p. 142). It relies heavily on positive reinforcement, which involves celebrating students' successes as well as building on their strengths. It also involves explicit instruction of expectations and self-regulatory skills. These practices are highly beneficial for traumatized students, (Honsinger & Brown, 2019).

If we want school to be a place of safety and healing, we must avoid dealing further damage to our most vulnerable students. Traumatized students cannot relax their hypervigilance enough to begin learning self-regulatory skills if they are being retraumatized regularly. Therefore it is essential that teachers moderate their reactions to disruptive behavior, and respond with disciplinary practices that are helpful, instead of hurtful.

Teachers' Trauma

Trauma is endemic to our society, (Bloom & Sreedhar, 2008; CDC, 2020; Felitti et al., 1998). Teachers are no exception. Highly disruptive behavior may trigger teachers' own trauma response and cause an aggressive overreaction. Teachers must take steps to consciously address their own trauma to avoid overreacting (Bloom, 1995). Teachers must also recognize trauma reenactments and other disruptive behaviors for what they

are: symptoms of past abuse and indications of an unmet need. When teachers operate from a trauma-informed perspective, they show more empathy and are less likely to react in damaging ways (Bloom & Sreedhar, 2008; Jennings 2019, van der Kolk 2005).

Teachers are vulnerable to secondary trauma absorbed from their students, in addition to whatever primary trauma they carry from their personal life (Wolpow et al., 2009). This phenomenon and the importance of coping with it are discussed in the following section.

Proximity to Trauma: Impacts on Families, Communities and Organizations

Trauma impacts not only the individual who carries it, but those who care for them as well. It can spread through families and communities, passing behaviorally and genetically from one generation to the next (DeAngelis, 2019). Professional caregivers who work with traumatized children, such as teachers and doctors, can absorb the trauma of their charges (Blitz, Anderson et al., 2016; Bloom & Sreedhar, 2008). These second hand trauma behaviors can shape entire organizations (Bloom & Sreedhar, 2008). The following section details these effects, and their implications for the classroom setting.

Secondary and Organizational Trauma

Many teachers carry trauma related to their own adverse childhood experiences. However, teachers may also absorb the trauma of their students, especially if they work with many traumatized children over an extended period of time (Blitz, Anderson et al., 2016; Wolpow et al., 2009). This is called secondary trauma, and it is commonly observed in teachers, as well as healthcare professionals (Blitz, Anderson et al., 2016;

Bloom & Sreedhar, 2008; Wolpow et al., 2009).

Secondary trauma can pervade entire organizations, which will then exhibit a “trauma-organized culture,” (Bloom & Sreedhar, 2008, p. 49). Traumatized organizations “can become reactive, change-resistant, hierarchical, coercive, and punitive,” much like the traumatized individuals they are attempting to serve (Bloom & Sreedhar, 2008, p. 49).

When schools and their teachers fail to manage their own secondary trauma, they become ineffective at serving traumatized youth. They tend toward harsh punishments that retraumatize students, break down relationships, and exacerbate problematic behaviors. Their rigid, hierarchical nature precludes the formation of significant relationships, and makes meeting the unique needs of a traumatized individual impossible (Blitz, Anderson, et al., 2016; Blitz, Yull, et al., 2020; Bloom & Sreedhar, 2008; Wolpow et al., 2009). To be trauma-informed requires operating from a place of empathy and flexibility. Secondary trauma pushes schools and teachers to operate from a place of self-protectiveness and fear.

In this way, schools can experience a cycle of trauma much like families do. As the emotional burden of managing students' trauma wears down staff members, they become more likely to re-traumatize their students, whose behaviors worsen, increasing the staff's load of secondary trauma. Breaking this cycle requires awareness of the trauma carried by both students and staff, and of the relationship between trauma and behavior. It requires that staff care for themselves, and for each other (Bloom & Sreedhar, 2008).

Intergenerational Trauma

Often, trauma is passed down from parent to child. Traumatized individuals are driven to re-enact their trauma, (Bloom & Sreedhar, 2008; van der Kolk, 2005). Children living with traumatized parents therefore possess significantly higher risk of exposure to ACEs. However, behaviors which stem from trauma may be learned from a family or a culture, even if one has never experienced a traumatic event firsthand. This is called intergenerational trauma (DeAngelis, 2019).

DeAngelis (2019) explains that the impacts of intergenerational trauma “are not only psychological, but familial, social, cultural, neurobiological and possibly even genetic as well” (p. 2). From a psychological perspective, trauma-based behaviors and attitudes, such as suspicion of others or unwillingness to ask for help, may be consciously or unconsciously taught by parents to children (DeAngelis, 2019). Parents may teach their children that the world cannot be trusted, and thus pass on their hyperarousal and fear-based coping mechanisms (DeAngelis, 2019).

Epigenetics is a mode of trauma transmission that we are just beginning to understand (DeAngelis, 2019). Epigenetics are “environmentally driven molecular processes that can turn genes on or off” (DeAngelis, 2019, p. 7). Traumatic events can initiate changes to an individual’s genome, and these changes can then be passed on through sexual reproduction (DeAngelis, 2019). For example, “Holocaust exposure had an effect on FKBP5 methylation that was observed in exposed parents as well in their offspring” (Yehuda et al., 2016, p. 372). Methylation is an epigenetic mechanism, and the FKBP5 gene is associated with PTSD and major depression (Yehuda et al., 2016).

Trauma alters an individual's genetic code, and therefore alters the genetic makeup of their children (DeAngelis, 2019; Yehuda et al., 2016).

Intergenerational trauma has been observed in a variety of communities in America, including native and black Americans (DeAngelis, 2019). DeAngelis (2019) explains that there are "broad effects among children and grandchildren of survivors of massive cultural oppression" (p. 4). Trauma is therefore unevenly distributed in American society, especially because the oppression DeAngelis observes is ongoing, and students will therefore carry trauma that is personal as well as cultural and generational (DeAngelis, 2019). The relationship between trauma, race, culture and social justice is explored in the following section.

Social Justice: Why Race and Culture Matter

Opportunity is distributed unevenly in the United States of America along racial lines, with white individuals receiving extra privileges while blacks, indigenous people, and people of color (BIPOC) must contend with the barriers created by institutional racism (Carter, 2007; Kirkinis et al. 2018). Carter explains "racial stratification and systemic racism have been and continue to be endemic and ingrained in all aspects of American life: in customs, laws, and traditions" (2007, p. 13). The traumatic impacts of these systems of oppression are explored in the following section.

Oppression Creates Trauma

The experience of oppression is more than just difficult or stressful- it is traumatizing (Carter, 2007; Carter et al., 2013, 2020; Williams et al., 2018). Race based traumatic stress, a phenomenon identified by Carter in 2007, causes some of the same

symptoms as Post-Traumatic Stress Disorder and/or Developmental Trauma Disorder, a term coined by van der Kolk (2005) to describe the distinct symptoms of young children exposed to disrupted attachment patterns and chronic stress, as described in Section 1. Experiences of racial discrimination can take root in the body- producing hyperarousal or hypervigilance, as well as somatic symptoms such as muscle tension, headaches, elevated heart rate, sweating and sleep disturbances (Carter, 2007; Carter et al., 2013, 2020; Williams et al., 2018). It can create emotional dysregulation, especially depression, anger and anxiety, as well as cause dissociative episodes (Carter, 2007; Carter et al., 2013, 2020; Williams et al., 2018). Individuals struggling with race-based traumatic stress develop the expectation that their trauma will recur (Carter, 2007; Carter et al. 2013; Williams et al., 2018). They may be suspicious of other people, or feel alienated from them (Williams et al., 2018). They may suffer from intrusive thoughts, or flashbacks of the traumatic event (Carter 2007, Carter et al. 2013, 2019). These individuals also tend to use avoidance as a coping mechanism. They may forget or deny distressing memories, avoid any reminders of the traumatic event(s), or distract themselves from negative memories and emotions (Carter, 2007; Carter et al., 2013; Williams et al., 2018). Substance abuse is a common form of avoidance (Carter, 2007; Carter et al., 2013). If it walks like a duck, and it talks like a duck, and it flies like a duck... it's trauma.

The effects of racial discrimination accumulate over time. This is especially true of microaggressions, which may seem inconsequential individually, but can do significant damage over the course of a lifetime (Carter, 2007; Williams et al., 2018).

Microaggressions are just as closely correlated to trauma symptoms as major

discriminatory events on the Trauma Symptoms of Discrimination Scale, a tool created by Williams et al. (2018) to measure race-based traumatic stress. In fact, “as an individual’s experience of subtle mistreatment in the form of microaggressions increases so does the predictive relationship with trauma symptoms” (Williams et al., 2018, p. 2).

Kirkinis et al. (2018) accumulated further evidence of the relationship between oppression and trauma in a comprehensive literature review. They reviewed twenty-eight empirical studies which included specific measures of both racial discrimination and trauma in adults (Kirkinis et al., 2018). They “found consistent patterns of associations, with 70% of associations (n = 31) as positively significant: (Kirkinis et al., 2018, p. 10). They describe this finding as “moderate to strong, positive associations between racial discrimination and trauma,” and also note that several symptoms of race-based traumatic stress (e.g. hypervigilance, avoidance, intrusive thoughts, depression, physical symptoms; Carter et al. 2013) overlap with symptoms of PTSD” (Kirkinis et al., 2018, p. 13).

That is not to say that PTSD, developmental trauma disorder, and race-based traumatic stress are identical. Differences exist, although they are still being parsed within the literature (Carter 2007, 2013; van der Kolk, 2005). However, it is not the job of teachers to concern themselves with students’ clinical diagnosis. What teachers need to understand is that BIPOC students may be carrying trauma stemming from experiences of oppression, and act accordingly.

Oppression Creates Poverty

Oppression erects barriers to social and economic progress for people of color. They are more likely to experience poverty, and to experience it at a high concentration,

which in turn makes them more likely to experience ACEs (Maguire-Jack et al., 2020; Quillian, 2012; Rawls, 2010). For example, poverty increases risk of exposure to violence and abuse (Rawls, 2010).

Caregivers struggling to meet basic needs are less available to regulate and nurture their child, and are often dysregulated themselves (Blair et al., 2011). This leaves their children vulnerable to the disruptions of attachment that so powerfully contribute to trauma (van der Kolk 2003, 2005). The constant struggle to survive also creates high levels of stress within the child that accumulate over time. This can alter childrens' physiological stress response (Blair et al., 2011). Blaire et al. (2011) do not use the term trauma, but they explain that “experience can alter stress physiology in a cumulative fashion to provide short-term benefits to physical and psychological functioning in unsupportive environments but that ultimately prove injurious to health and well-being in the long term” (p. 845). This is the same idea of use-dependent development described by Perry (2009) in Section 1, and the resultant impacts on childrens' bodies and brains (hyperarousal) are also identical (Blaire et al., 2001; Perry, 2009; van der Kolk, 2003). They therefore show that the toxic levels of stress created by poverty are traumatic.

Since BIPOC individuals are at greater risk of poverty than white people (Maguire-Jack et al., 2020; Quillian, 2012), they are also at a greater risk of poverty-induced trauma.

Intergenerational Impacts

BIPOC individuals in America have been surviving oppression for centuries (Carter, 2007; DeAngelis, 2019). They therefore carry not only their own trauma, but the

trauma of their ancestors (DeAngelis, 2019; Yehuda et al., 2016). It is passed down genetically, behaviorally, and culturally (DeAngelis, 2019; Yehuda et al., 2016).

Implications for Teaching

A students' trauma cannot be effectively addressed unless their oppression is addressed (Duane et al., 2021; Skiba et al., 2011). In fact, if the issue of race is ignored, schools become agents of oppression and thus retraumatize their students (Duane et al., 2021; Skiba et al., 2011). Skiba et al. state "the fact of racial/ethnic disproportionality in school discipline has been widely and, we would argue, conclusively demonstrated (2011, p. 104). Black and latinx students receive harsher punishments than their white peers for similar infractions, and are much more likely to be suspended or expelled (Skiba et al., 2011). They are also much more likely to be disciplined for subjective infractions, specifically disobedience or disrespect (Skiba et al., 2011). Less easily measured, but just as significant, are the continued presence of microaggressions in classrooms where race and culture are not actively considered (Duane et al., 2021). Although almost always unintentional, these microaggressions and unfair disciplinary practices accumulate over time, and do significant damage to our students (Duane et al., 2021; Mowen & Brent, 2016; Noltemeyer et al., 2015; Skiba et al., 2011).

We cannot help students develop resilience if we are burdening them with additional traumatic experiences. Furthermore, students cannot feel safe, valued or respected unless the full spectrum of their identities is acknowledged and accepted (Duane et al., 2021). Creating the sense of safety and depth of connection required to

support traumatized students in the classroom therefore requires a culturally responsive approach, in which students feel that all aspects of their identities are seen and valued.

Conclusion

The question remains: *What can individual elementary school teachers do to facilitate the success of traumatized students in their classrooms?*

There are as many answers as there are students. However, a few key strategies shine through. Teachers can educate themselves about the impacts of trauma on their students' bodies and brains. They can comprehend the importance of attachment to childhood development, and situate themselves as alternate attachment figures, capable of helping children co-regulate their emotions (Jennings, 2019).

Teachers can help their students develop resilience through the implementation of trauma-informed practices. These will be structured sequentially (Brunzell et al., 2019; Kinniburgh et al., 2005; Perry, 2009; van der Kolk, 2003;). First, teachers must create safe, structured, and predictable environments (Perry, 2009). Once students feel safe, social-emotional learning curricula can teach them to regulate their emotions and reactions (Perry, 2009). As students become better regulated, teachers can help them develop positive relationships with their peers through direct management strategies and by modeling respectful behaviors (Gest et al., 2014; Jennings, 2019; Perry, 2009; van der Kolk, 2003). When students are safe, regulated, and connected, they can begin stretching themselves academically, developing a growth mindset, and moving towards mastery (Brunzell et al., 2019; Kinniburgh et al., 2005; Perry, 2009; van der Kolk, 2003).

Schools must take care to avoid retraumatizing their students, whose explosive fight-flight-freeze reactions and startling trauma-reenactments can elicit large reactions from adults (van der Kolk, 2005). Behavior management systems should be supportive, instead of punitive (Blitz, Yull et al., 2020; Fink & Halpern, 2019; Honsinger & Brown, 2019). Additionally, teachers must take care to manage their own trauma to keep from overreacting (Bloom, 1995). This includes the secondary trauma they absorb from their students, which can permeate the entire school (Bloom & Sreedhar, 2008; Wolpow et al., 2009).

Trauma spreads through generations as well as through communities (DeAngelis, 2019; Yehuda et al., 2016). BIPOC populations carry a disproportionate amount of intergenerational trauma (DeAngelis, 2019), in addition to trauma created by structural oppression (Carter, 2007; Carter et al., 2013, 2019; Williams et al., 2018), and the poverty oppression creates (Blair et al., 2011; Maguire-Jack et al., 2020; Perry, 2009; Quillian, 2012; Rawls, 2010; van der Kolk, 2003). Teachers must therefore integrate anti-racism and cultural responsiveness into their trauma informed practices.

Teachers, it turns out, can do a lot to facilitate the success of traumatized students in their classrooms. That is a good thing, because as Blitz, Anderson et al. (2016) explain- “new approaches are needed to promote resiliency and student achievement by addressing the intersections of institutional bias, trauma, and the chronic stress often associated with poverty in the context of historical and structural oppression,” (p. 522). The following chapter is an attempt to disseminate some of these new approaches, by describing a professional development curriculum aimed at in-service teachers.

CHAPTER THREE

Project Description

Introduction

This capstone revolved around the question, *what can individual teachers do to facilitate the success of traumatized elementary school students in their classrooms?* The previous chapter cited research which responded to that question. The next step was to disseminate the information constructively by creating a professional development (p.d.) curriculum for teachers.

Participants

My curriculum was designed for elementary educators who work with a high volume of disadvantaged students. By disadvantaged, I mean students of color and students living in poverty. These students are at increased risk of ACEs, and are more likely to live with trauma (Maguire-Jack et al., 2020; Rawls, 2010). Therefore it is especially important that their teachers be trauma-informed.

This curricula will be maximally effective if the entire school experiences it together. My research question focused on the actions of individual teachers, but Bloom & Sreedhar (2008) show us that secondary trauma can organize entire schools, and so a trauma-informed culture must intentionally re-organize them. This p.d. can serve as an opportunity to begin reorganizing a school's culture.

Darling-Hammond et al. (2017) provided the second piece of rationale for conducting this p.d. at a school level. They highlight the value of collaboration among

colleagues to ensure successful implementation of teacher learning. Having the entire school present creates the opportunity to build collaborative infrastructure that can persist between and beyond formal meetings. This opportunity is maximized if grade level teachers are seated in their teams, with specialists, special education, english language support, and interventionists forming teams of their own. Since teachers are already in the habit of collaborating with their grade level teams, and since teammates tend to be familiar with each other's classrooms, this context has the most potential to produce effective and long lasting collaboration.

Setting

Sessions should take place in a setting large enough to seat all school staff in collaborative groupings. The cafeteria is likely ideal. A gymnasium or other assembly area with tables and chairs set up would also suffice.

Timeline

I spent over a year completing this capstone project. I began my literature review in the spring of 2020, and completed it in June 2021. Creating the p.d. itself took roughly two months- mid June to mid August 2021.

The p.d. will be delivered across four ninety minute sessions. Sessions should take place during the school year and be spaced a month apart. This allows for collaboration and inquiry between sessions. Darling-Hammond et al. (2017) demonstrate that p.d. which occurs over an extended period of time is more effective than shorter or more condensed experiences. They also explain that breaks between sessions give teachers the opportunity to practice applying material within their own classrooms. The

learning which occurs between sessions is just as valuable as the learning achieved during formal meetings (Darling-Hammond et al., 2017).

Session 1: Building Background Knowledge

The principles of adult learning theory discourage a traditional lecture format (Knowles, 1992). However, Darling-Hammond et al. (2017) identify a lack of background knowledge as a potential barrier to teacher p.d's effectiveness, and Knowles (1992) also acknowledges that pedagogy may be more appropriate than andragogy if students do not have the prior knowledge necessary to embark on self-directed inquiry. The first session therefore focuses on developing teachers' background knowledge about the impacts of trauma on their students bodies, brains, and behavior; the relationship between attachment and resilience; the existence of secondary trauma; and the relationship between race, oppression, poverty, and traumatic stress.

Information is delivered in a lecture format, with visual aids present to increase the presentation's effectiveness (Knowles, 1992). The presenter will also designate one table closest to the presenter's area as the "watchdog team," responsible for interrupting the presentation whenever they believe the audience requires clarification. This strategy is borrowed from Knowles (1992), and serves to make the presentation more effective by increasing interaction between the presenter and the audience. The presenter will also provide opportunities for the audience members to talk to each other, pausing at key points to prompt discussion among small groups (Knowles, 1992).

Time constraints limit the depth of exploration of these topics. However, teachers will leave the session with enough foundational knowledge to begin observing the impact

of trauma on their classroom (their homework for the next session). Based on these observations, they will decide which topics they want to explore more deeply across the following three sessions.

Sessions 2-4: The Inquiry Process

The following three sessions are designed to take participants through a process of inquiry. During Session 2 they will discuss, in both small and large groups, the impacts of trauma they observe in their classrooms. They will diagnose their own needs for trauma-informed practices. In Session 3 they will generate potential solutions by brainstorming trauma-informed practices in their small groups, and compiling their ideas with the rest of the school's on one document. Next, they will return to their small groups to devise an implementation plan for the single practice they feel will be most useful to their classroom. They will implement it throughout the next four weeks, and reconvene in Session 4 to reflect on the experience, as well as determine next steps.

Throughout all three sessions, the facilitator will utilize a modified think-pair-share strategy to structure discussion and encourage participation. Participants will be given one to two minutes to gather their thoughts privately. Then they will share their responses in their small groups, and one individual will report the group's conclusions to the whole school. As small groups report back, a whole group discussion may emerge organically as individuals from different groups respond to each other's ideas. Or the facilitator may move on to the next task, if they feel it necessary or appropriate.

This approach draws heavily on the seven principles of effective education p.d. outlined by Darling-Hammond et al. in 2017. I have already addressed the principles of collaboration and sustained duration: teachers will meet with their grade level teams, in the context of the whole school community, four times over four months. Additionally, this approach is content focused in that it contextualizes specific trauma-informed practices within teachers' actual classrooms (Darling-Hammond et al., 2017). It incorporates active learning in that teachers are engaging with their colleagues, generating new ideas, and testing out trauma-informed practices in their classrooms (Darling-Hammond et al., 2017). The fourth session provides an opportunity for feedback and reflection, another principle of effective teacher p.d. (Darling-Hammond et al., 2017). Teams will discuss what worked and what did not work as they attempted to implement the TIP they chose last month. They will consider making changes to their approach, as well as which other strategies they want to try, and what skills they need to continue developing.

The principles of content-focus and active learning correlate directly to Knowles (1992) principles of adult learning. Knowles (1992) states that adults will be more engaged and retain the information more effectively if they are active participants in the construction of knowledge, and if the knowledge being constructed is relevant to their lived experience. Knowles (1992) therefore provides further evidence that guiding teachers through an inquiry process contextualized within their real classroom will increase the effectiveness of the p.d.

The Role of The Facilitator

This chapter has focused so far on what teachers will be doing during the p.d. However, the facilitator's actions are equally important. Darling-Hammond et al. (2017) identify access to “coaching and expert support” as one of the principles of effective teacher p.d. (p. 12). The facilitator will serve as coach and expert, disseminating background knowledge in session 1 and guiding teachers through their process of inquiry across sessions 2-4. They will provide hard copies of discussion questions to help focus the small group conversations. While small groups are collaborating, the facilitator will circulate and listen in, offering support and suggestions as they feel appropriate. The facilitator will be a source of information or ideas when teams get stuck, and teachers will benefit from the wisdom of their greater experience. When the whole group is convened, they will moderate the discussion and compile responses on a master document.

The facilitator will also devote at least fifteen minutes of each session to modeling trauma-informed practices for the school community. Such practices will include connection circles, mindfulness techniques such as breathing and basic yoga, phrasing logical consequences as a choice, and greeting participants with genuine warmth and affection. The process of inquiry itself is also a TIP, as it empowers teachers to make choices about their learning (Duane et al., 2021; McConnico et al., 2016; Perry, 2016). Darling-Hammond et al. (2017) explain “modeling of instruction helps teachers to have a vision of practice on which to anchor their own learning and growth” (p. 11). Experiencing these TIPs will therefore support teachers in implementing them.

Teachers' access to the facilitator outside of formal sessions will depend on the availability of resources. Teachers would benefit from being observed in their classrooms, and from one-on-one conferences where they could receive feedback and collaborate to problem solve (Darling-Hammond et al., 2017). However this may not be possible, as such an endeavor would be labor intensive for the facilitator and therefore expensive for the school.

Assessment of Outcomes

Knowles (1992) identifies co-creation of learning objectives as an element of effective adult education. Therefore, teachers collaborate with the facilitator and each other to identify their classrooms' unique needs and desired outcomes in Session 2. This makes the learning more meaningful, but also more difficult to measure through a standardized metric.

Instead of a traditional test or questionnaire, teachers will be asked to submit a 500 word summary of what they learned from the experience, and how it impacted their teaching practice. A quantitative element will be incorporated by asking teachers to rate the extent to which they agree with the following statements: "The workshop was a valuable use of my time," and "I am prepared to implement trauma-informed practices in my classroom."

Conclusion

I wrote a professional development curriculum meant to be delivered during the school year, over four ninety minute sessions spaced one month apart. To maximize

impact on school culture, all staff should participate, and they should complete small-group work within pre-existing grade level teams.

Session 1 is primarily lecture based, and focuses on disseminating background knowledge on the impacts of trauma on their students bodies, brains, and behavior; the relationship between attachment and resilience; the existence of secondary trauma; and the relationship between race, oppression, poverty, and traumatic stress.

Once teachers have sufficient background knowledge, they will embark on a process of inquiry throughout Sessions 2-4. They will diagnose the impacts of trauma on their individual classrooms and school community in Session 2, collaborate to generate solutions in Session 3, implement these solutions in their classroom over the next four weeks, and then reflect on the results in Session 4.

Throughout this process, the facilitator will serve as expert and coach, offering insight and assisting teachers in problem solving. They will also model TIPs that teachers could implement in their own classrooms. Outcomes will be assessed after Session 4, through a 500 word reflection and a two-question quantitative survey.

I drew heavily on Knowles' (1992) principles of adult learning and Darling-Hammond et al.'s (2017) principles of effective teacher p.d. to ensure this experience is useful for the teachers who participate. The following chapter discusses how the experience of creating this curricula and its associated literature review was useful to me, as well as my projects' broader implications for policy and the teaching profession.

CHAPTER FOUR

Conclusion

Introduction

Throughout this project, I learned a lot about how to research as well as my research topic. I looked at the differences between andragogy and pedagogy and tried to incorporate both into my PD. I did so by supporting individual teachers in individual classrooms to do their own exploration of my research question. This allows for the teachers to respond to the unique needs within their classroom, and recognizes trauma as something complex and expressed in a very individualistic manner. As traumatized students require so much individualized support, it's not surprising that schools require a larger number of teachers and support staff, as well as time for these adults to form relationships with their students. In an ideal world, we would have enough monetary resources to hire more staff, and to fund additional comprehensive PD that includes individualized observation and coaching of teachers. Future research should examine which trauma-informed practices are most effective with a variety of student populations.

Major Learnings

Writing curricula for adults taught me a lot about writing curricula for children. I dove into the principles of adult learning, and found that they were really just principles of good learning. Knowles (1992) describes quality adult education as interactive, relevant, and featuring learner-directed inquiry. He also believes “that every learning experience should result in both some acquisition of content and some enhancement of their self-directed learning competencies,” (Knowles, 1992, p. 11). This should also be

true of the learning experiences we provide children. Student centered education is meant to be interactive, relevant, and develop students' identities and competencies as learners. Knowles acknowledges this (1992).

One of my most treasured learnings from the project was Knowles distinction between andragogy (student directed, inquiry-based learning) and pedagogy (teacher directed learning) (Knowles, 1992). He explains that “these two models do not represent bad/good or child/adult dichotomies, but rather a continuum of assumptions to be checked out in terms of their rightness for particular learners in particular situations” (Knowles, 1992, p. 12). He also points out that learners entirely new to a field will be more dependent on their teacher, and therefore better suited to pedagogical strategies until they know enough to direct their own inquiry (Knowles, 1992). I moved from a pedagogical approach in Session 1 of my PD to an andragogical process of inquiry in Sessions 2-4. I am eager to begin experimenting with this kind of arc in my classroom next year.

Another one of my most significant learnings from the capstone experience is that I am not a natural researcher. Sitting still and being quiet are difficult for me, which makes me perfectly suited to an elementary classroom! Nonetheless, I persisted, and gained proficiency in this extremely useful skill. The literature review proved crucial to developing my project, sometimes in surprising ways. The connections between my literature review and project will be explored in the following section.

Revisiting The Literature Review

My project focused most deeply on the impact of trauma on the body and the brain than I expected it to. The details of it are, in some ways, outside the scope of my profession. However, understanding what trauma does to people seemed key to understanding how best to meet their needs in the classroom. I therefore drew heavily on the Impacts of Trauma section of my literature review, which focused on the work of Bessel van der Kolk and Bruce Perry.

I also pulled heavily on the themes of relationships, resilience, secondary and organizational trauma, and social justice in that first session of the PD. Each of these topics utilized a wide range of references. Bloom and Sreedhar's 2008 article informed much of the section on secondary and organizational trauma. Robert Carter, who developed the concept of race-based traumatic stress, was also a crucial voice. I devoted less time to explaining these issues than I did the neurology of trauma because they require less specialized vocabulary and background knowledge to understand, especially if you've already covered the physiological and behavioral impacts of trauma. However, they are equally important.

In the end, the sections that most directly answer my research question are the sections I reference the least in my project. I have the facilitator model a few TIPs for the participants, but for the most part, my project is a template designed to help teachers answer my research question themselves. They design their own trauma-informed practices based on the needs of their particular group, identifying for themselves what they can do as individual teachers to support traumatized students in their classrooms.

However, accruing research on trauma-informed practices and the importance of avoiding retraumatization was still essential. The facilitator requires that background knowledge in order to support the participants effectively.

To a limited extent, my research challenges the validity of the research question it was meant to answer. I discovered the importance of trauma-informed practices being implemented across whole schools, and of teachers learning together and supporting each other. This is reflected in the design of my PD, which groups teachers who can collaborate easily between sessions and is meant to be delivered to an entire school community. However, I know from my own experience that teachers have a limited control over the rest of their building. Larger scale change requires cooperation, but if we want our colleagues to alter their practice, we need to begin with our own. The following section will discuss some of the larger scale changes I hope these individual actions will build toward.

Broader Implications

In the course of my research, I discovered that relationships are crucial to supporting students of trauma. They need to develop trust with alternate attachment figures, and have adults available to teach them the self regulatory and relationship skills they lack. All that individualized love and attention requires boots on the ground. We need more teachers and support staff in our schools, so that they can support students (and each other) in overcoming their trauma responses.

Furthermore, schools and school districts need to adequately support the staff they hire. They must train these teachers and support staff in trauma-informed systems of

classroom management in order to avoid re-traumatizing students. They also need to pay these staff well enough that they can thrive outside of work, and bring their best selves to school every day. Schools should also provide resources for staff who are struggling with their own trauma, or at the very least, with secondary trauma acquired at work. Insurance that covers mental health care is crucial, as is help locating and scheduling with providers. Ideally, there would be multiple psychologists serving every school, so that both students and staff can benefit from that resource.

A more easily implemented, but equally crucial change would be to allocate part of every school day to explicit social emotional learning. Schools and districts ought to invest in high quality, vetted curricula to maximize the impact of this time. All students, but especially traumatized students, benefit from instruction in self-regulation and relationship skills. It is well worth the time diverted from literacy or math instruction, as a more peaceful classroom allows higher quality learning to take place in the time remaining.

Limitations

Although it is a valuable contribution to available research, this project and its associated literature review have several limitations. The project was limited by the resources I expected schools to possess. Ideally, a professional development around classroom management would include several observations by an expert for every teacher, or at least every grade level team. But this is very time intensive, and therefore requires a significant investment by the school. I chose to remove that barrier to access from my PD by limiting the amount of support participants receive from the facilitator.

One way to ameliorate this limitation would be to pair my PD with whatever coaching infrastructure already exists within the school. The principle, for example, could attend to trauma-informed behavioral management when they observe teachers. Teachers could also make time to observe each other during their prep times in order to offer feedback or support.

Additionally, a short timeline curbed the literature review. It would require much more than one semester to answer my research question comprehensively, perhaps because it is too broad. Topics excluded or short changed in the literature review include restorative justice practices, yoga, meditation, and likely more varieties of intervention I never discovered. The following subsection will consider these limitations, as well as the limitations of other available resources, and offer recommendations for future research.

Discussion of Future Research

I would advise any future researchers of trauma informed education to focus less on the neurological and behavioral impacts of trauma. I've laid groundwork for you there. Instead, focus on aggregating and organizing a wider variety of trauma-informed practices, and locate data on their efficacy. Which practices are most effective in real classrooms? Are they equally effective with all student populations? I am also curious if there have been any schools or programs that have been especially successful with traumatized students.

There is a continuing need for action research around trauma-informed practices. The theory behind them is well developed, but there is a limited amount of data available about the impact of specific interventions on student behavior or achievement. Details

about what makes one intervention more effective than another would be extremely helpful for teachers trying something new.

Communicating Results

My capstone project and all associated writing will be posted to the Hamline Digital Commons, where it will be free to access. Anyone with a computer and internet access will be able to download these resources, read them, and lead the PD at their school. The following section discusses the benefits these experiences offer to the teaching profession.

Benefit to Profession

This project has the potential to help hundreds of teachers develop their trauma-informed practice. Its impact can be so widespread because it provides infrastructure that will help teachers help each other. Any teacher with internet access and a willing administrative team can read my research, and then facilitate the PD. If their coworkers are willing to engage, the school culture will begin to shift as staff examine their community through a trauma informed lens. As they plan, implement and reflect on a trauma-informed practice, they can empower each other to make change.

Conclusion

Trauma in the classroom is a complex topic, and requires further study to really create trauma-informed classroom procedures. In this project, I have fought with different articulations of trauma and found that the best solution is a classroom focused, individualized response. Large scale changes are needed to adequately care for our traumatized students - school wide initiatives and support, additional staffing of

psychologists and other behavioral specialists, and collaboration among teachers with background knowledge in trauma. However, I believe that this PD can make some smaller changes for the better within many communities. I hope people will take this PD and see it as a starting place for building a trauma-informed culture.

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