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The Implications of Childhood Trauma for Education Professionals

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THE IMPLICATIONS OF CHILDHOOD TRAUMA FOR EDUCATIONAL PROFESSIONALS

A MASTER'S THESIS

SUBMITTED TO THE FACULTY

OF BETHEL UNIVERSITY

BY

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IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

MASTER OF ARTS IN EDUCATION

AUGUST 2019

BETHEL UNIVERSITY

THE IMPLICATIONS OF CHILDHOOD TRAUMA FOR EDUCATIONAL PROFESSIONALS

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August 2019

APPROVED

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Acknowledgements

In the completion of this literary analysis, I have to thank my wife for her hard work to pursue a career that has direct implications for why I desired to write a paper on a topic like trauma. Being a therapist is no easy job, but it allowed me to have someone to bounce ideas off of and allowed for the topics discussed to be sound from a psychology standpoint as well. I also have to thank my thesis advisor, Lisa Silmser, for her dedication to being available during the thesis process, as well as being an uplifting and challenging voice to finish the race to the best of my ability.

Abstract

Students in all areas of the world have experienced trauma that has impacted both their educational and social development; this epidemic has become clear over the last 20 years. The Adverse Childhood Experiences Study recognized seven negative exposures that were believed to have a detrimental effect on health and wellbeing later in life. After more research, the list of known traumatic experiences has grown to include other negative impactors like parental divorce, bullying at school, or abuse. In reality, any experience that overwhelms a person's ability to cope and adapt properly can be considered traumatic. Thankfully, there are now many strategies that educational professionals can implement to begin to improve the academic and social outcomes for those who experience trauma. Whether it be finding off-site or introducing on-site programs for these students, engaging all students in a school-wide curriculum, making changes in the environment of the school, or adjusting educator's instructional approaches, there are numerous opportunities to positively impact the students and help them as they navigate a path towards normal development, in spite of the trauma they face.

Table of Contents

CHAPTER I: INTRODUCTION

When someone speaks about trauma or traumatic experiences, what usually comes to mind? Many probably think of a diagnosis that is all too familiar in the world today, PTSD, or Post Traumatic Stress Disorder. The thoughts of war, horrific sights and sounds, gunshots, and explosions tend to fill the brain. Isn't this where PTSD comes from, the traumatic experiences soldiers have encountered? Although this is true, there are so many other kinds of traumatic symptoms being diagnosed, or at least recognized as real and determinantal. This specific trauma isn't showing up in soldiers who have fought for their country. Instead, it exists within the young lives of students in schools.

Looking to Merriam-Webster's dictionary, trauma is defined as, "a disordered psychic or behavioral state resulting from severe mental or emotional stress or physical injury" (Merriam-Webster, n.d.). Today, "trauma" is becoming a buzzword in the field of education. Are educators seeing more of this adverse behavioral and mental states, or are they finally beginning to recognize that these unhealthy social and emotional behaviors may stem from previous experiences in one's life? Traditionally, disruptive behaviors that tend to lead to poor academic achievement have simply been medicated, punished, or discarded as a nuisance (Foltz et al., 2013). The question that has been often asked is "What is wrong with you?" instead of asking a more reasonable and impactful question, "What has happened to you?" (Bloom, 1997).

Adverse Childhood Experiences (ACEs)

Within the last 30 years, an increased amount of trauma research has taken place, specifically concerning children or adolescents who have experienced traumatic experiences. One of the most well-known studies which began this research push was the Adverse Childhood Experiences Study, or ACEs, which was published in 1998 and was conducted by the American health maintenance organization Kaiser Permanente and the Centers for Disease Control and Prevention. Being one of the largest investigations of childhood abuse, childhood neglect, and household challenges, over 9,500 people completed surveys regarding their childhood experiences and their current health status and behaviors in an attempt to determine if there were later-life health and wellbeing implications (Felitti et al., 1998).

This initial study included two major adverse childhood exposures. The first was childhood abuse, consisting of psychological, physical, or sexual abuse. Secondly, the study looked at household challenges which could include substance abuse, mental illness, violent treatment towards the mother, and family member imprisonment. After analyzing the responses from the questionnaire, it was found that more than half of the participants reported at least one category of exposure, with one-fourth reporting two or more (Felitti et al., 1998). As the number of adverse experiences, or ACEs, increased, there was a clear relationship between risky health behaviors and diseases like alcoholism, drug abuse, smoking, obesity, lung disease, cancer, heart disease, liver disease, as well as many others. In fact, participants who experience four or more categories of childhood exposure, compared to those who experienced none, had a "4-

to 12-fold increase in health risks" (Felitti et al., 1998, p. 245). Although there were

originally seven childhood exposures included in the list of ACEs, there are now ten with

the addition of parental separation or divorce and emotional and physical neglect. It has

been recognized that these exposures have a serious impact on youth health and

wellbeing as well (Felitti et al., 1998).

Developmental Assets®

Since 1998, many other studies have taken place to determine the implications

of childhood exposures in more specific and general avenues. Others have also taken

different approaches to these results. More specifically, the Search Institute® studied to

determine if there are building blocks of healthy development, Developmental Assets®,

that will allow young people to grow up as healthy, caring, and responsible individuals

(Search Institute, 2006). They determined that there are internal assets, like a

commitment to learning and social competencies, and external assets, like support and

empowerment, and that 30-31 of these assets must be in place for students to survive

and be a productive citizen. However, the chilling reality is that the average American

student only has 18 internal and external assets, an insufficient amount to produce

healthy and productive citizens (Search Institute, 2006). Similarly, as the ACE study

recognized a relationship between the increase of exposures and an increase of risky

behaviors and poor health, the decrease of Developmental Assets® also decreases the

likelihood students will have a healthy development.

Social and Academic Impact of Trauma

Before becoming aware of these statistics, most would assume that having

negative childhood exposures would impact students, at least to some extent. If

students struggle to sleep due to their mother being beaten before bedtime, if they

struggle to get homework done because they were navigating two households after a

divorce, or if they were not allowed to eat because they didn't do their chores the day

before, it would make sense that the next school day may not have come as easily as

the day prior. To what extent and in what ways it impacted youth, however, may be up

for debate, especially based on the severity of such experiences. Yet, with such

conclusive evidence, researchers have been determined to branch out and look for

answers in many other populations and circumstances regarding the impact ACEs or

traumatic experiences have on student educational achievement or social behaviors at

school.

To this end, Oosterhoff, Kaplow, and Layne (2018) studied the impact of sudden

loss, the sudden death of a close family member or friend, and what type of disruption it

may have on student academics. After collecting survey information, sudden loss

became the most frequent trauma event that the students experienced, with almost

30% of them reported at least having one sudden loss in their lifetime (Oosterhoff et al.,

2018). It was also determined that those who experienced sudden loss had lower

academic achievement, lower abilities to concentrate, and felt as though they didn't

belong at school. Another stressful reality, poverty, had a wide range of impacts on

students who came from families who were below the poverty line. In fact, poverty-

related stress was strongly associated with internalizing and externalizing behaviors, clinical diagnoses, physical wellbeing, use of drugs, and dropping out of school (Wadswroth et al., 2008). Sadly, poverty-related stress can impact students as young as six years old. Another article by Flannery, Wester, and Singer (2004) looked to determine if violence at school affected student psychological trauma symptoms. After finding that almost half of middle-school-aged students had been threatened at school in the past year, as well as 87% of the students witnessing some form of violence, there was an obvious difference between those that were exposed to high levels of violence compared to lower levels. Those who experience high levels of violence were significantly more likely to have clinical levels of trauma symptoms (Flannery et al., 2004).

Unfortunately, research shows that the negative impacts of the adverse experiences of students don't stop. Students who experience maltreatment in the form of physical, emotional, or sexual abuse and physical and emotional neglect have a much greater chance of not completing their high school education (Barker, Kerr, Dong, Wood, & DeBeck, 2017). There is also a clear relationship between the number of ACEs and having more poor school attendance, behavioral issues, and not meeting the grade-level benchmarks in math, reading, or writing (Blodgett & Lanigan, 2018). Divorce and remarriage, a reality that half of the students experience today, shows a negative relationship with academic achievement, especially for girls (Ham, 2004). Problematic externalizing behaviors in school can also be traced back to the family and home context with a strong prediction that the students with such behaviors either personally

experienced or witnessed physical abuse, had high levels of negative social interactions, or experienced extreme aggression between their mother and siblings (Price, Chiapa, & Walsh, 2013). Although this is just a limited number of examples, whether it is academic, social, or emotional development, it is understandable that students who have negative exposures in their childhood are less likely to demonstrate healthy academic and social development.

With two decades of research resulting in a vast amount of information regarding childhood trauma and its impacts, many educators are asking the following question: "What can I do to make an impact on these students so that the realities this data shows don't become my student's reality?" This is an honest question, and many educators have not had the proper training to truly understand what is affecting their students. Often, even when teachers learn about the trauma, they are not sure what they should do with that information. In fact, Alisic, Bus, Dulack, Pennings, and Splinter (2012) can attest to this reality as they determined in their research that many educators are uncertain about what their role can be for these students as well as what to do to help assist them after they have experienced trauma. When teachers were asked questions about what it has been like to teach students who have been traumatized, between 25% and 63% of the time teachers responded with a four out of six, with six being very difficult to teach (Alisic et al., 2012). With that said, educators should know that they are not alone if they feel less than competent when working with these students.

Definition of Terms

For the purposes of this literary analysis, it is important to define a few common terms for sake of clarity and consistency throughout the entire work. First, a working definition for the word "trauma" can be derived from the name of the ACE study, "Adverse Childhood Experiences." References to "trauma" can represent a wide variety of stressors to someone's daily life. Any experience a person may have that causes uncontrollable stress, that overwhelms some aspect of their life, and, therefore, their ability to cope, will be referred to as "trauma." This may occur acutely, meaning that it happened for a distinct moment, or chronically, meaning it has happened over and over again. Although stress is normal, the inability to manage the stressor causes the traumatic experiences. Next, "resiliency," or the act of being "resilient," will be considered as the ability to cope through stressful situations and circumstances. In addition, resiliency brings with it more than just coping, but also the ability to adapt and recover from the traumatic events that one has experienced. A possible important aspect of a person's resiliency is "mindfulness," or the act of being "mindful." This can be described as directing one's attention to their current experiences with curiosity and acceptance in order to be present in that experience, allowing a more rational response to what is occurring (Costello & Lawler, 2014). Mindfulness is often related to deep breathing and awareness of the body's sensations. Lastly, "social-emotional," in regard to behaviors or other characteristics, is the interplay between a person's emotions and their ability to interact in a socially. For example, poor social-emotional behavior may look like aggressive behaviors stemming from frustrated emotions. Although these

terms and concepts have been defined here, at times, authors may refer to them in their preferred manner. In those cases, their definition or explanation should be considered for the context of their research.

Research Questions

As the following literature begins to be unpacked, the goal is to holistically answer the following question: How can education professionals combat the impact of trauma and/or introduce protective supports for students experiencing trauma to improve student academic and social outcomes? As Foltz et al. (2013) noted, it is time for educators to get away from the traditional reaction toward disruptive behaviors and poor academic achievement, such as medicating, punishing, or even sending students to different schools, and begin to work with students in a way that will answer the question more effectively. If educators can determine how to combat the impact of trauma and introduce protective supports for traumatized students, the educational system can begin to make a positive difference in their lives in very specific ways that have been needed for quite some time. As previously emphasized, the question should not be, "What is wrong with the students?," but instead, "What has happened to them?" (Bloom, 1997).

CHAPTER II: LITERATURE REVIEW

Literature Search Procedures

Chapter Two reviews empirical research studies that have been published in regard to combatting the impact of trauma and/or introducing protective supports for the students within the educational systems and schools. To locate this published literature, searches within Academic Search Premier, EBSCO MegaFILE, ERIC, ProQuest Education and Psychology, PsycARTICLES, and PsycINFO were used with publication dates from 2000-2019. A search list was first generated by using the following keywords as well as a combination of the keywords: "trauma-informed educational interventions," "trauma-sensitive school instruction," "mindfulness education in schools," "resiliency in the classroom," "social-emotional learning for students," "coping skills for students experiencing trauma," and "self-regulation strategies." To narrow this list, only peer-reviewed empirical studies were selected for further investigation of applicability in relation to determining what, if anything, can combat the impacts of trauma or protect students from the impact of such events. Lastly, any articles that had participants who were pre-kindergarten or younger and those that included postsecondary students were not included. The organization of this chapter is to review the current literature on this pressing topic in the following order: Off-site Trauma Programs; On-site Programs for Traumatized Students; School-wide Curriculums for All Students; Changes Within and Impacts of the School Environment; Changes in the Classroom.

Off-site Trauma Programs

While considering the current strategies that would potentially impact students who have experienced trauma, the first option might be to provide students with therapeutic experiences outside of the school building. With a wide range of programs and providers, off-site trauma programs may seem like the best route at first as someone or some program can be found for a student experiencing any form of trauma responses. Whether this is yoga-based or mindfulness therapy, or if it were a summer learning program that focuses on social-emotional outcomes as well as growing student's literacy, the off-site trauma programs may open a wider variety of options for students.

Mindfulness is one way to focus on providing traumatized youth with resources to navigate their life experiences. Specifically, it is a state of mind that positively affects one's approach to negative stimuli and it can be achieved through many different avenues. Beltran et al. (2016) turn their attention to an avenue that may reach such a state of mindfulness in an attempt to positively change one's interpersonal functioning, specifically through a yoga-based psychotherapy group.

The group for this research was formed by ten boys, ages 8 to 12, with a mean age of 10.3 years old. Many of these boys were African-American (70%) and all were receiving treatment at the same urban, community-based, mental health center with at least three prior months of treatment before the yoga-based psychotherapy group (YBPG) started (Beltran et al., 2016). Among this group, they obtained an average of 2.1 out of 6 for their trauma score showing a distinct history of trauma exposure in their

childhood. There was also an average of 2.6 psychiatric diagnoses and all 10 had been

diagnosed with ADHD and adjustment disorder with features of anxiety. Beltran et al.

(2016) also note that 60% had a diagnosis for oppositional defiant disorder and 90%

were on some type of prescription medication.

To begin to determine what types of changes in functioning may take place in

these boys' lives, they took an assessment at both the baseline and the last yoga

intervention. The same assessment at the same times was also given to parents and a

teacher or therapist who knew the students well. If the students were involved in some

other therapy program, during these interventions, they continued with that also. This

assessment sought out to measure the following five areas: interpersonal strength,

family involvement, intrapersonal strength, school functioning, and affective strength

(Beltran et al., 2016). Once the baseline assessment was complete, students

participated in a weekly yoga intervention for 14 total sessions, all lasting 90 minutes

apiece. In the first phase of the sessions, there was a focus on creating a safe and

trusting environment, forming agreements to establish the expectations, and lastly to

explore and determine personal boundaries. Beltran et al. (2016) mention that the

second of three phases focused on increasing awareness of the self and one's sensations

and learning how to connect to one's emotions through a focus on breathing. The final

phase worked through social interactions, asserting oneself, and practicing teamwork

and leadership skills. Throughout all of the phases, there was a primary focus on the

exploration and practice of relaxation skills.

After the 14-week YBPG was completed and all participants took the post-intervention assessment, data were compiled to determine what or if any improvements had taken place over this timeframe. With regard to the baseline parent ratings, significant improvements in student interpersonal strength, intrapersonal strength, and family involvement were obvious (Beltran et al., 2016). Beforehand, all boys started in a "below-average" range in these functions and now they are all within the "normal" range. Parents also noted improvements in the boys' self-regulation. When looking at acceptability and client satisfaction, compared to all of the other mental health interventions at the same clinic, the YBPG had considerably higher rates of attendance and both the participants and parents responded in a very positive manner when the assessments asked about aspects of the group (Beltran et al., 2016). For instance, on a 5-point scale with five being the most positive, every piece of the program was rated at a 4.58 or higher with the highest rating being a 4.91, which was specific to whether or not the participants liked the yoga and if the program helped them learn to use breathing and movement to calm down. Many noted that they wanted to do the group again, which was a positive sign of the impact that this intervention had on a group of highly diagnosed, medicated, and traumatized young boys (Beltran et al., 2016).

Knowing that traumatic experiences come in all shapes and sizes and are dependent upon each individual student, it may seem difficult to find a program that perfectly fits. In a rare situation, at least to Western culture, many people around the world deal with the traumatizing effects of HIV/AIDS in the lives of not only those

carrying the disease but also those known to be related to such people. Due to this

reality, Sinha and Kumar (2010) investigated what the short-term effects may be of the

Mindfulness-based Cognitive Behavior Therapy (MCBT) on those adolescents who are

emotionally disturbed from living with a parent who is HIV positive. Wondering if this

therapy would benefit students' management of their emotional problems, they

focused exclusively on student internalizing problems, depression, anxiety,

hopelessness, social and interpersonal competence, as well as perceived academic

stress.

The participants in this mindfulness therapy group were 12 HIV-negative

adolescents. Seven of them were males, and the other five, females. They ranged from

13 to 15 years old and were identified with having psychological disturbances based on

parent and teacher surveys, self-report, and through a survey to measure depression

levels (Sinha & Kumar, 2010). As mentioned, these students were also living with a

parent who was HIV positive. After finding these participants, all children took a

baseline assessment provided by clinical psychologists, as did their teachers and parents

regarding that child. When the therapy was completed, all who took the baseline

assessment also took a post-therapy assessment to determine the impacts of therapy

(Sinha & Kumar, 2010).

To begin the therapy, the 12 students were split up by gender into two groups

for all 12 sessions and received one session every week which lasted for approximately

85 minutes. Sinha and Kumar (2010) note that the Mindfulness-based Cognitive

Behavior Therapy had two components in all sessions: mindfulness practice and a

cognitive-behavioral intervention (CBI). The beginning 20 minutes was used for

mindfulness practice and the rest was spent on the CBI, giving a 5-minute break in

between. It may be important to note that the trainers that led the separate groups also

shared the same gender as the group. The mindfulness component comprised

conversation on the power of the mind, the benefit of realization and power of the mind

in an optimistic direction, practicing meditation, as well as exercises focusing on self-

awareness and self-control (Sinha & Kumar, 2010). The cognitive-behavioral

intervention primarily replicated Beck's model that focused on self-monitoring and

cognitive restructuring.

　　　　As students took a pre-assessment, in all of the specific areas measured, there

was an extreme amount of problems, struggles, and trending negativity shown

quantitatively. Post-treatment, the only areas measured that didn't show significant

changes were popularity and aggressiveness even though they were still trending in the

desired direction (Sinha & Kumar, 2010). However, progress was significantly seen in all

other areas. Ninety percent of the children reduced their internalizing syndrome and

emotional problems at a clinically significant level. With high depression, hopelessness,

and low self-esteem beforehand, post-therapy represented substantial declines in

depressive symptoms, social and psychological symptom profiles of anxiety, and

decreases in their feelings of hopelessness. Sinha and Kumar (2010) also showed that

many students were experiencing stress in academics beforehand, but afterward there

was a significant reduction in their stress in this area, as well as large improvements in

their academic performance. Students showed meaningful progress in their enhanced

social affiliation and reduction in their internalizing of their emotional feelings. When looking at the qualitative data observed from the instructors of the therapy, it was also evident that students were very interested in the mindfulness practice and showed a high consistency of following all instructions and following through with homework assignments given after the sessions (Sinha & Kumar, 2010). With such positive results in a rather emotionally disturbed population, this could show implications of the acceptability and feasibility of MCBT with other traumatized populations.

Whatever factors a school, district, or state determines necessary to label a student as "at-risk," it is the goal of the schools to be able to support the student to such an extent that this label can ultimately be removed. Whether it deals with drugs and violence, behavior, or academics, these at-risk students need support for the future benefit of communities. In this study, Zeng, Benner, and Silva (2016) look at the feasibility and what, if any, positive effects a summer learning program could have on at-risk students in their literacy and social-emotional outcomes.

The students who were selected to participate were from an urban public school in the Northwestern United States. Only 92 of the 552 incoming 4th graders who scored below proficient on the state literacy test provided consent to participate. Of these 92, 45 of them were assigned to a treatment group and the other 47 to the comparison group with all assignments based on their school enrollment and geographic distance to the summer school sites (Zeng et al., 2016). Fifty-one (55%) were male and 41 (45%) were female with an average age of 8.8 years old. The majority of participants were African American. Over 80% of these students received free or reduced lunch and 95%

were at-risk for being labeled as Emotional Behavioral Disorder or EBD. Between the groups, it should be noted that there was no statistically significant difference between the two except for the fact that the percentage of ELL students was higher in the comparison group as they had 11 more (Zeng et al., 2016).

The intervention for the treatment group was provided with the help of the school district and the Boys & Girls Club. Zeng et al. (2016) mentioned that both groups completed five weeks of intensive literacy instruction, but since the research was focusing on the effect of the treatment on both academic and social-emotional abilities, the treatment group also participated in enrichment activities at the Boys & Girls Club. Although the literacy portion of the intervention was located at the school, for this purpose, it is being considered as "off-site" because students are not typically required to attend school in the summer. The students completed an assessment at baseline and after the summer learning program with the same measures each time. The enrichment activities that were added for the treatment group were designed to improve students' social-emotional skills through experiences that helped them learn to take control of their mind by helping the students assess, practice, identify, consider, and recognize healthy behaviors (Zeng et al., 2016). These activities also helped them recognize their body through group-based physical exercise, as well as recognize their soul through social recreational activities. On top of these, social-emotional skills like self-regulation, conflict resolution, decision making, problem-solving, and leadership skills were explicitly taught and embedded into their routines.

After the summer learning program was completed by the treatment group and the comparison group, both groups increased at a similar rate with regard to their literacy scores, thus no statistical significance was noted. However, with regard to social-emotional behavior, the treatment group significantly improved, more specifically with a decrease in emotional symptoms and peer problem constructions (Zeng et al., 2016). At the same time, the comparison group backslid in these areas. When asking the students about their overall satisfaction, they mentioned it was high, with 80% of the participants thinking that it was a fun program and that they wanted to do it again next year. Eighty-nine percent of them noted that they had also learned a lot and would be able to use what they had learned at home and at school (Zeng et al., 2016). Both of these demonstrate an extremely high level of acceptability. 64% of the students also thought that they were better at thinking happy thoughts and understanding their own feelings and 77% agreed that they could be better friends now. After looking at parent feedback, Zeng et al. (2016) mentioned that over 90% of parents agreed or strongly agreed that their child made growth in their reading and also believed that the child's peer relationships and social-emotional behavior improved also. From these results, one can see how students gained an increased motivation, social competence, and academic improvement through this summer learning program, as well as learning many important skills that they will need to navigate the messiness of life. Due to this treatment, these at-risk for EBD students can have an opportunity to move farther away from obtaining such a label and improve their social and academic functioning.

On-site Programs for Traumatized Students

To begin looking at a different type of model where students are provided with trauma programs while at their school, during or directly after the school day, also considered as "on-site," these options could benefit the potential struggle of finding consistent transportation to an off-site facility as was previously investigated. Although this may seem like a potential benefit, it still should be a priority that these programs show growth in traumatized students like the off-site programs did. First, is there growth in regard to academics? Secondly, do undesirable social and mental health symptoms decrease? As literature will show, many of the same improvements, as well as many more, are recognized because schools have a greater capacity to serve students on-site since students spend most of their week in their school building.

Academic Impact

When focusing on the academic benefits, it must be clear that they are not completely disconnected from the social-emotional behaviors and vice versa. Instead, the following study specifically determined that its only goal was to address what type of academic benefits, if any, were gained through a trauma program. The interplay between negative social and mental health symptoms and academics is very real and will be detailed later. To this point, Cleary, Platten, and Nelson (2008) set out to determine if the Self-Regulation Empowerment Program, or SREP, would be an effective intervention against poor academic achievement due to either student factors and/or environmental influences. Specifically, would the Self-Regulation Empowerment

Program improve the self-regulation, motivation, and test performance on underachieving urban high schoolers (Cleary et al., 2008)?

These urban high schoolers came from a public school system in the Midwest United States where 78% of the student population was either African American or of Latino descent, 67% were eligible for free or reduced lunch prices, and the school's proficiency on state tests was below the average for ELA, science, and math (Cleary et al., 2008). The selection process for this study involved two specific criteria: students with 9th grade status with adequate learning skills and below average biology classroom test scores. Cleary et al. (2008) ended up only choosing only eight students from a 9th grade honors biology class, meeting the requirement of "adequate learning skills," while holding an average of 75 or below on five baseline tests within that course, meeting the second criterion.

The researchers focused on gathering data both in a quantitative and qualitative form. This came from teacher ratings specific to homework quality and completion, organization and class preparation, as well as the students' help-seeking and self-regulation processes. Pretest and posttest methodology were used, along with normative analysis comparing the participants to the rest of the 112 classmates in their honors biology class (Cleary et al., 2008). The eight participants were randomly assigned to two groups, four per group, for the intensive and structure SREP. The groups were assigned a different self-regulation coach who led the participants through a 50-minute bi-weekly tutoring session for about 11 weeks, totaling 23 sessions. Cleary et al. (2008) notes that in these sessions, students participated in instructional modules targeted to

enhance students' awareness of their maladaptive beliefs, i.e. believing that their failure on a test is based on their poor abilities, to provide instruction on forethought processes like goal-setting or strategic planning, to learn tactics to enhance their learning like mnemonic devices, and lastly, to learn how to self-reflect on previously set goals and performance along the way.

After gathering data from the 11-week interventions, posttest, and qualitative teacher reports, compared to the control group in regard to the frequency and ability to use the strategies SREP teaches, the participants who received such intervention reported greater use of self-regulation skills like help-seeking and environmental structuring and they also exhibited a reduction in maladaptive behaviors like disorganization, forgetfulness, and avoidance (Cleary et al., 2008). Cleary et al. (2008) also recognized that, quantitatively, the eight participants' average rose from 70.6% to 83.3% compared to the control group's average increase from 77.6% to 80.6%. It is important to note that, even though there was a demonstrated jump of about 13% for the eight students compared to only about 3% to the rest of the biology class, three of those eight students struggled to show consistent attendance and, therefore, may not have benefitted from the intervention to the fullest extent. Nevertheless, these statistics strongly suggest that teaching high school students within an urban setting to become more mindful through active, strategic participation with their curriculum via learning strategies and forethought/reflective thinking skills is a significant step toward helping them achieve academic success (Cleary et al., 2008).

Social and Mental Health Impact

As recently noted, the connection between negative social and mental health symptoms like high stress and anxiety, PTSD symptoms, and higher depression levels are very apparent in students who have experienced trauma. For this reason, most of the current research focuses on these negative realities and what different opportunities can be provided to students to allow them to build skills that will manage the reactions they experience within an educational setting. A student must first navigate the trauma in their life before they will be willing to fully engage in their academic pursuits.

"Small trauma" events. By looking at research from around the world, it is recognizable that the severity of situations is drastically different from place to place. When looking at the United States, there is a much higher amount of student trauma resulting from a family member who is incarcerated as the United States has the highest incarceration rate in the world (Nichols, Loper, & Meyer, 2016). At the same time, the United States has not experienced the same level of traumatic experiences as has Beer Sheba, a city in Israel that has had numerous terrorist attacks since 2000 (Gelkopf & Berger, 2009). Due to this, the published articles will first focus on "small trauma" events that lead to PTSD, an increase in depression and anxiety symptoms, then, will transition to investigating ways to help students who have extreme social-emotional behaviors like at-risk EBD or severely aggressive students, and end with studies involving "big trauma" events like tragedies that have occurred around the world.

To this note, studying the psychological impact on student social behaviors can allow for a greater understanding of what can be implemented within a school setting to

help students who are not acting appropriately get some intervention that may support their development. Lau and Hue (2011) do just this as they not only attempt to test the feasibility and acceptability of a mindfulness program, but they also strive to determine the possible impact of the program for improving the psychosocial condition of adolescents in school settings.

Two public schools located in Hong Kong, both schools categorized as having lower learning ability and lower learning performance than all the other schools around, were chosen to gather participants for this study due to the support that many of the teachers showed for a mindfulness program, something the school didn't have prior (Lau & Hue, 2011). After the study was presented to both schools and was offered as an after-school program, 40 students from both schools wanted to join the program. However, due to absences, it ended up being that only 24 students attended 80% of the classes, this being the cutoff for data collection in an attempt to show validity to the mindfulness intervention (Lau & Hue, 2011). Of these 24 participants, they had a mean age of 15.38 years old with 15 of the 24 being female (62.5%). According to the intervention group, an equal size control group was invited that didn't have a statistical difference in gender, meditation practice experience, or religious faith.

Lau and Hue (2011) determined that for the students who consented to be a part of the program, they would complete a 6-week mindfulness intervention as well as a one-day retreat. Before the program began, both groups of students, the intervention and control group, were assessed with regards to their wellbeing, stress, depression, and mindfulness. For the six weeks of the program, there was a weekly 2-hour session

led by the same instructor. Students were also encouraged to do practice at home

voluntarily for approximately 15 minutes per day. The specific program was modified

from the Mindfulness-based Stress Reduction program (MBSR) with a goal to increase

concentration and reduce student stress by fostering moment-to-moment awareness

(Lau & Hue, 2011). To do so, there were four main activities the program followed:

stretching exercises to enhance mindfulness through becoming aware of body

movement, practicing daily activities while focusing on body sensations, thoughts and

emotions like sitting, standing, walking, and laying down, completing a "body scan"

which helps guide attention throughout the body, and practicing loving-kindness by

sending well wishes and blessings to oneself and others around the world. Once these

were completed, both groups were again reassessed with the same focus as the

baseline assessment (Lau & Hue, 2011).

After collecting a majority of quantitative data and some qualitative data from

written responses, there was an indication of a positive experience in the program from

the participants, and they felt like the skills learned could be helpful in their daily lives

(Lau & Hue, 2011). Quantitative data showed that only the students who partook in the

mindfulness intervention enhanced their mindful presence, whereas the control group

had no variation. With respect to wellbeing, the experimental group also had a higher

level of growth afterward. Lau and Hue (2011) mentioned that there were no significant

implications within the data for dimensions of perceived stress. Although the depressive

levels of the intervention group didn't increase, over the course of the program, the

levels of the control group did. In fact, one teacher remarked they were shocked at the

ability of some students who used to be easily distracted now having heightened levels

of concentration (Lau & Hue, 2011). Ultimately, this was the goal, finding some

optimistic evidence recognizing the feasibility of the program and finding positive

impacts within the school, especially with regard to social behavior.

With regard to the lowest socioeconomic situations, many factors make it difficult

to access such a program outside of the school day and off campus, as noted earlier. To

this end, Hoover et al. (2018) wanted to determine the child-level outcomes in regard to

trauma symptoms and functioning for a school-based program called Cognitive

Behavioral Intervention for Trauma in Schools (CBITS). While they were concerned with

these outcomes, they were also curious as to the fidelity with which one could

implement such a program, and also the level of satisfaction the students themselves

had with it.

With a group of children who were reported as being racially and ethnically diverse,

a total of 350 children ranging in ages from 8 to 19 and a mean age of 12.2 years old

participated in this study (Hoover et al., 2018). These students reported that they had

experienced an average of eight different traumatic events in their lives out of the 17

possible events asked about. To name a few, 72.3% of the students reported having

someone close to them become very sick or get injured, 71.1% had someone close to

them die, 69.4% have seen someone being slapped, punched, or hit by someone else,

and 64.1% noted they have witnessed someone else getting beaten up (Hoover et al.,

2018). With the average student experiencing eight different traumatic events, this

group would be considered to be highly traumatized.

After students were selected to participate within the school-based CBITS program, they were placed within 73 different groups, each having between two and six students. Twenty clinicians led these groups of students through the CBITS program which is a school-based intervention to support 5th to 12th graders who have witnessed or experienced traumatic life events, aiming to reduce PTSD symptoms, depression, and behavioral problems (Hoover et al., 2018). At the same time, it is a goal to improve functioning, grades and attendance, peer and parent support, as well as coping skills. CBITS uses many cognitive-behavioral techniques involving relaxation, social problem solving, and cognitive restructuring. Overall, the students complete 10 group sessions with between one and three individual sessions, two-parent psycho-educational sessions, and a teacher educational session (Hoover et al., 2018). Involving everyone in the child's life is an important part of the program to help support the student through processing the challenges they have faced and to help them work through the outcomes of those challenges. To collect data on this program, the clinicians gave both a pre- and post-intervention assessment and monitored the individual student progress throughout the course's timeframe.

After the completion of the program, fidelity between each clinician was reported as extremely high as they met the session objectives 97% of the time, showing that all students received the same experience of CBITS. Out of the 350 students who began this program, 316 (90.3%) completed the entire program (Hoover et al., 2018). Although 92% of the parents or guardians of the students made it to one of the sessions, only 47% made it to both sessions. With regard to student progress from pre- to post-test,

students had statistically significant reductions in their symptoms of PTSD with a 42% reduction as well as seeing a 25% reduction in their child problem severity. Hoover et al. (2018) also note that, although there was a small increase in child functioning (5%), this is still considered a statistically significant increase. Although the parent or guardian data was limited due to the lack of attendance, of the 27% who shared post-intervention feedback, there were very high satisfaction rates for the treatment by rating it a 4.2 out of 5 with 5 being complete satisfaction. After recognizing the improvements within these very traumatized students in a 10-session, school-based treatment program, CBITS's data should be recognized as having fidelity, providing important and necessary services for students of this nature, and overall showing a high appreciation from the caregivers of the students.

With the previous programs requiring either clinicians or some type of instructor, some schools may not feel they have the resources or ability to make such a program happen with fidelity. However, these professionals may not be needed as this study investigates the feasibility and acceptability of a self-guided internet-based program called Life Improvement for Teens and if students would show improvement over time coping with their own stressors.

To determine the answers to these objectives, Jaycox et al. (2019) studied 51 students in five schools. These students had an average age of 15.02 years old and were recruited specifically to include varying demographics. Two of the schools were high schools with a majority of African American students, another high school with a majority of female Latino students, and two more junior high schools consisted of

mostly Latino students. The students ranged anywhere from 7th to 12th grade with the majority being 8th graders. The 8th graders made up 37.25% of the students with 12th graders being 25.49% and the other grades having a more even distribution (Jaycox et al., 2019). Seventeen percent of the students mentioned that they had a 504 plan and the same percentage mentioned they had an IEP. Jaycox et al. (2019) also noted that, at baseline testing, students reported to having experienced about five traumatic events in their lives.

Once the schools were selected, school counselors and social workers identified which students they thought may be interested in completing the Life Improvement for Teens (LIFT). This aimed to support youth in schools with limited mental health resources while also enhancing whatever trauma interventions may already be in place (Jaycox et al., 2019). LIFT was created with seven chapters focusing on psychoeducation about trauma and the common reactions and relaxation methods for it, other anxiety-reduction skills, identification of and challenging negative thinking, approaching traumatic triggers instead of avoiding them, as well as how to problem solve in different situations. Jaycox et al. (2019) mentioned that each chapter included some, or all, of the following: audio and motion graphics/interactives, create your own adventure games, open response sections, or drag and drop matching activities. To complete the LIFT program, all five schools gathered once or twice a week to complete a chapter. During the entire process, data was collected through student surveys before and after the program, as well as assessments built into LIFT. Researchers assessed the students in four primary outcomes: behavioral problems, anxiety symptoms, depressive symptoms,

and PTSD symptoms. At the same time, students were being assessed in three secondary outcomes: peer support, family support, and academic functioning (Jaycox et al., 2019). Students also received a $25 gift card for completion of the surveys and were given snacks while they completed the chapters each week.

After data was collected, with regard to the feasibility and acceptability of the program, the retention rate was 87%. On a scale ranging from 0-3 with 3 being greatest satisfaction, students rated their satisfaction at a 1.85 post-intervention, which shows that they were moderately satisfied with the program (Jaycox et al., 2019). Regarding negative thoughts and coping, there were significant changes over time with every student improving post-intervention. However, there was not a significant change in emotional self-efficacy. When looking at the primary outcomes, significant changes in the student's PTSD symptoms were seen, but there was not as much significance with the depressive or anxiety symptoms (Jaycox et al., 2019). When looking at the secondary outcomes, there was a negative change in school adjustment. There was a significant relationship with satisfaction and the secondary outcome of peer support, however. Overall, recognizing that this was the first trial run for LIFT, for schools or districts who do not have many resources and even for those that do, based on the data, this self-guided internet-based program may be able to teach students cognitive-behavioral techniques to help bring positive change toward their PTSD symptoms and build resilience in their daily lives (Jaycox et al., 2019).

Extreme social-emotional behavior. Although social-emotional skills are important to help all students adapt to challenges and stressors throughout their school

years and even through adulthood, the lack of skills at an early age may have a compounding effect. When younger students do not have these skills, they end up improperly managing the stressors they have, which impact their learning for many years to come. As a result, they will need to play catch. With many years passing by and no skills attained, students begin to fall into a category that schools label as "at-risk," or they may be at a point they are considered "severely aggressive." What is it that schools can do then?

To this end, Santiago et al. (2018) sought out to determine the effectiveness and acceptability of a program called Bounce Back with elementary students in a highly stressed community. Bounce Back has been studied in other populations, but they wanted to determine to what extent the program would benefit students who were predominantly low-income and minority. Between 2013 and 2016, eight schools were chosen within an urban school district in Illinois to complete the Bounce Back intervention. After the school social workers screened students who would be good candidates for the program, 52 students were chosen from 1st to 4th grade and split into 12 groups with each group having between three and six students in each group (Santiago et al., 2018). With the possibility of a large difference in development, the groups contained no students that were more than one grade level apart. The average age of the students was 7.76 years old and there were more males (65%) than females (35%). As mentioned earlier, this school district serves a predominantly low-income and Latino population, both at 93% of the total student population. Santiago et al. (2018) noted that of the 52 students, 82% were Latino with 45% of them having two immigrant

parents. To add to this, 59% of the participants had a household income of less than

$25,000 and 55% of the guardians of the students had an education that was less than

high school. Regarding the participants trauma history, over 50% of the students

mentioned they had experienced one of the following traumatic events: separation

from a parent or a loved one, family member arrest or deportation, witnessing a

physical fight, family member with serious illness, or involvement in a serious accident

(Santiago et al., 2018). Separation from a parent or loved one was the highest noted at

68.8%.

　　　　To determine the true effectiveness of the Bounce Back intervention in this

community setting, Santiago et al. (2018) mention that they wanted to use more "usual

care" providers and resources like school-based clinicians. These clinicians identified and

screened the students, formed the groups, and also gave the instruction for the

intervention. After the students were determined as good candidates, all schools were

randomly assigned to either the immediate treatment group or the waitlist/control

group. The treatment, Bounce Back, is developmentally tailored to the students who

receive it and focuses on coping and skill-building (Santiago et al., 2018). There are ten

sessions that meet once a week for about the length of a class period, 45 to 60 minutes.

The sessions include some psychoeducation about trauma and identifying it, relaxation

techniques, cognitive coping, social support, and problem-solving. During two of the

sessions, the students met with an instructor individually, and during another, their

caregivers are invited to join as the student shares what they have learned. The

guardians are also invited to three psychoeducation sessions to introduce them to the

skills their children are learning.

For the data collection process, Santiago et al. (2018) indicated that data was

collected through baseline assessments completed by the students, parents, and

teachers, as well as at three months (post-intervention for the immediate group and

post-waitlist for the delayed group), and at six months (three months post-intervention

for the immediate group, immediately after intervention for the delayed group). These

assessments gathered data on various things from trauma to student school functioning.

To help encourage parental engagement, parents who completed each assessment

received a $15 gift card and, if all assessments were completed, they received a bonus

$15 gift card.

Since the intervention was implemented at the school during school hours, the

effect was high attendance rates which, in turn, positively impacted the students in

many ways. First, both the students and the parents reported good satisfaction with the

program which shows the acceptability of Bounce Back. About 84% of caregivers were

able to attend one session and 65% completed both the psychoeducation and treatment

session (Santiago et al., 2018). The clinicians also reported that there was a strong need

for the program at the schools and also noted that there were some minor difficulties

implementing it although still having a high rating of feasibility. In regard to the effects

on students, at the 3-month assessment, the immediate treatment group showed

greater reductions in PTSD and improvements in coping compared to the waitlist group.

Unfortunately, there were no significant effects on the student's anxiety and

depression. Looking at the 6-month assessment compared to baseline, there was a significant effect for both child-reported PTSD and depression as well as parent-reported PTSD and coping, thus showing a strong maintenance effect (Santiago et al., 2018). These results begin to show the impact of classroom-based intervention programs like Bounce Back, especially in such a predominately low-income and minority community.

With aggression being a characteristic feature of many psychiatric disorders, many such disorders that cause major distress on one's behavioral or mental functioning, it is important to work with students to manage their aggression, especially as it often is rooted within their stress response systems, coming from known or unknown adverse childhood experiences. Mushtaq, Lochman, Tariq, and Sabih (2017) explored whether or not aggressive behavior can be reduced by testing the effectiveness of a program called the Coping Power Program (CPP). By focusing on 112 severely aggressive boys with a mean age of 9.64 years old within five public schools from Rawalpindi, Pakistan, researchers focused specifically in regard to student social cognitive competence and self-regulation.

By starting out with 859 male students between the ages of 9 and 11, teachers provided help with the initial screening process to determine which students showed severely aggressive behaviors. After narrowing it down to 112 male students, to keep reliability among the treatment, researchers decided to have the first year of 5th graders, 52 boys in total, randomly assigned to the intervention or the control group and the following year 5th graders, 61 boys, assigned to the other (Mushtaq et al., 2017).

After collecting baseline data from the students, teachers, and parents, a full school year

of CPP was implemented and then the same data was collected post-intervention. The

Coping Power Program was a school-based prevention program that had 25 total group

sessions and monthly individual sessions. With a total of eight groups, each group

consisted of between five and seven students. The groups would meet for 50-60

minutes, with the monthly individual sessions lasting for just 20-30 minutes (Mushtaq et

al., 2017). The group sessions would focus on establishing goals for the students, group

rules and rewards, generating alternative solutions, coping with anger arousal, social

skills, and peer relationships. During the individual sessions, staff discussed any

problems or difficulty students were having in the program and attempt to find

solutions for those problems. Mushtaq et al. (2017) noted that normally there is a

parental component, but due to the lack of parental involvement, this component was

not used in this CPP program.

After collecting the post-treatment data on this program, there was a very high

attendance rate of 89%, mainly due to the school-based nature of the program. More

importantly, the intervention group compared to the control group had statistically

significant reductions in aggression and temperamental distress over time, with notable

improvement in their social support and cognitive processes, as well (Mushtaq et al.,

2017). During the same period of time, the control group ended up increasing their

levels of aggression and had higher aggressive responses to their social problems.

Teachers also made note of the behavioral, cognitive, and social skill improvement with

the boys in the intervention group as they showed big improvements in their social,

cognitive, and behavior domains while showing better anger management, problem-solving, and social skills once the intervention was completed (Mushtaq et al., 2017). Overall, when recognizing the future that many severely aggressive students may have, these realities show the ability of a school-based program that not only began to put an end to the aggressive behaviors, but also reversed them by giving these young boys the important self-regulation skills and strategies for their continued development in social, cognitive and behavioral situations within an educational setting.

"Big trauma" events. A number of students may experience what some may consider as smaller, but repetitive, trauma experiences that combine to have a large impact on student's psychological wellbeing, while others may experience one extreme experience that produces the same negative responses. Turning toward those more extreme events, Rønholt, Karsberg, and Elklit (2013) explore the impact of a classroom-based psychosocial intervention for students in a Danish community who experienced one of these experiences, the explosion of a Danish firework factory which left 760 households evacuated and more than 175 houses burning down or no longer livable due to the conditions.

After this factory explosion, a school within the affected area was screened for symptoms of PTSD at 16 months and 3.5 years after the incident. With a large population of students still suffering substantially, Rønholt et al. (2013) determined that a treatment program should be designed to target the PTSD symptoms in these traumatized students. 108 students from ages 6 to 16 participated in this program due to each student meeting two of the three PTSD symptom clusters. With the explosion

happening in the late afternoon, all students would have been at home and therefore experienced the need for an evacuation, whereas if they were at school, they could have potentially been shielded from some of this traumatic experience. Out of these 108 students, 69 were female and 39 were male (Rønholt et al., 2013).

   With the researchers not recognizing the gravity of this specific traumatic experience on the students, this treatment program wasn't implemented until four years after the explosion. All of the students were broken up into 15 groups that ranged from 4 to 10 participants in each. These groups were led by psychologists and grouped by grade level to allow the treatment to target their particular cognitive and emotional developmental levels (Rønholt et al., 2013). This program consisted of four sessions which included a follow-up session one month after the other three intervention sessions. All sessions lasted about three hours in the morning on three consecutive days to optimize students' levels of energy and motivation. Both breaks and snacks were provided for the participants as well. During the intervention sessions, students completed a combination of cognitive and narrative methods that were designed to facilitate the cognitive restructuring of their current perceptions of their inner resources with a primary goal to train the students in acquiring coping skills like self-trust, acceptance of uncertainty, communication skills, and problem-solving strategies (Rønholt et al., 2013). After the students completed the first three days of the intervention, each student received a box full of objects they had used during the sessions in an attempt to help them remember what they had learned during the

sessions. These included personal drawings, beach stones, worry dolls, coping cards, among other things.

After the four intervention sessions were completed and post-treatment data was compared to pre-treatment data in regard to the students' trauma symptoms and the PTSD clusters, a statistically significant reduction for two of the three symptom categories was seen, both re-experiencing and avoidance, as well as a reduction in the total number of PTSD symptoms (Rønholt et al., 2013). Pre-treatment, there were 34 students who matched the criteria for having a full PTSD diagnosis, but this number dropped to only 19 who were meeting a probable PTSD diagnosis after the implementation of the treatment program, a very significant change. Rønholt et al. (2013) noted that 49% of the children improved, 37% of them were stable, and only 14% ended up with worse symptoms after the intervention. It was also noticed that the girl participants were seven times more likely to fulfill a PTSD diagnosis than the boys before the treatment and the younger students showed a higher risk for the diagnosis post-treatment. Lastly, the high PTSD pre-intervention scores seemed to predict the PTSD symptoms that may show up after treatment for these students who began with scores that were "worse off" (Rønholt et al., 2013). Overall, based on the results presented from the participants in this treatment program, it shows this program to be highly successful in alleviating the PTSD symptoms among a group of students who were showing high-level symptoms of PTSD after experiencing a very traumatic event.

In another trauma-infused area due to many terror attacks striking Beer Sheba, Israel, Gelkopf and Berger (2009) studied the ability to increase resilience in students by

learning about their body and how to work with their body to help reduce and prevent

unwanted reactions to trauma. The group of adolescent boys from an all-male religious

public school used a new universal intervention called Enhancing Resiliency Among

Students Experiencing Stress, or ERASE-Stress (ES).

Completed between the months of January and March 2006, a total of 107 7th

and 8th grade students, 58 participating in the program and 49 being in the control

group, ranged from 12 and 14.5 years old with an average age of 13.05 were studied as

the ERASE-Stress curriculum couldn't be easily incorporated into the higher grades

(Gelkopf & Berger, 2009). Of these students, 25.3% reported exposure to a terrorist

attack, 24.2% reporting a near-miss exposure, and 50.5% reported no exposure of any

kind. Gelkopf and Berger (2009) randomly selected the homeroom teachers that would

be with the control group or the experimental group by flipping a coin.

This study was set up with the intervention and control class taking place within

the normal pattern of the students' weekly social study classes. There were 12 total

sessions and each session lasted for 90 minutes. Parents were also asked to attend two

psychoeducational sessions to learn about the normal and abnormal reactions one may

have towards traumatic stress and how they might be able to help their child in coping

with those reactions (Gelkopf & Berger, 2009). The students self-reported by completing

a questionnaire in class before the intervention, as well as directly after and three

months after. This questionnaire asked about some demographic information as well as

their objective and subjective exposure to terrorism, PTSD symptomatology, functional

impairment, somatic complaints, as well as their fear. Gelkopf and Berger (2009) note

that each ERASE-Stress session followed a similar pattern and focused on strengthening

personal resources, learning about how the body works as it encounters stress,

developing sensory-motor strategies to regulate themselves during stressful situations,

growing in their emotional awareness and controlling those emotions, normalizing fears

and learning ways to deal with them, coping with grief and loss, as well as many other

things.

After the experimental group completed the 12-session program, it was seen

that there was a significant reduction relating to PTSD severity, functional problems,

somatic complaints and depression scores in the 3-month assessment compared to the

control group (Gelkopf & Berger, 2009). Before ERASE-stress, three experimental group

students were experiencing extreme PTSD, but afterward, zero were. Comparatively, no

students experienced extreme PTSD in the control group before the study began, but

afterward, three students had PTSD. Seventy-five and nine tenths percent of the

experimental group improved significantly compared to the control group with the

others still showing improvements and 15 students (30.6%) in the control group

worsened regarding their PTSD symptoms (Gelkopf & Berger, 2009). When comparing

the initial questionnaire to the last, the students who scored worse initially ended up

improving more on all outcome measures for depression, somatization, functional

problems, and for the number of posttraumatic symptoms. Additionally, while the

threat of terror or trauma continued to take its toll on the students in the control group,

one must recognize the resiliency- or resistance-strengthening impact it did have on the

experimental group. These results show the efficacy of the ERASE-Stress school-based

program with regard to reducing and preventing undesirable traumatic responses.

Unfortunately, knowing that these trauma experiences can't be eliminated from

the lives of students, schools could begin by thinking about how one could provide a

buffer for those traumatic responses in student's lives. Wolmer, Hamiel, Barchas, Slone,

and Laor (2011) have done this in two trauma infected cities in northern Israel where

exposure to rocket attacks during the second Lebanon War was all too common.

To determine whether or not a resilience intervention would be able to provide

such a buffer for the children in northern Israel, researchers selected 983 Israeli children

ranging from 8 to 12 years of age within 19 schools. These schools were chosen due to

the fact that they were ones who had the closest exposure to the continual rocket

attacks during the war. All of the children in this study had in fact been exposed to life-

threatening experiences here, but only 1% had been exposed to injured or dead people

or even reported injuries in their closest familial circle (Wolmer et al., 2011). A control

group was formed by 1,152 students with very similar levels of exposure as well as

similar in age compared to the experimental group.

To collect the desired data on these children, Wolmer et al. (2011) formed three

questionnaires to gather information regarding the child's adaptation and responses to

war concerning levels of fear and stress, their mood, as well as some items from a PTSD

index. These questionnaires were given at three different times through the study: Time

1, which was the baseline (5 months after the war), Time 2 (at the completion of the

intervention), and Time 3 (3-month follow-up after intervention). The control group only

completed the questionnaires at Time 3. Teachers were given a questionnaire to evaluate the satisfaction within the classroom atmosphere and parents were also asked to fill out a questionnaire regarding their child's stressful events and areas of concern for the child. With the interventions overall goal of enhancing resiliency in order to relieve trauma symptoms in the children, the sessions adapted a coping-enhancement framework that tackled topics like working through negative experiences, stress management, control of bodily tension, affective regulation and processing, attention control, identifying and correcting negative thoughts, and other coping and social-emotional competencies (Wolmer et al., 2011). In total, there were 15 resiliency intervention sessions that were administered by the students' teachers in a weekly manner with each session lasting about 45 minutes.

After the intervention was complete, due to administrative difficulties that prevented some classes from participating in the questionnaires, unfortunately only 565 (57%) of the students were able to complete it at Time 2 and only 754 (77%) were able to complete it at Time 3 (Wolmer et al., 2011). Based on the data that was able to be gathered, there were significant improvements in the children's stress and mood, as well as their post-trauma levels at Time 2. At Time 3, they also showed significantly lower PTSD symptoms with fewer students meeting the criteria for possible and partial PTSD compared to the control group (Wolmer et al., 2011). Of the children who were labeled as the most traumatized due to having at least six traumatic events occur in their lives, they had the most improvement in PTSD symptoms and students who had five or more events improved the most in their stress and mood symptoms. Overall, at

Time 3, the intervention group reported significantly lower symptoms and in the total

score when looking at the domains of PTSD like intrusive recollection,

avoidance/numbing, hyperarousal, and associated features (Wolmer et al., 2011). For all

that participated in the resilience intervention, the data seems to show that normalizing

the psychological responses of the students in a safe environment, one that was created

by their teacher, while adding in adaptive coping skills, allowed the children to process

the dreadful experiences and move forward in their development as children and as

students. It seems reasonable that a buffer toward the traumatic experiences and the

responses to such experiences is able to be realized in student lives.

School-wide Curriculum for All Students

Even though students who have experienced trauma need ways to cope so that

they can respond properly to their negative mental health symptoms, there is a great

amount of research concerning curriculum or school administrative shifts for the

entirety of a school instead of focusing on just the traumatized individual. Strategies

that build mindfulness and resilience, construct proper social interactions, and lead to

greater relationships, tend to show a progression in those who are experiencing

traumatic situations while also benefiting all students in multiple ways.

Programs Built into Daily or Weekly Rhythm

Depending on the approach or curriculum a school chooses to implement will

ultimately determine how often the students receive the curriculum instruction.

Ranging from 3 to 12-minute mindfulness strategies that educators can implement on

the fly, to an extensive curriculum that involves a law enforcement officer present on a

weekly basis, it is safe to say that there are multiple opportunities available to determine the best fit for the unique needs of each school.

Due to many potential obstacles, schools and districts may feel as though the "extensive programs" previously noted, either in school or out of school, may be too much to implement, but Costello and Lawler (2014) tested the 3 to 12-minute mindfulness interventions. With students engaging in this at some point throughout the day, they wanted to determine what impacts mindfulness practice may have on the perceived levels of stress among primary students who are at risk of socioeconomic exclusion. Similar to other research, mindfulness in this study is defined as the ability to direct one's attention to their experiences as they are occurring at that moment with curiosity and acceptance as this may allow the individual to be present in their experience, thus responding in a more logical way to what is actually happening (Costello & Lawler, 2014).

Researchers comprised a sample of 63 children in 6th grade that included 17 boys and 46 girls, all between the ages of 11 and 12 years old. Costello and Lawler (2014) note that the participants were all selected from two schools recognized as at risk of socioeconomic exclusion in Dublin, Ireland. Within these two schools, four teachers were chosen at random to lead their students in the mindfulness interventions which were created based on the foundation of two other mindfulness programs, Mindfulness-based Cognitive Therapy for Children, which addressed anxiety through aspects of mindfulness, and Mindfulness-based Stress Reduction Course for Children, that gave students a weekly experience of a still and quiet place to respond to stress in

their lives (Costello & Lawler, 2014). This merged program had a primary focus on giving students strategies to respond to their stress appropriately by stepping out of their initial mental reactions as these only interfere with effective problem solving, thus inducing more stress.

Before this program was implemented the teachers were introduced to the program and given the scripts they were to read to the students. A CD could have also been provided for those who wanted to use audio instead. The students filled out self-report stress surveys before they started the intervention to measure their perceptions of stress. After the intervention, they filled out the same survey and 16 of the students and two teachers were also chosen to partake in a structured interview regarding their views of how the intervention impacted perceived levels of stress (Costello & Lawler, 2014). This intervention had a purposeful progression in daily mindfulness practices and lasted five weeks with sessions varying between three minutes initially to a maximum of 12 minutes within the last week. The first week focused on breath and body awareness, feelings and thoughts, and week two transitioned toward introducing the still, quiet place inside oneself while focusing on slowing oneself down during week three (Costello & Lawler, 2014). Week four focused on exploring all five senses and on being cool, calm, and confident. Finally, week five brought everything together with longer visualizations of different calming settings and situations. Costello and Lawler (2014) mentioned that after all sessions, students would create a journal entry that reflected on their experience either as freewriting or drawing.

After the mindfulness program was completed, students showed a significant decline in their perceptions of stress from their pretest survey averaging 18.12 to their posttest survey averaging 14.4. Costello and Lawler (2014) noted that within this survey, 13 still represents a point of average-stress, but it is much farther away from the score of 20 which represent extremely high stress. They also found that students had enhanced present-moment awareness and calmness, improved concentration, greater detachment from stress, self-regulation of thoughts and feelings, less rumination, regulation of classroom behaviors, as well as an ability to address future stress either related to school or their home environment (Costello & Lawler, 2014). As evidence has shown, trauma can impact the academic lives of students. Therefore, finding ways to implement short but meaningful interventions like these within the school day can clearly curtail the impact of stress leading to such trauma. As stated in this article, "Mindfulness programs have the potential to contribute to reductions in health inequality and improve wellbeing for all, by enabling children to maximize their capabilities and gain control over their lives" (Costello & Lawler, 2014, p. 24).

Looking at mindfulness interventions and their outcomes in one age group is important and can lead to vital conclusions, but recognizing its success in all age groups allows the strategies to be generalized to all educational professionals making these new strategies more versatile. With that being said, Harpin, Rossi, Kim, and Swanson (2016) turn their attention to an urban elementary school in Denver, CO to determine the impact of a mindfulness curriculum on student's prosocial classroom behaviors, emotional regulation, as well as academic competence at the elementary level.

Participants in this research were from both socioeconomic and ethnically-diverse backgrounds. In a school with only 38% non-white or non-Hispanic students and 85% of the school's population qualifying for free or reduced lunch plans, two specific 4th grade classrooms with 18 students each were selected as primary focus due to having similar student characteristics (Harpin et al., 2016).

Of the two classrooms selected, one class participated in the mindfulness interventions administered by a certified instructor, while the other engaged their students as they typically would. With the intervention sessions lasting 20-30 minutes and being bi-weekly sessions during their daily morning message time, the normal school day wasn't interrupted from their normal pattern (Harpin et al., 2016). The intervention went for ten weeks and was created by using a mixture of MindUp and Mindful Schools curriculum. The first seven sessions concentrated on introducing students to how their brain works, becoming aware of their mind, and controlling their breathing. The next eight sessions focused on helping students become more attuned to their thoughts and body. The final five sessions focused on perspective taking, heartfulness, choosing optimism, gratitude, compassion, and empathy (Harpin et al., 2016). Just as the students and teachers filled out the pre-intervention survey, a post-intervention survey was completed to evaluate the effectiveness of the intervention. Harpin et al. (2016) note that these surveys measured students' pro-social behavior, emotional regulation, academic achievement, ability to observe internal experiences, act with awareness, as well as the overall perception of the curriculum they were practicing.

With some stressors in an urban setting being much more than just the academic curriculum being taught, i.e. unreliable transportation, malnutrition, or poor healthcare, "circumstances of poverty often means that students have fewer resources to cope with the stress created by these demands which only results in increased stress and anxiety that negatively impacts students' ability to focus, think deeply, and learn and ultimately, influences their academic performance" (Harpin et al., 2016, p. 150). However, based on the results of this study, introducing a time throughout the week to build foundational skills in students in poverty could show important changes in their education. Post-intervention results saw a statistically significant increase in prosocial behaviors, emotional regulation, and teacher's reports of academic achievement (Harpin et al., 2016). Regarding the students' overall perceptions, every single student said that they enjoyed the classes, would continue to use mindfulness in the future, and agreed that more students should learn about mindfulness. Harpin et al. (2016) also mentioned that 75% of the students noted they had even taught someone else what they know about mindfulness. This impact was felt across the whole school. Other teachers noted a drastic impact and felt that the intervention students were more relaxed, more focused, and noticed fewer behavioral issues.

Moving to a weekly implementation, Shochet et al. (2001) sought to determine whether or not a school-based program would prove effective for students in regard to their depression symptoms as well as whether or not students would feel the program was beneficial to them. Focusing on one large secondary school in an urban city in Brisbane, Australia, this school and city were full of low- to middle-class socioeconomic

status families (Shochet et al., 2001). Almost all of the families were Anglo-Saxon and

Christian in origin. From this school, 260 students were chosen while in their 9th grade

year and could not have had any developmental delays or learning disabilities, as it was

cautioned they may not be able to fully comprehend the intervention program (Shochet

et al., 2001). Although this study notes that it is a program instead of a school-wide

curriculum, due to the fact that it is implemented with the entirety of the 9th grade

students who fit the criteria, it is being recognized as a school-wide or grade-wide

curriculum.

In attempts to keep free from contamination within the study with only one

school being studied, two years of 9th grade students were chosen as they wouldn't

have as much contact with one another regarding the treatment. For this reason, the

1996 9th graders were selected as the control group which leaves the 1997 group to be

participating in the interventions. Shochet et al. (2001) implemented two intervention

models with these students, the Resourceful Adolescent Program (RAP-A) and the

Resourceful Adolescent Program-Family (RAP-F) which was the same intervention, only

with an added family component that requires the parents to attend a program

designed for them also. Within the intervention group, students were randomly

assigned to one or the other to form groups with each group having a facilitator lead

between 8 and 12 students at a time. Statistically, there was no difference between any

groups at baseline (Shochet et al., 2001).

Both the RAP-A and RAP-F interventions lasted 11 weeks with a weekly group

meeting that lasted between 40 and 50 minutes. The RAP-F's difference included three

parent sessions for three hours each during the 4th and 9th week of the interventions

(Shochet et al., 2001). Those sessions focused on effective parenting to promote proper

student development and how to promote family harmony. The student interventions

followed cognitive-behavioral therapy approaches for the first seven weeks. These

approaches affirmed existing strengths, promoted self-management and calming skills

when feeling stressed, cognitive restructuring, and problem-solving (Shochet et al.,

2001). The last few weeks turned its focus toward addressing interpersonal risk and

protective factors, buildings support networks, promoting family harmony, and avoiding

escalation within times of conflict. Throughout this process, all students were assessed

at three points, pre- and post-intervention, as well as a follow-up assessment which

took place 10 months after the intervention was completed. Shochet et al. (2001) noted

that both classes, 1996 and 1997, were assessed in the same manner and in the same

timeframe during their 9th grade year.

After the interventions were complete, across all of the facilitators, data showed

a high level of integrity to the content of the intervention programs. Attendance rates

were also satisfactory with all participants attending at least nine of the total eleven

sessions and there was only 2% attrition which is extremely low (Shochet et al., 2001).

Unfortunately, parental attendance was very low at only 36% for attending one of the

parent sessions. When looking at the pre- to post-intervention assessments, there were

significant reductions for both the RAP-F and RAP-A groups regarding their depression

levels, but only the RAP-F showed reductions in levels of hopelessness. Shochet et al.

(2001) recorded that at the same time, the control group saw significant increases in

both depression and hopelessness levels. Interestingly, when looking at the pre-intervention assessment to the follow-up ten months later, both intervention groups now showed significant decreases in depression and hopelessness when before RAP-A didn't. Before the intervention, 24 students were labeled as subclinical or clinical with their depression symptoms, but at follow-up, there were only 6 at such a point (Shochet et al., 2001). These results show the effects of active intervention on significantly reducing both hopelessness and depression in the long-term. At the same time, possibly due to a lack of parental involvement in the RAP-F group, there wasn't a significant change between either of the two intervention groups.

Although students experience stressors in many different fashions throughout their years of education for one reason or another, of the possible stressors, bullying can be crippling by leaving students not only debilitated at school, but also fearful to come to school. How can students be expected to learn if there is a real or perceived threat among them? Cipra and Hall (2019) tackle this with a deeper look at a bullying intervention curriculum called COREMatters that is intended for all students, not just those who are recipients of the bullying, to determine what, if any, impacts it may have on the school climate and individual characteristics of students.

The participants in this study were 404 students from the 4th, 5th, 7th, and 8th grades of a public school in the Midwest United States. Through pseudo-random placement, each student was placed in either the intervention group or the control group, neither having any significant demographic differences (Cipra & Hall, 2019). The control group had 228 of the total students (54.4% male) while the intervention group

having the rest (47.2% male). There was a similar distribution among students in each

grade levels, as well as across both the control and intervention group (Cipra & Hall,

2019).

Instead of students taking a baseline and post-intervention survey, all students

only completed a survey packet at the same point after the intervention group had

completed the COREMatters curriculum. Cipra and Hall (2019) note that these surveys

focused on questions regarding resilience, prosocial behaviors, school climate, trust, and

bullying. The COREMatters curriculum consisted of 45-minute weekly classes that were

team-taught by both a law enforcement officer and a master of martial arts and it lasted

for a total of 13 weeks. The curriculum was not only created to align with state learning

standards in physical education and social/emotional wellness while focusing on

cognitive, affective, and psychomotor domains, but its main focus was to decrease

bullying behaviors through nurturing a greater sense of community unity and trust

within the school, improving the overall school climate, and lastly increasing student

self-esteem through an emphasis on discipline and respect for one's self as well as

others (Cipra & Hall, 2019). The overall theoretical framework came from the

socioemotional lessons like self-awareness and management, social awareness,

relationship skills, responsible decision making, as well as including martial arts

instruction. Cipra and Hall (2019) mentioned that the martial arts piece of the

intervention was strongly associated with positive affective benefits like higher self-

esteem, emotional stability, assertiveness, and self-confidence due to the general

nature of such activities requiring the students to cope with the challenging situations.

After both groups completed the surveys and the intervention group participated in COREMatters, the intervention group showed a significant difference from the control group in pronounced school cohesion and trust (Cipra & Hall, 2019). In addition to this, there was also a significant difference in the self-esteem and school climate measures for the intervention group compared to the control group. When taking account for this data, it is seen that the anti-bullying intervention COREMatters has a significant impact on the student experience in such a way that many avenues for bullying would, therefore, be eliminated with the growth in trust, cohesion, school climate, and self-esteem (Cipra & Hall, 2019). Without the avenue to engage in bullying, fewer students will be negatively affected by such an act as well as the real or perceived stress that can follow the student further than the moment that the bullying occurred.

Overarching School Models

Although the previous curriculum was either daily for a short period, bi-weekly, or weekly implemented, at times, an entire school transformation may be needed or desired. Two currently popular school models to implement the change to benefit students and their mental health needs are examined together, as well as individually.

It is interesting to note that, especially in education, there are often many different teaching models that seem to pull attention one way or another. Many times, educators hear the pull from school administration or district-level staff who are demanding the implementation of a new teaching model to "best" support the students but then may wonder why a district down the road is using a different "best" teaching model. Can there be multiple "bests", or could these models benefit one another? Cook

et al. (2015) tackle this question through the use of Positive Behavioral Interventions

and Supports (PBIS) and Social-Emotional Learning (SEL). Here, researchers take a deep

look at both the independent and combined effects of these intervention models and

whether or not there are significant reductions in negative mental health outcomes

relative to the model or combination of models.

Taking place within two large elementary schools in the Southeastern Region of

the U.S., these schools qualified for this study because both were not actively

implementing universal practices to help prevent mental health problems among their

students and both had a high proportion of economically disadvantaged youth (Cook et

al., 2015). One of the schools had 84% of the students qualifying for free or reduced

lunch and the other was at 91%. Eight 4th and 5th grade classes, four from both schools,

were selected by their principal who felt the students in the classes showed more social,

emotional, and behavioral issues, as well as a need for improved orderliness,

productivity, and safety in the classroom environment. Cook et al. (2015) mentioned

that there was a total of 191 students who participated, with the average age being 9.8

years old.

Within this study, there was a desire to explore four different conditions, both

the PBIS and SEL model individually, PBIS and SEL combined, and a classroom

implementing neither, the control group. The PBIS model was taught and reviewed on a

weekly basis and focuses more on externalizing behaviors by teaching, modeling,

cueing, and reinforcing positive and observable behaviors (Cook et al., 2015). On the

other hand, the SEL model had 40- to 50-minute lessons each week with generalizing

practices that focused more on internalizing emotions by teaching skills for social

competence and resilience, self-regulation, empathy, and problem-solving. Lastly, the

blended approach, PBIS and SEL, emphasized the different points in each and focused

on how each model could purposefully support the other to facilitate skills and

expectations. Cook et al. (2015) note that two classrooms were assigned each of the

conditions with the conditions being spread evenly across each school and validity was

better kept by gathering data regarding overall mental health outcome measures

beforehand to more evenly match classrooms. Once matched, the rooms were

randomly assigned one of the four conditions. All teachers were then provided

professional development for their specific condition and had to pass a competency

exam regarding their condition to participate. With all teachers meeting the

requirements, five months elapsed for each condition and then data was collected again

on the mental health outcome measures including internalizing, externalizing, and

overall mental health problems (Cook et al., 2015).

After analyzing the post-condition data with the pre-condition data and with the

integrity of all interventions implemented being greater than 80%, the most statistically

significant positive impact seen regarding students' internalizing and externalizing

behaviors was within the combination condition, both PBIS and SEL (Cook et al., 2015).

Following this was the SEL conditions and then the PBIS condition, both still statistically

significant. Within the 5-month implementation period, the control group revealed an

increase in their internalizing behaviors, a significant negative impact. If each condition

were to be compared to one another, the combination condition showed significantly

greater change compared to the control group, more so than the PBIS or SEL conditions

(Cook et al., 2015). The SEL and PBIS conditions did show a significant change compared

to the control group but didn't show any significant difference between each other. On

top of these results, all teachers did report that their perceptions of the three conditions

were acceptable, feasible, and also fair. Due to the significance of this data, it seems to

be shown that going with one model may not be the "best" option for students to have

the greatest positive impacts on their mental health outcomes, while combining models

may help fill in gaps that another model may not have covered.

School Environment Changes and Its Impacts

With a school environment including everything from the opportunities students

are given, teacher-student interactions, safety, relationships, and overall school

connectedness, there are a lot of moving pieces that can make the environment a

friendly and positive or hurtful and scary place for students, especially those who have

experienced or are currently experiencing trauma. The different school-wide curriculum

and school models are meant to benefit the overall school environment and student

experience. Even though other structures and foundational qualities of a school, big or

small, can have similar impacts, it doesn't mean they necessarily have to be a

recognized model or curriculum to be an agent of positive change for students. The

following articles highlight many reasonable changes that educators and school

personnel can implement to grow supportive systems within the school environment to

allow for students who are experiencing any level of trauma to have a safe place to

develop more successfully.

Finding the trends or patterns within the most successful students can lead to positive change for other less successful students if they are able to apply the patterns to their own lives. The same thing can be said for the least successful students. If there are patterns apparent in their lives that do not prove beneficial to their education, attempting to protect them from that painful path and leading them toward the one that has been proven to benefit their wellbeing is the proactive approach to take. In this regard, Arastaman and Balci (2013) attempt to examine the presence of resilience, a set of characteristics someone withholds that gives them the power to overcome challenges, from many different angles including the school climate and teacher attitudes and behaviors, in an attempt to determine next steps to building those characteristics into all students.

In 2009-2010, using a precision stratified sampling method, researchers attempted to use 509 students that were attending 131 public and Anatolian high schools in the central districts of Ankara Province, Turkey to represent the total population of 122,247 students in this district (Arastaman & Balci, 2013). This sampling method divided the district into nine central sublayers and then allowed them to randomly select students based on those defined sublayers and keeping a consistent ratio between observed students. Of the participants, 174 were freshmen, 121 were sophomores, 112 were juniors, and 88 were seniors with 14 students being unknown due to no response given (Arastaman & Balci, 2013).

By collecting data through four different scales developed by the researcher, it was possible to collect not only the demographic information about the student

participants but also resiliency markers and factors affecting the students' resiliency based on the previously shared definition. Arastaman and Balci (2013) noted that after verifying the validity and reliability of this data collection method, they were able to recognize the following three categories in which the findings would appropriately be presented with: findings related to the resiliency level of high school students, to the demographic variables predicting student resiliency, and to external protective factors predicting student resiliency.

When looking at the results of the data, Arastaman and Balci (2013) first focused on the scale of resiliency factors regarding the high schoolers and recognized that sociability and communication skills were the most common characteristics, followed by determination, problem-solving skills, self-efficacy, and, lastly, hope. This may point to the fact that high school students that face challenges are quicker to take initiative to solve such a challenge, but then struggle in light of their perception of self-efficacy and hope for that challenge. The next two category results transition to the patterns that make the students resilient or non-resilient. Arastaman and Balci (2013) found that a few demographic variables show a linear relationship to the prediction of resilience in a student, both GPA and absenteeism, as well as a few not having any relationship or possibility of prediction, gender and grade level. These would seem to make sense as one would imagine that a student who has a higher GPA and is at school more often is probably a more resilient student and vice versa. Lastly, regarding the external protective factors, family and peer support were very significant impactors on student resiliency while teacher attitudes and behaviors and school climate were also significant,

but not to the extent of the family and peer support (Arastaman & Balci, 2013). From this, recognitions about what benefits and hurts students as well as the possibilities to protect them from or equip them with those resources are apparent.

Sometimes one may recognize the need for changes to support students, but it is met with a feeling of resentment to revamp the whole process. This isn't necessarily the case considering that Johnson (2008) sought out to determine the "little things" that may seem ordinary but, in reality, are a nurturing source and promotion for students' resilience, the innate and/or nurtured capacity of individuals to successfully adapt when facing life stressors in such a way that they can face such hardship and live a healthy life which prompts healthy development.

Based on the voices of 130 randomly selected students ranging between 9 and 12 years old from a disadvantaged northern suburb of Adelaide, Southern Australia, data was gathered with the goal of determining what influences a child may have to push them further towards resiliency given their life circumstances (Johnson, 2008). The students' teachers, 25 in total, were also used to give more information about the students. After collecting information from all participants about what they thought a tough life was, why some people have a tough life and do just fine, and others have a tough life and are not fine, they allowed the teachers to use a screening device to identify the children displaying resilient or non-resilient behaviors at school (Johnson, 2008). Of the 130 students, 55 of them were identified as experiencing tough lives, 30 of who were not doing fine and the other 25 of who were doing fine according to their self-report and teachers report. Data was then gathered to explore the concept of

resilience in relation to the students who were identified as having a tough life. Johnson

(2008) reports that this data collection process was one that was "person-focused" as

they studied the lives and attributes of those who have similar levels of risk or adversity

but ended up displaying very different outcomes. Lastly, during the tracking of these

students, it was important to focus on whether protective processes were present in

those who were doing fine, in those who were not doing fine, and how these processes

worked in practice. This data was collected by interviewing the students for five straight

years and then again four years later (Johnson, 2008).

After a long study of the lives and attributes of the 55 students of concern, a few

main ordinary, everyday, relational, "little things" stood out to students as making an

impact on their resilience amongst the challenges. The first was being available as many

students noted the same teachers year after year as showing interest in them, valuing

them, and being available when they came around, all seeming to have a positive

influence on student sense of wellbeing and their ability to cope in difficult times

(Johnson, 2008). Some schools would even have the same "home group" for the entire

time a student was at a particular school to better create that person they knew would

be available to them. Second, students showed value for teachers who actually listened

to them as this conveyed respect for them as individuals. Johnson (2008) mentioned

that many student comments reflected a need for an open and honest discussion about

what they have going on in their lives. Next, the data seemed to show a strong link

between self-esteem and school achievement. Many students acknowledged the value

of getting a little extra help to get the basics down for them to continue to progress in

their performance. Intervening, or doing something when teachers know they need to do something, was also an important way students felt respected when their wellbeing was threatened to some extent, especially in cases of bullying and harassment.

Lastly, Johnson (2008) recognized many other "connectors" that were small but also important for students in building a pro-social bonding with them. Having a little fun here and there and being real/yourself, enjoying a joke or telling a joke, remembering important things like birthdays or achievements and recognizing them, and respecting all students as individuals instead of just as students were most common in responses. At the end of the day, the data showed that students just need the ordinary and expected things from teachers to better promote their resiliency: simply being available, not being too busy to listen, providing extra help when it is needed, intervening when obligated, and being real person by not feeling like you always have to be "the teacher" (Johnson, 2008). Possibly the greatest thing about this is the realization that these are truly ordinary acts and can easily be implemented into classrooms, thus helping students better cope with adversities in a less intrusive manner.

Although there are things that each teacher may be able to individually change about the way they go through their day and set up their classroom to influence the resiliency within their students, other times there are pieces on an administration level that may also make a difference. Riekie, Aldridge, and Afari (2017) studied this in order to find out what specific elements exist in school climates that help influence wellbeing, resiliency, and moral identity of the students, as well as whether or not there was some interplay within each of these outcomes.

Fifteen independent Catholic schools in South Australia were selected based on convenience to participate in this study. Even though it was not a random sampling, these schools closely mimicked all of the independent schools in the same area as there were schools in both rural and metropolitan areas, a variety of enrollment profiles and numbers, as well as some co-education and single-sex schools (Riekie et al., 2017). Three classes in each school participated which totaled 618 juniors, ranging from 16 to 17 years old. All students were given multiple questionnaires and scales in an attempt to gather as much information as possible regarding the climate of their schools and the individual wellbeing, resilience, and moral identity of the students (Riekie et al., 2017).

After collecting and analyzing the data with regard to resilience, five of the six school climate scales were linked directly to students' resiliency. These were the teachers' support, peer connectedness, sense of belonging or school connectedness, clarity of rules, and whether there were opportunities in place for reporting and seeking help if needed. Riekie et al. (2017) also mentioned that, more specifically, if there was a sense of support from the teachers and peers were valued, then they had a greater sense of resilience. Additionally, if the rules set in place and methods for reporting or seeking help were clear, then student resilience increased even further. When looking at moral identity, only four of the six climate scales were positively associated. These again were rule clarity, peer connectedness, being able to report or seek help, as well as the affirmation of diversity (Riekie et al., 2017). Separately, when looking at all of the scales, the resilience of students had the greatest impact on the students' sense of moral identity. Finally, when focusing on student wellbeing, the connectedness of the school

was the only school climate scale that had any sort of direct relationship on the students' wellbeing.

When looking at these important pieces in healthy school climates and continuing to see that the largest influence on wellbeing is the resilience of a student, it is important to remember that these school climates are the ones that allow the students to become resilient, thus leading to a healthy development within the schools as they are able to withstand the struggles they experience along the way.

It has already been seen that there is no way to change the trauma. There is, however, the possibility of walking beside students through tough times. As education professionals grow in an understanding how trauma or adverse childhood experiences (ACEs) can leave an impact on students of all ages from health, behavior, and academic struggles, finding ways to support or dull the impact these ACEs have for the sake of their wellbeing should always be something to be sought after. Bellis et al. (2018) focus on this exact notion to retrospectively study the relationships among the number of ACEs, childhood health conditions and the potential resilience assets that could counteract the hurt associated with chronic toxic stress.

To begin this retrospective study, researchers randomly selected 7515 Welsh households to send letters to ask for their participation in answering questionnaires to collect data from the time they were under the age of 18 (Bellis et al., 2018). Researchers took a final 2452 households to investigate as they not only agreed to participate but also qualified to do so. These participants had to be Welsh, between the ages of 18-69 currently, and cognitively able to participate. After the participants self-

reported on a few questionnaires, 18.9% mentioned that they had one ACE, 16.2%

reported two or three, and 13.4% noted they had experienced four or more ACEs (Bellis

et al., 2018). To determine such information and others for this study, the

questionnaires asked about resilience measures during childhood in regard to having a

trusting adult, the ability to get help, opportunities to apply learned skills, fair

treatment, supportive friends, as well as having a role model.

Upon receiving all data from the questionnaires, all maltreatment measures

showed significant increases with the rise of ACEs in one's life as predicted, as well as

reporting lower childhood community resilience assets. Bellis et al. (2018) note that

when looking at the seven community resilience assets assessed, almost half (48.3%) of

the participants had all assets while only 9.7% self-reported having less than two of

them. At the same time there may be negative relationships between ACEs and assets,

there were significant positive relationships with higher levels of access to each asset,

and lower levels of reporting poor childhood health and school absenteeism. More

notably, having a role model, supportive friends, being culturally engaged or given

opportunities were found to have significant relations to lower levels of all common

childhood conditions (Bellis et al., 2018). Together, having supportive friends, a role

model, and being given opportunities showed reductions in poor childhood health. On

the other hand, school absences increased when students felt they were not given the

opportunities and were not treated fairly. There was also a great difference dependent

on the presence of the resilience assets in all ACE count categories when looking at poor

childhood health and absenteeism. Bellis et al. (2018) showed that, when looking at

students with four or more ACEs compared to those with none, their poor childhood health decreased from 59.8% to 21.3% when they were given opportunities, had supportive friends, as well as a role model in their life. The absence also fell from 16.2% to 6.2% when comparing those who had no and all significant resilience assets respectively.

Overall, for all of the childhood health and wellbeing status measures, reporting high resilience assets was associated with better outcomes. Although it is an impossible task to think one could eliminate ACEs from student lives, based on this data, the community of educators has many opportunities to make a difference and buffer the effects of ACEs. One can act to strengthen the resilience assets within students that will, at the very least, partially offset their immediate harm from the ACEs they have experienced which could positively compound over their lifespan on both their social and physical development.

Hopson, Schiller, and Lawson (2014) also explore how school climate, student support, and behavioral norms in a student's life make an impact on their behavior and grades in hopes to guide educators in a deeper understanding of what can be done to be a protective support or create a climate that is inducive to greater learning and social behaviors.

The data the researchers gathered for this study was collected from 13,068 students from 43 different schools within four states. All of these students were in middle school at the time and the sample includes an even division between both gender and grade level. Of the students, 59% of them received free or reduced lunch

(Hopson et al., 2014). The data from these students were not specifically collected for this study as the researchers compiled and analyzed it as a secondary analysis of public-use data from the School Success Profile, a measure that these students already completed for other means initially. This survey included 220 items with 28 different subscales that measured risk and protective factors in students' neighborhood, school, peer group, and families (Hopson et al., 2014). From these subscales, the questions regarding school climate, student support, and behavioral norms were then analyzed to decide if there would be any impacts on student behavior or academic achievement.

After this analysis, it was recognized that students who were held to higher expectations also had higher grades, as well as greater parental expectations leading to better behaviors. When students had a more supportive school climate, it showed that they were more than three times as likely to express average or better than average behavior. This data clearly showed the connection between creating a positive and safe school climate, the protective supports, and positive behavior and academic achievement.

In positive and safe school climates, bullying and peer victimization shouldn't find a home. Unfortunately, this is a constant battle being fought. Bullying and peer victimization can have detrimental effects on the proper development of a student from either an educational view or a wholistic wellbeing approach. Darwish, Hymel, and Waterhouse (2012) investigated a specific type of victimization involving the growing expressions of one's sexual orientation and affiliations with the LGBQ community.

Precisely, these researchers seek to determine what implications adult support may have on the sexual orientation victimization (SOV) of LGBQ youth.

With such a small population of students identifying as a part of the LGBQ youth, a large sample size was needed to gather the data desired for this research. In this regard, a total of 18,832 students from 18 different schools participated from one large urban school district in southern British Columbia. 9,622 of these students were girls and 9,545 were boys, all of who were in grades 8 through 12 (Darwish et al., 2012). In regard to their affiliation to the LGBQ community, only 1% identified as lesbian or gay, 3% as bisexual, and 8% as questioning, while the other 88% self-reported as straight.

After the researchers developed an extensive survey for the students to complete, students completed the survey in a 1-hour period throughout their school day. This survey included information regarding the students' social experiences faced at school in attempts to look at five specific measures of data (Darwish et al., 2012). These measures were SOV, school avoidance, substance use, and adults' support and recognition. For the measures regarding their perceptions of adult presence, students were asked to respond based on the degree they felt recognized and respected by adults within the school through the fairness in treatment they experienced, availability for or lack of extra help and support, and the extent they felt respect and care was shown to them (Darwish et al., 2012).

After analyzing the data gathered through the survey, looking at those who identified as lesbian or gay, these students reported SOV every week or more compared to only 3% of those who identified as bisexual and 2% as questioning who said the same

thing. At the same time, 17% of lesbian and gay students used substance every week or more and, again, only 3% of bisexual students and 2% of questioning students were using any substances (Darwish et al., 2012). When looking at the adult support, or at least the perceptions of support, only 17% of lesbian or gay students, 21% of bisexual, and 19% of questioning students agreed or strongly agreed that they had adult support readily available to them. Darwish et al. (2012) noted that compared to these groups of students, 27% of students who reported they were straight met the same criteria. It was also seen that regardless of one's sex or sexual orientation, the greater adult support one felt, the less SOV, school avoidance, and substance abuse was seen. Presumably, when looking at the data the other direction, students who reported low levels of adult support reported much higher levels of SOV than those who had higher levels of adult support. Likewise, students who reported low adult support reported significantly higher levels of school avoidance relative to the other groups (Darwish et al., 2012). It is also interesting to note that substance abuse was the highest among those who reported low levels of adult support. To this extent, determining whether or not having adult support in a student's academic career speaks for itself. If educators take it upon themselves to reach a hand out to these groups of students, there becomes an opportunity to cut back on the toxic stress that students are feeling from bullying and peer victimization that impacts their mental and physical wellbeing and therefore their educational growth.

At this point, it should be clear that the more protective factors that are built into student's lives, primarily at school, where there are definite resources to do so, the

less of a negative impact those ACEs may have. It has already been seen how educators

and schools can make changes, but when looking more specifically at students who have

experienced a family member being incarcerated, will the same strategies and methods

still work? With the United States having the highest incarceration rate in the world, the

odds of students experiencing a family member being arrested is going to be higher.

Nichols et al. (2016) investigate this reality to determine not only the impact it has on

students' school experience but also what can be done to compensate for the risk that

incarceration, especially parental incarceration, has on student outcomes.

Within this study, researchers pulled data from the In-Home Survey of the

National Longitudinal Study of Adolescent Health database. This data comes from a

nationally represented study of students in grades 7 to 12 who lived in the United States

from 1994 to 1995. It included participants from 80 different high schools and 52 middle

schools that were considered to be a close representation of the schools in the U.S. as a

whole in regard to region, urbanicity, size, type, and ethnic diversity (Nichols et al.,

2016). With different data being pulled for different outcomes, the researchers used

anywhere from 46,045 to 71,447 students for their sample as some specific data was

only available for certain students. 48.3% of the participants were females and their

average age was 15.9 years old. Of these students, about 12% had reported that they

had a parental figure incarcerated after they were born (Nichols et al., 2016).

After gathering the data from the In-Home Survey, researchers attempted to

determine if there was any association between parental incarceration and student's

problem behaviors, truancy, academic achievement, as well as their academic

attainment. At the same time, Nichols et al. (2016) were also looking through different avenues of the data to determine if any individual factors like school connectedness would improve the negative effects of having an incarcerated parent. School factors like any responses to mental health needs were also considered. When determining such results, researchers looked at school connectedness by feeling as though they were being treated fairly, being cared for at school, and whether or not they felt they were a part of the school community (Nichols et al., 2016). On top of the student responses, within the data collected, the administrators from the 132 total schools also had completed questionnaires with regard to the present school policies and characteristics to provide more specific data on each school.

After looking at the provided data in multiple different ways, Nichols et al. (2016) determined that compared to students who didn't have an incarcerated parent, parental incarceration was significantly associated with higher truancy rates and negative achievement in student academics. This, therefore, points to the reality that having a parent incarcerated is an indicator of academic risk. Having an above-average report of school connectedness tended to show students with higher academic achievement (Nichols et al., 2016). When looking more at school-level factors, it was seen that schools with no mental health services onsite had significantly higher rates of truancy, while having a parent and teacher organization had a positive impact on students reaching higher levels of education. In addition, smaller school settings and onsite mental health services created a significant reduction in truancy (Nichols et al., 2016). Even though making much of an impact at home may be difficult, after

considering this analysis of data, the evidence is growing for the need to help students connect to others at school as the school connectedness factors largely impacted students' academic achievement and truancy. Whether these connections are to their educators or to their peers, it is important that they receive the needed support that is statistically shown to help combat the negative impacts that parental incarceration can have on a students' development.

Though the statistics show that students from impoverished communities, as well as minority students, tend to experience more trauma in their childhood, educators would be better off knowing what aspects benefit these students, enabling them a proper development within the school setting. In this study, Borman and Overman (2004) seek out a similar answer to grow in an understanding of both individual- and school-level features that allow for some minority or poverty-stricken students to become academically successful while others growing up within the same setting or background may not experience that same success. Looking at the academic resilience and important predictors of resilience among these students were determined the key to this goal. Here, resilience is defined as a developmental process occurring over time, eventually characterized by good psychosocial and behavioral adaptation despite the developmental risk, acute stressors, or chronic adversities" (Borman & Overman, 2004, p. 180).

To gather the necessary data for such an investigation, Borman and Overman (2004) used data from a previous study, "Prospects: The Congressionally Mandated Study of Educational Growth and Opportunity." Among this data, 925 students in 3rd

grade who were identified as having a socioeconomic disadvantage were split up into

two groups listed as resilient learners and non-resilient learners. The resilient learners

were those who had performed better than expected based on their socioeconomic

status (SES) consisted of 521 students while the non-resilient learners were those who

were performing worse than expected based on the same measures consisted of 404

students. Of all participants, the average household income was between $7,500 and

$15,000 (Borman & Overman, 2004). All students came from 146 different schools

initially, but due to students moving over the course of this 4-year study, they ended up

attending 249 schools in total.

When looking at how a school may impact the way students would or wouldn't

reach resilient outcomes, Borman and Overman (2004) determined that they would look

at four models of risk factors and resilient promoting features in schools. These were

effective schools, peer-group composition, school resources, and a supportive school

community model. Yearly questionnaires were given to each student which covered

individual or resiliency characteristics like self-esteem and efficacy, engagement in

school, and positive personality. It also had school characteristics broken up into the

following four categories with relation to academic resilience: peer group composition,

school resources, effective school measures, and supportive school environment

(Borman & Overman, 2004). After taking this data, more data gathered from

standardized testing, and some gathered from parents, teachers, school principals, and

district personnel over four years, the researchers analyzed the questions proposed in

regard to whether student's resilience was dependent on or independent of some of these factors addressed.

After the analysis of data, in regard to individual characteristics, Borman and Overman (2004) determined that there was not a significant interaction between being a resilient student and being of a certain race. However, it was found that being an engaged student, having self-efficacy in math, self-esteem, and a positive attitude toward school did show significant support toward resilient learners. These four outcomes could thus be used to distinguish between both resilient and non-resilient learners. When looking at the effective schools' variables, the lower SES African-American students happened to attend schools more regularly than White students that didn't have many characteristics of an effective school model. Borman and Overman (2004) note that this is important as it was found that the resilience of low SES minority students was more dependent on attending schools with an effective model than White students in general. When looking at the supportive school community model, having safety and an orderly environment, as well as having teacher-student relationships that were positive, heavily favored the students who were seen as academic resilient. From this, one can see that those students with a low SES status deeply crave an environment that is grounded in support through safety and positive relationships no matter what their background or race may look like. Sometimes the little things like creating a trusting relationship can impact the way a student perceives school safety. This can allow students to be more open to other friendships which make an impact on students becoming resilient in their education. The researchers sum it up nicely in their initial

comments: "Focusing on alterable student behaviors and school-level features that are related to academic resilience provides the additional benefit of identifying potential changes to policies and practices that may promote academic resilience among more children placed at risk" (Borman & Overman, 2004, p. 180).

Changes in Instructional Approaches

Off-site and on-site school programs, new models, curriculum, and better interactions to create a more positive environment are crucial, but what can educators do in regard to their instructional practices that would more greatly benefit students experiencing some level of trauma? So far, applications of environmental changes can be pulled into the classroom, like being available for students, giving extra help when needed, having meaningful relationships where they know they are cared for, but there has yet to be seen a change toward instructional strategies. Although limited research has been available on this topic of instruction practices for trauma affected students, research on school climate improvement could be applied to the classroom environment also. However, here researchers will note the importance of proper student interactions, feedback for students, and brief interventions when needed.

As seen, bullying and victimization can be a major stressor and is one of the most common within a school setting. Here, victimization is seen as experiencing harassment and/or aggression from others, whether it is a little bit of teasing, threats toward someone, or actually becoming physical. Due to this reality, Van Ryzin and Roseth (2018) wanted to determine if giving students more opportunities in the classroom to interact

cooperatively would improve the peer relationships, thus decreasing the victimization and the effects that these have on student outcomes.

From 15 randomly chosen rural middle schools in the Pacific Northwest United States, each school was matched to another school based on its size and demographics. Once matched, each school was randomly chosen to be one of the two types of groups: either the intervention group or the control group. Eight of the schools represented the control group with seven being intervention groups (Van Ryzin & Roseth, 2018). Among these schools, there were a total of 1,460 7th graders participating. 48.2% (703) were females, 76.4% (1,116) were White, 13.9% (203) reported having SPED services, and the percentages of students that qualified for free or reduced lunch prices ranged between 33% and 95% depending on the school. Of the students, 792 were a part of the intervention group while 668 were in the control group.

After schools and students were randomly selected, the intervention teachers were then trained for what they would be required to do. Van Ryzin & Roseth (2018) mention that the teachers would be asked to educate their students through a cooperative learning framework that would take advantage of reciprocal teaching, peer tutoring, collaborative reading, as well as other methods that create positive interdependence among smaller groups of students. The goal of the intervention was to facilitate positive peer relations and networks that would ultimately break down the opportunities for bullies to find one another and band together, as well as build in opportunities for students who were isolated to develop supportive friendships. This not only included teachers carefully creating purposeful groups but also teachers increasing

positive peer interactions by giving students opportunities to work with a greater range

of different students than they might have done so by choice (Van Ryzin & Roseth,

2018). By taking these steps, the intention was that mutual assistance, emotional

support, and sharing resources could take place which would only allow for positive

social interactions, therefore increasing acceptance and reducing social isolation. The

data for this study were collected at both baseline and post-intervention, a 5.5-month

separation, for the control and intervention group through an online survey. Van Ryzin

and Roseth (2018) stated that these surveys were created to measure the following

topics: bullying and victimization, perceived stress, emotional problems, school

adjustment, behavioral engagement, as well as demographics. Lastly, to help keep the

fidelity among teachers high, observations of the educators were conducted throughout

the intervention period.

It should first be noted that even though there were many different schools in

both intervention and control groups, the schools did not statistically differ in their

levels of bullying, victimization, perceived stress, or school adjustment at the baseline

data collection. It was noticed that the emotional problems were different among the

intervention schools showing slightly lower symptoms than the control schools (Van

Ryzin & Roseth, 2018). Once the analysis of the surveys was complete, the impacts of

collaborative learning became clearer. Compared to the control schools, all of the

intervention schools had significantly higher levels of observed positive

interdependence and school adjustment at the post-intervention point, as well as lower

levels of emotional problems. When focusing on only the marginalized students in the

intervention group, those students who were more at risk of victimization, these students ended up showing lower levels of bullying, victimization, and perceived stress compared to the similar students within the control group (Van Ryzin & Roseth, 2018). However, in this same focus, there wasn't any significant difference between emotional problems or school adjustment. When looking at students who weren't considered to be marginalized, there didn't seem to be any significant effects from the intervention. Overall, these results show that providing students with cooperative learning opportunities that focus on significant positive social relations can allow those students who are socially marginalized to build relationships that can protect them against social isolation, thus reducing the opportunities for bullying, victimization, and perceived stress, as well as the effects these have on the personal and educational wellbeing of the student. This study also proves that there isn't necessarily a need for a schoolwide antibullying program, but rather, teachers can simply be purposeful in giving students cooperative learning opportunities and some of the same effects take place.

When analyzing the interactions of students in a classroom, either positive or negative, it can be seen how trauma can play a role in the way they interact with the stimuli surrounding them. As Arguedas, Daradoumis, and Xhafa (2016) aim to look further into the way emotion awareness affects students' motivation, engagement, self-regulation, and learning outcome, it is important to know that there are opportunities in the classroom to implement learning strategies that may play a positive role in these exact pieces of a student's daily interactions with learning.

Arguedas et al. (2016) focused their research on a class of 24 high school seniors who were currently taking an introductory course for computer science. Not only were all of these students in the same course, but they also were labeled to have the same background and characteristics as students. Of the 24 seniors, 18 (75%) were girls and 6 (25%) were boys (Arguedas et al., 2016). In the process of answering the questions posed by the researchers, they divided the students up into six random groups with four members each. Three of these groups were the experimental group which was students who would be interacted with based on their emotions throughout the activities and the other three groups were the control group, therefore not having emotion awareness support. While all groups completed activities that required collaboration as groups in a manner similar to a "Jigsaw strategy," both qualitative and quantitative data were gathered through the group's dialogue, specifically looking at emotion awareness and affective feedback (Arguedas et al., 2016).

After gathering all data from the interactions with the group activities, Arguedas et al. (2016) documents that the experimental group, those who received the emotion awareness support, experienced higher mental states, behaviors and attitude changes compared to the control group, which indicates that the emotion awareness is strongly related to the researchers' primary focus: students' motivation, engagement, and self-regulation. It was also discovered that, with regard to the affective feedback given, the experimental group benefitted more from the teacher's attitude and affective feedback than the control group did. The experimental group also showed greater motivation, even when they experienced sadness or boredom, which helped them maintain focus

on their task. They held more supportive behaviors and offered suggestions and

opinions with their peers, which enabled them to stay engaged. They also felt more

motivated and concentrated on their activities, which showed their self-regulation

ability (Arguedas et al., 2016). Ultimately, the control group showed lower motivation,

concentration, and solidarity with classmates, which became a barrier to the students'

efforts. The experimental group was more easily able to self-regulate their participation

at appropriate times, as well as more often. This enabled them to be more cooperative

and constructive when they faced any socio-cognitive conflicts in their collaborative

work. Arguedas et al. (2016) recognizes that the experimental group, in receiving

emotion awareness support, accomplished group solidarity and cohesion that favors the

trust and engagement of the group, while also providing an important tool of emotional

competence for the individual students, which increases the emotional awareness of

themselves and their peers, a significant step toward reaching learning outcomes

through supportive behaviors in the classroom.

If student collaboration doesn't go well, students score poorly on an assignment,

or their peers reject them in some fashion, often students may begin to feel stress and

can find themselves spiraling downward because they haven't learned the skills to

control their emotions and combat the negative thoughts that may follow a state of

stress. Hilt and Pollak (2012) studied what types of brief interventions could be used to

combat students falling into a heightened rumination state, a state where they may be

passively and repetitively dwelling on and questioning negative feelings as a response to

stress. Their findings may provide educators quick and useful tools to help guide

students away from negative emotional reactions and toward a more logic-based reaction that is more helpful to stay academically "in tune" and ready to learn.

Hilt and Pollak (2012) worked with 102 youth participants who were recruited from the community through an advertising campaign which would reward all participants $10 for their involvement. These students ranged from 9 to 14 years of age with a mean age of 11.51 years old with 64% being girls. The median family income was $75,000 while ranging from $5000 to $250,000 (Hilt & Pollak, 2012).

To begin this research, the participants practiced having a negative mood induction before they completed baseline measures of negative affect, blood pressure, and state rumination. Next, students completed a speech/feedback task through a computer that made them believe they had the opportunity to audition for a new reality TV show by preparing and giving a three minute speech, being judged by four pre-recorded images on the screen of "peers" who already had been accepted for the show, and then receiving pre-recorded feedback from the "judges" in a neutral to slightly negative manner (Hilt & Pollak, 2012). Following this, students underwent an ecologically-valid social-rejection event where they listened to 23 prompts having them critically think about their feelings after being rejected from participating in this "new show," thus intending to induce rumination. After another student-reported assessment on their state of rumination and taking their blood pressure, if the student qualified with having their negative mood induction successfully induce rumination, they underwent the intervention. Then, 33% of the participants underwent a distraction, 33% a problem-solving, and 34% a mindfulness intervention with a final assessment proceeding to

determine the final state of rumination (Hilt & Pollak, 2012). The distraction

intervention was a simple prompt that had students imagining random objects and

scenes like the layout of their lunchroom at school. The problem-solving intervention

was an 8-minute recording asking students to identify the problem, create a solution,

evaluate consequences, choose a solution, and verify the process. Lastly, the

mindfulness intervention was also an 8-minute recording focused on present-moment

awareness, acceptance of negative emotions, awareness of breath, and letting go of

thoughts.

Hilt and Pollak (2012) recognized that, although there wasn't an assessment to

determine long-term effects, the short-term assessments on rumination produced

significant results for the distraction and mindfulness intervention. State rumination,

heartbeat, and blood pressure all decreased from baseline to post-mood induction for

both the distraction and mindfulness relative to the problem-solving intervention.

Problem-solving was significantly different from the others recognizing this as not a

beneficial intervention in the immediate short-term. However, the data suggests that

distraction and mindfulness were successful in helping the participants out of a

ruminating state (Hilt & Pollak, 2012).

CHAPTER III: DISCUSSION AND SUMMARY

Summary of Literature

After analyzing different off-site programs for traumatized youth, all programs showed impressive engagement by participants and parents. Zeng et al. (2016) recognized an appreciation from participants in the program for at-risk EBD students, Beltran et al. (2016) noted the yoga-based psychotherapy having the highest attendance rate of all programs at the clinic, and Sinha and Kumar (2010) saw consistent interest in the mindfulness practice, instructions given, and even homework assignments. Similarly, all showed significant improvements in peer relationships, social-emotional behavior, and mindfulness of oneself in their ability to self-regulate (Beltran et al., 2016; Sinha & Kumar, 2010; Zeng et al., 2016).

Many on-site programs for students experiencing trauma also showed powerful improvements in similar areas, as well as others, but had a greater ability to access students while in the school building. Whether students noted experiencing "small trauma," an average of five trauma events (Jaycox et al., 2019), or an average of 8 out of a possible 17 different traumatic experiences (Hoover et al., 2018), or if they had experienced "big trauma," such as witnessing numerous terror attacks and missile strikes in Israel (Gelkopf & Berger, 2009; Wolmer et al., 2011), or a within a city that was destroyed by a fire (Rønholt et al., 2013), the amount of PTSD symptoms plummeted in each situation when students participated in interventions (Santiago et al., 2018). More specifically, the approaches used focused on stress reduction through mindfulness training and interventions, like ERASE-Stress or an adaptation of Mindfulness-based

Stress Reduction Program (Gelkopf & Berger, 2009; Lau & Hue, 2011), which provides

students with the ability to observe their thoughts, feelings, and body reactions, social-

emotional skills and proper use of coping skills when feeling the need to act

inappropriately, like the Coping Power Program, Bounce Back, or Life Improvement for

Teens (Jaycox et al., 2019; Mushtaq et al., 2017; Santiago et al., 2018; Wolmer et al.,

2011), and variations of psychosocial interventions which focus on emphasizing proper

engagement in social interactions (Hoover et al., 2018; Rønholt et al., 2013). With the

high student attendance and retention rates, students gained skills that they felt could

help them in their daily lives (Lau & Hue, 2011), 34 students went from a PTSD diagnosis

to only 19 having probable PTSD (Rønholt et al., 2013), and "severely aggressive"

students seemed to lose their label as their teachers recognized marked improvements

in self-regulation skills and strategies to improve their behavior (Mushtaq et al., 2017).

On top of these healthy behavioral and emotional outcomes, Cleary et al. (2008)

shared an academic impact of an on-site program called Self-Regulation Empowerment

Program that tracked the growth of biology students who participated in the

intervention. Since the program was geared toward combatting poor self-beliefs and

encouraged goal-setting, planning, and self-reflection, teachers reported that the

students grew in their self-regulation and help-seeking strategies and minimized their

disorganization and avoidance tendencies. This helped the students who were

previously performing poorly improve to a point that was about 10% higher than the

rest of the class (Cleary et al., 2008).

When focusing on a school-wide curriculum that would benefit the whole student body, but especially our traumatized students, Costello and Lawler (2014) showed the benefits of short mindfulness intervention that can be implemented in only 3 to 12 minutes, while Cook et al. (2015) detailed the results of implementing a school-wide model, or possibly even two, PBIS and SEL. Both mindfulness interventions saw an enhancement of their present-moment awareness and were better able to self-regulate their thoughts, feelings, and behaviors. This allowed students who were at risk of socioeconomic exclusion or experiencing increased socio-economic distress to feel more relaxed and have fewer behavior issues (Costello & Lawler, 2014; Harpin et al., 2016). Two other school-wide programs, one that addressed depression symptoms, and the other, a bullying prevention called COREMatters, saw reductions in depression and hopelessness levels. The original 24 students who were clinically depressed, dropped to only six (Shochet et al., 2001) with school cohesion and trust also growing (Cipra & Hall, 2019) which, in turn, kept students from experiencing more trauma. Lastly, it was seen that schools could implement more than just a curriculum by changing to a model approach. Cook et al. (2015) showed an impressive approach by coupling the PBIS and SEL models, which introduced a substantial change in internalizing and externalizing behaviors in students.

When looking at the school environment, many changes were noted by researchers as important for either implementing protective measures or measures to combat the negative realities that already exist. The most common theme was the importance of having support in the form of peers or teachers, as well as feeling a

connectedness through that support (Arastaman & Balci, 2013; Bellis et al., 2018;

Borman & Overman, 2004; Darwich et al., 2012; Hopson et al., 2014; Johnson, 2008;

Nichols et al., 2016; Riekie et al., 2017). Arastaman and Balci (2013) recognized in the

Turkish students that peer support was the most significant variable to determine if a

student would have the resiliency factors needed to withstand traumatic responses or

situations and continue to develop as they should, while Riekie et al. (2017) and Bellis et

al. (2018) noted that the availability of teachers and peer support, fair treatment, a

feeling of belonging, and school connectedness, all had a major influence on students'

positive mental health. For some, as Nichols et al. (2016) and Hopson et al. (2014)

mention, this also was a determinant to their academic outcome and had an effect on

what their highest level of education would be. Others like Borman and Overman (2004)

expressed that having a positive teacher-student relationship was a factor that mattered

most when determining resiliency in students from disadvantaged SES backgrounds.

Darwich et al. (2012) noted this as the main factor for gay, lesbian, bisexual, or

questioning youths in having less SOV, school avoidance, and substance abuse. Lastly, a

few "little things" that would seem to be expected of a teacher like being available,

listening to students, giving extra help when needed, having high expectations for them,

and having behavioral norms, were also recognized as impactful to student mental

health (Hopson et al., 2014; Johnson, 2008).

    Within the classroom, at least from an instructional approach, researchers also

found that educators can create an environment that provides protection against

trauma and build a greater sense of relationship and school connectedness to fulfill the

realities that were just shown to be a significant impact. Van Ryzin and Roseth (2018)

recognized that educators should give students more opportunities to interact within

the classroom, whether in activities or during other learning, to improve relationships

among peers, which should ultimately decrease student victimization and bullying.

Helping students become aware of their emotions and providing feedback to students

about their feelings provided greater student motivation and engagement which

produced greater cohesion and trust among student groups (Arguedas et al., 2016).

Finally, Hilt and Pollak (2012) documented how brief interventions, specifically using

distraction and mindfulness techniques, to combat student negative feelings caused by

stress, helped students out of a state of rumination. From this published literature,

there are many opportunities to synthesize research in a way that will guide education

professionals to a greater understanding of what can be done to combat the impact of

trauma, as well as introduce protective supports for our students.

Limitations of the Research

Overall, a great amount of research exists concerning childhood trauma

and its effects on students and their educational achievement. However, in order to

address the research question of how educators can combat the impact of trauma

and/or introduce protective supports for students, it was important to determine

educational impacts through searches with the following keywords: "trauma-informed

educational interventions," "trauma-sensitive school instruction," "mindfulness

education in schools," "resiliency in the classroom," "social-emotional learning for

students," "coping skills for students experiencing trauma," and "self-regulation

strategies." Further narrowing this search by using publication dates from 2000-2019

allowed for more recent literature. All studies chosen were found within Academic

Search Premier, EBSCO MegaFILE, ERIC, ProQuest Education and Psychology,

PsycARTICLES, and PsycINFO databases and must have been peer-reviewed empirical

studies. With a focus on kindergarten through secondary education, another limiting

factor was disregarding articles outside of this range.

Throughout the research process, limitations became apparent in what

resources were available to answer the research question. There seemed to be a lack of

research focusing on specific instructional strategies for a classroom or how teachers

could explicitly change the way they teach. A great amount of research was found

regarding how they should interact with students on an everyday basis, but only a few

pieces were found on the details of instruction, which may create ambiguousness for

how educators should change their instructional strategies. Another initial focus was on

how the popular PBIS school model would meet these ends. However, after diving

further into this model and the research surrounding it, it became clear that it was more

of an overarching school concept focusing on student behaviors, rather than having an

intentional impact on students working through trauma, although it still may benefit

this. Due to this, all but one PBIS research article was deleted from possible research to

analyze.

Implications for Future Research

Filling gaps within published research will benefit the educational system

as it can give educators understanding on the best ways to educate students and how to

help them adapt to the ever-changing culture and difficulties students face. When looking at how to combat and protect against trauma, as previously mentioned within the limitation, a lack of research on potentially impactful instructional practices and strategies for students that have experienced trauma is the first important direction to note. Trauma is not going to disappear, which means students will continue to be negatively impacted academically until more ways to modify our instructional practices have been proven successful. Similarly, with most research articles focusing on the social-emotional implications of trauma-based instruction or programs, little research exists that focuses on student academic achievement and higher levels of academic attainment further down the road for these students. Although it makes sense that students who do not have positive social-emotional skills will probably always struggle in a very social environment like school, this would be an important gap to fill in research.

Another avenue to follow could focus on finding productive ways to include parents, guardians, and caregivers in the education around trauma and the strategies that one could use to protect or alleviate the traumatic experiences within student lives. In the studies that attempted to have parental engagement, there was very minimal parental engagement which ended up putting a ceiling on the progress the programs could make. Although work schedules and other impactors are real, it is an important task to educate the whole family system on trauma and the impact it can have on the students/family. Although most research had focused on screening for students who already experienced some form of trauma, taking a more proactive approach instead of

a reactive approach is also an approach researchers could take. This may alleviate the strain on many of the academic and clinical resources that are needed to fund and implement the trauma programs discussed within present research.

Implications for Professional Application

Now that we have seen a wealth of research outlining the different types of interventions that can make a positive impact on students who have experienced trauma, how do we make these new understandings a reality for students. Whether we are a part of the district office, an administrator within a school, or an educator in the classroom, we all have a duty to fulfill. We must give every student who walks through the doors of our schools an opportunity to receive the greatest individual resources they may need to overcome previous traumatic experiences, to build resilience to fight through the challenging times, and to develop within a supportive, caring, and safe environment so that they may have healthier social-emotional interactions and flourish in their academic careers.

To tackle this objective, first, administration and district personnel must recognize the role they play and their ability to make district- and school-wide decisions to allocate resources that help fund and implement needed on-site programs and school-wide curriculum shifts. This may require necessary training for staff in a greater understanding of what trauma is, how it impacts the students that come to our schools every day, and how teachers are going to join this fight to provide all an equal opportunity to a healthy education. We now know that students are going to be truant less often if mental health services exist at the school (Nichols et al., 2016) and

implementing an effective school model such as what was described by combined PBIS

and SEL, instead of continuing what has always been done, will greatly improve

internalizing and externalizing behaviors (Cook et al., 2015). Giving students a 13-week

program with police officers and a master of martial arts to combat bullying through

community trust and unity are also positive steps one could take (Cipra & Hall, 2019).

Most importantly, the options are there and, in many of our school districts that lack

trauma-sensitive approaches, it is time to begin the fight against the negative impacts of

trauma on our students' educational experience, social growth, and wellbeing in today's

culture.

Secondly, classroom educators like myself need to hear the cry from students

that a relationship is what they want, a relationship is what they need, and without

having this, their education and wellbeing will be wounded (Borman & Overman, 2004).

We are there to educate, but we are also there to nurture and care for them, be a

listening ear when they need it, and hold them up with high expectations to show that

we believe they can do more than what their past experiences may be telling them

(Johnson, 2008). Creating a school environment that is conducive to school

connectedness and respect is the goal. If there is an educator out there who believes

they are there to "just teach math," or whatever subject might fill that blank, then there

are one too many educators who do not recognize the need for a holistic nature of such

an occupation. Although teachers may be stuck in the "just teaching" framework, we

now can recognize other opportunities they and others have to change their teaching.

Incorporating more opportunities for students to cooperate in learning activities (Van

Ryzin & Roseth, 2018), focusing on student emotion awareness and giving feedback

regarding it (Arguedas et al., 2016), and briefly intervening as students fall toward

negative thoughts and feelings are also effective approaches (Hilt & Pollak, 2012).

Overall, it is an effective approach to educate and care for our students

holistically. When students need a smaller group setting to navigate the repercussions

of their ACEs (Nichols et al., 2016), or when students need to have a positive peer

relation or a positive student-teacher relationship (Borman & Overman, 2004), we as

educational professionals must recognize the need to be reactive in helping students

heal from and grow through trauma, as well as understand the implications of being

proactive by introducing protective supports for the inevitable future educational or life

stress that students may face.

Conclusion

To conclude this literary analysis, evidence presents a definite confirmation of

the breadth and depth of options educational professionals have in order to combat the

impact of trauma and/or introduce protective supports for students experiencing

trauma in an attempt to improve student academic and social outcomes. Although

research primarily focused on the social outcomes of programs, curriculum, and teacher

instructional strategies, one is able to see a wide range of growth results within both the

academic and social outcomes throughout the diverse populations and locations, as well

as assorted trauma severities. After gaining a recognition of how trauma is detrimental

to the development and, therefore, academic and social achievement of students, there

cannot be a choice of whether one should implement a new program, curriculum, or

better instructional strategy, but, instead, a question of which will be your choice that

will benefit the population of students you serve and how quickly one can successfully

implement that decision.

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