5-2021

Symptoms of Trauma Related to the COVID-19 Pandemic in Educators and Students

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ABSTRACT

In the United States, a nationwide shutdown began in mid-March of 2020 due to the COVID-19 pandemic. Since the shutdown began, many people faced financial insecurity, health insecurity, and food insecurity. When the shutdown began, most schools broke for spring break and did not reconvene for the remainder of the school year. This created huge gaps in necessary services and resources for students and families including academics, mental health services, social supports, food resources, and connection to the community. This study explores trauma and stress symptoms educators and students have experienced in relation to the COVID-19 pandemic. This study is a cross-sectional survey design. Educators in kindergarten through 12th grade settings in a school district in West Central Texas were given a survey of questions about trauma symptoms, levels of stress, and student behaviors. The results showed that there was a statistically significant difference between trauma symptoms before the shutdown and after the shutdown (t (70) =-8.89, p=.000; d=.99). There was also a statistically significant relationship between educators' stress levels and trauma symptoms following the shutdown (p=.000). The implications of this research show an increased need for mental health services. Due to the traumatic effects that COVID-19 pandemic had on educators, and likely students, there is a need for greater access to mental health services.

Symptoms of Trauma Related to the COVID-19 Pandemic in Educators and Students

A Thesis

Presented to

The Faculty of the Graduate School of Social Work

Abilene Christian University

In Partial Fulfillment

Of the Requirements for the Degree

Master of Science in Social Work

By

Leanne S. Parker

May 2021

This thesis, directed and approved by the committee for the thesis candidate Leanne Parker, has been accepted by the Office of Graduate Programs of Abilene Christian University in partial fulfillment of the requirements for the degree

Master of Science in Social Work

Assistant Provost for Graduate Programs

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This thesis is dedicated to my parents, Mike and Renea Calhoon, and to my husband, Christian Parker.

Mom and dad, thank you for the unconditional love you have given me in life. Thank you for the gift of my education. Thank you for allowing me to pursue my passions and encouraging me to go further. You have afforded me innumerable opportunities to chase my dreams and I will forever be grateful to you. What an example you have set for your children.

Christian, I am so grateful to be your wife. Thank you for your care, kindness, and patience through this process. You have put your own aspirations and opportunities on hold so that I could pursue mine and I have been so blessed by this act of love. I cannot wait to experience what is next for us.

ACKNOWLEDGMENTS

I would like to give special acknowledgement to the members of my thesis committee. Dr. Alan Lipps, thank you for the hours you spent helping me analyze data, your weekly check-ins, and all the answers to my copious number of questions. I would not have been able to complete this project without you. Thank you for helping me reach this milestone. To professor Breanna Heinrich, thank you for your encouragement and kindness during this rather stressful process. You have been a role model for me during my time at ACU and I have appreciated your investment in me. To my field supervisor, Tina Fleet, thank you for all the guidance, wisdom, and authenticity you have shared with me this year. At times I felt like I was going crazy, and you grounded me by letting me know I was not alone in that feeling. Thank you for the person that you are and for sharing so much of yourself with me.

I would finally like to acknowledge my mother-in-law, Julie Parker, for all the work she poured into this project. Thank you for the late-night hours you spent editing, correcting, and hyping up my work. I am so proud of the work presented here, and it would not have been the same product without your hand in this project. I cannot express how blessed I am to have married into such a supportive family.

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CHAPTER I

INTRODUCTION

In the year 2020, a global crisis emerged. The COVID-19 pandemic caused entire nations to shut down and created unique challenges for people around the world. In the United States, COVID-19 began to spread in February of 2020, forcing the nation to shut down mid-March. The shutdown caused hardships for people from all walks of life. Many people faced financial insecurity, health insecurity, and food insecurity. Loss of social connections and increased uncertainty have caused mental health issues to skyrocket. The anxiety associated with the pandemic combined with additional hardships experienced during this time have created a mental health crisis across the world (Brown, 2020; Kanzler & Ogbeide, 2020; Marshall et al., 2020; Miller, 2020; Panchal et al., 2020; Stark et al., 2020). Miller (2020) refers to this event as "The Loss and Trauma Event of Our Time" (Miller, 2020). In the chaos of these unprecedented times, there is a growing need to address the rising psychological distress of individuals around the world.

The timing of the shutdown in the United States meant that schools across the nation abruptly closed in the middle of their semester, not only disrupting the students' educational progress, but also creating many personal and professional challenges for educators as well as the students and their families. This is significant as schools fulfill a variety of needs within the community. School first and foremost provides an educational experience for children in the community. Children gain knowledge as well as social-emotional skills and stability (Chambers, 2015). In addition to education, schools also

provide other essential resources for children and families such as steady meals, clothing, and access to hygiene amenities to promote healthy living (Lynch, 2017; Miller, 2020; UNESCO, 2020). Many schools offer supplemental programs such as extracurricular, cocurricular, and afterschool activities that promote child growth and welfare (Lynch, 2017). Schools also serve as a form of childcare for parents who work during the day (Panchal et al., 2020; UNESCO, 2020). Schools benefit the overall community as a major employer of teachers, administrators, support staff, nurses, mental health and behavioral health professionals, among others (Chambers, 2015). Schools are essential because they serve as a connection point where education meets community needs to promote family growth and prosperity.

When schools began to close due to the public health risk caused by the COVID-19 outbreak, communities were suddenly cut off from the resources that schools provide. Furthermore, parents were tasked with educating their children, a burden for which most were vastly unprepared (Fergert et al., 2020; Miller, 2020; UNESCO, 2020). Parents who worked during the day were forced to find new means of childcare, to leave their children at home alone, or to take time off work to take care of their children (Fergert et al., 2020; UNESCO, 2020). Thus, not only were people losing jobs, but parents who remained employed had to choose between going to work and staying home with their children. In addition to these struggles, educators themselves faced an increase in uncertainty and were forced to adapt their education to other platforms that not all their students had access to (Miller, 2020; UNESCO, 2020). These compounding struggles have put a significant amount of stress on educators. In a survey conducted in April 2020, 56% of educators claimed that their morale had dropped following the shutdown (Education

Week, 2020). In addition, the frequency with which teachers interacted with their students also dropped (Education Week, 2020). This is cause for concern as educators play an important role in the education, care, and welfare of students.

For the 2020-2021 school year, the State of Texas required public schools to offer in-person classes upon reopening in the fall of 2020 with new health and safety measures in place to help prevent the spread of COVID-19 (Carpenter & Webb, 2020). Although schools were required to reopen, students and parents had the option to remain at home and continue with remote learning (Carpenter & Webb, 2020). This means that teachers were required to teach in-person, risking their own health and safety, as well as cater to the educational needs of their students learning from home. Teachers and schools have gone through many changes this year and have been forced to be adaptable in the ever-shifting circumstances associated with the pandemic. Due to the recency of the situation, not a lot is known about how the shutdown and new requirements have affected school personnel and students. It is imperative to understand the repercussions of the COVID-19 pandemic on these institutions, as schools serve a vital role in society. Has the COVID-19 pandemic shutdown had an impact on trauma symptoms of educators in the kindergarten through 12th grade setting? Do students exhibit behaviors consistent with experiencing trauma symptoms in kindergarten through 12th grade? To answer these questions, an understanding of the nature of the pandemic, challenges associated with the pandemic, trauma, stress, and resiliency need to be developed.

CHAPTER II

REVIEW OF THE LITERATURE

Search Methods

For this review of the literature, the EBSCO*host* database and Google Scholar were utilized to gather all scholarly, peer-reviewed sources used in this review. First, literature regarding the COVID-19 pandemic was sought using search terms: "covid-19 OR coronavirus OR sars-cov-2," "mental health," and "trauma AND stress." Second, literature on trauma and stress was gathered utilizing search terms: "trauma-informed care," "resilience," "adverse childhood experiences," "chronic OR toxic stress," "schools OR education." A literature review on trauma-informed care conducted by the Substance Abuse and Mental Health Services Administration (SAMHSA) was also utilized to gather literary sources for this review *(Trauma-informed care,* 2014). The literature included in this review is used to develop an understanding of the circumstances and challenges associated with the COVID-19 pandemic and the potentially traumatic effects it has had on educators and students.

COVID-19 Pandemic and its Impact

COVID-19 is a respiratory disease that causes a variety of symptoms including fever, cough, sore throat, loss of smell, headache, and body aches, among other symptoms (Subbarao & Mahanty, 2020). These symptoms can range in severity from asymptomatic, meaning the infected person does not show any symptoms, all the way to death (Economic Times, 2020; Subbarao & Mahanty, 2020). Respiratory diseases are

contracted when a virus's particles are inhaled or make contact with the nose or eyes. Respiratory diseases spread when a non-infected individual comes into contact with air droplets of an infected individual. The air droplets of an infected individual can be secreted when they cough, sneeze, and even during regular breathing. These droplets are transmitted through the air and surfaces that the infected droplets touch (Subbarao & Mahanty, 2020).

Although professionals in the medical field have an in-depth understanding of respiratory illnesses, there is still a major gap in information and medicine to address the COVID-19 virus. COVID-19 is a disease that is new to the world and has created complications with containment and treatment. At the start of the COVID-19 outbreak, nations across the world began to enforce social distancing laws and regulations to prevent people from coming into direct contact with one another, as well as mandatory and discretionary quarantine for people who tested positive for or were exposed to the disease (Brooks et al., 2020; Fergert et al., 2020; Miller, 2020; Otu et al., 2020; Stark et al., 2020). The United States has seen a devastating amount of illness and death across the nation over the course of the pandemic. According to the Center for Disease Control (CDC), as of April 2, 2021, the United States has had a total of 30,277,908 confirmed cases and 549,098 deaths due to the COVID-19 virus (2021). There is a desperate need for treatments for this disease as it continues to spread, causing devastating effects across the world. Currently, scientists and doctors are racing to find therapeutics and cures such as a vaccine, antiviral agents, immunomodulators, antibodies, and adjunctive therapies (Subbarao & Mahanty, 2020).

Mental Health Impact

The outbreak of the COVID-19 disease created two very serious public health issues: a highly contagious global pandemic and a global mental health crisis (Chakraborty & Maity, 2020; Marshall et al., 2020). Mental health has become a central focus of concern across the globe since the pandemic began as there has been a dramatic increase in mental health related issues (Brooks et al., 2020; Brown, 2020; Fergert et al., 2020; Imran et al., 2020; Kanzler & Ogbeide, 2020; Marshall et al., 2020; Miller, 2020; Otu et al., 2020; Panchal et al., 2020; Stark et al., 2020). Poor mental health outcomes experienced during this time can be linked to the increase in stress, isolation, fear, and loss associated with the pandemic (Fergert et al., 2020; Imran et al., 2020; Marshall et al., 2020; Otu et al., 2020; Panchal et al., 2020; Stark et al., 2020). Among the mental health symptoms that have increased since the start of the pandemic are anxiety, depression, low mood, irritability, anger, fear, hopelessness, disturbances in sleep and appetite, low self-esteem, and higher rates of substance abuse (Fergert et al., 2020; Imran et al., 2020; Otu et al., 2020; Panchal et al., 2020). Those with preexisting mental health conditions are at even higher risk of exacerbating their symptoms as they are more likely to have difficulties adjusting to the realities of the pandemic (Miller, 2020).

The rapid spread of COVID-19 disease has required many people to quarantine due to exposure to an infected individual or to quarantine after receiving a positive test result for the disease itself. This has created some unique mental health challenges as it has required people to be isolated from friends, family, normal routines, and consistent supports. Isolation is known to have many negative effects on the human psyche (Brooks et al., 2020; Fergert et al., 2020; Imran et al., 2020; Panchal et al., 2020). In February of

2020, Brooks et al. conducted a rapid systematic review of studies that looked into the psychological impact of quarantine on individuals. They found negative psychological impacts including symptoms of post-traumatic stress disorder, confusion, and anger. These studies also highlighted additional stress that quarantine created, including having to quarantine for a longer duration, fears of infection, frustration, boredom, scarcity of supplies, lack of information, financial loss, and stigma associated with quarantine and contracting the disease (Brooks et al., 2020). When considering isolation in the context of mental health, suicide is a primary concern. This is especially true during COVID-19 as economic recessions historically have been linked to increases in suicide rates (Panchal et al., 2020). At the start of the pandemic, mental health professionals predicted that there would be an increase in suicide rates around the world (John et al., 2020; Panchal et al., 2020). This prediction was made because normal risk factors for suicide were likely to be exacerbated by the additional stress of the pandemic (John et al., 2020).

In addition to poor mental health, substance use and abuse also increased since the pandemic began (Otu et al., 2020; Panchal et al., 2020). This is not surprising, however, as poor mental health outcomes are commonly comorbid with substance use and abuse (*Trauma-informed care*, 2014; Houston et al., 2011). Houston et al. (2011) note, "stressors such as trauma may influence an individuals' attempt to self-medicate in order to alleviate trauma-based memories, or indeed cope with the psychological symptoms associated with trauma-related distress" (p. 154). This is concerning because statistics show that the use of substances such as illicit drugs and alcohol increases an individual's risk of experiencing a trauma (*Trauma-informed care*, 2014). People who are already

experiencing high levels of stress and trauma are putting themselves at further risk for re-traumatization.

Children and Adolescent Mental Health During the Pandemic

Although the disease itself has been shown to have little impact on children's physical health, children are not shielded from the negative mental health effects of the pandemic (Brown, 2020; Fergert et al., 2020; Imran et al., 2020). Crisis situations have been shown to produce anxiety, depression, disruption in sleep and appetite, as well as impairment of social interaction in children and adolescents (Imran et al., 2020). According to numerous surveys administered since the start of the pandemic, children's and adolescents' mental health has been disproportionately affected when compared to adults (John et al., 2020). Understanding the psychological impact of the pandemic on children and adolescents is particularly important as there has been extensive research on the effects of adverse childhood experiences (ACEs) on physical health and mental health in adulthood (Gillespie et al., 2009; Margolius et al., 2020; Petruccelli et al., 2019). Children are particularly vulnerable during this time as they are unable to fully understand the scope of the pandemic and they have limited coping strategies due to their developmental age (Imran et al., 2020; Nader, 2011). The pandemic can be confusing and even frightening for children (Brown, 2020; Imran et al., 2020). Adolescents are vulnerable to extreme stress, such as that of the pandemic, as their prefrontal cortex, involved in executive functioning, is still developing (Nader, 2011). As the circumstances of the pandemic continue to develop and change, acknowledging the mental health challenges of young people is essential to protect their future wellbeing. ACEs will be addressed in further detail later in this review of the literature.

Changes in Resource Delivery and Acquisition

With all the mental health issues that are arising and worsening with the rise of the pandemic, there is a need for more services and supports. Prior to COVID-19, there were many gaps in services in physical and mental health care (Kanzler & Ogbeide, 2020). With the need for physical distancing, accessing physical and mental health care during the pandemic has become an even greater challenge (Brooks et al., 2020; Brown, 2020; Fergert et al., 2020; Kanzler & Ogbeide, 2020; Marshall et al., 2020; Miller, 2020; Otu et al., 2020; Panchal et al., 2020; Stark et al., 2020). To address this challenge, utilization of digital technology to deliver mental health services has increased greatly (Kanzler & Ogbeide, 2020; Marshall et al., 2020; Stark et al., 2020). Through digital services, patients can access professional mental health services by eliminating barriers such as distance, transportation, or illness. This is especially advantageous during a pandemic as patients can avoid contact with other people by eliminating in-office visits. This is not the only advantage of utilizing technology as there are thousands of digital applications available to aid people experiencing mild mental health related problems (Marshall et al., 2020). According to Marshall et al., since the start of the COVID-19 pandemic, downloads of mental health apps have gone up exponentially (2020). Although applications cannot treat mental illness, they can be utilized as beneficial coping techniques as well as preventative care. Digital resources are great for those who can access them; however, not all people have equal access to technology resources, so this is not an adequate solution for all populations (Fergert et al., 2020; Imran et al., 2020; Otu et al., 2020).

Communities

As the virus continues to spread around the world, there have been many consequences. Lockdown orders affected transportation and mobilization as flights, trains, busses, and other transport services were shut down (Chakraborty & Maity, 2020). Countries around the world had to shut down educational, commercial, sports and spiritual institutions in an attempt to slow the spread of the disease (Chakraborty & Maity, 2020). The pandemic caused an economic recession, loss of social connections, missed personal milestones, as well as loss of friends and family (Brooks et al., 2020; Fergert et al., 2020). Stay-at-home orders and mandatory shutdown protocols reduced access to support systems and services to children and families (Miller, 2020; Stark et al., 2020). Although these conditions affect people from all walks of life, they disproportionally affect lower socioeconomic families and individuals (Fergert et al., 2020; Imran et al., 2020; Otu et al., 2020; Stark et al., 2020). Some of these disproportionalities include job loss, access to health care, access to mental health care, ability to properly socially distance, access to educational resources, access to leisure activities, access to social supports, and access to technology (Imran et al., 2020; Fergert et al., 2020; Otu et al., 2020). People of lower socioeconomic status are generally more likely to report negative mental health effects caused by stress and worry about the COVID-19 crisis (Panchal et al., 2020). This is not only true during the pandemic, but individuals of lower socioeconomic status in general have higher rates of mental health related issues (Fergert et al., 2020; Gaillot, 2010; Houston et al., 2011; Imran et al., 2020; Otu et al., 2020; Stark et al., 2020; *Trauma-informed care,* 2014). People who fall into a lower socioeconomic demographic also have fewer means of paying for and accessing

services to address their needs. During the pandemic, these disparities have been staggeringly exacerbated.

Families

Another unfortunate consequence of the COVID-19 pandemic is an increase in child abuse and domestic violence (Fergert et al., 2020; Miller, 2020; Panchal et al., 2020; Stark et al., 2020). As with suicide rates, during economic recessions, there has historically been an increase in domestic violence (Fergert et al., 2020). The COVID-19 pandemic is unique because not only is there an economic recession, but families are also experiencing increased stress with health, school, and isolation. The increase in domestic violence and child abuse can also be attributed to the emphasis on staying at home (Miller, 2020). During this time, perpetrators may commit violent acts as a way of gaining a sense of control in this uncontrollable situation. Being forced to stay at home more often also means that victims have lost their means of temporary escape from their perpetrators (Fergert et al., 2020). Victims do not necessarily have the opportunity to find a respite outside of their homes. With a decrease in societal supervision, there is more opportunity for abuse and neglect to occur (Fergert et al., 2020). This is another reason why remote learning has become an issue for students and educators. Educators play a key role in the recognition and prevention of child abuse and neglect (Crosson-Tower, 2003). Without educators seeing and interacting with their students on a consistent, face-to-face basis, they may not be able pick up on signs and symptoms of abuse. Domestic violence and child abuse and neglect are all considered to be adverse childhood experiences (Gillespie et al., 2009; Margolius et al., 2020; Petruccelli et al., 2019), which will be discussed later in this review of the literature. Without means of prevention and

recognition, these events are likely to cause extreme, and potentially permanent, damage to the wellbeing of affected children.

Schools

When schools were forced to close and transition to a digital setting in mid-March of 2020, this created gaps in education as well as gaps in other personal needs fulfillment for students, parents, and educators. For students, not attending school generated deficits in education, socialization, skill-based learning, social support, and physical activity (Stark et al., 2020). School settings are key environments of development for students (Margolius et al., 2020). For parents, stress increased as they became educators for their children and faced uncertainty about jobs and childcare (Fergert et al., 2020; Imran et al., 2020; Miller, 2020; UNESCO, 2020). For educators, changes in job requirements, learning new technology to operate their classrooms, worrying about their students, uncertainty about their own futures, and loss of direct connectivity with their students and colleagues created a huge amount of stress and anxiety (TEA, 2020; UNESCO, 2020). As with digital mental health resources, not everyone has adequate or equal access to the technology necessary for successful distance learning. Thus, at the start of the shutdown, some students were completely cut off from their education and the support of teachers and other school staff, and their parents did not have the support of the school as they transitioned to distance learning (Fergert et al., 2020). These gaps caused stress for families and educators alike as communication was severed.

Trauma

Trauma is a concept that has been widely studied and found to have negative effects on people's mental and physical health (Gillespie et al., 2009; Van der Kolk, 2014). SAMHSA (2014) states:

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

Margolius et al. (2020) state, "Trauma occurs when an adverse event overwhelms an individual's capacity to cope and leads to a sense of powerlessness" (p. 4). *Trauma* can be summed up as any event or adversity that causes a lasting, negative impact on an individual. Trauma can occur in the form of an event or as a chronic experience, which is commonly called a *complex trauma* (Fondren et al., 2020; *Trauma-informed care*, 2014). Throughout the lifespan, most people are exposed to at least one potentially traumatic experience (Bonanno et al., 2007). A growing number of researchers are starting to consider trauma to be part of the normal human experience; however, they recognize that not all traumatic events are equal in intensity and reactions to trauma can vary widely (Bonanno, 2004; Bonanno et al., 2007; *Trauma-informed care*, 2014). Those with previous experience with adverse events, including trauma and prolonged stress, are more vulnerable to mental health problems and re-traumatization (Bonanno et al., 2007; Brown, 2020; Fergert et al., 2020; Gillespie et al., 2009; Marshall et al., 2020; Miller, 2020; Nader, 2011; Petruccelli et al., 2019; Stark et al., 2020; *Trauma-informed care*, 2014). This means that the likelihood of experiencing traumatization due to the

circumstances of the pandemic are higher for those who have exposure to previous trauma.

Traumatic Stress on the Brain

Trauma has many negative effects on the brain that can cause a person to experience physiological reactions to trauma (*Trauma-informed care*, 2014; Van der Kolk, 2014). When someone experiences a trauma, the body responds by going into what psychologists call the "fight-flight-freeze" response (Imran et al., 2020; Nader, 2011; TEA, 2020; *Trauma-informed care*, 2014; Van der Kolk, 2014). This is how the body and mind prepare to face danger. When this response in initiated, the brain turns down its executive functioning and triggers the limbic system, which produces stress hormones to spring the body into action (*Trauma-informed care*, 2014; Van der Kolk, 2014). This response, on its own, is good, as this is the body's way of protecting itself from danger. However, when an individual is under chronic stress or threat, such as with complex trauma, this response can begin to deteriorate the body (Van der Kolk, 2014). When in distress, the body is constantly secreting stress hormones and shutting off other parts of the brain in order to maintain alertness and responsiveness to perceived dangers (*Trauma-informed care*, 2014; Van der Kolk, 2014). Although this is the biological response to stress and trauma, long-term responses to stress and trauma vary (American Psychiatric Association, 2013; *Trauma-informed care*, 2014). Some people recover without developing a mental disorder while others become ill. One of the most commonly discussed disorders among the literature is post-traumatic stress disorder (PTSD) (Fondren et al., 2020; Goodkind, 2010; Petruccelli et al., 2019; *Trauma-informed care*, 2014; Van der Kolk, 2014).

Traumatic stress can impact an individual so severely that it becomes a disorder. SAMHSA (*Trauma-informed care,* 2014) defines *PTSD* as "a traumatic stress reaction that develops in response to a significant trauma" (p. 1-6). With PTSD, the body continues to react to the threat of events that happened in the past (Van der Kolk, 2014). The *Diagnostic and Statistical Manual for Mental Disorders* (5th ed.; DSM-5; American Psychiatric Association, 2013) outlines the criteria for PTSD as:

> Exposure to an actual or threated death, serious injury, or sexual violence . . . presence of intrusive symptoms such as memories, dreams, dissociative reactions, psychological distress when exposed to stimuli that symbolize the traumatic event(s)… persistent avoidance of stimuli associated with the traumatic event(s)… negative alterations in cognitions and mood associated with the traumatic event(s)… marked alterations in arousal and reactivity associated with the traumatic event(s)… duration of the previous disturbances are more than 1 month… disturbances cause clinically significant distress… the disturbance is not attributable to the physiological effects of a substance. (p. 271-272)

PTSD can be devastating, as this disease has prolonged effects that can impact functioning in multiple areas of life (American Psychiatric Association, 2013). Studies have shown that people who develop PTSD have a lower quality of life compared to those who do not develop PTSD following a traumatic event (*Trauma-informed care*, 2014). Lower quality of life can be attributed to the symptoms associated with the disease, such as depressive symptoms, anxiety symptoms, and worse health outcomes (*Trauma-informed care*, 2014). Although trauma is a common occurrence in the United States, the estimated prevalence for PTSD in the population is 8%. This number is higher

among at-risk populations, such as combat veterans and survivors of natural disasters (American Psychiatric Association, 2013; *Trauma-informed care*, 2014).

Loss

Loss of something important, such as a loved one or a significant support, can be considered a traumatic life event (Bonanno, 2004; Bonanno et al., 2007; *Trauma-informed care*, 2014). Reactions to loss can vary widely as some people express few adverse reactions as a sign of healthy adjustment while others exhibit a lot more distress (Bonanno, 2004). During the pandemic, people have experienced many losses ranging from loss of social supports, normal routines and activities, all the way to losing a loved one to the COVID-19 disease (Brooks et al., 2020; Fergert et al., 2020; Miller, 2020). Not only are people experiencing isolation from their families, but they also face the reality of not being present with or saying goodbye to their loved ones who die after contracting the virus. Their grief is compounded by fear of the disease and their inability to gather during their time of grief (Miller, 2020; Stark et al., 2020). Such experiences are likely to cause extreme psychological distress.

Adverse Childhood Experiences

In the last decade or so, ACEs have come to the forefront of trauma research. ACEs are considered traumatic events that occur in childhood (Goddard, 2020; Margolius et al., 2020). Adverse childhood experiences include: physical, emotional, or sexual abuse; physical or emotional neglect; household dysfunction such as mental illness, violence against mother, divorce, incarcerated family member, or substance abuse; school, community, or political violence; natural disasters; forced displacements; war and terrorism; bereavement; bullying; food scarcity and poverty; foster care experience;

chronic or severe illness or injury; unsafe living environments; kidnapping; and/or impaired caregiver (Goddard, 2020). ACEs have been found to have a lasting impact on people across their lifespan (Fergert et al., 2020; Fondren et al., 2020; Goddard, 2020; Margolius et al., 2020; Petruccelli et al., 2019; *Trauma-informed care*, 2014). ACEs have been linked to higher rates of physical health issues such as type 2 diabetes, obesity, sleep disorders, asthma, heart disease, cancer, chronic lung and liver disease, and sexually transmitted diseases (Goddard, 2020; Petruccelli et al., 2019; *Trauma-informed care*, 2014). Mental health consequences in adulthood linked to ACEs include major depressive disorder, PTSD, suicide, and substance abuse (Goddard, 2020; Margolius et al., 2020). Social consequences associated with ACEs include higher rates of teen pregnancy, self-harming behaviors, lower rates of employment, homelessness, prostitution, criminal behaviors, parenting problems, and a shorter life expectancy (Goddard, 2020; Margolius et al., 2020; *Trauma-informed care*, 2014).

In this review of the literature, it has been noted that people of lower socioeconomic status have been disproportionately impacted by stress and challenges of the COVID-19 pandemic. In addition, children from marginalized, underserved, and economically disadvantaged communities experience higher rates of ACEs (Margolius et al., 2020; *Trauma-informed care*, 2014). This implies that children who are already at risk are in even more danger of experiencing trauma or adverse experiences during the COVID-19 crisis.

Responses to Trauma

Humans have many responses to trauma that are both psychological and behavioral. People respond to trauma in different ways as each individual has unique

experiences, risk factors, and protective factors (Bonanno, 2004; Bonanno et al., 2007; Gillespie et al., 2009). As trauma is considered a part of the normal human experience, institutions, such as education systems, need be able to recognize the signs of trauma and understand how to appropriately respond to these situations.

Resiliency

Amidst all the chaos and trouble of the COVID-19 pandemic, there is some room for hope. When dealing with trauma and stress, human beings are not completely helpless to combatting their negative effects. Resiliency refers to the ability to maintain stability when faced with difficult circumstances (Bonanno, 2004; Harney, 2007). Bonnano et al. (2007) state:

> Although resilient individuals may experience some short-term dysregulation and variability in their emotional and physical well-being, their reactions to a [significant] potentially traumatic event tends to be relatively brief and usually do not impede their ability to function to a significant degree. (p. 671)

Resilient individuals do not require the same healing processes as those who struggle with more intense trauma symptoms (Bonanno, 2004; Harney, 2007).

During the COVID-19 pandemic, Fegert et al. (2020) note that there are opportunities for families to build resiliency. Due to the decrease in work and social obligations and appointments family members must attend to, they have more time to spend together at home, promoting cohesion and familial support (Fegert et al., 2020). People also build resiliency when they are able to successfully manage stress and trauma. Fegert et al. (2020) state, “Successful management of stress and trauma can lead to personal growth, which in turn reinforces the sense of competence and becomes a

protective factor for coping with future stressors" (p. 4). Therefore, if people can successfully manage the stress the pandemic has created, they may come out of this time with the benefit of increased resiliency.

Resiliency responses differ from person to person depending on an individual's risk factors and protective factors (Bonanno, 2004; Bonanno et al., 2007; Gillespie et al., 2009). Some external protective factors include warm, responsive caregivers, social support, access to social services, access to physical and mental health care, and good health (Bonanno et al., 2007; Imran et al., 2020; Stark et al., 2020; *Trauma-informed care*, 2014). Personal protective factors include self-esteem, trust, resourcefulness, internal locus of control, secure attachments, humor, self-sufficiency, optimism, social skills, problem-solving skills, and impulse control (*Trauma-informed care*, 2014). These protective factors increase resiliency as they increase an individual's ability to manage stress and trauma. Conversely, risk factors decrease resiliency as they hinder an individual's ability to cope and handle stress and trauma. Risk factors include sensitivity to anxiety, previous mental health problems, medical conditions, history of trauma, family history of behavioral health problems, threats to safety, past and current life stressors, substance use (Bonanno et al., 2007; Gillespie et al., 2009; Stark et al., 2020; *Trauma-informed care*, 2014). Those who have experienced previous trauma are at higher risk for re-traumatization and have less resiliency (Bonanno et al., 2007; Brown, 2020; Fergert et al., 2020; Gillespie et al., 2009; Marshall et al., 2020; Nader, 2011; Petruccelli et al., 2019; Stark et al., 2020). What this means in the context of the COVID-19 pandemic is that although there is opportunity for resiliency during the pandemic, the

opportunities may be unequal for those with more risk factors and fewer protective factors (Fegert et al., 2020).

Children and Adolescents

Trauma and responses to trauma look different in children than in adults (Brown, 2020; Nader, 2011). The age at which a child experiences a trauma greatly determines the type of reaction they will exhibit as developmental stage and biological, psychological, and social-contextual systems all contribute to traumatic stress reactions (Brown, 2020; Nader, 2011). Experiences of trauma have been linked to gaps between chronological and functioning age (Nader, 2011). Trauma during childhood can disrupt a child's brain development, developmental skills, talents, personality development, and functioning (Nader, 2011). Complex trauma can also disrupt a child's ability to self-regulate and the ability to experience relationships as nurturing and reliable (Goddard, 2020; Nader, 2011; Petruccelli et al., 2019).

Although traumatic stress reactions can vary widely in children, there are several behavioral indicators of trauma that children demonstrate. These behaviors are often correlated to the "flight-fight-freeze" response of the brain when it senses danger (Imran et al., 2020; Nader, 2011; TEA, 2020). Some of these behaviors include verbal and physical aggression, kicking, hitting, yelling, shouting, spitting, biting, high distractibility or inability to focus, running away, avoiding difficult tasks, refusal to participate, crying, emotional withdrawal, and mental withdrawal that can sometimes look like "zoning out" (Fondren et al., 2020; Imran et al., 2020; Nader, 2011; TEA, 2020). When a child demonstrates one of these behaviors, this does not always mean that they have experienced trauma. Many of these behaviors will occur as part of a normal childhood.

However, these behaviors can be indicative of trauma when they become chronic, inappropriate behaviors for the setting they are in (TEA, 2020).

Adults

Adult responses to trauma differ from that of children because adults are developmentally more advanced and are better able to identify and express their thoughts and emotions. Unsurprisingly, older adolescents nearing adulthood are more likely to have reactions that resemble an adult because of where their brain is at developmentally (Nader, 2011). Adults respond to trauma in a variety of ways. Adults who experienced high levels of stress in childhood have been found to have increased reactivity to stress and trauma in adulthood, as well as an increase in cognitive deficits (Goddard, 2020; Nader, 2011; Petruccelli et al., 2019). This is consistent with research regarding ACEs. Symptoms adults may experience following a trauma are closely associated with the negative mental health symptoms experienced during the COVID-19 pandemic. These symptoms include anxiety, depression, low mood, irritability, anger, fear, hopelessness, disturbances in sleep and appetite, low-self-esteem, and higher rates of substance abuse (Fergert et al., 2020; Imran et al., 2020; Otu et al., 2020; Panchal et al., 2020; *Trauma-informed care*, 2014). Although children experience these same feelings, their expression and means of coping with these symptoms look different from adults.

Response to Trauma in Schools

As children can demonstrate varying behavioral responses to trauma, it is imperative that schools are equipped to intervene with appropriate action. Margolius et al. (2020) describe the impact that schools have on children who have experienced trauma: "The experiences and relationships that young people have in school have the potential to

provide strengthening experiences or to exacerbate symptoms of trauma" (p. 6). Schools are an ideal place for children to receive mental health services because they can destigmatize mental health care as well as deliver services to students who would otherwise not have access to or opportunity for help (Fondren et al., 2020; Goodkind, 2010). With this in mind, it is necessary for schools to be equipped to provide such services. In order to accomplish this, trauma-informed practices need to be in place (Fondren et al., 2020; Goodkind, 2010; Margolius et al., 2020; SAMHSA, 2014).

Multitiered approaches have been adopted to provide students with the appropriate level of intervention services they need to thrive. The multitiered system has three levels: tier one is for universal intervention intended for all students; tier two is targeted interventions for students who have been exposed to or are at risk for trauma; tier three is individualized, specific trauma interventions (Fondren et al., 2020; Margolius et al., 2020; SAMHSA, 2014). Each tier utilizes different professionals and support staff to provide necessary services tailored to students' needs (SAMHSA, 2014). The goal of trauma-informed interventions, such as the multitiered system, is to create a safe, caring learning environment that addresses the holistic needs of students (TEA, 2020). Creating trauma-informed environments involves the training of all teachers and staff to prepare them to be aware of and manage students who have been exposed to trauma. This is especially significant to prevent the re-traumatization of students (Margolius et al., 2020).

Conclusions

The COVID-19 pandemic has had many adverse effects on individuals, family systems, and greater society. The pandemic is a crisis that has the potential to be traumatic for people around the globe. Trauma can have negative, lasting effects on both

adults and children. Although the effects of the pandemic have been felt by everyone, they have a greater negative effect on lower socioeconomic individuals and families as they are more vulnerable to the adversity and struggle produced by the pandemic. Mental health problems have increased around the world, creating a need for more options and accessibility to mental health care resources.

In this study, particular attention is given to educators and their students. Educators were asked about their symptoms of trauma since the start of the 2020 mid-March shutdown, as well as stress they have experienced in the classroom since returning in the fall of 2020. These questions were aimed at determining whether there has been a traumatic impact on educators, as well as the nature of traumatic impact. The trauma symptoms in adults discussed above are examined in this study.

During this pandemic, it is important to recognize and address the mental health needs of children and adolescents. Understanding the possible traumatic impact this crisis has had on them is essential as adverse childhood experiences have the potential to cause lifelong complications. Therefore, this research asks educators questions about student behaviors they have noticed in the classroom that are typically indicative of trauma. This research does not give a comprehensive analysis of stress and trauma students have experienced due to the pandemic, but it offers a picture of how students are functioning during this crisis event.

CHAPTER III

METHODOLOGY

This research utilizes a cross-sectional survey design. The research conducted uses a one-time survey that participants fill out about some of their experiences since the start of the shutdown in the United States in mid-March of 2020. This research has been approved by ACU's Institutional Review Board as an exempt research study (see Appendix A for approval letter).

Participants

Participants of this study include teachers, teacher aides, and teaching assistants from grades kindergarten through 12th grade. Participants were recruited from one school district located in West Central Texas. Participants were solicited through an email sent from the principals at their respective schools. Solicitation verbiage is included in Appendix B of this document. Only educators with direct student interaction in the classroom were included in this study because the survey asks questions specifically related to stress experienced within the classroom as well as student behaviors in the classroom.

Procedures

The survey used for this research was distributed using Google Forms. This survey was completed one time by each participant and took each participant 10-15 minutes to complete. Educators answered questions about symptoms of trauma and stress experienced since the COVID-19 shutdown began in the United States in mid-March of

2020. The solicitation email (Appendix B) was emailed to school principals who forwarded the survey to their teachers, teaching assistants, and teacher aides. The survey was disseminated by the school principals to ensure the principal investigator of this study did not have direct contact with the research participants. The email included a brief description of the study, along with a PDF version of the informed consent for participants to keep. The first screen of the survey included a brief description of the study along with informed consent that each participant electronically consented to by selecting a button on their screen. Consent to the study was required before participants could proceed to the survey. The survey results were gathered anonymously, as no signatures or demographic information was collected. Results were stored inside the principal investigator's password-protected Google Drive, then downloaded to a password-protected laptop. The researcher's ACU email address was used to receive responses.

Human Subjects Protection

Participant data were kept confidential through password-protected storage. No identifiable information was collected from educators who chose to participate. The surveys were submitted anonymously, and the principal investigator was not able to track who had and had not responded to the survey. As previously noted, ACU's Institutional Review Board gave approval for this research study (Appendix A).

Measurements

The survey used for this research consisted of three sections: Trauma Symptom Checklist-40 (Modified; Briere & Runtz, 1989), feelings of stress checklist, and student behaviors survey. These measurements were used to examine the trauma educators have

experienced since the start of the shutdown, stress experienced within the classroom since returning to school, and student behaviors educators have observed this school year.

Trauma Symptom Checklist-40 (Modified)

A modified Trauma Symptom Checklist-40 was used to collect trauma symptom information. The modification of this tool excluded all questions related to sexual problems and sexual abuse trauma. These questions were excluded as they do not directly pertain to the purposes of this study and to decrease the chances of re-traumatization for participants of this study. The Trauma Symptom Checklist-40 is a measurement tool that has been used extensively in past research. It has been proven to be both reliable and valid (Briere & Runtz, 1989). These questions were given in a Likert-scale format with answer options ranging from *0-never* to *3-often*.

Feelings of Stress

This section contains questions regarding stress educators have experienced since returning to the classroom this school year. This set of questions was developed by the principal investigator for the purposes of this research. This section includes questions that require yes/no answers, 10-point Likert-scale answers, and select-all-that-apply answers.

Student Behaviors

The third and final set of questions included in this survey pertain to student behaviors in the classroom. This set of questions was also developed by the principal investigator for the purposes of this research. These questions inquired about student behaviors that are typically indicative of stress and trauma. The behaviors listed in this section of the survey were developed following a review of the literature. Educators were

given a list of student behaviors and asked to indicate whether or not each behavior was occurring significantly less, less, about the same, more, or significantly more this school year when compared to previous years. A PDF version of the full survey is included in Appendix C of this document.

Hypotheses

H1: There will be a statistically significant difference between the trauma symptoms of educators before and after the shutdown began.

H2: There will be a relationship between trauma symptoms after the shutdown began and educators' stress levels in the classroom while controlling for trauma symptoms before the shutdown began.

H3: Of the educators who report an increase in stress this school year, more will report an increase in managing difficult classroom behaviors than not.

H4: Educators will report an overall higher level of student behaviors associated with trauma symptoms in the classroom this year when compared to last year.

Statistical analyses were conducted to confirm or disconfirm these hypotheses. The statistical tests that were used for this research include a paired-sample *t*-test, hierarchical regression analysis, crosstabulation analysis, and frequency analysis.

CHAPTER IV

RESULTS

The survey for this study was open to participants between mid-December 2020 through the end of January 2021. The survey yielded 71 responses ($N = 71$) from educators at the kindergarten through 12th grade levels. No descriptive data of participants were collected for this study in order to maintain anonymity of participants. Analysis of the four hypotheses were conducted using a paired-sample *t*-test, a hierarchical regression analysis, crosstabulation analysis, and frequency analysis, respectively. This section reviews the results of each analysis.

Trauma Symptoms of Educators Before and After the Shutdown

Hypothesis one predicted that there would be a statistically significant difference between the trauma symptoms of educators before and after the shutdown began. To answer this, a paired-sample *t*-test was conducted between the trauma symptoms of educators before and after the shutdown began (Table 1). Questions analyzed came from the modified version of the Trauma-Symptom Checklist-40, which included 26 items. The survey asked about each symptom of trauma before and after the shutdown began, yielding 52 questions total for this section for each participant.

The results of the paired-sample *t*-test showed a statistically significant difference in scores as represented in Table 1; $t\ (70) = -8.89$, $p = .000$; $d = .99$. The mean of the post COVID-19 shutdown symptoms ($M = 23.68$; $SD = 13.76$) was nearly double the mean of the pre COVID-19 shutdown symptoms ($M = 11.93$; $SD = 9.71$). A calculation of Cohen's

d revealed the effect size for this analysis (*d*= .99) was found to exceed Cohen's (1988) convention for large effect (*d*= .80). This confirms the first hypothesis as there was a statistically significant difference between trauma symptoms before and after the shutdown began.

Table 1

Paired-Sample t-Test of Trauma Symptoms Before and After the Shutdown Began

				Paired Differences			
	Mean	*N*	*SD*	Mean	*SD*	*t*	df
Pre COVID-19 Shutdown	11.93	71	9.71	-11.75	11.14	-8.89***	70
Post COVID-19 Shutdown	23.68	71	13.76				

***p<0.00

Stress and Trauma Symptoms

Hypothesis two predicted that there would be a relationship between trauma symptoms after the shutdown began and educators' stress levels in the classroom while controlling for trauma symptoms before the shutdown began. To analyze this hypothesis, a hierarchical regression was utilized in order to directly compare educators' stress levels and post-shutdown symptoms while accounting for the pre-shutdown symptoms. This was necessary in order to control any effect the pre-shutdown symptoms may have on the outcome of the post-shutdown symptoms.

Table 2 shows the results of the hierarchical regression analysis. Model 1 represents the regression analysis between pre COVID-19 trauma symptoms and educator stress levels. Model 2 represents the regression analysis of Model 1 plus the regression between post COVID-19 shutdown trauma symptoms and educator stress levels. The

results show that both Model 1 ($F_{1,69}$= 6.97; p= .010) and Model 2 ($F_{2,68}$= 14.05; p= .000) each had a statistically significant relationship with stress levels of educators. The standardized regression coefficient for Model 2 (β= 0.56) shows that for every standard deviation change in trauma symptoms after the shutdown, a change of 0.56 standard deviations occurs in stress scores. This confirms the prediction of the second hypothesis.

Table 2

Hierarchical Regression Analysis of Trauma Symptoms and Stress Levels

Model		SS	df	MS	R^2	F	p
1	Regression	21.58	1	21.58	0.092	6.97	.010a
	Residual	213.52	69	3.1			
	Total	235.10	70				
2	Regression	68.74	2	34.37	0.292	14.05	.000b
	Residual	166.36	68	2.45			
	Total	235.10	70				
		Coefficients					
		B	SE	β	t	p	
1	(Constant)	7.21	0.33		21.70	0.000	
	Total Before	0.06	0.02	0.3	2.64	0.010	
2	(Constant)	6.2	0.37		16.55	0.000	
	Total Before	-0.01	0.02	-0.03	-0.24	0.811	
	Total After	0.07	0.02	0.56	4.39	0.000	

Note: a. Model 1 = before lockdown trauma symptoms; b. Model 2 = Model 1 + after lockdown trauma symptoms; Dependent variable = Stress scale scores

Managing Difficult Classroom Behaviors

Hypothesis three predicted that of the educators who report an increase in stress this school year, more will report an increase in managing difficult classroom behaviors than not. A crosstabulation analysis between educators' reports of increased stress and increased difficulty in managing classroom behaviors was conducted. Educators were

asked to indicate yes or no to two questions: 1) Have you felt an increase in stress this school year in comparison to previous years? and 2) Have classroom behaviors felt more difficult to manage this year compared to previous years? Educators were also given the option to indicate that this is their first year teaching, meaning they had no previous experience to which to compare this year. Those that indicated that this is their first year teaching were excluded from this analysis, yielding a total of 67 responses (*n*= 67). Table 3 demonstrates the results of the crosstabulation analysis.

Table 3

Crosstabulation of Stress and Managing Classroom Behaviors

		Increased Difficulty Managing Classroom Behaviors		
		No	Yes	Total
Increase in Stress	No	3	1	4
	Yes	38	25	63
	Total	41	26	67

Note: Fisher's exact test one-sided=.494

The results of the crosstabulation analysis failed to confirm hypothesis three because, of the educators who reported an increase in stress this school year, more of those educators reported no to an increase in difficulty managing classroom behaviors than yes. Of the educators who reported an increase in stress this school year (*n*= 63), 38 of those respondents reported no increase in difficulty managing classroom behaviors, while only 25 respondents reported an increase (Fisher's exact test one-sided=.494).

Student Behaviors Associated with Trauma Symptoms

Hypothesis four predicted that educators would report an overall higher level of student behaviors associated with trauma symptoms in the classroom this year when compared to last year. Table 4 demonstrates the results of a frequency analysis conducted

to determine whether there has been an overall increase in classroom behaviors that are indicative of trauma. For this analysis, respondents were asked to indicate whether each item on a list of 11 behaviors occurred significantly less, less, about the same, more, or significantly more this year compared to last year. The responses were then recoded and categorized into two categories: 1) Same or Less and 2) More. This was done to evaluate whether there was an increase in these behaviors this school year. Respondents were again given the option to indicate that this is their first year teaching. These responses were excluded from the analysis, yielding a total of 68 responses (*n*= 68).

Table 4

Frequency of Student Behaviors

Variable	Same or Less	More
Verbal aggression	41 (60.3%)	27 (39.7%)
Physical aggression	49 (72.1%)	19 (27.9%)
Spitting	68 (100.0%)	0 (0.0%)
Biting	68 (100.0%)	0 (0.0%)
High distractibility	18 (26.5%)	50 (73.5%)
Running away/walking out of the classroom	47 (69.1%)	21 (30.9%)
Avoidance of classroom activities	23 (33.8%)	45 (66.2%)
Refusal to participate	32 (47.1%)	36 (52.9%)
Crying	47 (69.1%)	21 (30.9%)
Emotional withdrawal	39 (57.4%)	29 (42.6%)
Mental withdrawal	32 (47.1%)	36 (52.9%)
Overall Total (Percent)	62.0%	38.0%

The results from the frequency analysis fail to confirm hypothesis four. Overall, educators indicated that the listed behaviors were occurring about the same, less, or significantly less than previous years (62.0%). Individually, there were only four out of the 11 behaviors listed that were indicated to be occurring more or significantly more this school year: high distractibility (73.5%), avoidance of classroom activities (66.2%), refusal to participate (52.9%), and mental withdrawal (52.9%).

CHAPTER V

DISCUSSION

Due to the novelty of the circumstances surrounding COVID-19, research on the pandemic is limited but growing. This research aims to contribute to the growing body of literature surrounding the effects of the COVID-19 pandemic on one of the most essential entities in American society—schools. As with many other institutions, schools have experienced major changes and challenges due to the COVID-19 pandemic (Chakraborty & Maity, 2020). Schools in Texas returned to in-person instruction in the fall of 2020, forcing educators to go back to work with the risk of exposure to the virus (Carpenter & Webb, 2020). Educators experienced changes in job requirements, new technology for classroom management and operation, worry for their students, and uncertainty about their futures (TEA, 2020; UNESCO, 2020). Along with these obstacles, educators also experienced the stress, isolation, fear, and loss that were universally felt amidst the pandemic (Fergert et al., 2020; Imran et al., 2020; Marshall et al., 2020; Otu et al., 2020; Panchal et al., 2020; Stark et al., 2020). The results of this study offer insight to the experiences of educators during this time.

Review of the Results

The results of this study indicate that the COVID-19 pandemic has had a traumatic effect on educators in the kindergarten through 12th grade setting. The difference between the trauma symptoms of participants before and after the pandemic

were statistically significant (p=.000), as symptoms of trauma doubled following the start of the shutdown. This outcome is not surprising as the pandemic has been shown by other surveys to have adverse effects on the mental health outcomes of people around the world (Chakraborty & Maity, 2020; Marshall et al., 2020).

Educators also described an increase in stress this school year in comparison to previous school years. When educators were asked if they felt an increase in stress this school year, 94% of respondents indicated yes. Stress is both a contributor to and a symptom of trauma (*Trauma-informed care,* 2014). This means that the increase in stress that educators experienced this school year is either the felt impact of the trauma of the pandemic or it is a contributing factor to their trauma symptoms. Although the direction of the relationship is unclear, the results of the hierarchical regression analysis indicate a strong relationship between the two. These self-reported results have several implications for practice, policy, and future research.

As noted previously in the review of the literature, responses to trauma look different in children than in adults (Brown, 2020; Nader, 2011). There are several behaviors that are indicative of trauma in children including verbal aggression, physical aggression, spitting, biting, high distractibility, running away, avoiding difficult tasks, refusal to participate, crying, emotional withdrawal, and mental withdrawal (Fondren et al., 2020; Imran et al., 2020; Nader, 2011; TEA, 2020). Each of these behaviors were included in the survey given to educators. The results of the survey did not indicate that educators had a more difficult time managing classroom behaviors, nor was there a reported increase in the listed behaviors overall. Although the results of the study appear to contradict the previous literature, there were four behavioral indicators in the study for

which educators did report an increase during this school year: high distractibility, avoidance of classroom activities, refusal to participate, and mental withdrawal. These results are informative as each of these behaviors relate to focus and mental capacity. This is congruent with the literature that previously stated that children's and adolescents' mental health has been significantly impacted by the pandemic (John et al., 2020). This indicates that there might be something more going on in children and adolescents that goes deeper than their behavioral outputs. Future research should be focused more directly on identifying the experiences of students in schools rather than examining their experiences through the lens of the adults around them.

Implications

With the start of the new year, 2021, the United States saw the beginning of a new presidency and the rapid rollout of the vaccine for the COVID-19 virus (Lee, 2021). This has spurred new hope and opportunity for society to return to a sense of "normal." However, there are some things that may never return to "normal," which may be for the better. The crisis of the COVID-19 pandemic exposed many inequalities that exist between socioeconomic classes, education, and the workforce (Perry et al., 2021; Wilson, 2020). Gaps in employment, food, housing, and financial insecurity widened as a result of the pandemic (Perry et al., 2021). Racial inequalities were exposed as people of color have struggled with the effects of the pandemic at disproportional rates (Wilson, 2020). Lack of access to mental health care services that existed before the pandemic were greatly exacerbated as need for these services skyrocketed (Kanzler & Ogbeide, 2020). Lack of reliable, accessible, and affordable physical health care was also exposed as the need for treatment for the virus emerged rapidly (Kanzler & Ogbeide, 2020). The

pandemic has changed the world in many ways, and the education system is no exception. The implications of this study call for policy and practice reform, as well as further research into the aftereffects of COVID-19.

Practice

As indicated by the literature, there is an increased need for mental health services across the board, specifically in schools. Fondren et al. (2020) and Goodkind (2010) indicate that schools make for ideal spaces to receive mental health services because they can destigmatize mental health care through education and deliver services to students who would otherwise not have access. This argument should also be made for the people who are in the classroom with those students—the educators. As seen in the results of this study, educators are experiencing deficits in their mental health. The results indicated that students may also be struggling with mental tasks more this school year than in previous years. This means that no one in the classroom is operating at full capacity this school year. To promote the overall academic, behavioral, and mental health outcomes of students in schools, mental health services need to be available to every individual in each school district.

In current practice, many schools utilize a multi-tiered system of support (MTSS), which provides care for students socially and emotionally to promote academic, behavioral, and emotional success (Rosen, 2021; SWIFT Education Center, 2020). The school district examined in this study utilizes an MTSS framework to provide interventions for students. The MTSS framework is a three-tiered system consisting of a universal level, targeted intervention level, and intensive care level (Kearney & Childs, 2021; Rosen, 2021). This tiered system is backed by many empirical studies and offers a

general level of care and intervention for all students, targeted intervention for students who are at-risk for more severe problems, and intensive care for students who have severe problems that require more personalized attention. The MTSS framework is effective because it maximizes limited school-based resources, and the system can be tailored to the needs and abilities of individual school districts (Kearney & Childs, 2021). Kearney and Childs (2021) suggest the MTSS framework may help with four critical domains as schools return to traditional classroom settings following the COVID-19 pandemic: adjustment, traumatic stress, academic status, and health and safety. MTSS is an ideal vehicle for implementing school-wide, evidenced-based interventions such as trauma-informed care practices, restorative practices, and social-emotional learning (Kearney & Childs, 2021; Margolius et al., 2020; SWIFT Education Center, 2020).

For school districts who already utilize an MTSS framework, implementing strategies to address the four domains can be more streamlined in practice. Based on the results of this research, there needs to be more interventions to address trauma in the school setting. This means that educators need to be equipped to become more cognizant of their own trauma, as well as that of their students. This is where development and training in trauma-informed care, as well as restorative practices becomes essential in the school system. According to Margolius et al., *trauma-informed practices* are:

> Strategies that youth-serving systems and professionals employ to create settings that are infused with an awareness of trauma exposure, responsive to the potential impacts of those experiences, and characterized by resources that support healthy development and offer opportunities and support for healing when trauma occurs. (2020; p. 6).

Coinciding with trauma-informed practices are restorative practices. *Restorative practices* can be defined as "support development of healthy interpersonal connections among people in relationships through social circles, schools, and the communities where they live" (SWIFT Education Center, 2020, p. 1). An example of a simple restorative practice that promotes engagement and interpersonal connection among teachers and students are restorative circles. These provide a safe space for students to interact with their peers to process thoughts and feelings while also building relationships and social skills (Van Woerkom, 2018). These types of practices are easy to integrate into the regular school day and can be learned with very little training.

Based on the events of the past year, schools need to implement trauma-informed and restorative practices by training, equipping, and taking care of educators in order to better serve their students. Implementing these practices into schools may require cultural and systemic change within each school district. This will require school districts to be more intentional in obtaining adequate, comprehensive training to prepare their faculty and staff for positive change.

Policy

To put anything into practice, there must be policy in place to detail and enforce the use of such practices. As previously discussed, there is a major need for increased access to mental health services in schools and for the general population. Currently in the state of Texas, there is no definition for social work services in the Texas Education Code (NASW Texas, 2021). House Bill 226 (2021) and Senate Bill 253 (2021) both propose the implementation of a definition of school social work services in schools into the Texas Education Code to bring mental health services directly into schools. These

bills are designed to "promote positive educational settings, mental health and well-being, and school violence prevention" (NASW Texas, 2021). This policy addition would benefit students in schools across Texas greatly by providing mental health professionals in the academic setting. This addition has potential to produce exponential benefits to students as research has shown that early intervention in mental health issues yields better outcomes later in life (*Trauma-informed care,* 2014).

This study demonstrates that adults as well as children and adolescents are experiencing symptoms of trauma as a result of the pandemic. This implies that there is a great need for the expansion of mental health services outside of the school setting as well. This calls for policy to increase the number of mental health services available and an expansion of means for paying for those services. As discussed in the literature, the start of the pandemic made accessing physical and mental health care a huge challenge due to the increased need for physical distancing (Brooks et al., 2020; Brown, 2020; Fergert et al., 2020; Kanzler & Ogbeide, 2020; Marshall et al., 2020; Miller, 2020; Otu et al., 2020; Panchal et al., 2020; Stark et al., 2020). Financial stability also became a barrier for people seeking mental health services, specifically with the economic recession caused by the pandemic (Brooks et al., 2020; Fergert et al., 2020). Therefore, policy expansion to health insurance plans, both public and private, are needed to cover the costs of mental health services to provide equitable opportunity for people to access the mental health resources they need.

Future policy development should also focus on the educators within the school setting to provide and offer them better supports. The importance and necessity of educators has been highlighted this past year as educators were declared essential

workers by the former president and the current president of the United States (IEA, 2021; Strauss, 2020). With this distinguished title, educators should be treated with great amounts of care and support in their essential positions. Human resource management policies within schools should be reevaluated and revised to better promote the retention of employees and increase job satisfaction in the education system.

A study conducted in 2020 looked into the levels of job satisfaction and occupational burnout in primary school teachers. The results showed that emotional exhaustion was a significant contributor to occupational burnout, and that overall job satisfaction had a significant effect on teachers' emotional exhaustion (Anastasiou & Belios, 2020). The study went on to suggest that more proactive human resource policies need to be put in place to protect teachers, specifically newly hired and inexperienced teachers, from experiencing high levels of job stress. In order to accomplish this, schools must adopt best-practices for human resources management.

Van Vulpen (2020) outlines several best practices for human resource management including: providing job security for employees, fair and performance-based compensation, training in relevant skills, and making information easily accessible to those who need it. Job security, especially during uncertain times such as this pandemic, provides peace of mind and increases retention of employees (Van Vulpen, 2020). Providing fair and performance-based compensation has been shown to increase performance outcomes of employees (Van Vulpen, 2020). Adding compensation of rewards such as increased pay or benefits incentivizes employees do their best and desire to grow in their positions. Offering this acknowledgement for a job well done also makes employees feel valued. As mentioned earlier in implications for practice, schools need to

ensure that their employees are receiving training in relevant skills. Van Vulpen (2020) suggests that companies and organizations should invest a significant amount of time and budget for training for their employees.

Not only does training need to be provided for faculty and staff, but general information needs to be easily accessible and effectively communicated as well. Both of these ensure that staff is well supported by having the information and the skills that they need to be successful in their positions. Putting policies into place that invest in adequately preparing faculty and staff communicates to employees that they are valued and creates an overall more positive, supportive, enjoyable culture within the organization (Van Vulpen, 2020).

Future Research

In the years following the COVID-19 pandemic, there will be many opportunities for research examining the consequences of the pandemic. As noted earlier, this study was limited in its scope of accurately measuring student behaviors and identifying the potential relationship between those behaviors and trauma they may be experiencing due to the pandemic. To strengthen research in this area, studies should take a more focused approach on children and adolescents by utilizing self-report or parent-report tools of mental health experiences of children and adolescents to get a more accurate and comprehensive picture of youths' experience in relation to the COVID-19 pandemic.

This study did not utilize any resiliency measures in the survey given to educators. Although the results indicated that educators have experienced higher levels of stress this school year, the results do not give insight as to how educators are handling their stress. Adding resiliency measures to future studies examining stress during the

pandemic would provide more insight into the growth or decline individuals have experienced amidst the adversities caused by COVID-19.

Shortly following the close of the survey used for this study, the COVID-19 vaccine became available to all educators and those who work in schools. This meant that educators were moved up in the priority list of vaccinations. Future research should include an examination of the change in people's attitudes, stress, and outlook following the release of vaccines for the virus. The literature previously stated that people felt a sense of hopelessness due to the pandemic, which greatly affected mental health outcomes and stress levels (Fergert et al., 2020; Imran et al., 2020; Otu et al., 2020; Panchal et al., 2020). The introduction and realization of a vaccine may change people's perspectives. In addition, comparing the attitudes and trauma symptoms of those who chose to get the vaccine versus those who opted out of the vaccine would also be a point of interest as there is division among the public over the safety of the vaccine (Lopez, 2021). This would be an interesting concept to study to understand human response amid crises when presented with a possible solution. This research would benefit the social sciences by adding to literature surrounding hope and human perspective.

Strengths and Limitations

This study demonstrates several strengths and limitations throughout. The tool used to measure trauma symptoms in educators is a strength of this study as the Trauma Symptom Checklist-40 is a widely used tool that has been proven to be both valid and reliable across multiple studies. Along with the measurement for trauma symptoms, there is a plethora of literature on trauma and mental health. Although there is a lot of literature surrounding trauma and stress, there are far fewer studies on the impacts of the COVID-

19 pandemic due to its novelty. Therefore, a strength of this study is that it will add to the developing literature base surrounding the COVID-19 pandemic. This study also offers implications for future research based on its results, further developing the study of COVID-19.

Although this study aimed to present a comprehensive picture of the symptoms of trauma experienced by those involved in the school system, both educators and students, there are limitations to the study. This study is not a pure pre-test, post-test design, as participants were asked to remember their trauma symptoms before the shutdown began as opposed to being given the trauma symptom checklist before the shutdown started. This is a limitation as the data for this study may be skewed. Collecting retrospective data does not provide the most accurate description of past experiences as human memory is fallible, especially with the passage of time (Müggenburg, 2021). This survey was administered nine months after the shutdown began which may have made it difficult for respondents to report their trauma symptoms accurately.

This study only surveyed educators with direct student interaction within the classroom, which excluded administrators and specialty service providers within the school setting. This limitation was set as the survey asked questions specific to student behaviors within the classroom setting. This requirement was set in an attempt to track student behaviors that are indicative of trauma. This, too, is a limitation of the study as observation of general behaviors from the perspective of educators in the classroom cannot give a comprehensive or accurate answer to the question: Are students experiencing symptoms of trauma due to the COVID-19 pandemic?

Another limitation of this study is the failure to control for outside influences on the data. During the time of the COVID-19 pandemic, two other major cultural moments were happening in the United States: the Black Lives Matter movement and a presidential election. Each of these was a significant source of tension and stress amidst the pandemic, which may have affected the outcomes of the study. Neither of these circumstances was accounted for in the creation or analysis of this survey. These events had the potential to influence the answers reported by participants.

In collecting the data for this study, no demographic information or information on grade level or school level were collected. This information would have added more depth to the study, as results between educators of different grade levels or school levels could have been compared. This information was excluded from the survey in order to maintain participants' anonymity throughout the study process.

Conclusion

The COVID-19 pandemic has had many effects on society, many of which may never be reversed. With the ever-changing circumstances surrounding the pandemic, there is call for adaptive change to keep up with the needs of those impacted. This calls for changes in the delivery of mental health care services in schools and in greater society. Based on previous research done on adverse childhood experiences, children and adolescents in particular are at risk for poor mental health outcomes in relation to the trauma of the COVID-19 pandemic (Fergert et al., 2020; Fondren et al., 2020; Goddard, 2020; Margolius et al., 2020; Petruccelli et al., 2019; *Trauma-informed care*, 2014).

Therefore, it is important for mental health services and interventions to be provided in schools. This study also demonstrated the need for mental health services for

adults working in the education system. Schools are central to the health and well-being of communities. They develop future generations who will live and work within the community, as well as employ and connect adults and families currently living and working in the community to resources and social connections. It is of the utmost importance that schools adequately invest funding and resources into high-quality services to promote the well-being of all who benefit from educational institutions.

REFERENCES

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (5th ed.).* Washington, DC: Publisher.

Anastasiou, S., & Belios, E. (2020). Effect of age on job satisfaction and emotional exhaustion of primary school teachers in Greece. *European Journal of Investigation in Health, Psychology and Education, 10*(47), 644–655. https://doi.org/10.3390/ejihpe10020047

Bonanno, G. A. (2004) Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *American Psychological Association, 59(*1*),* 20-28. doi:10.1037/0003-066X.59.1.20

Bonanno, G. A., Galea, S., Bucciarelli, A. & Vlahov, D. (2007). What predicts psychological resilience after disaster? The role of demographics, resources, and life stress. *Journal of Counseling and Clinical Psychology, 74* (5)*,* 671-682.

Briere, J.N. & Runtz, M.G. (1989). The Trauma Symptom Checklist (TSC-33): Early data on a new scale. *Journal of Interpersonal Violence, 4,* 151-163. https://www.une.edu/sites/default/files/Trauma-Symptom-Checklist.pdf

Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. *The Lancet, 395(*10227*)*, 912–920. https://doi.org/10.1016/S0140-6736(20)30460-8

Brown, A. D. (2020). *Trauma in children during the COVID-19 pandemic.* NYU Langton News. Retrieved November 24, 2020, from https://nyulangone.org/news/trauma-children-during-covid-19-pandemic

Carpenter, J., & Webb, S. (2020). State officials: Public schools must reopen campuses in August, with few exceptions. Retrieved November 25, 2020, from https://www.houstonchronicle.com/news/houston-texas/education/article/TEA-Public-schools-must-reopen-campuses-in-15392200.php

Center for Disease Control (2021). *CDC COVID Data Tracker.* Retrieved on April 2, 2021 from https://covid.cdc.gov/covid-data-tracker/#cases_casesper100klast7days

Chakraborty, I. & Maity, P. (2020). COVID-19 outbreak: Migration, effects on society, global environment and prevention. *Science of the Total Environment 728.* doi:https://doi.org/10.1016/j.scitotenv.2020.138882

Chambers, M. (2015). *Role of the school in the community.* Summits Education. http://www.summits.org/blog/2015/6/28/role-of-the-school-in-the-community#:~:text=The%20schools%20also%20benefit%20the,be%20without%20jobs%20and%20income.&text=By%20benefiting%20students%2C%20families%2C%20teachers,ongoing%20process%20of%20community%20development.

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.). Lawrence Erlbaum Associates. http://www.utstat.toronto.edu/~brunner/oldclass/378f16/readings/CohenPower.pdf

Crosson-Tower, C. (2003). *Role of educators in preventing and responding to child abuse and neglect.* U.S. Department of Health and Human Services Administration for Children and Families Administration on Children, Youth and Families Children's Bureau Office on Child Abuse and Neglect. https://www.childwelfare.gov/pubPDFs/educator.pdf

Economic Times, The (2020). *Coronavirus explained: Here's all you need to know about the deadly virus.* Retrieved November 27, 2020, from https://economictimes.indiatimes.com/news/international/world-news/coronavirus-explained-heres-all-you-need-to-know-about-the-deadly-virus/what-is-coronavirus/slideshow/73546366.cms

Education Week (2020). *The coronavirus spring: The historic closing of U.S. schools (A timeline).* Retrieved November 25, 2020, from https://www.edweek.org/ew/section/multimedia/the-coronavirus-spring-the-historic-closing-of.html

Fegert, J. M., Vitiello, B., Plener, P. L., & Clemens, V. (2020). Challenges and burden of the Coronavirus 2019 (COVID-19) pandemic for child and adolescent mental health: A narrative review to highlight clinical and research needs in the acute phase and the long return to normality. *Child and Adolescent Psychiatry and Mental Health, 1420.* https://doi.org/10/11/86/s13034-020-00329-3

Fondren, K., Lawson, M., Speidel, R., McDonnell, C. G., & Valentino, K. (2020). Buffering the effects of childhood trauma within the school setting: A systematic review of trauma-informed and trauma-responsive interventions among trauma-affected youth. *Children and Youth Services Review, 109.* https://doi.org/10.1016/j.childyouth.2019.104691

Gaillot, S. J. (2010). *Disparities in trauma and mental health service use.* (UMI Number: 3437714) [Doctoral dissertation, Pardee RAND Graduate School]. UMI Dissertation Publishing by ProQuest LLC.

Gillespie, C. F., Phifer, J., Bradley, B., & Ressler, K. J. (2009). Risk and resilience: Genetic and environmental influences on development of the stress response. *Depression and Anxiety, 26,* 984-992. doi:10.1002/da.20605

Goddard, A. (2020). Adverse childhood experiences and trauma-informed care. *Journal of Pediatric Health Care: official publication of National Association of Pediatric Nurse Associates & Practitioners, 00,* 1-11. doi:10.1016/j.pedhc.2020.09.001

Goodkind, J. R., LaNouse, M. D., & Milford, J. (2010) Adaptation and implementation of cognitive behavioral intervention for trauma in schools with American Indian youth. *Journal of Clinical Child & Adolescent Psychology, 39(*6*),* 858-572. doi:10.1080/15374416.2010.517166

Harney, P. A. (2007). Resilience processes in context: Contributions and implications of Bronfenbrenner's person-process-context model. *Journal of Aggression, Maltreatment & Trauma, 14(3),* 73-87. doi:10.1300/J146v14n03_05

H. B. 226, 87th Legislative Session (Tex. 2021). https://capitol.texas.gov/tlodocs/87R/billtext/html/HB00226I.htm

Houston, J. E., Shevlin, M., Adamson, G., & Murphy, J. (2011). A person-centered approach to modelling population experiences of trauma and mental illness. *Social Psychiatry & Psychiatric Epidemiology, 46*(2)*,* 149-157. doi:10.1007/s00127-009-0176-4

IEA. (2021, March 2). Biden says ALL Educators, school staff should be considered essential workers. Retrieved March 21, 2021, from https://www.theiea.org/biden-says-all-educators-school-staff-should-be-considered-essential-workers-and-receive-one-shot-by-the-end-of-march/

Imran, N., Zeshan, M., & Pervaiz, Z. (2020). Mental health considerations for children & adolescents in COVID-19 pandemic. *Pak J Med Sci, 36(COVID19-S4).* http://ezproxy.acu.edu:2059/login.aspx?direct=true&AuthType=sso&db=a9h&AN=143046342&site=eds-live&scope=site&custid=s8479690

John, A., Pirkis, J., Gunnell, D., Appleby, L., & Morrissey, J. (2020, November 12). Trends in suicide during the covid-19 pandemic. Retrieved December 06, 2020, from https://www.bmj.com/content/371/bmj.m4352

Kanzler, K. E., & Ogbeide, S. (2020). Addressing trauma and stress in the COVID-19 pandemic: Challenges and promise of integrated primary care. *American Psychological Association, 12*(2)*,* 177-179. http://dx.doi.org/10.1037/tra0000761

Kearney, C. A., & Childs, J. (2021). A multi-tiered systems of support blueprint for re-opening schools following COVID-19 shutdown. *Children and Youth Services Review, 122*, 105919. https://doi.org/10.1016/j.childyouth.2020.105919

Lee, M. (2021, January 21). Biden inheriting nonexistent Coronavirus vaccine distribution plan and must start 'from scratch,' sources say. Retrieved March 21, 2021, from https://www.cnn.com/2021/01/21/politics/biden-covid-vaccination-trump/index.html

Lopez, G. (2021, February 22). The next Covid-19 vaccine hurdle: Convincing millions of Americans they want the shot. Vox. https://www.vox.com/future-perfect/22289545/covid-19-vaccine-hesitancy-coronavirus-anti-vaxxers.

Lynch, M. (2017). *The role of public schools in the advancement of the communities.* The Edvocate. Retrieved November 24, 2020, from https://www.theedadvocate.org/the-role-of-public-schools-in-the-advancement-of-the-communities/

Margolius, M., Pufall Jones, E., & Hynes, M. (2020). *Creating cultures of care: Supporting the whole child through trauma-informed practice.* Washington, DC: America's Promise Alliance.

Marshall, J. M., Dunstan, D. A., & Bartik, W. (2020). The role of digital mental health resources to treat trauma symptoms in Australia during COVID-19. *American Psychological Association, 12*(1), 269-271. http://dx.doi.org/10.1037/tra0000627

Miller, E. D. (2020). The COVID-19 pandemic crisis: The loss and trauma event of our time. *Journal of Loss and Trauma, 25*(6-7), 560-572. https://doi.org/10.1080/15325024.2020.1759217

Müggenburg, H. (2021). Beyond the limits of memory? The reliability of retrospective data in travel research. *Research in Transportation Economics,145,* 302-318. https://doi.org/10.1016/j.tra.2021.01.010

Nader, K. (2011). Trauma in children and adolescents: Issues related to age and complex traumatic reactions. *Journal of Child and Adolescent Trauma, 4,* 161-180. doi: 10.1080/19361521.2011.597373

NASW Texas (2021). *Social work services definition.* Retrieved March 21, 2021, from https://cqrcengage.com/socialworkerstx/file/fZQkN3rubZ2/HB%20226%20SB%20253%20SSW%20One%20Pager.pdf

Otu, A., Charles, C. H., & Yaya, S. (2020). Mental health and psychosocial well-being during the COVID-19 pandemic: The invisible elephant in the room. *International Journal of Mental Health Systems, 14*(38). https://doi.org/10.1186/s13033-020-00371-w

Panchal, N., Kamal, R., Orgera, K., Cox, C., Garfield, R., Hamel, L., Munana, C., & Chidambaram, P. (2020, August 21). *The implications of COVID-19 for mental health and substance use.* Retrieved November 6, 2020, from https://www.kff.org/coronavirus-covid-19/issue-brief/the-implications-of-covid-19-for-mental-health-and-substance-use/

Perry, B., Aronson, B., & Pescosolido, B. (2021, February 23). Pandemic precarity: Covid-19 is exposing and exacerbating inequalities in the American heartland. Retrieved March 21, 2021, from https://www.pnas.org/content/118/8/e2020685118

Petruccelli, K., Davis, J., & Berman, T. (2019). Adverse childhood experiences and associated health outcomes: A systematic review and meta-analysis. *Child Abuse & Neglect: An International Journal, 19.* https://doi.org/10.1016/j.chiabu.2019.104127

Rosen, P. (2021, January 13). MTSS: What you need to know. Understood. https://www.understood.org/en/learning-thinking-differences/treatments-approaches/educational-strategies/mtss-what-you-need-to-know.

S.B. 253, 87th Legislative Session (Tex. 2021). https://capitol.texas.gov/tlodocs/87R/billtext/pdf/SB00253I.pdf#navpanes=0

Stark, A. M., White, A. E., Rotter, N. S., & Basu, A. (2020) Shifting from survival to supporting resilience in children and families in the COVID-19 pandemic: Lessons for informing U.S. mental health priorities. *American Psychological Association, 12*(1), 133-135. http://dx.doi.org/10.1037/tra0000781

Strauss, V. (2020, August 21). The Trump Administration declared teachers 'ESSENTIAL workers.' Here's what that means. Retrieved March 21, 2021, from https://www.washingtonpost.com/education/2020/08/21/trump-administration-declared-teachers-essential-workers-heres-what-that-means/

Subbarao, K., & Mahanty, S. (2020). Respiratory virus infections: Understanding COVID-19. *Immunity, 52*(6), 905–909. https://doi.org/10.1016/j.immuni.2020.05.004

SWIFT Education Center. (2020). Restorative Practices. Research to Practice Brief. In *SWIFT Education Center*. SWIFT Education Center. http://ezproxy.acu.edu:2059/login.aspx?direct=true&AuthType=sso&db=eric&AN=ED607498&site=eds-live&scope=site&custid=s8479690

Texas Education Agency (2020). Project Restore Video Series [Video Series]. https://www.texasprojectrestore.org/

Trauma-informed care in behavioral health services: a treatment improvement protocol. (2014) U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Treatment.

UNESCO (2020). *Adverse consequences of school closures.* Retrieved November 25, 2020, from https://en.unesco.org/covid19/educationresponse/consequences

Van der Kolk, B. A. (2014). *The body keeps the score: Brain, mind, and body in the healing of trauma*. Penguin Publishing Group.

Van Vulpen, E. (2020, May 7). 7 Human Resource Best Practices: A Mini-Guide to HRM. AIHR Digital. https://www.digitalhrtech.com/human-resource-best-practices/.

Van Woerkom, M. (2018, March 12). Building Community With Restorative Circles. Edutopia. https://www.edutopia.org/article/building-community-restorative-circles.

Wilson, V. (2020, June 22). Inequities exposed: HOW COVID-19 widened racial inequities in education, health, and the workforce: Testimony before the U.S. House of Representatives Committee on education and labor. Retrieved March 21, 2021, from https://www.epi.org/publication/covid-19-inequities-wilson-testimony/

APPENDIX A

Institutional Review Board Approval Letter

ABILENE CHRISTIAN UNIVERSITY
Educating Students for Christian Service and Leadership Throughout the World

Office of Research and Sponsored Programs
320 Hardin Administration Building, ACU Box 29103, Abilene, Texas 79699-9103
325-674-2885

November 2, 2020

Leanne Parker
Department of Social Work
Abilene Christian University

Dear Leanne,

On behalf of the Institutional Review Board, I am pleased to inform you that your project titled "Symptoms of Trauma Related to the COVID-19 Pandemic in Educators and Students",

(IRB# 20-176)is exempt from review under Federal Policy for the Protection of Human Subjects.

If at any time the details of this project change, please resubmit to the IRB so the committee can determine whether or not the exempt status is still applicable.

I wish you well with your work.

Sincerely,

Megan Roth

Megan Roth, Ph.D.
Director of Research and Sponsored Programs

APPENDIX B

Solicitation Email

Greetings,

My name is Leanne Parker. I am a graduate student at Abilene Christian University currently completing my field placement in the [redacted] School Social Work Department. I am currently working on some research for my thesis: **Symptoms of Trauma Related to the COVID-19 Pandemic in Educators and Students.** In order to conduct this research for my thesis, I need to collect some data. I am hoping to solicit participation for this study from teachers, teaching assistants, and teacher aides for grades kindergarten through 12th grade.

This survey will be conducted using Google Forms. This study will be a one-time survey that may take 10-15 minutes to complete.

Principals, if you would please forward this email to your teachers, teaching assistants, and teacher aides, I would greatly appreciate it. Their responses and participation are essential to this study.

PARTICIPATION IN THIS STUDY IS COMPLETELY VOLUNTARY. Anyone who chooses not to participate in the study will in no way be penalized. The researcher will not be able to see who has/has not responded to the survey as all information collected will be completely anonymous. No names or email addresses will be collected for the purpose of this study. Attached to this email is the Informed Consent you may read through and save for your personal records. Contact information for myself

along with my ACU faculty advisor are included in this form. The informed consent is also included as part of the survey. You will be asked to consent to this study before being allowed to proceed to the survey.

If you feel inclined to participate in this study, please click on the following link:

I appreciate you taking the time and energy to read this email. Thank you for all you do as an educator for your students, their families, and for the Abilene community.

Sincerely,

Leanne Parker, BSW

School Social Work Intern

APPENDIX C

Survey with Informed Consent

Symptoms of Trauma Related to the COVID-19 Pandemic in Educators and Students

You may be able to take part in a research study. This form provides important information about this study, including the risks and benefits to you as a potential participants. Please read this form carefully and ask the researcher any questions that you may have about the study. You can ask about research activities and any risks or benefits you may experience. You may also wish to discuss your participation with other people, such as your family doctor or a family member.

Your participation in this research is entirely voluntary. You may refuse to participate or stop your participation at any time and for any reason without any penalty or loss of benefits to which you are otherwise entitled.

PURPOSE AND DESCRIPTION: The purpose of this study is to understand the traumatic effects the COVID-19 pandemic has had on educators and their students. A global pandemic is considered a crisis situation which can have many negative consequences on those effected by the crisis. Many people have faced financial, health, and food insecurity, as well as loss of social connections and increase in mental health issues since the shutdown began in March of 2020. The shutdown in the United States also caused schools to close abruptly, interrupting the educational process as well as cutting off many students and staff from many consistent resources and supports.
This study aims to assess trauma symptoms educators have experienced since the shutdown in the United States began, as well as stress and observations about student behaviors in the classroom since returning to school this fall. This study will be a one-time survey that may take 10-15 minutes to complete. You will be given a series of questions about symptoms of trauma experienced since the shutdown began, followed by a series of questions regarding your personal stress and student behaviors since returning to the classroom this fall.

RISKS & BENEFITS: There are minimal risks associated with participation in this research study. The primary risk is breach of confidentiality, but because we are using an anonymous platform, that risk is extremely low. You may not experience any personal benefits from this study.

PRIVACY & CONFIDENTIALITY: Any information you provide will be confidential to the extent allowable by law. Your confidentiality will be protected by password protected data and no identifiable information will be collected with this survey.

CONTACTS: If you have questions about the research study, the lead researcher is Leanne Parker, School Social Work Intern, and may be contacted at lsc15a@acu.edu. If you are unable to reach the lead researcher, or wish to speak to someone other than the lead researcher, you may contact Alan Lipps, Ph.D., LCSW, LPC at ajl07a@acu.edu. If you have concerns about this study, believe you may have been injured because of this study, or have general questions about your rights as a research participant, you may contact ACU's Chair of the Institutional Review Board and Executive Director of Research, Megan Roth, Ph.D. Dr. Roth may be reached at:
(325) 674-2885
megan.roth@acu.edu
320 Hardin Administration Bldg, ACU Box 29103
Abilene, TX 79699
* Required

1. Please click the button below if you voluntarily agree to participate in this study. Click only after you have read all of the information provided and your questions have been answered to your satisfaction. If you wish to have a copy of this consent form, you may print it now. You do not waive any legal rights by consenting to this study. *

   Mark only one oval.

   ◯ I consent to participate in this research.

Skip to question 2

Trauma Symptom Checklist

These questions will ask you how often have you experienced each of the symptoms below prior to and following the start of the COVID-19 shutdown in March of 2020? Please indicate one number, 0-3.

2. Headaches prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

3. Headaches after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

4. Insomnia prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

5. Insomnia after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

6. Weight loss (without dieting) prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

7. Weight loss (without dieting) after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

8. Stomach problems prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

9. Stomach problems after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

10. Feeling Isolated from others prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

11. Feeling Isolated from others after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

12. Restless sleep prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

13. Restless sleep after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

14. Anxiety attacks prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

15. Anxiety attacks after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

16. Loneliness prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

17. Loneliness after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

18. Nightmares prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

19. Nightmares after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

20. “Spacing out” (going away in your mind) prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

21. "Spacing out" (going away in your mind) after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

22. Sadness prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

23. Sadness after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

24. Trouble controlling your temper prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

25. Trouble controlling your temper after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

26. Uncontrollable crying prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

27. Uncontrollable crying after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

28. Not feeling rested in the morning prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

29. Not feeling rested in the morning after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

30. Trouble getting along with others prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

31. Trouble getting along with others after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

32. Memory problems prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

33. Memory problems after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

34. Desire to physically hurt yourself prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

35. Desire to physically hurt yourself after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

36. Waking up in the middle of the night prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

37. Waking up in the middle of the night after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

38. Passing out prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

39. Passing out after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

40. Unnecessary or over-frequent washing prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

41. Unnecessary or over-frequent washing after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

42. Feelings of inferiority prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

43. Feelings of inferiority after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

44. Feeling tense all the time prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

45. Feeling tense all the time after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

46. Desire to physically hurt others prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

47. Desire to physically hurt others after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

48. Feelings of guilt prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

49. Feelings of guilt after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

50. Feeling that you are not always in your body prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

51. Feeling that you are not always in your body after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

52. Having trouble breathing prior to the shutdown *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

53. Having trouble breathing after the shutdown began *

Mark only one oval.

	0	1	2	3	
Never	◯	◯	◯	◯	Often

Skip to question 54

Stress

The following questions are about stress you may have experienced since returning to the classroom this 2020-2021 school year.

54. Have you felt an increase in stress this school year in comparison to previous years? *

Mark only one oval.

- ◯ Yes
- ◯ No
- ◯ This is my first year teaching.

55. On a scale from 1 to 10, one being not stressed at all, 10 being the most stressed you have ever been, where would you rank the stress of this school year? *

Mark only one oval.

	1	2	3	4	5	6	7	8	9	10	
Not stressed at all	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	Most stressed I have ever been

56. On a scale from 1 to 10, one being not at all and ten being a great deal, how much do you feel that stress related to the pandemic has impacted your ability to do your job?

Mark only one oval.

	1	2	3	4	5	6	7	8	9	10	
Not at all	◯	◯	◯	◯	◯	◯	◯	◯	◯	◯	A great deal

57. Please select any of the following that have been a source of increased stress for you this school year: *

Check all that apply.

- [ ] Teaching remote learners along with in-person class
- [ ] Complying with new health and safety procedures
- [ ] Student behaviors
- [ ] Worry about students' wellbeing
- [ ] Mental health stress
- [ ] Financial stress
- [ ] Family-related stress
- [ ] Health-related stress
- [ ] None of the above

Other: ☐ _____

58. Have classroom behaviors felt more difficult to manage this year compared to previous years? *

Mark only one oval.

- ◯ Yes
- ◯ No
- ◯ This is my first year teaching.

Skip to question 59

Student Behaviors

This section will explore student behaviors in the classroom that are typically indicative of stress and trauma in children. As you answer these questions, think about your classroom this year in comparison to last year. Indicate whether you have noticed more, less or about the same level of behaviors indicated.

59. Verbal Aggression *

Mark only one oval.

- ◯ Significantly less
- ◯ Less
- ◯ About the same
- ◯ More
- ◯ Significantly more
- ◯ This is my first year teaching

60. Physical Aggression *

Mark only one oval.

- ◯ Significantly less
- ◯ Less
- ◯ About the same
- ◯ More
- ◯ Significantly more
- ◯ This is my first year teaching

61. Spitting *

Mark only one oval.

- ◯ Significantly less
- ◯ Less
- ◯ About the same
- ◯ More
- ◯ Significantly more
- ◯ This is my first year teaching

62. Biting *

Mark only one oval.

- Significantly less
- Less
- About the same
- More
- Significantly more
- This is my first year teaching

63. High distractibility (unable to focus) *

Mark only one oval.

- Significantly less
- Less
- About the same
- More
- Significantly more
- This is my first year teaching

64. Running away or walking out of the classroom *

Mark only one oval.

- Significantly less
- Less
- About the same
- More
- Significantly more
- This is my first year teaching

65. Avoidance of classroom assignments or activities *

Mark only one oval.

- Significantly less
- Less
- About the same
- More
- Significantly more
- This is my first year teaching

66. Refusal to participate *

Mark only one oval.

- Significantly less
- Less
- About the same
- More
- Significantly more
- This is my first year teaching

67. Crying *

Mark only one oval.

- Significantly less
- Less
- About the same
- More
- Significantly more
- This is my first year teaching

68. Emotional Withdrawal *

Mark only one oval.

- ◯ Significantly less
- ◯ Less
- ◯ About the same
- ◯ More
- ◯ Significantly more
- ◯ This is my first year teaching

69. Mental Withdrawal *

Mark only one oval.

- ◯ Significantly less
- ◯ Less
- ◯ About the same
- ◯ More
- ◯ Significantly more
- ◯ This is my first year teaching

Skip to section 5 (Resources)

Resources

If you feel that you are in need of mental health resources or information, please visit the student and family support services webpage: https://sites.google.com/abileneisd.org/school-social-work-services/community-resources/counseling-and-parent-support?authuser=0. You can also contact Human Resources to ask about the employee assistance program.