

The Teacher Retention Crisis After Natural Disaster Trauma and a Global Pandemic

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Department of Community Care and Counseling, Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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School of Behavioral Sciences

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## Abstract

Natural disasters affect the communities of over one million students and educators in the United States every year; however, school-based preparedness and prevention programs are nearly non-existent across disaster-prone areas. School-based trauma intervention programs are somewhat present in schools; however, it is more expensive and at a cost most public-school systems do not have funds readily available to spend. However, the price is more significant on the adolescents' and educators' mental health and communities affected when they are only treated reactively rather than proactively. There are many studies on the results and after-effects of trauma on the mental health of communities, adults, and even a growing number of research studies on adolescents. However, there is a deficit in the research on preventative mental health care and interventions that foster resilience in adolescents, teachers, educators and school personnel in disaster-prone areas and the effects that the delivery of the interventions post-disaster may have on educators' burnout rates. School-based trauma-informed interventions are effective; however, the teachers and school personnel must be adequately trained prior to disaster or delivery to students to avoid further burnout or psychological injury to themselves and possible accidental injury their students. Educator retention after trauma and a global pandemic has been an understudied effect of treatment in adolescent disaster trauma in the research.

*Keywords:* Teacher burnout, teacher retention, mental health in schools, educator mental health, trauma, coping, natural disasters and global pandemic effects

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### **List of Abbreviations**

Connor-Davidson Resilience Scale (CD-RISC)

International Review Board (IRB)

Multi-Tiered System of Support (MTSS)

National Education Association (NEA)

Social Emotional Learning (SEL)

Post-Traumatic Stress Disorder (PTSD)

Perceived Stress Survey (PSS)

Teacher Burnout Survey (TBS)

Trauma-Informed Interventions (TII)

## **Chapter One: Introduction**

### **Overview**

Natural disasters affect the communities of over 224 million people worldwide and nearly 85.2 million in the United States, impacting the students and their teachers in the affected communities every year (Guha-Sapir, 2016).; however, school-based preparedness and prevention programs are nearly non-existent across these disaster-prone areas. The financial cost of the school-based trauma prevention and intervention programs and teacher shortages may be the cause of the limited presence in public school systems; however, ultimately, the price will be more significant on the mental health and retention of the teachers, adolescents, and the communities when they are only treated reactively rather than proactively. The research is essentially non-existent on preventative mental health care and interventions to build and foster resilience and prevent burnout in teachers/educators, other school personnel, and the adolescents they serve in disaster-prone areas. School-based Social Emotional (SEL) and trauma-informed interventions are effective; however, teachers and school personnel, the non-traditional first responders, must be adequately prepared and trained to avoid compassion fatigue, burnout, and further psychological injury to themselves (Domitrovich et al., 2016). The effects on teachers and school personnel when implementing trauma care without proper training has been an understudied consequence in working with and treating adolescents after a natural or manufactured disaster trauma and the road to healing and recovery in the K-12 public school systems.

### **Background**

Worldwide there were more than 500 disasters documented between 2006 to 2016, claiming over 80,000 lives, affecting almost two billion people, and costing over \$131 million,



all of which critically impacted the communities where teachers, educators and adolescents reside (Cao et al., 2017). Due to these disasters, there is an ever-growing magnitude of trauma exposure to communities affecting teachers and adolescents. Natural, manufactured, and technological disasters have generated a growing need for research, prevention, and interventions to mitigate the long-term effects of natural disasters in schools.

Many external stressors, natural or manmade, are outside of the scope of influence and prevention of the educators, schools and communities, however they have tremendous impacts on the mental, physical and emotional health of all that are in scope. Looking back to Columbine in 1999, Sandy Hook in 2012, Parkland in 2018, and most recently, Uvalde in 2022, these school shootings all are examples of where teachers, administrators, and school personnel were the first on the scene to provide both physical and psychological first aid to the students while the traumas were unfolding, and expected to provide support in the schools after the tragedies. More than 292,000 students have experienced violence at school since Columbine, and there were more incidents in 2021, 34 in total, than in any year since 1999, despite most students not attending school for the first two months of 2021 (Cox et al., 2022). Harvard School of Public Health reported an update of the data after the May 24, 2022, mass shooting at the Uvalde, Texas, elementary school that left nineteen students and two teachers dead, making it the 27<sup>th</sup> school shooting this year (Hemenway, 2022). These reports further indicate that the number of trauma students, teachers, and school personnel are exposed to is increasing, as well as the rising need for mentally and physically healthy and adequately trained teachers, educators, administrators, school counselors, and other school personnel to be in place to support these students; creating a perilous situation on the horizon of education.

Due to the convenience and accessibility of large groups of the impacted community members, many mental health first aid efforts fall on the schools, the educators, and teachers, indirectly affecting the adolescents who have suffered from the same traumatic exposure. The centrality of a natural or manufactured disaster in the community also has an adverse and long-term effect on both the teachers and adolescents. After a major typhoon in China, a study of 225 adolescents found that the centrality and vividness of the tragedy in their community heightened their acute stress symptoms and depression, particularly in a setting where the adolescents have persistent physical reminders of the traumatic event in their environment and daily activities (Morden et al., 2018). Joslyn Delancey, Vice President of the Connecticut Educators Association, after the Uvalde shooting, stated, "it is no secret that teachers are suffering because the burden of having to keep students safe both emotionally and physically has gotten heavier. We first need to figure out how to support each other because we want to be cautious when talking to students about the trauma and do it right" (Shen, 2022). The Connecticut Educators Association also reported that Connecticut educators stated that teachers need more trauma-informed training and access to mental health training (Shen, 2022).

There have been minimal studies conducted on adolescents and the mental health effects of exposure to traumatic events, and even fewer studies on the after effects of the implementation of post-disaster social-emotional interventions on their teachers and school personnel. A study on school-based prevention programs and their effects on the teachers implementing them found that there are limited findings on how these preventative mental health care programs and the emotional toll the delivery of the interventions has on the teachers administering the interventions (Domitovich et al., 2016). Although school personnel often find themselves in the role of helpers and supporters post-disaster, proper training prior to the disasters appears to be

missing. Before being charged with students' healing process, and because they frequently live in the same communities as the adolescents they are aiding and have experienced the same traumatic event, particular attention to teachers' and school personnel's needs should also be addressed prior to an expectation of implementing trauma care to students. If implemented with proper training and support, the SEL and trauma-based school interventions positively affect the student's and the teacher's resiliency rates, as noted in the Domitovich et al., 2016 study of how prevention programs impact teachers. In this study, teachers were trained before the implementation and supported weekly by a coach throughout the school year (Domitovich et al., 2016). However, at the time, this was the only study found based in the United States that examined the relationship between the teachers' mental health and the implementation of intervention programs for their students.

Schools exist as an intuitive adolescent gathering places and are an effective and efficient way to disseminate information, provide support, and aid in recovery and intervention for all survivors of natural disasters. However, without a thoughtful pre-planned intervention strategy or program in place before a crisis, the teachers and school personnel, in this case, considered the non-traditional first responders, could potentially exacerbate and protract their own PTSD symptoms; and, as a result, add accidental injury to the adolescents they are entrusted with caring for (Kuntz, 2015). Similar to training firefighters, EMTs, and police officers, teachers must also be appropriately cared for and trained before being charged with assisting adolescents in recovery from their traumatic experiences. A 2013 Gallop Poll partnered with Microsoft Learning, Pearson Education, and Phi Delta Kappa found the teacher burnout rates frighteningly high; in most schools, only 30% of teachers were engaged and felt valued and supported in their positions. More alarming is the fact that these findings were before the added trauma and stress

of the past ten years in the United States, where there have been some of the most dangerous and deadly natural disasters and school shootings of all time, and then further compounded by the past two years of the global pandemic (Gallup, 2013). All of these factors considered, one can only presume that the teacher stress levels, which in 2013 rivaled those of nurses and physicians, are even more astronomical today, creating an even greater epidemic of teachers fleeing the profession and producing more prolonged adverse effects on the future of students. Education aims to build outstanding student achievement and engagement, promote mentally and emotionally healthier adolescents, and ensure career and adulthood readiness. That being the case, this goal can only be accomplished by promoting more purposeful and explicit care for our educators, thus retaining their influence, compassion, and expertise where it is most needed in schools with adolescents. The impact of natural disaster trauma on educators and adolescents, specifically the impact on educator retention is significantly needed and a grossly understudied topic.

Richard Ingersoll, a professor at the University of Pennsylvania's education school, observed that in the U.S., overall, teachers are not thought of as talented and respected professionals, and states this is one of the systemic flaws holding back the U.S. education system (Gallup, 2013). He further suggested that more rigorous hiring standards must be accompanied by improved working conditions, greater autonomy, and professional development opportunities that provide career momentum (Gallup, 2013). At this point, the few interventions that are gradually being put into place to retain and recruit educators appear to be immune to the mediation post-pandemic, as a 2021 report stated, more than 50% of teachers felt burnt out, and close to a fifth of them intended to leave their job after the 2020-21 academic school year, where prior to the pandemic, regularly in US, 500,000 teachers move or leave the profession each year,

costing \$2.2 billion (Trinidad, 2021). This teacher burnout epidemic is slowly becoming an educational pandemic that could cost the U.S. billions more dollars, millions of educators, and result in millions of adolescents harmed or educationally neglected.

In an NPR survey of college education professors in 2021, Jennifer Greif Green, School of Education Professor at Boston University, found that teachers were reporting additional stressors because they are being affected by trauma and the pandemic and the need to feel safe and supported by the administration, school districts and communities, and being essential to creating the same environment for students, which leads to student success, learning, and development (NPR, 2021). This support of the educators and schools can come from building peer relationships within their schools, the school climate, and support from the administration, community, and school board officials. In the NPR report and in agreement with Professor Green, Lisa Sanetti, Professor of Educational Psychology at the University of Connecticut, reported, "Clinically stressed teachers are just less effective in classrooms, and additional stress can lead to burnout and leaving the profession. We have a huge teacher turnover problem in our country today "(Raphael, 2021.p2). In just considering all the added responsibilities that have been placed on teachers and educators, many teachers reported to the NPR survey that they are so exhausted that even self-care feels like one additional thing on their already endless list of things to do; many said they are just trying to get to the end of the day successfully and will try again tomorrow (NPR, 2021).

Natural disasters, specifically significant hurricanes that have ravaged the Gulf Coast in recent years, have only further exasperated the fractured and poorly funded public educational systems, increased teacher/educator's stress levels and responsibilities, and further traumatized adolescents. This notable impact of natural disaster trauma, especially in 2018, when the

Category Five Hurricane Michael created a blast zone of destruction hundreds of miles wide and north impacted the panhandle of Florida. Communities in this hurricane impact zone were still rebuilding in 2020 when the COVID-19 pandemic forced closures of the only recently reopened and struggling schools and businesses, further exasperating financial and mental health deficiencies. There were even several schools in Bay County, where the eye of the hurricane made landfall, that, as of 2022, were still rebuilding and repairing from the 2018 mega-storm. The pandemic's school closures and strict regulations placed on schools and their personnel only further exacerbated the stress and trauma on an already fragile education system, it's educators, adolescents and communities. Through the hurricanes and pandemic, it was evident that no one was safe from the effects of either, and everyone in the community was impacted in some way.

Information gathered from local sources, from Bay District Schools website, and Facebook public information pages reported that in the aftermath of the landfall of the mega-storm Hurricane Michael, many schools, teachers, and students were sharing classrooms and campuses and even alternating school schedules where middle school students were going to school at night; creating childcare issues and additional family stress on the school personnel caring for the middle school students (BDS, 2018). While the community began to heal, educators were being entrusted to care for these students in the classroom on a level they had never been appropriately trained in before. These teachers and school personnel were sent back into the schools and classrooms by school officials, and for many, it was less than 30 days after a category five storm had taken out most of the power grid and cellular networks. Many educators were still struggling to meet their own and their family's physical, emotional, and mental health needs while also being responsible for showing grace and compassion to their students.

Undoubtedly, teachers care for their students and want to help the adolescents in their classes. However, there is no documentation that there was a system in place to check on the mental, physical or emotional well-being of the teachers/educators before a return to work. There was no indication of training or support groups being in place before sending them into the metaphorical triage rooms, aka schools and classrooms, as the only first responders in a room of 20-30+ traumatized students. Doctors would never be sent into emergency surgery when they were wounded or without at least first assessing their mental and physical well-being; for the same reason sending educators out to care for traumatized children when they themselves are traumatized should not be treated any differently. There is the likelihood of additional harm possibly being committed to educators and, indirectly, students in the community by rushing the process of returning to the classroom/schools without proper preparation and care for the educators. In addition to the compounded effects of the category five hurricane on the Gulf Coast, less than 18 months later, in 2020 the global pandemic shut down not only the Gulf Coast of Florida but the United States and the World, exacerbating and highlighting already weakened and fractured public-school systems in the affected communities. A Licensed Mental Health counselor at a local Bay District Middle school remarked that mental health crises were rising and that in the previous 2020 school year, she only had thirteen student mental health crises to call into the emergency response team. In the 2021 school year, as of March, she had forty-five student and three teacher mental health crises to call into the emergency response team (personal communication, 2022).

Simultaneously, many city councils and local school officials in Bay County, FL, were being monitored, and the FBI was making arrests for misuse and the laundering of federal disaster funds, as reported by the Department of Justice (DOJ,2020). Due to the lockdowns, the

entire community was at home, able to watch it unfold in the news and create a new level of mistrust in the local leadership, many of whom work in or are connected to the public-school system in Bay County. Four years after the Category-Five Hurricane Michael, it was made aware to the public and educators living in the communities that there was a continued misuse of billing and federal funding that personally benefited the local city councils, council members, school board and school board, and district level leadership employees. This happening during the community's continuous time of need and crisis gave an impression that for leadership, the crisis was an opportunity to benefit financially and that decisions were made not based on what was mentally or emotionally in the best interest of the students and educators. Glenn Hess, Former 14<sup>th</sup> Judicial Circuit State Attorney for Florida, states there has been an undercurrent of corruption in Bay County for a long time, and the winds of Hurricane Michael laid it out, so it can be seen (News-Herald, 2022).

Further supporting the findings in the survey where teachers responded that one of their top reasons for leaving or thinking of leaving the profession of education was lack of support in school districts and administration. It is especially critical to communities after a natural disaster crisis to have a significant level of trust in their leadership. This trust in local governments was lacking in the coastal communities affected by Hurricane Michael.

In the United States, more than 55 million students were affected by the closures of schools during the pandemic. Over 3 million of those adolescents received mental health care services, 35% of whom were receiving them exclusively at their schools (Golberstein et al., 2020). Many of these millions of student's mental health concerns have been untreated for pandemic affected school years 2020-21 and 2021-22. The students whose mental health needs were unmet were sent back to schools with little or no help before their return, and to teachers



who were not trained or prepared for the mental, emotional, physical, and educational needs of the 20-30+ students in each classroom.

Teachers and school personnel are not by trade mental health experts, social workers, doctors, or nurses but are held responsible for meeting all their student's physical, emotional, cultural, mental, and educational needs according to the Bay District Schools Human Resources job description for teachers (BDS, 2022). Teachers, administrators, school counselors, and other degreed and certified school employees are highly trained, most with a minimum of four years of higher education, many with masters and specialist degrees, and with many years of in-the-field experience; however, in all of this education and experience, there was nothing that prepared or trained the teachers for the outcomes of now being on the fourth year of abnormal school experiences, from 2018-2022. Since 2018, the lowest grades teachers were allowed to record were 50 percent, no students were retained due to lack of mastery, there were extended deadlines and extended school years given to students. All of these exceptions for the students, as indicated through teacher feedback, only further stressed and exasperated the burnout rate, compassion fatigue, and PTSD symptoms of the educators in the gulf coast community (Jarrard, 2022).

In the five years before COVID-19 shut schools down in 2020, 40% of the teachers in Florida left teaching within the first five years, which was already 15-20% higher than the National Average (FEAWEB, 2017). In August of 2021, there were over 9,000 vacancies in Florida, with the average going up to 42% of teachers leaving the profession (FEAWEB, 2021). The News-Herald reported that Bay County, Florida averages about 200 of their 1500 teachers leave or retire each year, but usually have at least 200 applicants to replace these vacancies; however, in May of 2021, about 5% of the teachers & support staff left and resigned the profession, not retired, with no one waiting to fill the openings. These large number of vacancies

are equivalent to an entire middle or high school in the area being unstaffed in the Bay District School System.

Local Bay County news station, WHJG-7, reported in April of 2021 that when interviewing principals about their employees leaving in the exit interviews, they continuously stated that veteran teachers were leaving due to lack of livable wage ; salary (WJHG,2021). The same year, the community failed to vote for a mileage tax increase to supplement the teacher pay raise, which would help match the state contribution to bring the teacher salary up to the state minimum. The vote was only one month after many community officials were arrested with Federal counts of fraud and money laundering of disaster relief funds, and one can see why the community might not want to entrust them with millions of more dollars. However, with no community support and no raise in several years, further exasperating and insulting the educators in the community's already mounting feelings of being undervalued, the schools and students received the ultimate consequence; educators leaving. Feeling undervalued and lacking support have led veteran and newly graduated teachers to leave the profession altogether. If educators are better supported and encouraged to learn to include better self-care in their everyday routines, it could increase teacher retention and recruitment.

Coping strategies refer to, more specifically, dealing with strong emotions or trying to change the stressful situation that has already elicited these emotions, as defined by Dr. Richard Lazarus, the developer of the dual-process coping framework (Wang & Hall, 2021). These negative emotions, if not coped with in a healthy way, can lead to further burnout and increased stress levels. Dr. Lazarus found that individuals implementing coping strategies to mitigate negative emotions can also intentionally engage or disengage from a problematic situation (Lazarus, 1991).

## **Problem Statement**

The United States is facing a nationwide shortage of qualified and effective educators. A 2017 comparison study conducted by Pew Research Center on the rise in adolescent depression found that since 2007 there was a 59% increase in teenagers that recently experienced depression, and over 3.2 million U.S. teens reported experiencing at least one major depressive episode in the past year (Geiger & Davis, 2019) There is little to no research on the long term effects of providing interventions designed to support teachers and minimize student crisis as one of the factors driving qualified educators not only out of the classroom but out of education altogether (Cook,2017). No research was found to support a correlation teacher burnout might have on the rising adolescent mental health crisis.

On average, teachers and school staff spend more time with the adolescent population than their families during a school year based on the reported school calendars and hours of operations on the district and school websites (BDS, 2022). Educators are mandated reporters and are usually the first to observe and report changes in students' behaviors and mental, physical, or emotional health (FLDOE, 2022). Adolescents in the United States mostly attend public schools in large groups. Screening students in the school environment, where students feel safe and with teachers they trust, is a more effective and reliable method of identifying adolescents with potential PTSD, anxiety, or depression. The more quickly students can be identified and interventions put into place by trained mental health professionals rather than classroom teachers, the more effect the school-based interventions have, and less likely that the adolescent natural disaster survivors develop long-lasting PTSD, anxiety, or depression symptoms (Hansel et al.,2015). As reported, teachers are feeling overwhelmed with new mental health responsibilities being required of them in the classrooms that they have little to no training

in; it is possible that an expedited time frame of identification and implementation of strategies for adolescents by mental health professionals could lessen their stress levels.

A survey of 495 teachers and school personnel following Hurricane Katrina at schools throughout southwest Louisiana found that almost all had damage to their homes, one-quarter of which had uninhabitable dwellings, and not surprisingly, they also found 25% had significant symptoms of PTSD and depression (Costa et al., 2015). These are the same educators being charged with returning to schools and assisting traumatized students from the same disaster without suitable training before natural disasters strike in disaster-prone areas. Lack of providing adequate resources and care to the teachers and school personnel before expecting them to provide trauma-informed care to students can only lead to protracting their stress symptoms and potential burnout from their profession in general. In New Zealand, a study of the teachers and educators after the major Christchurch earthquakes indicated that the reduced resources, ineffective responsiveness from the school board, and perceptions of being overloaded in their duties lead to emotional exhaustion and increased levels of burnout (Kuntzet al., 2013). Teacher burnout post-disaster is an understudied topic, as indicated in the study tracking eighteen months of teachers' moods and exhaustion after the Christchurch, New Zealand earthquakes, where the study indicated a need for further research on their emotional exhaustion and burnout rates after providing natural disaster mental health care to students (O'toole, 2018).

### **Purpose Statement**

The intent of this study was to identify the factors that are either supporting and retaining educators in the field of education or the factors that are leading to burnout and resignation after experiencing natural disaster trauma and a global pandemic. Identification of these factors can aid school administrators and districts in becoming more aware of how to support and retain

more highly qualified educators in the schools and classrooms. What is becoming a mass exodus of educators where the retention rate, as of 2021, is only about 50% of new teachers staying within their first five years, could be turned around if factors for retention were identified and corrected. A recent study and online poll conducted by Education Week in 2021 found that while caring for young people is what draws many to the profession, and more than two in five teachers said it is a top reason they stay; however, 84 percent of the over 1,000 educators surveyed online said that teaching is much more stressful than it was in 2019 and that 54 percent are very likely to leave teaching in the next two years (Loewus, 2021).

Between the timeliness of the issue and what little research is available on how post-pandemic teachers and the effect that implementing SEL and trauma-based interventions in the classrooms have on their mental health and burnout rates is a grossly understudied topic. In this study of teacher retention, the intended sample group was to be between 500-1,000 teachers and educators on the Gulf Coast of Florida that were teaching in 2018, prior to the Category Five Hurricane Michael, and that have either stayed in the profession or chosen to leave since the COVID-19 pandemic. These participants completed a background questionnaire, Perceived Stress Scale, Teacher Burnout Survey, and Connor-Davidson Resilience Scale. Equitable opportunity for representation of teachers and educators that left the profession and stayed, as well as those that have had experiences with adolescents grades 6-12, was needed to show a representation of all school scenarios that teachers and educators were exposed. This study aimed to determine if teachers across Gulf Coast schools were experiencing burnout at the same rate. The research was set to determine if demographics, geography, years of experience, college-trained teachers or alternative certification, degree of damage or displacement from the natural

disaster, teacher support systems, or teacher evaluation systems are influential in determining teacher retention rates.

### **Significance of the Study**

Burnout and stress-related illness in teachers are associated with many adverse effects on the teachers, their students, and the educational system as a whole. Herman et al. (2020) found that very little attention was given to understanding and supporting the adults charged with creating the students' social, behavioral, and academic outcomes. In 2021, a Canadian teacher survey of 1086 teachers found that teachers' high anxiety levels led to maladaptive disengagement strategies, leading to stronger intentions to quit the teaching profession (Wang & Hall, 2021). These two very recent studies both found a lack of information and research to support the emotional and physical well-being of the teachers in the classrooms, leading to higher teacher burnout rates and teachers leaving education altogether. However, Australia began to study the rising teacher rates of burnout and stress in teachers and found that most approaches were from the deficit angle and were focused on what was going wrong and where the failure of the teachers to cope was defined more personally than as an institutional weakness (Howard & Johnson, 2004).

Specifically, the University of Missouri study found that more research is needed to establish links between teacher stress and coping and teacher and student mental health and well-being, discipline practices, and student achievement (Herman et al., 2020). They went on to say that teacher stress and coping may be the central hub of understanding national education and public health priorities, including the achievement gap, school-to-prison pipeline, and health disparities (Herman et al., 2020). The Canadian study stressed that their findings prove the importance of providing meaningful support to teachers not only through programs to reduce

anxiety and improve coping but also the need for structural change in the education system to help sustain the emotional well-being of teachers and, in turn, create better school environment for students (Wang & Hall, 2021).

At the schools, teachers are the frontlines in responding to their students' disparities, such as community trauma, abuse, neglect, poverty, and bullying. With more teachers leaving the profession than staying or applying, it can be predicted that many students will not have highly trained teachers there every day looking out for their mental, emotional and social well-being. The teacher burnout crisis could likely be the next national pandemic that teachers, students, parents, and communities will have to overcome.

### **Research Questions**

While the Canadian study in 2021 and Australian study of 2004 both shine light on a rising issue and possible factors leading to teacher/educator burnout; both offered opportunities for future studies to expand on their research. It was from these suggestions and rising teacher vacancy rates after the 2018 category five hurricane that led to the research questions for this study.

**RQ1:** Do teachers/educators develop compassion fatigue after a natural disaster, and does it affect teacher retention rates?

**RQ2:** Do natural disasters result in teacher/educator burnout and affect teacher retention rates?

**RQ3:** Does administrative support, or simple implementation of self-care routines, including spirituality or religiosity, increase teacher retention and lessen teacher burnout rates?

**RQ4:** Do natural disasters affect teacher retention and burnout rates?

### Definitions

1. Adolescent- (of a young person) the process of developing from a child into an adult: ex: ages 11-19, and can go into early 20's
2. Burnout- physical or mental collapse caused by overwork or stress
3. Compassion fatigue- a condition of emotional and physical exhaustion leading to a diminished ability to empathize or feel compassion for others, often described as the negative cost of caring
4. Educator- any person who provides instruction or education to students (ex: teacher, paraprofessional, administrator, school counselor, speech pathologist, staff training specialist, media specialist, school resource officers, special education resource specialist, school nurse, licensed mental health counselor, mental health counselors, behavior interventionist)
5. Intervention- the action or process of intervening: to prevent or alter a result or course of events
6. Resilience- the capacity to recover quickly from difficulties; toughness: Emotional resilience refers to the ability to manage emotions and calm the mind during times of stress.
7. Retention- the continued possession, use, or control of something
8. Vicarious trauma- the effect of being exposed to someone else's trauma — trauma that is not personally experienced but rather learned about from others.



## Summary

The research needs to be more present on preventative mental health care and interventions to foster resilience in teachers, school personnel, and the adolescents they serve in disaster-prone areas. It leaves a gap in the research that is greatly needed to be filled. School-based Social Emotional (SEL) and trauma-informed interventions (TII) are effective; however, teachers and school personnel, the non-traditional first responders, must first be adequately prepared and trained to avoid compassion fatigue and further psychological injury to themselves (Domitrovich et al., 2016). Without proper care and training, teachers will continue to leave the field of education, creating an even more significant education deficit while exasperating the crisis of the mental well-being of both the teachers and the students in the United States and possibly the world.

## **Chapter Two: Literature Review**

### **Overview**

An ever-growing volume of trauma exposure to teachers and adolescents has generated a growing need for research, prevention, and interventions to ensure no adverse long-term effects on adolescents or educators from traumatic exposure, particularly the increase in natural disasters that can be prepared for, such as hurricanes and wildfires. There were more than 500 disasters documented between 2006 to 2016, claiming over 80,000 lives, affecting almost two billion people, and costing over \$131 million, all of which critically impacted the communities in that adolescents reside (Cao et al., 2017). The centrality of the disaster in the community also has adverse and long-term effects. A study of 225 adolescents after a major typhoon found that the centrality and vividness of the tragedy in their community heightened acute stress symptoms and depression, particularly in a setting where the adolescents have physical reminders of the traumatic event in their environment and daily activities (Morden et al., 2018).

There are also limited findings on preventative mental health care in natural disaster-prone areas, the importance of the school's role in providing post-disaster mental health interventions, and the emotional toll the delivery of the interventions has on the teachers administering the interventions. Teachers need proper training because they frequently live in the same communities as the adolescents they are aiding and have experienced the same traumatic event. Schools are the most effective and efficient way to aid in recovery and intervention for all adolescent survivors of natural disasters. However, without a thoughtful pre-planned intervention strategy or program before a crisis, the teachers, school personnel, or non-traditional first responders could potentially exasperate and protract their PTSD symptoms (Kuntz, 2015).

### **Conceptual or Theoretical Framework**

Coping, defined by Lazarus, is constantly changing cognitive and behavioral efforts to manage specific, external, and internal demands that are considered taxing or exceeding a person's resources (Lazarus & Folkman, 1984). Coping strategies refer to, more specifically, dealing with strong emotions or trying to change the stressful situation that has already elicited these emotions, as defined by Dr. Richard Lazarus, the developer of the dual-process coping framework (Wang & Hall, 2021). These negative emotions, if not coped with in a healthy way, can lead to further burnout and increased stress levels. Dr. Lazarus found that individuals, along with implementing coping strategies to mitigate negative emotions, can also intentionally engage or disengage from a problematic situation (Lazarus, 1991).

Self-care is a term used to define the practice of acting to preserve or improve one's health, well-being, and happiness, particularly in a time of stress or crisis, and to further support the ability to cope, mitigate negative emotions and maintain an ability to cope, mitigate negative emotions and maintain adequate mental and emotional functioning. A study has proposed that six life domains require action in the self-care process; physical, professional, relational, emotional, psychological, and spiritual (Butler et al., 2019). Self-care is considered a spiritual act because love of self and the love of others are at the core of Christian beliefs, and many scientific studies have suggested that spirituality plays a central role in managing stressful events (Collins, 2005). Collins also reported in his findings that religious involvement might be beneficial in preventing physical and mental illness, recovering from illness, and coping with both physical and mental illnesses (Collins, 2005). Research has also found that religious participation and positive coping behavior have positive associations by buffering the impacts of stress, promoting healing and resiliency, reducing rates of depression, and having greater feelings of well-being (Butler et al.,

2019). It has even been found in a study that pet owners often experience greater well-being, less depression, less loneliness, greater self-esteem, and greater happiness. Pet owners also tend to be more socially connected to other support groups, which could be linked with increased coping and resilience (McConnell et al., 2011). Consequently, most of the educators surveyed in this study had pets of some kind, and the resilience rates of both groups were too similar to determine a difference, leading to support the theory that pets increase resilience and pet ownership can be a practice that supports self-care of educators.

### **Related Literature**

Post-Hurricane Katrina, the Louisiana State University Health Sciences department developed an anxiety and depression screener specifically for children and adolescents who have experienced a natural disaster. While there is a plethora of PTSD screener tools for adults, there are only a few geared towards adolescents ages 11-21, thus the need for LSU's Katrina-Inspired Disaster Screenings (KIDS). After testing the psychometric validity of the National Child Traumatic Stress Network Hurricane Assessment and Referral Tool for Children and Adolescents, they found that it was a reliable and valid piece in the Katrina-Inspired Disaster Screener (Hansel & Osofsky, 2015). Formal assessments of Posttraumatic Growth (PTG) throughout the recovery process can aid teachers, parents, and counselors in monitoring the adolescent's progress and growth in their recovery and adjusting their healing process when necessary. There are several tools appropriate and adapted for adolescent PTG assessment, such as the Posttraumatic Growth Inventory (PTGI), a shorter 16-item self-report scale; the Posttraumatic Growth Inventory for Children (PTGI-C) with the same five subscales as the adult; however, the wording was modified to appropriate language for children; and The Posttraumatic Growth Inventory-Revised for Children and Adolescents (PTGI-CA) that used all 21 items from

the adult screener, but was modified with language for adolescents and children as young as eight years old (Clay et al., 2009). These screeners and self-report surveys are short and quick ways for adolescents to self-monitor their growth and teachers, parents, and counselors and can be administered in school settings.

Adolescents in The United States attend public schools in large groups, screening students in their school environment where they feel safe and with teachers that they trust a more efficient and reliable method of identifying adolescents with potential PTSD, anxiety, or depression symptoms. The faster the students are identified, and with the specific needs of individual students, the more effective the school-based interventions are, and the less likely that adolescent natural disaster survivors are to develop long-lasting PTSD, anxiety, and depression symptoms (Hansel & Osofsky, 2015). Most recently, there has been a disaster assessment tool created to evaluate the resilience of adolescents; the Adolescents' Resilience in Disaster Tool (ARDT-Q37) is a 37-item used to assess resilience factors in adolescents ages 12 to 18 years of age during and after a disaster to determine the appropriate level of need of interventions for long and short-term growth achievement (Mohammadinia et al., 2019). Early detection of the need for outside services for students will significantly reduce the responsibilities of the classroom teachers to provide the support they are not trained for and can reduce the stress on the classroom teachers.

The severity of PTSD, anxiety, and depression symptoms in adolescents are strongly related to the proximity and duration of exposure to a natural disaster or crisis (Lee et al., 2004). Three hundred and twenty-five students that experienced Hurricane Katrina and, or Hurricane Gustov were studied to compare the PTSD symptoms of students that endured one or both of the two major hurricanes and found exposure only exacerbated the adolescents' natural desire for

existential questioning and catapulted it into existential anxiety and depression (Weems et al., 2016). Intensifying the adolescents' natural desire to question everything in their lives with the assistance of anxiety and depression leads to questioning the value of their lives and is a cause for concern for their mental health.

The Utilization of screeners and tools such as the Katrina Inspired Disaster Screener (KIDS), The Adolescents' Resilience Disaster Tool (ARDT-Q37), and The Posttraumatic Growth Inventory-Revised for Children and Adolescents (PTGI-CA) in future natural disasters will prevent the long-term adverse trauma effects like those inflicted on the adolescent population by Hurricane Katrina through early identification and opportunity for trauma-specific interventions and support the educators that are working with these students. An example of prolonged effects was reported in a study where there remained a substantial need for mental health care services for adolescents still experiencing severe emotional disturbances (SED) eighteen to twenty-seven months post-Hurricane Katrina (McLaughlin et al., 2009). A 2012 study found that eight years after the 2004 tsunami, adolescents, especially those that were under the age of 14 at the time of the tsunami, were presenting adverse psychological effects from the disaster; however, the severity of their symptoms was based on their proximity and length of exposure to the crisis (Adeback et al., 2018). In a survey 2.5 and 3.5 years after a major disaster, Chinese adolescents continued to exhibit PTSD symptoms, and if still present, they remained at approximately the same level as the initial PTSD symptoms of year one (Cao et al., 2019).

#### Fostering resiliency through pre and post-disaster interventions

Resiliency is described as the ability to bounce back, or even forward, after a crisis; others describe it as achieving positive results through a difficult situation; however, Bonanno (2007) defined resilience as the ability of adults after being exposed to a potential highly

disruptive event to have the ability to maintain relatively stable levels of functioning, as well as generating positive emotions (Bonanno et al., 2007). The trait of resilience has been found to act as a layer of protection against a trauma survivor developing long-term adverse psychological symptoms (Richards et al., 2016). A 2015 study of 145 adolescents in the Midwest that experienced trauma was surveyed to determine self-esteem levels and predictors of posttraumatic growth, and it was found that when personal importance was attached to PTG, there were overall greater resilience levels; however, males were likely to rate their resilience levels higher than females (Taku & McDiarmid, 2015).

Finding ways to promote resiliency and, in turn, provide adolescents with this layer of protection, or prevention, lessens the likelihood of developing long-term PTSD, anxiety, and depression symptoms when exposed to a traumatic event like a natural disaster. Due to natural disasters' unpredictable and uncontrollable nature, it is imperative to arm adolescents with as many coping strategies and tools as to endure them. After a rain-related natural disaster in China, 951 adolescent survivors were surveyed to determine resilience and PTSD relationships; the study found that resilience buffered rain-related trauma effects and PTSD and that flooding trauma has a positive impact on increased PTSD symptoms in adolescents with lower levels of resilience (Quan et al., 2017).

Resilience and predicting factors of what allows some adolescents to be more resilient than others are just beginning to be studied; however, in the initial studies, gender emerged as the potent predicting factor, and females have a reduced level of resilience than males (Bonanno et al., 2007). A study two years after the L'Aquila Earthquake in Italy surveyed 316 adolescents, and they found females were more at risk for clinical posttraumatic depression or anxiety; however, 18 percent of all students that demonstrated moderate depressive symptoms also

showed posttraumatic growth and the drive to overcome their mental health effects from the disaster regardless of gender (Bianchini et al., 2016). Resilience was also detected in survivors eighteen months after the Wenchuan earthquake in a survey of 1435 adolescent survivors; they found that adolescents with a higher resiliency rate post-disaster had lower levels of depression and were more likely to function at their normal state in future disasters (Zhou et al., 2016).

While there is no direct evidence to determine the exact positive impact of psychoeducation of crisis preparedness on developing or building resilience, however, a review of 25 studies to identify variables associated with Posttraumatic Growth (PTG) found that standard links included environmental factors, distress responses, social and psychological process, positive outcomes from the trauma, and demographic variables such as gender and socio-economic status (Meyerson et al., 2011). It has been proven that before the crisis, communication must be credible, current, and helpful to be effective, and this level of pre-crisis communication aids adolescents, their families, and their communities in developing coping strategies and a sense of preparedness to cope with the natural disaster's arrival (Midbust et al., 2018). Research has found that it is also essential to incorporate culturally and socio-economically relevant information as information is disseminated prior to a storm, as each family and neighborhood have unique and specifically different needs (Richards et al., 2016). Youth residential treatment centers are another effective tool in treating prolonged and severe post-disaster symptoms like PTSD, anxiety, and depression. Real-Life Heroes is an example of a youth residential treatment center. Real-Life Heroes provides intervention strategies that include the adolescent, their parents, other caregivers, residential staff, and counselors to rebuild, or establish, nurturing and supportive relationships between the adolescents and their parents or caregivers (Kagan & Spinazzola, 2013). The clinical data shows that continued use of the Real-



Life Heroes program after departure increased the quality of relationships with their caregivers and provided coping skills to be applied to future traumas and crises (Kagan, & Spinazzola, 2013). The after-effects of major natural disasters unfold over months and years, like with Hurricanes Katrina, Harvey, and Michael; Super Storms like Sandy; tornadoes and earthquakes in the Midwest; and wildfires in the west. These disasters seem to ravage communities from coast to coast yearly, and the need for long-term mental health care resources past the first few days, weeks, or months is crucial. A study conducted by the pediatric nursing association found a gap in the services provided and encouraged healthcare providers. The local and federal government prolong their services past the initial aid offered (Ivey, 2016). Long-term care from providers outside the community is beneficial as the local community members may need mental health services months and years post-disaster due to compassion fatigue and a lack of local resources. Dissemination of information throughout the entire community, including the schools, churches, sports clubs, and other areas where adolescents are present, is critical, as some adolescents may have estranged relationships with their families. Dr. Jean Ivey encouraged through her findings support for the need for a social support system in adolescent trauma recovery and that there is a need to implement interventions throughout the community where parents and other healthcare professionals, teachers, and community members can provide the support needed when the family unit is no longer able to offer, adolescents it (Ivey, 2017).

Entire communities being well informed about pre-disaster preparedness and disaster mental health is imperative because disasters affect whole families and communities and the adolescents within both (Cobham et al., 2016). Within families, schools, and communities, adolescents have built social and emotional support systems that they rely on daily to manage the transition to adulthood. A survey of 443 Chinese students after a major tornado in 2016 found

that parental attachment levels are positively related to posttraumatic growth (PTG), and a sensed social support system can mediate and, in ways, mimic the effects of parental attachment in cases where there are no or negative parental attachments (Yaun et al., 2018). Social support systems are imperative for adolescents learning how to cope appropriately during times of crisis.

After a monstrous typhoon in Rusa, students were surveyed; those with more robust social support systems had a more remarkable ability to cope with anxiety and stress and minimize their post-disaster traumatic experience (Lee et al., 2004). Understandably, on the other side, adolescents with reduced or unstable social support systems, possibly due to the natural disaster's effects on the caregiver's and parent's mental health, showed an increase in PTSD, anxiety, and depression symptoms post-disaster (Paul et al., 2015). Children and adolescents, ages 9 to 18, were assessed two and three years after Hurricane Katrina for PTSD, anxiety, and depression symptoms, and overall the findings indicated the critical role of the social support system and the importance of building and maintaining positive and supportive relationships after a natural disaster and recovery (Kronenberg et al., 2010). The physical separation of adolescents from their social support network during natural disasters may prolong adolescents' PTSD, anxiety, and depression symptoms. Interviews with low-income mothers five years after Hurricane Katrina found that due to loss of housing and limited resources, many families were forced to separate and move outside of New Orleans, causing physical separation in familial and social support networks, in turn, is positively related to prolonged and protracted Posttraumatic Stress Symptoms (PTSS), anxiety and depression in the families that were physically separated from their social support networks (Morris, & Deterding, 2016).

The trait of resilience is centered around the idea of hope, hope for recovery, hope for renewal, and hope for a return to standard social and emotional functioning levels after

experiencing a traumatic event or natural disaster. When approaching adolescents and families on the concept of resilience, it is imperative to use positive frameworks to promote it as attainable for all. Describing to families that they can become 'more resilient, rather than attaching a negative stigma that the adolescent and family are 'not resilient' because of symptoms or lack of resources, causes adolescents and families to feel judged and deem themselves as broken (Walsh, 2016). Walsh also indicates that families with more resources are seen as being more resilient; however, a multilevel approach of including resources and strategies at the community and school levels provides a more level playing field for all community members to achieve resilience and recover from their traumatic experiences (Walsh, 2016). While children and adolescents are in key vulnerable positions for adverse psychological impacts post disasters, teachers and school staff are in a vital position daily to provide significant support to students at school; however, more funding will be necessary to adequately train and support teachers and school personnel before implementation (LeBrocq et al., 2017).

#### Non-traditional first responders aiding adolescents through recovery

More often than not, teachers, school counselors, administrators, and other school personnel live in the same communities as the students they serve; therefore, when a natural disaster devastates their communities, they are also experiencing the same trauma they are expected to assist students in working through healing. When they are called on appropriately, this can lead to more compassionate care that they can administer to their students.

A survey of 495 teachers and school personnel following Hurricane Katrina at schools throughout southwest Louisiana found that almost all had damage to their homes, one-quarter of which had uninhabitable dwellings, and not surprisingly, they also found 25% had significant symptoms of PTSD and depression (Costa et al., 2015). These teachers are the same ones

expected to assist in treating and fostering recovery in their students. Without proper preparedness and training, these teachers and school personnel could exasperate their PTSD and depression symptoms.

Also, without suitable training before natural disasters, in disaster-prone areas and providing adequate resources and care after disasters to teachers before expecting them to provide trauma-informed care to students can lead to protracting their symptoms and potential burnout from their profession in general. A study of the teachers in New Zealand after the significant Christchurch earthquakes indicated that the reduced resources, ineffective responsiveness from the school board, and perceptions of being overloaded in their duties led to emotional exhaustion and increased levels of burnout (Kuntz et al., 2013). Teacher burnout post-disaster is an understudied topic, as indicated in a study tracking eighteen months of teachers' moods and exhaustion rates after a large earthquake. These teachers showed a general improvement in negative affect; however, the study indicated a need for further research on their emotional exhaustion and burnout rates after providing students with natural disaster mental health care (O'toole, 2018).

Lessons learned from disasters, Gaps in literature, and recommendations for further study.

Information and preparedness before a natural disaster have been proven to help foster coping strategies for surviving disasters; however, schools' prevention, preparedness, and information programs still need to be improved (Midbust et al., 2018). This lack of preparedness raises a question in natural disasters, especially hurricane-prone communities, why schools are not treating hurricane preparedness at the same level as fire, tornado, and active shooter safety. Weem's study further supports the need for psychoeducation on natural disaster mental health preparedness for students, parents, and caregivers in disaster-prone areas due to the lack of

programs available (Weems et al., 2016). Texas Cares for Children conducted surveys and research after Hurricane Harvey devastated Houston's community and found a severe lack of school-based preparedness programs and interventions for natural disaster trauma (Saxton et al., 2017). Through tracking and assessing adolescents two and three years after Hurricane Katrina upon the discovery of the positive effects of a social support network, the research found that many students in the low-income areas did not have these at home, therefore creating a need to developing programs to develop these social support systems outside the family unit in the schools and communities (Kronenberg et al., 2010).

### **Summary**

In the world of increasing numbers of crises, trauma, violence, and natural disasters, and in the United States, where over a million students are exposed to a natural disaster every year, there is no way to continue to ignore the mental health care needs of adolescents that have experienced trauma and the effect it has on educators. Providing adolescents with adequate preparedness and impactful trauma-informed interventions through school-based interventions is the most efficient way to reach the majority of the affected students. Mindfulness practices, small group counseling, and cognitive behavioral therapy are just a few of the school-based interventions teachers, and school personnel have to choose from in their schools. However, without adequate training before a natural disaster and readily available mental health resources for the teachers and school staff after the disaster and before treating the students, teachers may experience exacerbated and protracted PTSD and depression symptoms (Kuntz, 2015). Teachers are the most appropriate non-traditional first responders for their students; however, administrators and school board members must have employee-centered interventions in place. If

teachers are not mentally and physically well, they cannot effectively provide the school-based mental health interventions that most students need in their recovery process.

For there to be this much trauma and this many natural disasters affecting adolescents, their teachers, and schools, there is not enough research on either subject to best determine the most effective way to prevent permanent or long-lasting adverse effects of natural disaster exposure. This deficit in the research on the mental health care needs of educators in today's increasing trauma and crisis could lead to a more global mental health crisis of adolescents as the number of teachers leaving the field of education skyrockets. It is from this deficit in the research that the premise of this study was established.

## **Chapter Three: Methods**

### **Overview**

This comparative study measured and compared the resiliency, burnout, and perceived stress scores of two groups of educators that all experienced the global pandemic and a Category 5 Hurricane one year before the beginning of the pandemic. Both groups of educators were actively working as an educator (teachers, school counselors, administrators, paraprofessionals, speech therapists, or school psychologists) in the Gulf Coast of Florida at the time of Hurricane Michael on October 10, 2018. Group A will be the group of teachers that have chosen to resign from education. In contrast, Group B will be the educators that have stayed in the field of education and are either stayed and are struggling or stayed and are coping/managing. This study will identify contributing factors of resilience and coping that the educators that have stayed and are managing can hopefully be replicated to support the teachers that have stayed and are struggling or recruit those that left education altogether. Analysis of the data could uncover possible moderators of the education level and religiosity of the households on their resiliency, depression, and anxiety levels. The study aims to answer the research questions through the collection of surveys and inventories, allowing ideas to surface for possible future research and recommendations for school districts, administrators, and teachers on aiding and promoting resiliency in hurricane, and storm-prone, communities on the gulf coast.

### **Design**

This study was a quantitative research design through an anonymous survey. The study was announced through social media posts, word of mouth, emailed links to survey monkey, flyers with QR codes, and on specific private social media teacher group pages with the potential to reach over 1,000 educators. With the relationship of two or more variables being examined in

this study, correlational was the best method of research to answer relational research questions (Heppner et al., 2016). However, through open invitation, this study does not limit any educators actively working in the field of education before October of 2018 from participating.

### **Research Question(s)**

Suggestions from previous research studies and a current rising educator vacancy rates in the Gulf Coast of Florida after the 2018 category five hurricane led to the research questions for this study.

**RQ1:** Do teachers/educators develop compassion fatigue after a natural disaster, and does it affect teacher retention rates?

**RQ2:** Do natural disasters result in teacher/educator burnout and affect teacher retention rates?

**RQ3:** Does administrative support, or everyday implementation of self-care routines, including spirituality or religiosity, increase teacher retention and lessen teacher burnout rates?

**RQ4:** Do natural disasters affect teacher/educator retention and burnout rates?

### **Hypothesis(es)**

The alternate hypotheses for this study are:

**H1:** Teachers/Educators who experience personal and vicarious trauma from their students after a natural disaster have a significantly higher PSS, resulting in educators who leave the profession.



**H2:** Teachers/Educators who score higher on the Teacher Burnout Survey leave the profession.

**H3:** Teachers/Educators who score higher on Connor-Davidson Resilience Scale will be retained.

**H4:** Demographic variables, such as Teachers/Educators that have a balanced approach to self-care, including spirituality or religiosity, have a lower burnout score and increased retention rate.

**H5:** Teachers/Educators displaced by hurricanes, either temporarily or permanently, will have significantly higher stress and burnout rates and lower resilience.

### **Participants and Setting**

The study participants were all actively working as educators before October of 2018 and were all invited to participate in this anonymous online survey. These surveys were available by scanning QR codes and emailed links to complete the anonymous survey online. There were two groups of educators, those who, since the category five hurricane, in October 2018, have left the field of education by choice, resignation, or early retirement, and one group who is still active in education. Within the group of educators that have chosen to stay in the field of education, there were two sub-groups; those educators that have stayed and are struggling or those that stayed and are managing. However, with more participants, than the 77 respondents that participated in this study, it could aid in identifying questions on the survey to accurately discriminate those that have stayed into the two smaller subgroups; additional research is needed to further investigate this subgrouping.

These populations were compared to test the hypothesis that surviving the category five hurricane and witnessing the cooperation and support from the community, neighbors, and schools provided them with more skills and coping strategies to make it through the pandemic with less perceived stress, less burnout and higher resilience scores. The secondary hypothesis was also tested and supports moderate levels of resiliency rates and perceived stress and burnout levels. These educators were recruited through local schools, social media, local teacher retirement and support groups, and the local community college. It was administered through links in email and on social media, through an anonymous online survey on surveymonkey.com.

### **Instrumentation**

The Connor-Davidson Resilience Scale (CD-RISC) is a 10 or 25 item 5-point Likert scale (0 being never – 4 being very often) self-rating survey with scores ranging from 0-100, the higher the score, the higher the individual's resiliency rate, the CD-RISC-10 was used for this survey due to length (Connor & Davidson, 2003). The most widely used psychometric instrument for measuring perceived stress is the Perceived Stress Scale (PSS) created by Sheldon Cohen; it is a ten-item self-reported scale that measures each item on a five-point Likert scale (0 being never - 4 being very often), some items are reverse responses, however overall on the ten-item survey the higher the score, the higher the perceived stress levels of the participants (Cohen & Williamson, 1988). The Teacher Burnout Scale (TBS) is a reliable and valid 20-item Likert scale to measure burnout among teachers, where the higher the score, the higher the burnout rate (Seidman et al., 1987). All the assessments are self-reported and anonymous to promote more accurate and honest responses from participants. In total, the Information screener and three surveys took, on average, approximately 22-25 minutes to complete.

## Procedures

The survey was administered both via a QR code or an email link through [surveymonkey.com](https://www.surveymonkey.com). The survey included a survey monkey anonymous family background survey, the Connor-Davidson Resiliency Scale (CD-RISC), the Perceived Stress Scale (PSS), and the Teacher Burnout Survey (TBS). This study was announced at the local public schools and community colleges, teacher retirement, and teacher support groups, it was mainly supported and shared through social media and Linked-in pages for any educators that met the criteria and wanted to participate anonymously. The method of online delivery of the survey was tested with a small sample of educator acquaintances, approximately ten, to get feedback and test the functionality and to ensure all elements of the survey work correctly before sending it out to over 1,000 educators, and publishing on social media outlets. Some small spelling and question numbering errors were found with the small test group, which were then corrected before releasing the survey to the general public. The errors did not affect the outcome of the ten test surveys, as the errors did not impact the reliability of the survey.

As the researcher prepared for this study, access was gained to all the surveys and uploaded to [survey monkey.com](https://www.surveymonkey.com), created a QR code and flyer for potential participants to scan to take them to the online survey monkey site and data collection. The Connor-Davidson Resilience Survey required written permission from Dr. Davidson and a small fee of Thirty-five dollars; the other instruments were accessible at no charge to the public as long as they were appropriately cited. The participants were not compensated for their time; however, if there is funding, there could be potential for gift card drawings or compensation for future surveys. The participants scanned the QR code or used the survey monkey link to get to the online survey. The participants were volunteers from the population of educators that have lived in the coastal communities of

the Gulf Coast of Florida, such as Bay, Gulf, Calhoun, Washington, and Walton County, FL. These coastal counties have a vast range of socioeconomic, educational, occupational, religious, and spiritual residents. Of the respondents that qualified to participate, they were then sorted into two groups, one group of educators that left the field of education by choice, either retirement or resignation, and those that have stayed in education, and are either struggling or managing. There was no need to train the participants, as all the surveys were self-reporting. All the surveys were submitted online and anonymously to the surveyor's survey monkey account, and then the data was sorted, analyzed, and reported out through the STSS data. After the data was analyzed, it was built into a report and will be printed and reported back to the local school board and teachers' unions to better assist the counties in recognizing the effects the natural disaster trauma and global pandemic had on the local educators. Hopefully, identifying these factors of why educators are leaving, or thinking of, leaving the profession of education and the impact trauma has on teacher retention, these counties can increase the educator retention rates on the Gulf Coast of Florida.

The educators had access to the survey as soon as the study was approved by the International Review Board and had access to participate over a nine-week window. These surveys were not taken in a formal classroom setting; therefore, there is no way to ensure that educators were not working together to answer the questions. The data was also collected and stored on an external drive and password locked, where only the researcher had access to the completed data collected.

### **Data Analysis**

The Connor-Davidson Resilience Scale (CD-RISC-10) is a 10 item 5-point Likert scale (0 being never – 4 being very often) self-rating survey with scores ranging from 0-40; the higher

the score, the higher the individual's resiliency rate (Connor & Davidson, 2003). The Teacher Burnout Scale (TBS) is a reliable and valid 21-item Likert scale to measure burnout among teachers, where the higher the score, the higher the burnout rate (Seidman et al., 1987). The most widely used psychometric instrument for measuring perceived stress is the Perceived Stress Scale (PSS) created by Sheldon Cohen; it is a ten-item self-reported scale that measures each item on a five-point Likert scale (0 being never - 4 being very often), some items are reverse responses, however overall on the ten-item survey the higher the score, the higher the perceived stress levels of the participants (Cohen & Williamson, 1988). All the assessments are self-reported and anonymous to promote more accurate and honest responses from participants. In total, the Information screener and three surveys took, on average, approximately 22-25 minutes to complete.

In this study, the independent variable was the educator's length of employment as an active educator after exposure to the natural disaster, the category five hurricane, and being exposed to the global pandemic for the same length of time. The dependent variable was this research study, and the educator's scores on the self-reported surveys; Connor and Davidson Resilience Survey (CD-RISC), The Teacher Burnout Scale (TBS), and the Perceived Stressors Survey (PSS).

There did not appear to be any external threats to validity. This study was transparent on how participants became part of the research; the participants volunteered anonymously and were random. The surveyor did not have a part in selecting participants, and this study could easily be replicated in other hurricane or natural disaster-prone areas along coastal areas of the United States of America with other educators.

Internal validity may have had some unforeseeable threats with the participant's historical experiences; all other threat factors do not pose threats. Historically, while all educators in the area had experienced the global pandemic and a catastrophic hurricane, one group of educators was not still experiencing these crises as active educators. In choosing educators, selecting an appropriate survey time that was not in the same window as high-stakes state tests like mid-terms, finals, or graduation required end-of-course exams or end-of-year responsibilities was essential. However, with depending on IRB approval for release time it may not be completely in the researchers control, however consideration of timing for educators would increase participation and possibly more accurate feedback. Years of experience as an educator may have posed a minor threat to the educator's accuracy in their self-reported surveys.

Mortality, instrumentation, testing effects, regression to the mean, group selection, and selection interaction posed little to no threat to the internal validity of the study because the surveys were completed at one time, all surveys were the same, there was no pre-test and post-test to allow for potential test practicing or regressing to the mean, which also did not allow for selection or selection interaction to pose a potential internal threat to this study or its findings (Hepner et al., 2016).

### **Summary**

This comparative study measured and compared the resiliency, perceived stress, and teacher/educator burnout scores of two groups of educators that had all experienced a category five hurricane in October of 2018, and only sixteen months before the beginning of the global pandemic March 2020. The goals of this study were to answer the research questions through the collection of surveys and inventories, allowing for possible future research ideas to the surface as well as possible recommendations for school districts, administrators, and educators on ways to

aid and increase resiliency and lessen educator perceived stress and burnout in hurricane, and natural disaster-prone, communities on the Gulf Coast of the United States of America.

Ultimately, by identifying ways to increase teacher retention and promote resiliency then mentally, emotionally, and physically healthy teachers/educators remain in the field of education and therefore increase the overall wellness, education, and success of the students in their classrooms. The overall goal of increasing student wellness and success in school begins with classrooms and schools adequately staffed with highly qualified and healthy educators in place.

## Chapter Four: Findings

### Overview

This study aimed to identify the factors that were either supporting and retaining educators in the field of education or the factors that were leading to burnout and resignation since experiencing natural disaster trauma and a global pandemic. Survey data from 77 educators was used for this study.

Tables 1 to 4 display the frequency counts for the study variables. Table 5 displays the psychometric characteristics for the three summated scale scores. Figure 1 displays the boxplots to identify outliers. Table 6 displays the normality tests based on the group. To address Hypotheses 1, 2, and 3, Table 7 displays the relevant *t*-tests and Mann-Whitney tests. To address Hypothesis 4, Table 8 displays the relevant Spearman correlations. To address Hypothesis 5, Table 9 displays the *t*-tests and Mann-Whitney tests comparing selected variables based on whether Hurricane Michael permanently or temporarily displaced the educator.

### Descriptive Statistics

Table 1 displays the frequency counts for the demographic variables. The ages of the educators ranged from 23 to 42 years (29.9%) to 68 and older (5.2%), with the median age being 45 years old. There were more female educators (83.1%) than male educators (16.6%). Most (96.1%) were Caucasian. The most common educational levels in 2018 were a master's degree (49.4%) or a bachelor's degree (40.3%). The most common education level for others living in the home with the educator was a bachelor's degree (33.8%). Most educators' salaries ranged from \$45,000-\$50,000 (32.5%) to \$105,000 and higher (7.8%), with a median income of = \$50,000. Seventy percent had some type of pet (see Table 1).



**Table 1***Frequency Counts for General Demographic Variables*

Variable	Category	<i>n</i>	%
Age range <sup>a</sup>	23-42	23	29.9
	43-47	17	22.1
	48-52	13	16.9
	53-67	20	26.0
	68 and older	4	5.2
Gender	Male	13	16.9
	Female	64	83.1
Race/Ethnicity	White or Caucasian	74	96.1
	Other racial/ethnicity backgrounds	3	3.9
Highest Education in 2018	Less education	2	2.6
	Bachelor's	31	40.3
	Master's	38	49.4
	Specialists or doctorate	6	7.8
Highest Education of Others in 2018	High school	11	14.3
	Technical/Trade School/Military	8	10.4
	Bachelor's	26	33.8
	Higher level of education	11	14.3
	No other one in the home	21	27.3
Salary Range <sup>b</sup>	\$5,000-\$45,000	20	26.0
	\$45,001-\$55,000	25	32.5
	\$55,001-\$65,000	12	15.6
	\$65,001-\$105,000	14	18.2
	\$105,001 and higher	6	7.8
Pets in Home in October 2018	Yes, cat	8	10.4
	Yes, dog	45	58.4
	Yes, other	1	1.3
	No pet	23	29.9

*Note.* *N* = 77.

<sup>a</sup> Age range: *Mdn* = 45 years.

<sup>b</sup> Salary: *Mdn* = \$50,000.

Table 2 displays the frequency counts for the educator variables. Most (71.4% ) were classroom teachers, 62.2% were general education teachers, and 9.1% were special education teachers in October 2018. Currently, 41.6% are teachers, and 18.2% are in different roles. In this study, 20 respondents (26.0%) were no longer educators. Years as an educator ranged from less than 10 (16.9%) to 26 or more years (22.1%), with the median number of years being 17.50 years (see Table 2). Table two displays the frequency counts for the educator variables. Most (62.2%) were teachers in October 2018. Currently, 46.8% are classroom teachers, 41.6% are general education teachers, 5.2% are special education teachers, and 18.2% are in different roles. In this study, 20 respondents (26.0%) were no longer educators. Years as an educator ranged from less than 10 (16.9%) to 26 or more years (22.1%), with the median number of years for all respondents combined being 17.50 years (see Table 2).

Table 3 displays the frequency counts for living situation variables. Most (88.3%) worked in Bay County, and 87.0% lived in Bay County. Over half the educators (51.9%) still lived in the same house since 2018 and did not have to leave it at all. The most common living situation was living with a spouse or partner (66.2%) and/or had children ages 11 to 19 years (31.2%) (see Table 3).

Table 4 displays the frequency counts for the religiosity or spirituality variables in the sample. Seventy percent of the sample considered the household to be either highly religious/spiritual or moderately religious/spiritual as a whole. As for their religiosity or spirituality, 76.7% described themselves individually as highly religious/spiritual or moderately religious/spiritual (see Table 4).

**Table 2***Frequency Counts for the Educator Variables*

Variable	Category	<i>n</i>	%
Educator Role in October 2018	Teacher	48	62.3
	School counselor	5	6.5
	Special needs teacher (ESE)	7	9.1
	Administrator	5	6.5
	Other roles	12	15.6
Still Active Educator	Teacher	32	41.6
	School counselor	3	3.9
	Special needs teacher (ESE)	4	5.2
	Administrator	4	5.2
	Other roles	14	18.2
	No, I resigned and changed careers	9	11.7
	No, I retired from teaching as I had always planned	3	3.9
No, I retired earlier than planned	8	10.4	
Retention	No	20	26.0
	Yes	57	74.0
Years as an Educator <sup>a</sup>	Less than 10 years	13	16.9
	10-12 years	11	14.3
	13-15 years	11	14.3
	16-19 years	9	11.7
	20-22 years	10	13.0
	23-25 years	6	7.8
	26 or more years	17	22.1

*Note.*  $N = 77$ .

<sup>a</sup> Years as an Educator: *Mdn* = 17.50 years.

**Table 3***Frequency Counts About Living Situation Variables*

Variable	Category	<i>n</i>	%
County Worked in October 2018	Bay County	68	88.3
	Calhoun County	2	2.6
	Gulf County	7	9.1
County Lived in October 2018	Bay County	67	87.0
	Calhoun County	2	2.6
	Gulf County	7	9.1
	Washington County	1	1.3
Lived since October 2018	Still living in the same home since 2018	40	51.9
	Left temporarily due to Hurricane Michael	20	26.0
	Left home in 2018 permanently	16	20.8
	Left home in 2018 permanently COVID	1	1.3
Those Living in the Home (multiple responses)	Single	15	19.5
	Roommate	1	1.3
	Spouse or partner	51	66.2
	Children under 5	10	13.0
	Children 5-10	18	23.4
	Children 11-19	24	31.2
	Elderly parents or grandparents	2	2.6

*Note.*  $N = 77$ .

**Table 4***Frequency Counts for the Spirituality Variables*

Variable	Category	<i>n</i>	%
Whole Household Spirituality	No religious or spiritual beliefs	4	5.2
	Not really religious, but there is a belief	6	7.8
	Somewhat religious/spiritual	13	16.9
	Moderately religious/spiritual	26	33.8
	Highly religious/spiritual	28	36.4
Personal Spirituality	I do not participate	3	3.9
	Not really religious	5	6.5
	Somewhat religious/spiritual	10	13.0
	Moderately religious/spiritual	26	33.8
	Highly religious/spiritual	33	42.9

*Note.*  $N = 77$ .

Table 5 displays psychometric characteristics for the three summated scale scores. All three scale scores had acceptable levels of internal reliability (Warner, 2021). Specifically, the Cronbach alpha reliability coefficients were as follows: perceived stress scale ( $\alpha = .90$ ), teacher burnout scale ( $\alpha = .94$ ), and the Connor-Davidson resilience scale ( $\alpha = .89$ ) (see Table 5).

**Table 5***Psychometric Characteristics for the Summated Scale Scores*

Scale Score	Items	<i>M</i>	<i>SD</i>	Low	High	$\alpha$
Perceived Stress	10	1.91	0.80	0.00	3.50	.90
Teacher Burnout	20	45.23	14.88	19.95	76.65	.94
Resilience	10	28.81	5.89	11.00	40.00	.89

*Note.*  $N = 77$ .

Table 9 displays the *t*-tests and Mann-Whitney tests comparing selected variables of the psychometric characteristics of the educators that responded to the survey as being displaced permanently or temporarily due to Hurricane Michael. Of the teachers that resigned or retired, leaving education, 9 of the 20 educators, 45%, were permanently or temporarily displaced or disrupted by Hurricane Michael.

### **Results**

Through the surveys and data collected on the 77 respondents the null hypotheses were tested answering the questions of what factors contribute to the retention of educators in a natural disaster-prone area.

#### **Assumption Testing**

According to Laerd (2022), five assumptions need to be met for *t*-tests for independent means:

1. Continuous dependent variable
2. The Independent variable is categorical with two groups (retained vs. not retained)
3. Independence of observations (77 individuals that responded)
4. No significant outliers in either group for the dependent variable

5. The dependent variable should be approximately normally distributed for each independent variable group.

Assumptions 1 (continuous dependent variable), 2 (independent variable is categorical with two groups), and 3 (independence of observations) were met based on the design of the study. Assumption 4 (no significant outliers) was examined in Figure 1. Inspection of the figure found five significant outliers among the data, so this assumption was only partially met (See Figure 1). Assumption 6 (normal distributions) was examined in Table 6. Inspection of the table found three of six tests to be significant, both with the Kolmogorov-Smirnoff and the Shapiro-Wilk tests. With that, this assumption was also partially supported. Taken together, the assumptions for the *t*-tests were partially supported. Because of that, nonparametric Mann-Whitney tests were included as a supplemental statistical approach.

**Table 6**

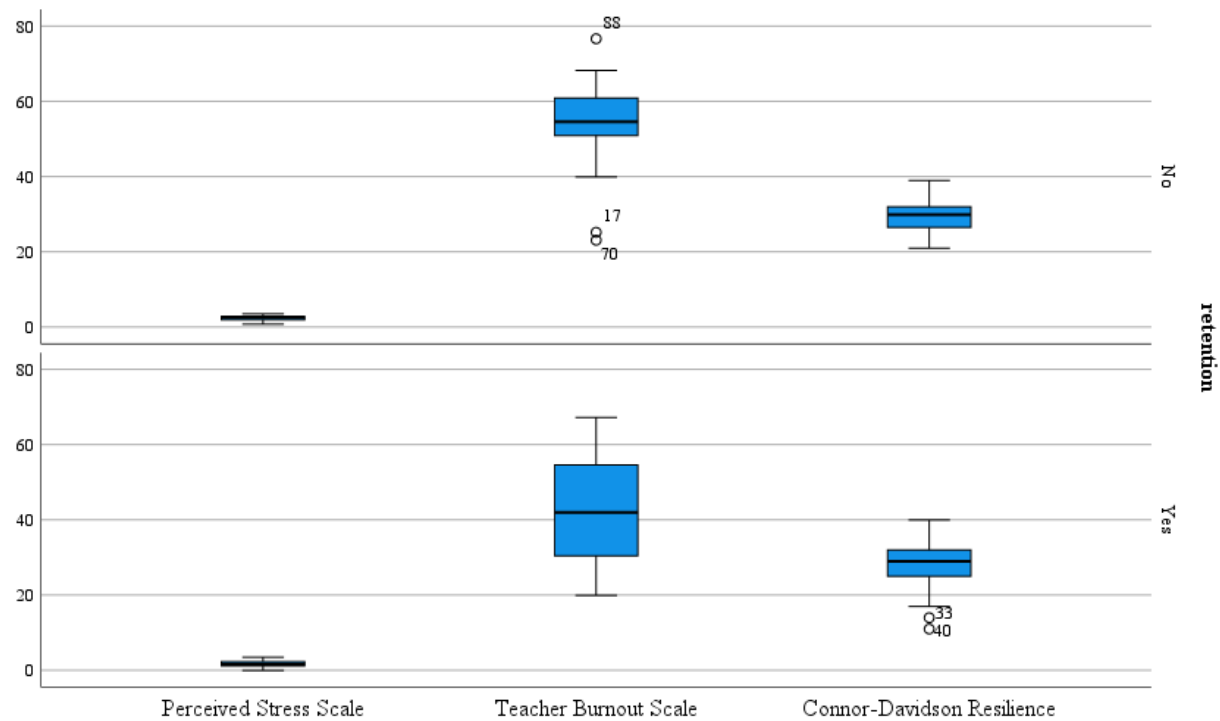
*Normality Tests Based on Group*

Scale Score	Retention	Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	<i>df</i>	<i>p</i>	Statistic	<i>df</i>	<i>p</i>
Perceived Stress	No	0.249	20	.002	0.877	20	.015
	Yes	0.126	57	.025	0.978	57	.381
Teacher Burnout	No	0.241	20	.003	0.900	20	.042
	Yes	0.091	57	.200	0.952	57	.024
Resilience	No	0.103	20	.200	0.984	20	.978
	Yes	0.080	57	.200	0.979	57	.431

*Note.* *N* = 77.

**Figure 1**

*Boxplots for the Scale Scores Based on Group (Assessing for Outliers)*



*Note. N = 77.*



## Hypothesis(es)

Through the collection of surveys and data the results were then tested against the null hypothesis(es) to determine if the research questions were able to be answered.

### Hypothesis 1

**RQ1:** Do teachers/educators develop compassion fatigue/perceived stress, and does it affect teacher retention rates?

**HA1:** Teachers/Educators who experience personal and vicarious trauma from their students develop compassion fatigue and have a significantly higher PSS, resulting in educators who leave the profession.

**H01:** There are no significant differences in the perceived stress scores based on the educator group (retained versus not retained).

Table 7 displays both the appropriate *t*-test and the Mann-Whitney test. Those not retained educators had higher perceived stress scores based on the *t*-test ( $p = .003$ ) and the Mann-Whitney test ( $p = .004$ ). As additional analyses, Table 7 also compares the age and years of an educator based on retention using both the *t*-tests and Mann-Whitney tests. Those who were not retained were older based on the *t*-test ( $p = .003$ ) and the Mann-Whitney test ( $p = .004$ ). Further, those that were not retained had more years as an educator based on both *t*-test ( $p = .017$ ) and the Mann-Whitney test ( $p = .035$ ). This combination of findings supported rejecting Null Hypothesis 1 (see Table 7).

**Table 7***t Tests and Mann-Whitney (M-W) Tests for Selected Scale Scores Based on Retention*

Variable	Retention	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i> Test		M-W Test																																																
					<i>t</i>	<i>p</i>	<i>z</i>	<i>p</i>																																															
Perceived Stress	No	20	2.36	0.75	3.06	.003	2.85	.004																																															
	Yes	57	1.76	0.76					Teacher Burnout	No	20	53.84	13.19	3.19	.002	2.99	.003	Yes	57	42.20	14.34	Resilience	No	20	29.72	4.41	0.80	.425	0.75	.453	Yes	57	28.49	6.34	Age	No	20	55.00	12.57	3.26	.002	2.36	.018	Yes	57	46.58	8.87	Years as an Educator	No	20	22.93	10.52	2.45	.017	2.11
Teacher Burnout	No	20	53.84	13.19	3.19	.002	2.99	.003																																															
	Yes	57	42.20	14.34					Resilience	No	20	29.72	4.41	0.80	.425	0.75	.453	Yes	57	28.49	6.34	Age	No	20	55.00	12.57	3.26	.002	2.36	.018	Yes	57	46.58	8.87	Years as an Educator	No	20	22.93	10.52	2.45	.017	2.11	.035	Yes	57	16.96	8.94								
Resilience	No	20	29.72	4.41	0.80	.425	0.75	.453																																															
	Yes	57	28.49	6.34					Age	No	20	55.00	12.57	3.26	.002	2.36	.018	Yes	57	46.58	8.87	Years as an Educator	No	20	22.93	10.52	2.45	.017	2.11	.035	Yes	57	16.96	8.94																					
Age	No	20	55.00	12.57	3.26	.002	2.36	.018																																															
	Yes	57	46.58	8.87					Years as an Educator	No	20	22.93	10.52	2.45	.017	2.11	.035	Yes	57	16.96	8.94																																		
Years as an Educator	No	20	22.93	10.52	2.45	.017	2.11	.035																																															
	Yes	57	16.96	8.94																																																			

*Note. N = 77.***Hypothesis 2**

**RQ2:** Do natural disasters result in teacher/educator higher burnout/fatigue and affect teacher retention rates?

**HA2:** Teachers/educators scoring higher on the TBS leave the profession.

**H02:** There are no significant differences in the teacher burnout scores based on educator group (retained versus not retained).

To test this, Table 7 displays both the relevant *t*-test and the Mann-Whitney test. Those not retained educators had higher teacher burnout scores based on the *t*-test ( $p = .002$ ) and the Mann-Whitney test ( $p = .003$ ). This combination of findings supported rejecting Null Hypothesis 2 (see Table 7).

### **Hypothesis 3**

**RQ3:** Does administrative support, or simple implementation of self-care routines, including spirituality or religiosity, increase teacher/Educator retention and resilience?

**HA3:** Teachers/Educators with a balanced approach to self-care, including spirituality, have an increased resilience and retention rate.

**H03:** There are no significant differences in the resilience scores based on the educator group (retained versus not retained).

To test this, Table 7 displays both the relevant *t*-test and the Mann-Whitney test. No differences in the resilience scores were found based on the *t*-test ( $p = .425$ ) and the Mann-Whitney test ( $p = .453$ ). This combination of findings supported retaining Null Hypothesis 3 (see Table 7).

Additional Finds and Hypothesis for RQ3:

**HA3b:** There are demographic variables that impact teacher retention.

**H03b:** None of the demographic variables will be related to the educator group (retained versus not retained).

To test this, Table 8 displays the 16 Spearman correlations comparing the demographic variables with the educator group. Two of the 16 correlations were significant. Specifically, those that remained in education had fewer years of experience ( $r_s = -.24, p < .05$ ) and were

younger ( $r_s = -.27, p < .05$ ). This combination of findings provided support to reject Null Hypothesis 4 (see Table 8).

**Table 8**

*Spearman Correlations Between Selected Variables and Teacher Retention*

Variable	Retention <sup>a</sup>
Teacher in 2018, <sup>a</sup>	.15
Single, Live Alone <sup>a</sup>	-.16
Roommate <sup>a</sup>	.07
Spouse or Partner, <sup>a</sup>	.02
Children under five <sup>a</sup>	.14
Children 5 to 10 <sup>a</sup>	.19
Children 11 to 19 <sup>a</sup>	.14
Have Pets <sup>a</sup>	-.19
Highest Education	-.17
Education of Other in Home ( $n = 56$ )	-.11
Salary range	-.14
Whole Unit Spirituality	.19
Personal Spirituality	.16
Years as an Education	-.24 *
Age range	-.27 *
Gender <sup>b</sup>	-.19

*Note.*  $N = 77$ .

\*  $p < .05$ .

<sup>a</sup> Coding: 0 = No 1 = Yes.

<sup>b</sup> Gender: 1 = Male 2 = Female.

## Hypothesis 4

**RQ4:** Do natural disasters affect teacher/educator burnout, stress rates, and retention?

**HA4:** Natural disasters increase stress and burnout rates in educators, as demonstrated in higher scores on the perceived stress and teacher burnout scores (psychometric summative scores).

**H04:** There are no significant differences in the psychometric summative scores based on the educator groups (displaced versus not displaced).

Table 9 displays both the relevant *t*-test and the Mann-Whitney test. Displaced educators had higher teacher burnout scores based on the *t*-test and the Mann-Whitney test. Displaced educators had higher perceived stress scores based on the *t*-test and the Mann-Whitney test. Those educators that were displaced had lower Connor-Davidson Resilience scores based on both the *t*-test and the Mann-Whitney test. This combination of findings supported rejecting Null Hypothesis 5 (see Table 9).

Nine of the twenty educators that were not retained, 45%, were in the group of displaced teachers. Further inspection of the table found those that were displaced had higher perceived stress scores (*t*-test [ $p = .006$ ] and Mann-Whitney test [ $p = .007$ ]), higher teacher burnout (*t*-test [ $p = .010$ ] and Mann-Whitney test [ $p = .010$ ]) but less resilience (*t*-test [ $p = .026$ ] and Mann-Whitney test [ $p = .036$ ]). However, there were no differences between the groups for age (*t*-test [ $p = .830$ ] and Mann-Whitney test [ $p = .651$ ]) or for years as an educator (*t*-test [ $p = .668$ ] and Mann-Whitney test [ $p = .846$ ]) (see Table 9).

**Table 9***t Tests and Mann-Whitney (M-W) Tests for Selected Scale Scores Based on Displacement*

Variable	Displaced	<i>n</i>	<i>M</i>	<i>SD</i>	<i>t</i> Test		M-W Test	
					<i>t</i>	<i>p</i>	<i>z</i>	<i>p</i>
Perceived Stress	No	40	1.67	0.76	2.83	.006	2.68	.007
	Yes	36	2.16	0.75				
Teacher Burnout	No	40	40.96	14.33	2.65	.010	2.57	.010
	Yes	36	49.70	14.43				
Resilience	No	40	30.21	5.35	2.28	.026	2.10	.036
	Yes	36	27.19	6.20				
Age	No	40	48.50	11.05	0.22	.830	0.45	.651
	Yes	36	49.03	10.27				
Years as an Educator	No	40	19.10	10.00	0.43	.668	0.19	.846
	Yes	36	18.14	9.37				

*Note. N = 77.*

### Summary

In summary, this study used data from 77 educator respondents, because of the barriers and limitations, the goal of a 1,000-educator participant group was not able to be met. Of the educators that participated, they were surveyed to distinguish the factors that were either supporting and retaining educators in the field of education or the factors that were leading to high-stress levels, burnout, and resignation since experiencing natural disaster trauma and a global pandemic. Hypothesis 1 (differences in perceived stress) was supported (see Table 7). Hypothesis 2 (differences in teacher burnout) was supported (see Table 7). Hypothesis 3

(differences in resilience) was not supported (see Table 7), and Hypothesis 3b (demographics related to retention) was supported (see Table 8). Hypothesis 4 (natural disaster-related displacement to stress and burnout) was supported (see Table 9). In the final chapter, these findings will be compared to the literature, conclusions and implications will be drawn, and recommendations will be suggested for future research.

## **Chapter Five: Conclusions**

### **Overview**

This quantitative comparative study measured and likened the variables of resiliency, stress, and burnout scores with the retention rates of two groups of educators; those that have chosen to stay in education and those that have left education, due to resignation or early retirement. All of these educators experienced a category five catastrophic hurricane in October of 2018, only sixteen months prior to the beginning of the global pandemic in 2020. It appears in the findings that the educators that were displaced and disrupted in their daily lives, or largely impacted from Hurricane Michael displayed higher stress and burnout rates, and lower resiliency rates. Teacher burnout post-disaster is an understudied topic, as indicated by the study tracking eighteen months of teachers' moods and exhaustion after the Christchurch earthquakes, however, the study indicated a need for further research on their emotional exhaustion and burnout rates after providing natural disaster mental health care to students (O'toole, 2018). The limited scope of research and relevance on the United States Educational system is the driving force behind this study; a study on educator burnout and the possible effects, if any, that natural disasters may have on the topic.

### **Discussion**

This study aimed to identify critical factors that increase teacher retention and promote resiliency for educators, supporting the retention of mentally, emotionally, and physically healthy teachers and having them remain in the field of education, specifically in the Gulf Coast of Florida in natural disaster-prone areas. There have been minimal studies conducted on adolescents and the mental health effects of exposure to natural-disaster traumatic events, and even fewer studies on the effects of the implementation of the Social-Emotional interventions in



the classroom has on their teachers and school personal and this was the driving force behind this study on teacher retention in natural disaster-prone areas. The 2013 Gallop Poll partnered with Microsoft Learning, Pearson Education, and Phi Delta Kappa found the level of teacher burnout rates to be shocking and alarmingly high; in most schools, only 30% of teachers were engaged and felt valued and supported in their positions also supported the need for further research on educator burnout. More than 50% of teachers felt burnt out, and close to a fifth intended to leave their job after the academic school year 2020-21; where prior to the pandemic regularly; in the U.S. 500,000 teachers move or leave the profession each year, costing \$2.2 billion (Trinidad, 2021). In the schools, teachers are on the frontlines as state-mandated reporters and are the first to recognize and respond to their students' disparities, such as community trauma, abuse, neglect, poverty, and bullying. With more teachers leaving the profession than staying or applying to fill the vacancies, it can be predicted that many students will not have highly trained teachers there every day looking out for their mental, emotional and social well-being.

**RQ1:** Do teachers/educators develop compassion fatigue/perceived stress after a natural disaster and does it affect teacher retention rates?

**RQ2:** Do natural disasters result in teacher/educator higher burnout, and affect teacher retention rates?

The findings of this survey confirmed that of the educators that were not retained, both the perceived stress and teacher burnout rates were significantly higher, and this combination of findings provided support to reject the null hypothesis that there would be no significant difference in the scores based on the educator group. Much like the educators in this study, the survey of 495 teachers and school personnel following Hurricane Katrina at schools throughout southwest Louisiana found that almost all had damage to their homes, one-quarter of which had

uninhabitable dwellings; not surprisingly, they also found that 25% had significant symptoms of PTSD, stress and depression (Costa et al., 2015). While the study of the effects of Hurricane Katrina was relevant and comparable to this current research, it was sadly one of the only ones found to have taken place in the United States and the Gulf of Mexico at the time of this survey. Due to the limited scope of literature on the topic, this research question became very important to the study and what seems to be a possible factor contributing to the rising teacher/educator retention crisis in America.

In this study of the teachers/educators surveyed, the educators that were displaced or disrupted permanently or temporarily due to hurricane Michael, like those in New Orleans after Katrina, most had some to significant damage to their homes. These displaced educators also had higher perceived stress and teacher burnout scores, averaging almost 9 points higher on the burnout scores and half of a point higher on the perceived stress scale. Those that were displaced had higher perceived stress scores (*t*-test [ $p = .006$ ] and Mann-Whitney test [ $p = .007$ ]) and higher teacher burnout (*t*-test [ $p = .010$ ] and Mann-Whitney test [ $p = .010$ ]). These displaced educators also score significantly lower on the Connor-Davidson Resiliency scale, scoring on average 3 points lower (*t*-test [ $p = .026$ ] and Mann-Whitney test [ $p = .036$ ]).

In the displaced group there were 9 of the 20, 45% , of the educators that resigned or retired early were in this group. In this current study, 12% of the educators that left the field reported that the number one reason for wanting to leave the profession of education was due to the lack of support from the school district and/or school administration, not the stress of a natural disaster. These nine educators in the displacement group also left education might have left the profession of education even without the natural disaster, the Category 5 Hurricane Michael's impacts. One educator even further explained in the open response question, "The district causes

more stress, anxiety, and professional hardships than the school. I like my school, but the district is what makes my job difficult". However, with there being a four-year period since hurricane Michael at the time of the study, and a global pandemic occurred, it may be difficult without further questions to determine the individual impact the hurricane or the pandemic had on retention. For future surveys, it is recommended that the questions should be further broken down as to how long after the hurricane or natural disaster the educator that was displaced left the field of education to best determine the amount of impact the storm had on the educator's decision to leave the field of education.

**RQ3:** Does administrative support, or everyday implementation of self-care routines, including spirituality or religiosity, increase teacher/Educator retention and resilience?

Educators with lower teacher burnout and perceived stress scale scores were more likely to stay; however, self-care, spirituality or Religiosity, and resiliency rates had little to no significance on the educators' retention. Educators, both those that have resigned or retired early and those staying in the profession, had similar average resiliency scores of 29.72 for teachers that were not retained and 28.49. While the survey did not show a significant difference in the retained or not retained resilience scores, the Connor-Davison Resilience is rated that the higher the score, the more resilient. Even though there is a slight difference, the teachers that left the profession scored slightly higher in resilience; it was not significant enough to be considered a determining factor for retention. The trait of resilience has been found to act as a layer of protection against a trauma survivor developing long-term adverse psychological symptoms (Richards et al., 2016). For future research, it is recommended to have larger sample sizes to determine if educators that leave the profession are more resilient with a significantly higher resilience score.

Spirituality and Religiosity were also too similar between the two groups to determine the significance they played in retention; both groups reported between 74-79% moderate to highly personally religious or spiritual, and 70% considered their households as a unit to be moderately to highly religious or spiritual. Overall most educators in this region of the Gulf Coast of Florida consider themselves and households religious or spiritual.

Even with spirituality and religious supports in place, both groups of educators have stated in their top three reasons for resigning, retiring early, or thinking about resignation that a lack of support from the school district and school administrators, not being treated as a college educated professional, and lack or livable wage/salary as their top reasons. By comparison, a study of the teachers and educators in New Zealand after the significant Christchurch earthquakes indicated that the reduced resources, ineffective responsiveness from the school board, and perceptions of being overloaded in their duties led to emotional exhaustion and increased levels of burnout (Kuntzet al., 2013). Overall a lack of feeling supported for both the educators in New Zealand and in the Gulf Coast of Florida is a reoccurring in conversations around teacher/educator retention rates.

Richard Ingersoll, a professor at the University of Pennsylvania's education school, has observed that in the U.S. overall, not thinking of teachers as talented professionals is one of the systemic flaws holding back the U.S. education system, and that more rigorous hiring standards need to be accompanied by improved working conditions, greater autonomy, and professional development opportunities that provide career momentum (Gallup, 2013). The findings from this study support the outcomes of the 2013 Gallop Poll; the result of this study, tied for the number one response, at 20% on this study for educators' reason for leaving or retiring early was lack of support from the administration or school district, salary or lack of livable wage, and they did not

feel valued as an educator. Further research on educator burnout could create the part of the survey with specific self-care practices, how often and specifically ask on a Likert scale how well they feel supported.

**RQ4:** Do natural disasters affect teacher/educator burnout and stress rates, and retention?

In light of the timeliness of this study and newness of the topic of Teacher Burnout and Retention, there is little to compare this study with previous research in the United States. A survey of 495 teachers and school personnel following Hurricane Katrina at schools throughout southwest Louisiana found that almost all had damage to their homes, one-quarter of which had uninhabitable dwellings, and not surprisingly, they also found 25% had significant symptoms of PTSD, burnout and depression (Costa et al., 2015). These teachers showed a general improvement in negative affect; however, the study indicated a need for further research on their emotional exhaustion and burnout rates after providing students with natural disaster mental health care (O'toole, 2018). Much like the Hurricane Katrina study, which determined that teachers under duress during natural disasters reported higher levels of stress and burnout, this study of American educators on the Gulf Coast of the United States after significant Category 5 Hurricane Michael supports all premises. Of the teachers that were displaced temporarily or permanently due to the Category Five Hurricane Michael, 90% of them answered that they feel stressed at work, 71% answered that educators did not feel as if they were on top of things at work, and 43% answered that they dread going to work/school.

School-based Social Emotional (SEL) and trauma-informed interventions are effective; however, teachers, school personnel, or non-traditional first responders, must be adequately prepared and trained to avoid compassion fatigue, burnout, and further psychological injury to themselves (Domitrovich et al., 2016). Some educators from the displaced group left anonymous

comments to explain further, like this teacher stated, “I feel sad that I'm considering leaving a job that I have loved so much. It feels like I'm responsible for more than one person can do, and it seems like more and more is being piled onto me every day. It's just gotten to the point where it doesn't feel like it's worth it, no matter how much I love teaching.”. Abundantly similar feedback from the 77 educators that completed the study give specific examples that support the data of higher burnout and perceived stress scores from those educators that were not retained, and possible indicators of why other educators may be considering leaving the field of education.

### **Implications**

This study has significant implications for educational and mental health, specifically educator retention, highlighting the mental, physical, and spiritual needs to keep healthy educators in the field of education. While there is a limited scope of literature and previous studies due to the newness of this topic, it is very relevant and can pose a great agent for changing the current rapid rate of educator resignation in the Gulf Coast region of the United States. More frequently than not, highly qualified educators are burning out and leaving the field of education for good. With future studies building on this current research, there is great potential to aid in signing a spotlight on the importance of caring for the mental health wellness of our educators. It is critical that the new and veteran educators in the field are cared for and nurtured to increase retention rates and provide highly qualified mentors for the next generation of educators. This need for the care of educators is especially significant in light of the 2021 report indicating that more than 50% of teachers felt burnt out, and close to a fifth intended to leave their job after the academic school year 2020-21 (Trinidad, 2021). Even more alarming is

that even prior to the pandemic, regularly in the U.S., 500,000 teachers move or leave the profession each year, costing the United States \$2.2 billion (Trinidad, 2021).

In Florida, in the five years before COVID-19, 40% of the teachers in Florida left teaching within the first five years, which was 15-20% higher than the National Average (FEAWEB, 2017). In August 2021, there were over 9,000 vacancies in Florida, with an average of 42% of teachers leaving the profession (FEAWEB, 2021). While this study proves that Category Five Hurricane Michael significantly impacted teachers' perceived stress and burnout scores, this is only partially why teachers in the Gulf Coast of Florida are leaving the field in mass quantities. Educators are not leaving because they have lost their love and passion for helping students; educators are leaving because they feel like they are drowning and that no one cares or is there to help. An example of teacher feedback of this from this survey,

"As an 11th-year veteran teacher, I make \$5 more a year than a first-year teacher. I was placed in a new subject area I did not want to be in because I had a reading endorsement. I was not given a curriculum. I have people pushing me to constantly collect data and assess children, all the while trying to mold and make a curriculum to align to brand new standards in a new subject with minimal support. This year, I have more responsibilities as a grade group leader and mentor teacher. I have students out of the classroom in an adult school setting where I am still the responsible party for their achievement. I feel like I am drowning."

Salary in the field of education was also listed as one of the top three reasons that the respondents to this research listed as a reason for leaving, or thinking of leaving, the field of education. The average salary of the educators that completed this study was \$50,000 for an average of 17.5 years of experience. According to the NEA, National Education Association, on

their teacher salary benchmark report it listed the average starting teacher salary for 2021 was \$41,770 that when adjusted for inflation represented at least an actual decrease of four percent (NEA,2022). While teachers average \$50,000 for 17 years of experience, the average bachelor's graduate has a starting salary of \$55,260 for no experience, further expanding the salary gap for educators (Baankrate, 2022). This deficit in salary according to current 2022 inflation rates bring the national salary to almost \$2,000 below the 2008-09 teacher salary. Unexpected increases of cost of living after a natural disaster for insurance, out-of-pocket home repairs, increase in homeowner association dues, and taxes along with the low salary can add additional external mental strain and stress on educators.

### **Limitations**

Limitations of this study were found in the barriers to physically reaching both current and retired or resigned educators. For the current educators, the barriers were the school districts' lack of support in allowing the survey to be shared with their faculties. A clear example of this barrier was the claim by one school district that the survey on teacher retention was not educationally relevant, nor did it align with their educational initiatives; meanwhile, they had more jobs on the job board than any of the other 16 school districts in the panhandle of Florida. It appears that there is more happening at the county and district level that may be encouraging them not to want to participate, as several city councils, council members, school administrators, and even the school board were investigated by the FBI in this particular district for misuse of federal funding from the Category Five Hurricane Michael (United States Dept. Of Justice, 2020).

The retired and resigned teachers were just difficult to locate in general, and some older retired educators needed help with the technological aspect of scanning a Q.R. code or using the



Survey Monkey website. Recommendations for future surveys would be to locate the retired teachers' groups, find their meeting places, physically visit with a paper-based option for completing the survey, and use linked-in searches for former teachers that have recently moved to another profession. The school districts that were asked to provide names of recently resigned teachers would not release the names due to confidentiality agreements that were signed when the educators resigned. Time was also a limitation; after having the survey active for over two months, the window closed before being able to reach and find large meeting groups of teachers, and the time of the year that the survey was released was at the end of the summer when teachers were out of school, or in the stressful beginning of the school year chaos.

### **Recommendations for Future Research**

Recommendations for further research would be to identify where the groups of educators will physically be meeting outside of the schools and share the surveys with them to reach a larger population at one time. As retired educators may be older and not familiar with technology or feel they can trust the anonymity of completing an online survey, providing a paper-based option for completing the survey would be recommended to pass out at a group meeting of retired educators with an option to mail it back to the researcher. Further questions on self-care should be added to the survey to identify what self-care steps the educators that are staying are implementing in their daily lives and how often they participate in the self-care activities. The time of year to survey the teachers should be considered. It is not best to begin or introduce the survey in the summer when teachers go on long breaks or at high-stakes state testing times. It is also beneficial to understand the teacher retention rate after a natural disaster to ask how long after the disaster the resignation or early retirement occurred, seeing as there was also a global pandemic in the four years since the Category Five hurricane occurred. This

would be additional information to clearly define reasons for leaving the field of education, and with this additional information increase the educator retention in the Gulf Coast of Florida, and the United States.

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## Appendices

### Appendix A: Family Background Survey- Bay, Gulf or Franklin County Educators Before October 2018

1. Were you an Educator (teacher, counselor, mental health counselor, administrator, paraprofessional, speech-language pathologist, school psychologist, anyone on the instructional or licensed pay scale) in Bay, Gulf or Franklin County in October of 2018?

**\*If Question 1 does not apply to you, please stop the survey. \***

2. What was your role as an educator as of October 10, 2018?
3. Did you live in Bay, Gulf, or Franklin County before October 10, 2018? If so, Where and how long have you or did you live there?
4. Have you lived there consistently since 2018? If not, did you have to leave due to Hurricane Michael or the Pandemic? If so, which one and for how long, or permanently?
5. Whom did you live with in October 2018? (single, roommate, spouse or partner, children under 5, children 5-10, children 11-19, adult children/dependent, elderly parents or grandparents)
  - a. Do you have pets? IF so, how many? What Species?
6. What is the highest level of education of the adults in the household that you have consistently lived in since 2018?
  - Adult One (Yourself): HS, Technical/Trade School, Military, Bachelor's, Master's, Specialists, Doctorate
  - Adult Two: N/A, HS, Technical/Trade School, Military, Bachelor's, Master's, Specialists, Doctorate
7. What Salary range do **you** fall in?

. If it's a combined income household, what range does the household together fall in?

8. Is religion or spirituality present in your household?

If so, to what degree of religion or spirituality would you rate your household **as a whole unit**:

- i. Not really religious, but there is a belief in a higher power
- ii. Somewhat religious/spiritual, we may participate in occasional religious practices
- iii. Moderately religious/spiritual, we often pray together and/or talk about our family beliefs
- iv. Highly religious/spiritual, we speak/pray daily in our household and participate regularly in religious/spiritual practices as a family
- v. There is no religious or spiritual beliefs or practices in our household

9. Do you consider **yourself** religious or spiritual?

If so, to what degree of religion or spirituality would you rate yourself

- Not really religious, but there is a belief in a higher power
- Somewhat religious/spiritual, I may participate in occasional religious practices
- Moderately religious/spiritual, I often pray and/or talk my beliefs with others
- Highly religious/spiritual, I speak/pray daily and participate regularly in religious/spiritual practices either in my community and/or within my family unit.
- I do not participate or believe in any religious or spiritual practices.

10. Are you still an active educator in Bay, Gulf or Franklin County?

- If so, what county and what is your current role?
- How long have you been an educator in \_\_\_\_ county?
- Overall, how many years have you been in education?

If NOT, what is your current profession or retirement status?

1. **If you chose to leave teaching but did not retire, what would best describe your number one reason for leaving.**

1. Lack of support from administration or school district
2. Lack of support staff or substitutes
3. Salary (need to make more to cover monthly bills)
4. Did not feel valued as a professional
5. Felt emotionally drained and unable to maintain support for students in need
6. Frequently changing curriculum, not enough time to learn the ins and outs of
7. Out-of-control students
8. Non-supportive parents and those that are vilifying the profession
9. Being held responsible for students' failures
10. Did not feel like our district cared about my well-being before asking me to return to face-time with students that were also traumatized
11. Too stressful (illogical expectations of the number of responsibilities able to be completed in contract hours)

12. Retired and did not start a new profession

**11. If you chose to leave teaching after October of 2018, if you can list more than your answer to B for leaving, please list them in order of significance from the choices already stated in the previous question. (To compare a cluster that impacts number 9)**

12. What is your current dwelling (house, condo, apartment, mobile home, other)? Do you own or rent?

13. What was your dwelling Oct 2018 (House, condo, apartment, mobile home, other) Did you own or rent?

- In Oct 2018, was your home damaged from Hurricane Michael?
  - If so what % of the home was damaged (0-25%, 26-50%, 50-75%, 76-100%)
  - What percentage of your damage was covered by your insurance (0-25%, 26-50%, 50-75%, 76-100%)
  - At the time of this survey (\_\_\_\_\_, 2022) is your insurance claim settled?

9. Age range as of today?

10. What is your Race/Ethnicity? Gender?

(Developed by Jarrard, K. 2022)

## Appendix B: Connor-Davidson Resilience Scale

**TABLE 2: Content of the Connor-Davidson Resilience Scale**

Removed from final draft to comply with copyright.

Connor, K.M. and Davidson, J.R.T. (2003). Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression and Anxiety*, 18:2, 76-82.

<https://doi.org/10.1002/da.10113>



## Appendix C: Perceived Stress Scale

### PERCEIVED STRESS SCALE

#### Sheldon Cohen

The *Perceived Stress Scale* (PSS) is the most widely used psychological instrument for measuring the perception of stress. It is a measure of the degree to which situations in one's life are appraised as stressful. Items were designed to tap how unpredictable, uncontrollable, and overloaded respondents find their lives. The scale also includes a number of direct queries about current levels of experienced stress. The PSS was designed for use in community samples with at least a junior high school education. The items are easy to understand, and the response alternatives are simple to grasp. Moreover, the questions are of a general nature and hence are relatively free of content specific to any subpopulation group. The questions in the PSS ask about feelings and thoughts during the last month. In each case, respondents are asked how often they felt a certain way.

**Evidence for Validity:** Higher PSS scores were associated with (for example):

- failure to quit smoking
- failure among diabetics to control blood sugar levels
- greater vulnerability to stressful life-event-elicited depressive symptoms
- more colds

**Health status relationship to PSS:** Cohen et al. (1988) show correlations with PSS and: Stress Measures, Self-Reported Health and Health Services Measures, Health Behavior Measures, Smoking Status, Help Seeking Behavior.

**Temporal Nature:** Because levels of appraised stress should be influenced by daily hassles, major events, and changes in coping resources, predictive validity of the PSS is expected to fall off rapidly after four to eight weeks.

**Scoring:** PSS scores are obtained by reversing responses (e.g., 0 = 4, 1 = 3, 2 = 2, 3 = 1 & 4 = 0) to the four positively stated items (items 4, 5, 7, & 8) and then summing across all scale items. A short 4 item scale can be made from questions 2, 4, 5 and 10 of the PSS 10 item scale.

**Norm Groups:** L. Harris Poll gathered information on 2,387 respondents in the U.S.

## Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts **during the last month**. In each case, you will be asked to indicate by circling *how often* you felt or thought a certain way.

Name \_\_\_\_\_ Date \_\_\_\_\_

Age \_\_\_\_\_ Gender (Circle): **M** **F** Other \_\_\_\_\_

**0 = Never    1 = Almost Never    2 = Sometimes    3 = Fairly Often    4 = Very Often**

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| 1. In the last month, how often have you been upset because of something that happened unexpectedly? .....                 | 0 | 1 | 2 | 3 | 4 |
| 2. In the last month, how often have you felt that you were unable to control the important things in your life? .....     | 0 | 1 | 2 | 3 | 4 |
| 3. In the last month, how often have you felt nervous and "stressed"? .....  | 0 | 1 | 2 | 3 | 4 |
| 4. In the last month, how often have you felt confident about your ability to handle your personal problems? .....         | 0 | 1 | 2 | 3 | 4 |
| 5. In the last month, how often have you felt that things were going your way?.....  | 0 | 1 | 2 | 3 | 4 |
| 6. In the last month, how often have you found that you could not cope with all the things that you had to do? .....       | 0 | 1 | 2 | 3 | 4 |
| 7. In the last month, how often have you been able to control irritations in your life? .....                              | 0 | 1 | 2 | 3 | 4 |
| 8. In the last month, how often have you felt that you were on top of things?..  | 0 | 1 | 2 | 3 | 4 |
| 9. In the last month, how often have you been angered because of things that were outside of your control?.....            | 0 | 1 | 2 | 3 | 4 |
| 10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them? ..... | 0 | 1 | 2 | 3 | 4 |

Please feel free to use the *Perceived Stress Scale* for your research.

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#### References

The PSS Scale is reprinted with permission of the American Sociological Association, from Cohen, S., Kamarck, T., and Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 386-396.  
Cohen, S. and Williamson, G. Perceived Stress in a Probability Sample of the United States. Spacapan, S. and Oskamp, S. (Eds.) *The Social Psychology of Health*. Newbury Park, CA: Sage, 1988.

## Appendix D: Teacher Burnout Scale (TBS)

**Teacher burnout** is not a new phenomenon (Campbell, 1983), and it is being observed around the world. The scale here is a short 20-item self-report questionnaire that gives an indication of how bad it is.

This measure is designed to determine how you currently feel about your job and its related aspects.

There are no right or wrong answers.

Work quickly and based your answers on your first impression.

Please indicate the degree to which each statement applies to you.

Item	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I dread going to school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think about calling my students ugly names.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My students make me sick.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I communicate in a hostile manner at work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I wish people would leave me alone at work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am weary with all of my job responsibilities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job doesn't excite me any more.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel frustrated at work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am apathetic about my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel ill at work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I avoid looking at my students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I avoid communication with students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel stressed at work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I avoid communication with my colleagues.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have problems concentrating at work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel sick to my stomach when I think about work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel alienated at work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am bored with my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am tired of my students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I dislike going to my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do the test and write down your score. Then check this table to interpret your score:

<b>Score</b>	<b>Interpretation</b>
20-35	None or few burnout feelings
36-55	Some strong feelings of burnout, but probably not a serious problem
56-70	Substantial burnout feelings, enough that getting some help is suggested
71-100	Severe burnout