The Cost of Caring: An Analysis of Teacher Burnout, Compassion Fatigue, Compassion

Satisfaction, and Resilience

A Dissertation

Presented to the Faculty of

Millersville University and Shippensburg University

In Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

By

Theresa M. Jackson

October 2023

Title of Dissertation:

The Cost of Caring: An Analysis of Teacher Burnout, Compassion Fatigue, Compassion Satisfaction, and Resilience

SHIPPENSBURG UNIVERSITY

MILLERSVILLE UNIVERSITY*

____*_____
Committee Chair, Dr. Tiffany Wright, Millersville University

____*_____
Committee Member, Dr. Jennifer Clements, Shippensburg University

____*_____
Committee Member, Dr. Rachel Becker-Klein, Millersville University

*Signatures on file in the College of Graduate Studies and Adult Learning

DATE: Monday, October 16, 2023

Submitted in partial fulfillment of the requirements for the Degree of Doctor of Education.
*Indicates University of Admission
Notes/Comments:

Dedication

"Fill your life with women that empower you, that help you believe in your magic and aid them to believe in their own exceptional power and their incredible magic too. Women that believe in each other can survive anything. Women who believe in each other create armies that will win kingdoms and wars." — Nikita Gill

I dedicate this study to the women in my family who believe in each other's power and magic. To my sister Christina Mulroy and my mother Jacqueline DiLiberti, thank you for drying my literal and figurative tears and helping me to believe I can survive anything. To my daughter Julia Jackson, I hope you will always believe in your exceptional power. I also dedicate this study to my grandmother, Laurel DiLiberti, who is the matriarch of our family. Nana, thank you for your constant encouragement and for helping to create this strong DiLiberti army of survivors. Finally, I dedicate it to the men in my life who love strong women, specifically my husband Tony Jackson, who was my cheerleader through every single assignment, credit, certification, and degree. Thank you for your unwavering and valorous support.

Acknowledgments

I would like to express my heartfelt gratitude to Dr. Tiffany Wright and Dr. Cindy Speace for their profound impact on my academic and professional journey. Their unwavering support and encouragement have empowered me to push beyond my self-imposed limitations, fostering a belief in my ability to achieve far more than I ever imagined. Thanks to their mentorship, I have banished the phrase "I could never..." from my vocabulary.

Additionally, I extend my sincere appreciation to Dr. Figley, whose groundbreaking research on compassion fatigue informed this study. I am honored to draw upon his work to shed light on this critical phenomenon and its effects on teachers. I must also acknowledge Betsy Bedell, who provided me with an article on compassion fatigue that perfectly articulated the symptoms associated with secondary exposure to trauma. Identifying this phenomenon as compassion fatigue proved instrumental in helping me navigate that challenging year and remain committed to my profession. In the years ahead, I am dedicated to continuing efforts to raise awareness and inspire educational leaders to actively address burnout while nurturing compassion satisfaction among their teaching staff.

Furthermore, I wish to recognize the dedicated and compassionate educators who inspired this study. Their boundless compassion and willingness to go above and beyond their prescribed duties exemplify the transformative power of education that lies within their hands. It is our collective responsibility to safeguard their well-being as they continue to shape the future of our learners.

Abstract

This dissertation examines compassion fatigue (CF), secondary traumatic stress (STS), and burnout (BO) among Pennsylvania public school teachers and their intentions to leave the profession. It also explores the potential roles of compassion satisfaction (CS) and resilience while considering demographic and school characteristics. Survey data from 529 participants inform the findings, which reveal positive correlations between STS and BO, and resilience and CS. Conversely, inverse correlations exist between CS and BO, resilience and BO, and CS and STS, suggesting CS and resilience can mitigate negative impacts of CF, STS, and BO. High BO and STS increase the likelihood of early career exit, emphasizing the need for teacher well-being interventions. Demographically, secondary teachers show higher resilience, male teachers exhibit greater resilience than females, and female teachers report higher STS and CS. School setting, age, and experience did not yield significant differences. Practical implications involve trauma-informed professional development and support for BO and STS reduction, and fostering CS through well-being assessments. Limitations include geographic focus, sample size, cross-sectional design, self-reported data, gender imbalance, and measurement tool choices. Future research encompassing diverse teacher populations, larger samples, longitudinal designs, and alternative measurement tools is warranted.

Contents

List of Figures

List of Tables

Chapter 1: Introduction

Teaching comes with daily challenges. Teachers face enormous pressure to do what is best for students, to deliver quality instruction, to connect to families, and to meet the demands of administrators. The job is not an easy one. Nevertheless, job responsibilities continue to increase. With an attrition rate higher in the U. S. than in other countries at an average of 8%, schools face continuous pressure to do more with fewer staff members, and teachers feel these effects (Espinoza et al., 2018). Since the COVID-19 pandemic, schools in many areas have seen an increased number of retirements, and one large district in California faced nearly double the number of retirements than before the pandemic (Carver-Thomas et al., 2021). The increase in early retirements might relate to teacher burnout as teachers experience increased workplace stress and exposure to student trauma (Carver-Thomas et al., 2021).

The repercussions of teacher attrition and the ensuing staffing shortages are numerous. Administrators ask teachers to cover classes during their planning time, and administrators must juggle the demands of their job while also covering classes. Furthermore, teachers who have left the field early since the pandemic cite stress as the number one reason (Diliberti et al., 2021). Staff absences and unfilled job openings increase demands for remaining staff (GBAO, 2022). Moreover, as a stop-gap measure, many states are lowering the expectations for teacher placements and hiring untrained personnel in place of certified teachers (Leiberman, 2021). However, research shows that individuals without experience or adequate preparation leave the profession most often and earliest in their careers, thus compounding the issue of turnover (Ingersoll et al., 2022).

Perhaps because of these increasing demands, teacher burnout continuously contributes to rising turnover rates (Carver-Thomas et al., 2021). Teachers leaving the profession cite high-stakes testing pressure, lack of mentorship and training, lack of administrative support, low pay, and poor teaching conditions as contributing factors to their exodus (Espinoza et al., 2018). In a recent large-scale study of teachers who decided to leave the profession, stress was the most commonly cited reason (Diliberti et al., 2021). Most of these former teachers indicated that work was "often" or "always" stressful, and this response was consistent between those leaving before and after the peak of the COVID-19 pandemic, indicating the significance of stress in teacher turnover (Diliberti et al., 2021). A recent poll from the NEA revealed that most educators believe burnout is an issue in the profession (GBAO, 2022). The research regarding teacher attrition is growing, but there remains a limited number of studies examining the crisis across states, types of school settings, and teacher backgrounds and demographics (Carver-Thomas & Darling-Hammond, 2019).

Theoretical Framework

Not only can the demands of teaching take their toll on teacher well-being, but teachers are vulnerable to experiencing secondary traumatic stress (STS) (Herman, 1992). STS occurs when one is exposed to another person's trauma. In studying STS, researchers discovered a lack of research regarding the effects of trauma on those not directly involved in the traumatic experiences (Herman, 1992; Figley, 1995; Koenig et al., 2018; Valent, 2002). Joinson (1992) was the first to describe this phenomenon as compassion fatigue (CF), a form of burnout related to caregiving professions. Figley (1995) further developed CF as a framework to study the effects of STS in the helping

professions and explained that those who regularly feel empathy experience an increased risk of stress; he also identified this stress as a result of helping those who are traumatized or suffering. Compassion fatigue is the cost of caring and can result in an accumulation of vicarious trauma (VT) (Figley, 1995; Geoffrian et al., 2016). The same compassion that leads individuals into helping professions can become harmful as professionals experience others' suffering (Graff, 2020; Stamm, 2002). CF exhibits similarly to posttraumatic stress disorder (PTSD), and symptoms may include detachment, heightened arousal, difficulty sleeping, irritability, and hypervigilance (Figley, 1995; Figley & Ludick, 2017; Hydon et al., 2015). Researchers often mention burnout and CF interchangeably; however, burnout develops over time, whereas CF is the combination of burnout and STS (Koenig et al., 2018; Stamm, 2010).

The research regarding CF mainly involves the helping professions such as therapists, counselors, medical professionals, and others (Cieslak et al., 2014). Yet, professionals in all fields wherein empathy is the linchpin of their effectiveness can be particularly vulnerable, including teaching (Figley, 1995; Motta, 2012; Valent, 2002). Ludick and Figley (2017) recognized that broadening research on CF to include other affected populations was needed, and recent research has uncovered compassion fatigue in the field of education.

The possible correlation between teachers' direct contact with traumatized students and the rapid teacher attrition rate needs further investigation. Research reveals the culmination of unmitigated compassion fatigue and other related stressors in the profession can result in burnout (Christian-Brandt et al., 2020; Koenig et al., 2018; Sprang et al., 2021; Tepper & Palladino, 2007). In the helping fields, research indicates

that compassion satisfaction (CS), or the joy one experiences from helping others, might correlate with lower levels of STS and CF (Cieslak et al., 2014; Sprang et al., 2021). More research within education that uncovers this relationship and the mitigating factors of resilience and CS may guide school leaders as they attempt to restore wellness and disrupt the exodus from the field (Koenig et al., 2018).

Context and Setting

For this study, I surveyed teachers across the state of Pennsylvania, intending to obtain a large sample size to generalize findings (Creswell & Creswell, 2018). Pennsylvania currently has 500 public and public charter school districts serving over 170,000 students as of the 2021-22 school year. These districts range in size from 188 students to over 124,000 students and employ as few as 18 and as many as 7,748 teachers. As of the 2021-22 school year, 120,186 teachers worked in public schools in Pennsylvania (RFA, 2022). Not only do the numbers of teachers and students vary widely across the state, but the classifications of districts vary as well to include urban, suburban, and rural. Regional educational service agencies often encompass more than one classification. The gender identification data of the current teacher force shows less variance. As of the 2021-22 school year, 69% were female (RFA, 2022).

Participants in this survey included certified teachers in public brick-and-mortar and cyber schools across all grade levels K-12, in rural, urban, and suburban. The participant sample included teachers from various personal demographics as well-- gender, years of experience, and age.

Statement of Research Problem and Research Questions

Prior research does not reveal which teachers experience CF, STS, and burnout and intend to leave the field. This research study addressed gaps in the existing literature by addressing which teachers experience CF across the state of Pennsylvania. It also examined the relationship of burnout and secondary traumatic stress with an intention to leave the field early. This research also investigated the extent to which CS and resilience may mitigate CF, STS, and burnout. The quantitative method of this study addressed the following research questions:

1. Is there a significant relationship among teachers' perceived secondary traumatic stress (STS), burnout (BO), compassion satisfaction (CS), and resilience?

2. Is there a significant relationship among teachers' perceptions of their STS, BO, CS, resilience and their intent to leave the profession?

3. Are there significant differences in teachers' perceived BO, STS, CS, resilience, and intent to leave the profession, according to their demographic characteristics, professional experience, and school characteristics?

Purpose and Significance of this Study

While the teacher shortage is being felt nationwide, the state of Pennsylvania specifically has experienced a drastic decline in the number of Instruction I certificates issued. In 2010-11, the Pennsylvania Department of Education issued 15,031 Instructional I teaching certificates; in 2020-21, PDE issued 5,440 (OPHE, 2023). At the same time, more than 3000 educator positions have been added across the state since 2017-18 (Fuller, 2022). Although Pennsylvania's attrition rate hovers at 6% (Fuller,

2022), the lack of teachers in the pipeline and the increasing number of vacancies available make it imperative to retain teachers currently in the profession.

Therefore, research regarding who is experiencing job dissatisfaction and intending to leave the field early is necessary. This study also examined to what extent CS and resilience may lead to a balance of CF and burnout, and this information may inform administrative practices to ease teacher stress and retain teachers (Christian-Brandt et al., 2020). Furthermore, the examination of the differences in CF and resilience among personal demographics and school characteristics may inform educators on matters of teacher retention.

Methodology and Subjects

To find answers to the research questions, I conducted survey research in an attempt to generalize the results from a sample to a population (Creswell & Creswell, 2018). The survey included data gathered from the Professional Quality of Life (ProQOL), a tool that measured two components of compassion fatigue--secondary traumatic stress and burnout--and compassion satisfaction (Stamm, 2010). The ProQOL V consisted of 30 short statements and asked respondents to rate each according to a scale (Stamm, 2010) (See Appendix A). Furthermore, to assess respondents' resilience, I utilized the Connor-Davidson Resilience Scale-10 (CD-RISC 10) (Connor & Davidson, 2003; Heritage et al., 2021). This tool measured individual resilience using a Likert-type scale for each item (see Appendix A).

The survey also contained questions regarding participants' demographic and school information (see Appendix A). The survey asked participants about their age, gender, race, ethnicity, level of education, and years of teaching experience. It also asked

participants to provide the following information about the characteristics of their school and profession: level of students taught (elementary or secondary) and setting (urban, suburban, or rural). It also included questions regarding teachers' primary mode of instruction (in-person, online, hybrid, or a combination). Finally, the survey included a question regarding participants' intent to leave the profession prior to the age of retirement.

I recruited participants through purposive sampling utilizing existing databases of teacher emails from educator associations and school and curriculum leaders' associations across the state. The survey was also posted online in educator groups on Twitter and Facebook to increase visibility and provide a convenient mode for participants to respond (Baltar & Brunet, 2012). I increased the number of participants through snowball sampling (Parker et al., 2019) as well, for embedded in the introduction to the survey was a request to share the survey with other teachers.

Through the examination of the research questions, I considered my potential bias and ethical methods. My own experiences as a former teacher and current administrator who has at times exhibited characteristics of CF and burnout had the potential to influence my research. That said, the research tools that I utilized were developed through prior research. However, my personal bias might have influenced which tools I chose. I also had to consider my ethical obligation as a supervisor in a school district in Pennsylvania. Therefore, the survey did not require participants to indicate the specific school district in which they are employed to protect their identities. Consequently, I do not know which responses came from teachers for which I have served as a supervisor.

Furthermore, participation in this study was entirely voluntary, and the agreement to participate clearly stated this. I stored the results on a secured, personal laptop that is password protected and utilized the survey software Qualtrics XM that I accessed through a secure login from Millersville University.

Limitations of this Study

The design of the study had some limitations. The study focused exclusively on Pennsylvania public school teachers which limits the generalizability of the conclusions to teachers in other regions or educational settings. While the study had a robust response (n=529), the sample size might not fully represent the entire population of Pennsylvania teachers. Additionally, the study employed a cross-sectional design, capturing data at a single point in time. This design limits the ability to establish causal relationships among variables. As a quantitative study, the survey did not capture teachers' individual experiences with CF (Creswell & Creswell, 2018). While I attempted to uncover relationships between resilience, CS, burnout, CF, and intent to leave the field, the study did not reveal why teachers experience these phenomena. Finally, the study relied on specific survey measures to assess STS, BO, CS, (ProQOL-V) and resilience (CD-RISC-10). The choice of measurement tools can influence the results, and alternative measures might reveal other findings.

Definition of Terms

The definitions of the components within this study appear to be inconsistent across the literature (Najjar et al., 2009; Walsh et al., 2017). To eliminate ambiguity, I defined the following terms from the strongest commonalities in the literature as well as The Concise ProQOL Manual (Stamm, 2010):

- Burnout (BO): the accumulation of feelings of hopelessness and difficulty doing a job effectively; a decreased sense of efficacy (Koenig et al., 2018; Stamm, 2010).

- Compassion fatigue (CF): reaction resulting from helping a person suffering from traumatic events (Figley, 1995; Najjar et al., 2009); encompasses the components of burnout and STS (Stamm, 2010)

- Compassion satisfaction (CS): the joy professionals experience in relation to the caring aspect of their work (Stamm, 2010).

- Mindfulness based interventions (MBIs): interventions that train individuals to practice meta-awareness of thoughts and emotions and self-regulation techniques (Shapero et al., 2018; Zarate et al., 2019).

- Secondary Traumatic Stress (STS): secondary exposure to people who have experienced extremely or traumatically stressful events (Stamm, 2010).

- Vicarious trauma (VT): trauma experienced through exposure to another's trauma; used synonymously with STS (Figley, 1995; Stamm, 2010)

The next chapter presents a review of the literature regarding contributing factors to compassion fatigue in education, the impact of the COVID-19 pandemic on teacher stress, and the consequences of CF on job performance. It further reviews research regarding mitigating factors to CF, and it concludes with recommendations for further study.

Chapter 2: Literature Review

With the rising attrition rate in the teaching profession, the need to retain quality teachers becomes paramount. As established in the preceding chapter, teachers continue to face enormous pressure to do what is best for students and job responsibilities continue to increase (Espinoza et al., 2018). Contributing to the demands on educators, constant exposure to student trauma strains teachers' capacity to persevere in the profession. Trauma awareness is not merely the latest trend in education. Schools have increasingly promoted and practiced trauma awareness due to the overwhelming prevalence of children's experiences with trauma (Castro Schepers & Young, 2022; Christian-Brandt et al., 2020; Greig et al., 2021). When students walk into a school building, they bring the effects of this trauma from home. Nearly two-thirds of youth experience adverse childhood experiences (ACEs) worldwide (Carlson et al., 2020). In the U. S., 50-60% of students suffer from some type of adverse or traumatic event before they reach adulthood (Espinoza et al., 2018). As students' traumatic experiences accumulate, the risks of truancy, behavioral challenges, and academic issues rise (Blodgett & Lanigan, 2018).

With the sharp increase in traumatic exposure, educators need to consider the impact of trauma and trauma-related problems. Recognizing the importance of balancing the harmful effects of trauma on teaching professionals could ultimately improve students' chances of academic success. The teacher's exposure to their students' trauma is a natural result of a good student-teacher relationship (Brunzell et al., 2018). As students reveal the trauma they have experienced or the impact of these experiences, teachers trained in trauma-informed teaching are better equipped to address their students' needs (Brunzell et al., 2018). Yet as of 2020, twenty-seven states have no statute or regulation

requiring mental health and trauma training for K-3 teachers (Education Commission of the States, 2020). This dearth of training is counterintuitive since positive and supportive teacher-student relationships are essential especially at the primary level and can impact student well-being long-term (Birch & Ladd, 1998). Due to the emotional toll teaching takes on educators, some believe teachers' bearing the burden of student trauma without adequate training lacks sustainability (Koslouski & Stark, 2021).

Furthermore, addressing the effects of trauma on students often leads to teachers suffering from that exposure. This exposure can lead to secondary traumatic stress (STS) and ultimately result in compassion fatigue (CF) (Figley, 1995). First studied in the helping professions, CF can lead to burnout and an exodus from the profession (Borntrager et al., 2012; Cieslak et al., 2014; Christian-Brandt et al., 2020). While some research attempts to shed light on the relationship among compassion fatigue, job burnout, and attrition, little research exists on STS and CF in the teaching profession (Ormiston, 2022). As the needs of students continue to increase and teachers leave the field due to the increasing stress of the profession, it is clear that educational researchers need to uncover the causes of the teacher exodus and reveal methods to address and solve the issue of a potential mass exodus from the profession.

This chapter will describe compassion fatigue as a framework for researching the effects of trauma exposure. It will also review contributing factors to compassion fatigue, the impact of the COVID-19 pandemic on teacher stress, and the consequences of CF on job performance. It reviews research regarding mitigating factors to CF, and it concludes with recommendations for further study.

Compassion Fatigue as a Framework

While teachers who choose to leave the profession cite stress as a cause, their exposure to their students' trauma is directly related to research exploring this "secondhand" trauma over the past few decades. As researchers explored the detrimental effects of exposure to another person's trauma, or secondary traumatic stress (STS), they uncovered the incomplete nature of trauma research that excludes those who were not directly and personally involved (Herman, 1992; Figley, 1995; Koenig et al., 2018; Valent, 2002).

Accounting for this phenomenon, Joinson (1992) describes compassion fatigue as a form of burnout related to caregiving professions. This burnout stems from the nature of caregiving and can be emotionally devastating (Joinson, 1992). This phenomenon is unique to caregivers due to the nature of their professions wherein "the essential product they deliver is themselves" and requires attention to recovery to prevent adverse effects on their well-being (Joinson, 1992, p. 117).

Figley (1995) further developed compassion fatigue as a framework to approach the effects of secondary traumatic stress (STS) in the helping professions. Simplified, it is the cost of caring and an accumulation of primary, secondary, and vicarious trauma (Figley, 1995; Geoffrian et al., 2016). Figley explained that those who regularly feel empathy experience an increased risk of stress, and he identified this stress as a result of helping those who are traumatized or suffering. Compassion fatigue can only be recognized and mitigated when individuals know the signs of its emergence (Bride et al., 2007; Joinson, 1992).

The symptoms of CF directly correlate to the body's reaction to trauma. The capability to feel empathy allows professionals to experience others' suffering; the brain interprets this as a threat (Graff, 2020). The very compassion that leads individuals, often heroically, into helping professions can become harmful (Stamm, 2002). The brain signals a flight, fright, or freeze response to the threat, resulting in physical, emotional, and cognitive symptoms (Graff, 2020). People with CF exhibit symptoms similar to posttraumatic stress disorder (PTSD), often following exposure to a significant traumatic event involving either personal experience or learning about another person experiencing a traumatic event (Figley, 1995). Symptoms of PTSD and CF both include dreams of reimagined trauma, avoiding reminders of the experiences via detachment, heightened arousal and difficulty sleeping, irritability, and hypervigilance (Figley, 1995; Figley & Ludick, 2017; Hydon et al., 2015).

Research often mentions CF in relation to job burnout (BO). However, while BO may develop over a period of time, CF can follow after one occurrence of one exposure to another person's traumatic event (Koenig et al., 2018). CF, stress, and other job responsibilities might result in BO. This can be described as a result of the human desire to achieve goals, yet CF comes from the desire to save others. Therefore, although CF is similar to BO, CF arises from distinct human desires to help and produces distinct reactions and behaviors (Tepper & Palladino, 2007). However, literature continues to demonstrate the complexity of the constructs of CF and BO and their relationship to one another. Research indicates a positive correlation between CF and BO, suggesting some overlap between these phenomena (Shoji et al., 2015; van Mol et al., 2015).

Furthermore, those at risk of experiencing compassion fatigues's detrimental effects regularly work with traumatized people (Cieslak et al., 2014; Figley, 1995; Figley & Ludick, 2017). Much CF research centers on therapists, counselors, medical professionals, and other related helping professions (Cieslak et al., 2014). However, some professionals might be more susceptible to experiencing CF than others. Professionals for whom empathy is the cornerstone of their effectiveness can be particularly vulnerable (Figley, 1995; Motta, 2012; Valent, 2002). Ludick and Figley (2017) recognized that broadening research on CF to include other affected populations was apropos, and recent research has uncovered compassion fatigue in the field of education.

While many schools have moved towards trauma-informed educational practices to assist students, teachers' exposure to their students' trauma can have detrimental effects that are not often directly addressed (Borntrager et al., 2012; Brunzell et al., 2021). A rare quantitative investigation of CF among educators found that approximately 75% experienced high levels of CF (Borntrager et al., 2012). Teachers have direct contact with traumatized students, and the rapid rate of teacher attrition in PA and beyond calls for investigating the relationship of CF with the exodus from the field. The culmination of unmitigated compassion fatigue and other related stressors in the profession can result in burnout (Christian-Brandt et al., 2020; Koenig et al., 2018; Sprang et al., 2021; Tepper & Palladino, 2007). Research examining the contributing factors of the profession that lead to CF can guide school leaders as they attempt to restore wellness and disrupt the exodus from the field.

Contributing Factors

Teachers who work closely with students risk exposure to their trauma, thus increasing their risk of compassion fatigue. Successful teachers cultivate relationships with their students, and this connectedness contributes to students' social and academic success (Jennings & Greenberg, 2009; Simon et al., 2022). These connections result in exposure to students' traumatic experiences (Inbar & Shiri, 2021). Furthermore, the empathy these teachers feel towards their students combined with the exposure to their trauma increases their chances of developing CF (Inbar & Shiri, 2021; Simon et al., 2022). However, research has uncovered some factors that contribute specifically to an increased risk of CF. These factors include a perceived lack of control, collaboration, and support.

Although teachers are not therapists, the nature of their profession, the empathy and caring that lead to their success in establishing relationships, can also lead to feelings of helplessness (Brunzell et al., 2021; Hupe & Stevenson, 2019). Hoffman et al. (2007) uncovered that teachers experienced heightened stress because of their lack of control over the circumstances surrounding students' struggles. In their study of the exodus of teachers from the field of special education, Tepper and Palladino (2007) discovered that some teachers felt the underlying cause of the stress stemmed from their inability to control students' disruptive behaviors as well as an inability to increase positive behaviors with their perceived lack of parental support. Herman et al. (2021), in their study of teacher stress, also uncovered a negative correlation between teacher well-being and their ability to manage student behavior in their study of teacher stress. Additionally,

professionals who experience repeated exposure to many cases of trauma and have no control over their circumstances may be more likely to develop STS (Motta, 2012).

In addition to the feelings of a lack of control, teachers' perceived lack of collaboration can also compound the effects of trauma exposure. When teachers feel isolated from their colleagues, the risk of stress and turnover increases (Clement, 2017). Dysfunctional or minimal work relationships can compound the stress teachers experience, and a lack of positive relationships and peer support increases the probability that teachers will leave the profession (Farmer, 2020; Hargreaves, 2001). Yet, commiserating with colleagues regarding student trauma has its risks. STS can transfer from one professional to another, for the retelling of traumatic experiences to colleagues may ultimately share the effects of STS with the listener (Lawson et al., 2019). Teachers' positive connections with one another and their sense of collegiality are paramount to coping with exposure to trauma.

Not only are relationships among colleagues important, but teachers' relationships with administrators can affect teachers' ability to manage the stress of the profession. Teacher resignations can be the result of tension between teachers and administrators. If teachers perceive their administrators lack competence, are unavailable, or provide poor support, they may experience increased stress (Tepper & Palladino, 2007). In their analysis of data from the National Center for Education Statistics' Schools and Staffing Surveys, Carver-Thomas and Darling-Hammond (2019) identified that the most predictive factor of teachers leaving the field was a perceived lack of support from administration. Their study measured teachers' perceptions of "an administrator's ability to encourage and acknowledge staff, communicate a clear vision, and generally run a

school well" (Carver-Thomas & Darling-Hammond, 2019, p. 15). They concluded that when teachers strongly disagree that their administrator is supportive, they are twice as likely to leave the profession or change schools than if they strongly agree their administrator is supportive (Carver-Thomas & Darling-Hammond, 2019). Furthermore, administrators' lack of understanding of compassion fatigue may mean they cannot separate the effects of STS from poor performance. For example, an administrator may not see the connection between a teacher's stress-induced inability to sleep with that teacher's poor classroom instruction (Hoffman et al., 2007). The burdens teachers bear are often the result of the imbalance of job responsibilities and support. Teachers experience difficulty as they attempt to cope with personal and professional experiences that manifest a significant emotional response (Inbar & Shiri, 2021). The physiological toll of exposure to students' traumatic experiences compounded with lack of collaboration and support can lead to significant decline in job performance and can ultimately result in teachers leaving the field or, perhaps worse, becoming ineffective teachers.

The COVID-19 Pandemic

The COVID-19 pandemic exacerbated many of the factors mentioned earlier relating to compassion fatigue. The pandemic increased the workload for teachers as they transitioned to and from online instructional delivery and possibly were required to provide instruction via both methods simultaneously. A recent study of teacher burnout amid the pandemic revealed the stressors related to burnout included teachers' anxiety about COVID-19, communicating with parents, and administrative support (Pressley, 2021).

While the teacher shortage began well before the pandemic, fears over COVID-19 exacerbated the exodus from the profession (Diliberti et al., 2021; Schmidt & DeCourcy, 2022). Before the pandemic, districts across the U. S. experienced teacher shortages in Science, Math, and Special Education; yet, these shortages grew exponentially as educators faced the stress of safety hazards related to the pandemic (Edelman, 2022). With teachers leaving and a dearth of substitute teachers available, many teachers remaining in the profession have experienced an increase in their workload (Walker, 2021).

Teachers also experienced an increased concern for their students' mental health, contributing to higher levels of personal stress (Brunzell et al., 2021; Fleming, 2020; Herman et al., 2021). In some communities where many students suffered the loss of family members, teachers struggled with their increase in trauma exposure and lack of trauma training (Carver-Thomas et al., 2021). As teachers' exposure to trauma increased, they also experienced increasing disengagement from their students. While they struggled to connect with their students during hybrid or online learning, their attempts to engage their students left the teachers at greater risk of compassion fatigue; in fact, research demonstrated that these attempts were associated with increased CF (Yang et al., 2021).

The Impact of Compassion Fatigue on Performance

While these contributing factors to compassion fatigue can increase the risk to professionals' well-being, their job performance may also suffer. Compassion fatigue can affect teacher performance as they try to cope with the symptoms of STS. Teachers may disengage from students and colleagues, experience a decreased sense of effectiveness,

undergo burnout, and leave the profession (GBAO, 2022; Hoffman et al., 2007; Jennings & Greenberg, 2009; Motta, 2012; Simon et al., 2022; Talmor et al., 2005).

To cope with the symptoms of compassion fatigue, some teachers disengage from their students and colleagues. The methods by which teachers cope with highly stressful emotional situations can directly "compromise their ability to develop and sustain healthy relationships with their students, effectively manage their classrooms, and support student learning" (Jennings & Greenberg, 2009, p. 515). The student-teacher relationship fundamental to student success can become such a source of stress for teachers that they withdraw from their students. Those teachers experiencing stress describe a sense of detachment and become distant from their students and colleagues (Lawson et al., 2019). This disengagement may be a precursor to job burnout.

When teachers struggle to engage with their students and peers, they experience a sense of professional failure. There develops a gap between their feelings of professional efficacy and the efficacy they hold as their standard. Exposure to trauma can wreak havoc on their previous perceptions of their place and competence in the profession (Hoffman et al., 2007; Motta, 2012). High stress and low coping capability impact both the teachers' and the students' well-being (Herman et al., 2021). As teachers withdraw from their students and their confidence in their competency decreases, they may struggle to manage disruptive behavior effectively (Lawson et al., 2019; Simon et al., 2022). Their management may become ineffective, leading to increased student misbehavior and negatively impacting classroom climate (Jennings & Greenberg, 2009; Simon et al., 2022). This pattern can create a potential cycle of continued stress as student-teacher relationships are instrumental in managing student behavior (Endedijk et al., 2022).

Without intervention, teachers experiencing high levels of STS also indicate higher levels of burnout (Simon et al., 2022; Talmor et al., 2005). Teacher burnout can be debilitating as it can present with cynicism, decreased self-efficacy, and exhaustion (Tepper & Palladino, 2007).

Ultimately, those experiencing the repercussions of STS may consider leaving the profession. Teachers who struggle to find meaning in their work might experience a decline in mental health that can result in their exodus from education (Hupe & Stevenson, 2019; Jennings & Greenberg, 2009). The COVID-19 pandemic further compounded the threat of teacher shortages, as more than half of National Education Association (NEA) respondents to a nationwide survey revealed they are considering leaving the field or retiring from education earlier than they originally intended due to the pandemic (GBAO, 2022). The possibility of a mass exodus of experienced teachers from the profession, combined with declining enrollment in teaching certification programs, poses a threat to education throughout the country (Will, 2022). A recent poll of 3,621 NEA members revealed 67% believe burnout is "a very serious issue," and 90% believe "a very serious or somewhat serious issue" (GBAO, 2022, p. 1). Three out of four former teachers (N = 949) said that work was "often" or "always" stressful in the most recent year in which they taught in a public school. This was true among both teachers who left the profession before the pandemic began and among those who left after March 2020. Both before and during the pandemic, around one-third of teacher leavers said that work was "always" stressful. These results comport with prior education research that identifies stress as a key factor in teacher turnover (Reiser et al., 2016).

This teacher turnover leads to detrimental effects on schools. An influx of ill-prepared teachers can disrupt educational programs, and new teachers with fewer qualifications and less experience than departing teachers magnify disruptions to education that directly impact students (Sorensen & Ladd, 2020). Therefore, it is essential to the future of public education that educational leaders and researchers uncover ways to mitigate the factors leading to burnout and prevent teacher turnover.

Mitigating Compassion Fatigue

As research on secondary traumatic stress, compassion fatigue, and burnout in the teaching profession increases, many studies focus on the methods to mitigate these challenges. Many of the approaches utilize best practices for professional well-being. These include increasing trauma literacy, providing targeted interventions, cultivating colleague collaboration, and improving administrative support. An additional approach suggests that increasing teachers' compassion satisfaction and resilience might balance the risk of compassion fatigue.

While schools increasingly incorporate trauma-informed social-emotional literacy curricula for students, not many focus professional development time on the needs of the teachers as they deliver such curricula to their students (Lawson et al., 2019). Many educators do not receive adequate training or support to manage and respond to the effects of learning about the traumatic experiences of the students under their supervision (Simon et al., 2022).

Research at the individual and organizational levels reveals that schools can take steps to prevent burnout. One essential action step involves increasing trauma literacy. A large-scale study of professionals in the helping and health fields revealed that

organizations that make targeted efforts to inform employees about STS can improve

levels of work-related stress. Focusing on STS can improve organizational and individual

well-being (Sprang et al., 2021). Another study refers to "trauma-informed organizational

culture" and revealed that organizational focus on trauma literacy could combat current

challenges such as burnout (Keesler, 2020). In a study of child welfare workers,

researchers uncovered evidence that indicates a need for protective measures such as

education, coaching, and training in how to manage STS and recommend that introducing

this during employee onboarding can lessen the stigma of STS and increase awareness of

its symptoms (Strolin-Goltzman et al., 2020).

Researchers have cast the net wider to include education in the research regarding

STS (Ludick & Figley, 2017). And some leaders utilize this research to create

organizational changes to mitigate the effects on teachers (Greig et al., 2021). Such

studies reveal that after teachers learn about STS and CF, they can better recognize the

symptoms and seek support. The results of these studies include a standard

recommendation that teacher education programs include content about CF, coping with

STS, and self-help tools (Brunzell et al., 2021; Castro Schepers & Young, 2022;

Christian-Brandt et al., 2020; Inbar & Shiri, 2021; Koenig et al., 2018; Lawson et al.,

2019). New teachers would benefit from teacher preparation programs teaching this

content before teachers enter the profession (Inbar & Shiri, 2021).

Schools throughout the world have incorporated such professional development.

Trauma-informed positive education (TIPE) (Brunzell et al., 2021), trauma-informed

practices (TIP) (Castro Schepers & Young, 2022), and trauma-informed care (TIC)

(Christian-Brandt et al., 2020) are some of the frameworks researchers have utilized to

increase trauma literacy among educators and measure its success. Regardless of the title or program model, through professional development, research shows that teachers developed resilience, growth mindsets, and increased gratitude (Brunzell et al., 2021). Analysis of the results of another study revealed that following a single professional development session about compassion fatigue, teachers could identify the connection between emotional exhaustion and depersonalization and recognized the "parallels between the CF experience of powerlessness and helplessness due to a psychological trauma and these burnout symptoms" (Koenig et al., 2018, p. 270).

While increasing opportunities to learn about CF and its effects can lessen the damage of STS, some studies reveal that targeted interventions that address individuals' responses to stress are also beneficial. Since CF affects teachers physiologically, methods to decrease these responses are also effective. Mindfulness based interventions (MBIs) have demonstrated effectiveness in addressing the physiological responses to stress. Educators who engage in MBIs may increase their cognitive and emotional regulation, and these interventions might support teachers' abilities to manage their classrooms and reduce stress effectively (Jennings & Greenberg, 2009). In a meta-analysis of the literature related to MBIs, Zarate et al. (2019) revealed positive outcomes related to increased teacher mindfulness and decreased depression, burnout, and stress. A study implementing Hatha yoga as an MBI for teachers did not reveal a significant decrease in burnout. However, it did reveal the complexity of the relationship between physiological and psychological responses to stress, stress management mechanisms, and a sense of well-being (Hepburn et al., 2021). Additionally, a quantitative study examining teachers' self-care and its effects on STS revealed that administrators promoting yoga after school

is not a fix as it may be inconsistent with teachers' preferences for self-care. Researchers recommend that administrators allow teacher voices to be heard regarding self-care practices (McMakin et al., 2022). Nevertheless, organizational approaches and individual mindfulness practices yield promise in mitigating CF.

Furthermore, collaboration among educators also may help teachers cope with stress. Recognizing the relationship between the mind and the body, Eyal et al. (2019) developed a mind-body group for teacher stress (MBGTS) as an intervention program for teachers. Their model includes a trauma information component and mindfulness-based self-care tools. The evaluation of the program revealed another layer that can help teachers manage stress, for those involved perceived the group as a safe space to share their experiences with stress and connect with their colleagues. This colleague support system may counteract personal risk factors of stress and anxiety and mitigate feelings of isolation and inadequacy (Eyal et al., 2019). A study with child welfare and mental health professionals revealed a negative correlation between interprofessional collaboration and STS symptoms (Strolin-Goltzman et al., 2020). A collaborative environment can help lessen compassion fatigue and increase teacher retention (Davis & Palladino, 2011).

As a lack of support contributes to STS, conversely, increased support from administrators is essential to combating teacher stress and preventing an exodus from the field. Administrators who provide teachers with instructional resources and materials, provide professional learning opportunities, and maintain communication channels retain more teachers (Learning Policy Institute, 2017). Furthermore, administrators often directly impact scheduling and teacher workload, which, when unmanageable, increases exhaustion and STS (Farmer, 2020).

Recognizing the effects of compassion fatigue and developing prevention strategies may also be steps administrators can take to retain teachers (Davis & Palladino, 2011; Hoffman et al., 2007). Administrators who take the pulse of their staff and are in touch with the stress teachers face are more likely to make changes that can positively influence teacher stress. Instead of a hierarchical approach to leadership, collegial leadership may positively support teacher well-being and increase coping and satisfaction (Herman et al., 2021; Learning Policy Institute, 2017). Administrators can also assess school-wide needs to uncover teachers' sources of stress, their exposure to STS, and provide resources for mental health care as needed (Yang et al., 2021).

The effects of the pandemic and the increase in burnout in the profession reveal that teachers need their school community to care for their mental health and provide the supportive school environment. They, in turn, provide this type of environment in their classrooms for their students (Green & Bettini, 2020). Administrators can impact teachers' levels of CF, and perhaps understanding this will lead to changes that help retain quality teachers. More recognition of CF and its effects on professional development is warranted for this to happen. Additionally, more administrators need to recognize the symptoms and be willing to provide professional development to treat CF at the organizational level.

Increasing Compassion Satisfaction and Resilience

All the previously mentioned steps to mitigate CF might also increase compassion satisfaction (CS). Compassion satisfaction refers to the joy professionals experience in relation to the caring aspect of their work (Stamm, 2002). Studies indicate that helping

professionals with higher levels of CS and higher quality of life scores have lower levels of STS and CF (Cieslak et al., 2014; Sprang et al., 2021).

Research indicates that the same correlation may hold for educators. In their study of teachers in low-income elementary schools, Christian-Brandt et al. (2020) discovered that improving teachers' positive feelings of helping and self-efficacy might be more critical than lessening the effects of STS. Their study indicated that increasing CS might mitigate STS. Hoffman et al. (2007) also found that while teachers' connections with their students can be a source of stress, teachers reconsidered their desire to leave the profession due to these connections. Teachers feel successful and fulfilled as they find purpose in providing help and support to their students (Inbar & Shiri, 2021). In their qualitative study, McMakin et al.'s (2022) interview data indicated more significant levels of CS and efficacy in elementary teachers who felt their work had value and believed they were making a difference in their students' lives. This was despite the behavioral challenges participants witnessed throughout the COVID-19 pandemic (McMakin et al., 2022). Therefore, CS might act as a shield that protects teachers from the harmful effects of STS and prevent them from leaving the field.

Compassion satisfaction relates directly to the work a person performs that brings them joy (Stamm, 2002). In contrast, resilience is a person's ability to maintain psychological and physical functioning despite exposure to trauma or disruptive events (Bonanno, 2004). Researchers have further defined resilience as it relates to teachers (Mansfield et al., 2012). Brunetti (2006) describes it as a quality that allows teachers to continue their commitment to the profession. In comparison, Castro et al. (2010) refer to resilience as a set of strategies teachers utilize to cope with adverse situations.

Notwithstanding the differences in definitions of the term, research regarding teacher resilience reveals might also mitigate the harmful effects of STS, CF, and BO. Garcia and Gamberte (2019) concluded that resilience and self-efficacy protected their sample of primary teaching staff against BO. Other studies indicate that teachers' social resilience and adaptability reduce exhaustion and depersonalization and help them to work through stress while maintaining a passion for their job (Daniilidou et al., 2020; Richards et al., 2016). Furthermore, resilience affects job satisfaction and may mediate stress, anxiety, and BO (Demir, 2018; Pretsch et al., 2012).

Instead of experiencing burnout, resilient teachers commit to their work, adapt, and overcome challenges (Garcia & Gambarte 2019). They reframe negative experiences and learn from them, allowing them to retain power and balance their job's challenging and rewarding aspects (Drew & Sosnowski, 2019). Through their determination to overcome difficult situations, they develop a sense of agency that allows them to thrive (Gu & Day, 2007; Howard & Johnson, 2004). Research also indicates that resilient teachers develop a strong support group and utilize their relationships with colleagues to withstand challenges (Drew & Sosnowski, 2019; Howard & Johnson, 2004). Through persistence and productive energy, the resilient teacher works to change adverse conditions (Castro et al., 2010; Patterson et al., 2004). However, much of the research regarding teacher resilience is qualitative, and more research on the correlation between teacher resilience and teacher well-being is necessary (Gu & Day, 2007; Pretsch et al., 2012).

Conclusion

Most studies regarding compassion fatigue in education are limited in scope and generalizability. While case studies and interviews might lend an understanding of the experiences of individual teachers, more research is needed to uncover the significant scale effects of CF. Much of the literature regarding CF in the helping professions may help guide educational leaders; however, more research specific to the teaching profession is needed (Koenig et al., 2018).

Identifying the relationship between compassion fatigue and compassion satisfaction is also needed. A professional may experience compassion fatigue and compassion satisfaction simultaneously; however, when CF increases, it may overcome CS (Bride et al., 2007).

The research regarding teacher attrition is growing, but there remains a limited number of studies examining the crisis across states, types of school settings, and teacher backgrounds and demographics (Carver-Thomas & Darling-Hammond, 2019). Ultimately, if teachers felt supported in their continuous balancing of student trauma and their ability to cope with students' trauma, perhaps the exodus from the profession could be deterred. Educational decision-makers should embrace all research that uncovers more information about this national crisis. Large-scale research regarding the relationship between CF, burnout, CS, and resilience is limited, and such a study could unveil more information regarding the correlation and shed light on factors influencing the exodus from teaching.

Chapter 3: Method

The purpose of this study was to examine the relationship between teachers' compassion fatigue, burnout, compassion satisfaction, resilience, and intent to leave the field. This study took place via an online survey of teachers across the state of Pennsylvania. Up to this point, research regarding teacher burnout is limited to mostly small-scale qualitative research that does not provide generalizable information. This large-scale quantitative study garnered information that aimed to be generalizable to teachers across the state and shed light on teachers' experiences of compassion fatigue and burnout.

Utilizing quantitative analysis, this examined the following hypotheses:

1. There is a significant relationship among teachers' perceived secondary traumatic stress (STS), burnout (BO), compassion satisfaction (CS), and resilience.

2. There is a significant relationship among teachers' perceptions of their STS, BO, CS, resilience and their intent to leave the profession.

3. There are significant differences in teachers' perceived BO, STS, CS, resilience, and intent to leave the profession, according to their demographic characteristics, professional experience, and school characteristics.

In this chapter, use of the Professional Quality of Life (ProQOL) and Connor-Davidson Resilience Scale-10 (CD-RISC 10) as measurement tools will be discussed. Next, I describe the participants, ethical considerations, and procedures. Finally, I address data analysis methods.

To examine these hypotheses, survey research was conducted as it is a method of

research that may allow for generalizability from a sample to a population (Creswell &

Creswell, 2018). Included in the survey was the Professional Quality of Life (ProQOL)

measurement. Stamm (2010) developed the ProQOL with the intention to measure two

components of compassion fatigue, secondary traumatic stress and burnout, and the

compassion satisfaction of those working with others who experience trauma (Center for

Victims of Torture, 2022). In previous work, researchers developed and utilized separate

tools measuring CF, STS, BO, and CS such as the Secondary Traumatic Stress subscale

of the ProQOL (Stamm, 2010) and the Compassion Fatigue Scale–Revised (Cieslak, et

al., 2014). However, the ProQOL V provides information in one shorter instrument. I

selected this measurement to increase response rate on a self-administered questionnaire

as the amount of time to complete the total survey should be taken into consideration

(Fowler, 2014). Researchers have tested the ProQOL V for validity and reliability and

have found it to be a justifiable measure of quality of life as it relates to the work

environment and separates this from outside factors (Geoffrion et al., 2019; Heritage et

al., 2021).

The ProQOL V consists of 30 short statements and asks respondents to rate each

according to a scale (Stamm, 2010) (See Appendix A). Researchers have utilized this tool

in quantitative studies within the helping professions (Sprang et al., 2007; Cieslak et al.,

2014) and in education (Christian-Brandt et al., 2020). The use of the ProQOL V is free

and open with acknowledgement to the author and without changes to the tool (Center for

Victims of Torture, 2022; Stamm, 2010). The internal consistency of the tool to measure

CS is $\alpha =.88$, BO $\alpha =.75$, and STS $\alpha = .81$; these are all in the optimal range (Creswell &

Creswell, 2018). *The Concise ProQOL Manual* (Stamm, 2010) addresses the construct

validity of the tool. The STS and CF scales demonstrate 2% shared variance (r=-.23; co-σ = 5%; n=1187) and STS and BO scales demonstrate 5% shared variance (r=.-.14; co-σ = 2%; n=1187). Whereas, BO and STS scales demonstrate 34% shared variance (r=.58; co-σ = 34%; n=1187). Both BO and STS are negative constructs which account for their high rate of shared variance (Stamm, 2010). Some researchers prefer to view CS and CF as one component on a continuum (Geoffrion et al., 2019; Hemsworth et al., 2018). This study did not consider the two factors as the same construct as CF includes the complexity of BO and STS. Through the ProQOL, the study attempted to uncover the relationship among these constructs.

While the ProQOL measures compassion satisfaction, it does not specifically measure resilience. To assess respondents' resilience, this study utilized the Connor-Davidson Resilience Scale-10 (CD-RISC 10) (Connor & Davidson, 2003; Heritage et al., 2021). This measures individual resilience using a Likert scale for each item (see Appendix B). The tool has an internal consistency of $\alpha = 0.8$ which is within the optimal range (Creswell & Creswell, 2018; Heritage et al., 2021). The use of this tool requires a signed user agreement and permission from the writer (see Appendix B). Researchers in many fields have utilized the CD-RISC (Davidson, 2023) and some studies have utilized the CD-RISC 10 to measure resilience of educators (Garcia & Gambarte, 2019; Richards et al., 2016).

The survey also contains questions requesting participants provide demographic and school information (see Appendix A). Participants were asked about their age, gender, and years of teaching experience. Participants were asked to provide the following setting information (rural, urban, suburban) about their school. Teachers were

also asked if their primary mode of instruction is in-person, online, hybrid, or a combination. Finally, the survey included a question regarding their intent to leave or remain in the teaching profession.

Participants

The goal of this survey research was to obtain enough of a sample of teachers across the state of Pennsylvania that the findings can be generalizable (Creswell & Creswell, 2018). Therefore, the target population of participants included certified teachers in public school districts, across all grade levels K-12, in rural, urban, and suburban settings. Ideally, teachers in public cyber charter schools would also participate. Identifying who is affected by STS, BO, and CF necessitates a broad sample of educators in all settings and with varied backgrounds.

Following approval to move forward with the study, I recruited participants through purposive sampling utilizing existing databases of teacher emails. The following educator associations were contacted with a request to share the survey with their databases: Pennsylvania State Education Association (PSEA), American Federation of Teachers Pennsylvania (AFT PA), The Keystone Teachers Association (KEYTA), and Commonwealth Charter Academy (CCA). These associations have access to teachers' and school districts' information across the state. For example, PSEA currently has 178,000 members who are educational professionals, the majority of whom are teachers currently employed in public school (PSEA, 2022). AFT PA includes members teaching online and in person (AFT, 2022).

I also requested that school and curriculum leaders share the survey to their teachers via email. The associations I contacted with with this request included: The PA

Principals' Association, The Pennsylvania Association of Intermediate Units (PAIU),

Pennsylvania Training and Technical Assistance Network (PATTAN), and The

Pennsylvania Association of School Administrators (PASA), and Pennsylvania

Association of Rural and Small Schools (PARSS). These associations serve leaders and

schools throughout the state. I also requested the survey be sent to past and present

graduate cohort members in Millersville's and Shippensburg's joint educational

leadership doctoral program, and the survey was sent to all members in the group.

Furthermore, I contacted online educator groups on Twitter, Facebook, and Instagram

such as the Pennsylvania Educator Diversity Consortium (PEDC), Teach Plus PA, PA

Schools Work, and PA Teacher Tribe, and I requested they post the survey link; however,

most groups had closed memberships, and my attempts to post on their pages were

unsuccessful. Finally, the survey was distributed to through the PennLink listserv that

includes all Pennsylvania public school LEAs.

While I contacted these associations and groups purposefully, I intended to

increase the number of participants through snowball sampling as well (Parker et al.,

2019). Embedded in the introduction to the survey was a request to share the survey with

other teachers. Online posts on my own social media accounts encouraged educators to

repost and share the survey with their online contacts.

Due to the snowball sampling method, I was not be able to precisely calculate the

response rate. I am not be able to determine the exact number of teachers who received

the link to the survey. However, as of October 2022, there were 108,756 teachers in PA

public schools (NCES, 2022). The response rate was roughly calculated using this

number as the sample frame. With n=529, the response rate was .49% (Fowler, 2014).

The desired number of participants for a population size of 108,756 teachers with a confidence level of 95% and a margin of error of 95% is 383 (Salkind & Frey, 2020). Ultimately, the survey exceeded this minimum number with *n*= 529.

The study accounted for many ethical considerations. Participation in this study was completely voluntary, and the agreement to participate clearly stated this. The survey did not ask for participants to provide information that will lead to individual identification. The questions regarding demographics are general, and participant identity remained anonymous. Since the survey did not require participants to indicate the specific school district in which they are employed, I do not know which responses came from teachers for which I may serve as a supervisor. I stored the results on a secured, personal laptop that is password protected. I utilized the survey software Qualtrics XM that I accessed through a secure login from Millersville University.

Furthermore, answering questions related to mental health and wellness could trigger a trauma response in the participant. The survey concluded with contact information for mental health resources available online and throughout the state. It contained a direct link to Pennsylvania's Support & Referral Helpline which helps connect Pennsylvanians with local resources to support mental and emotional health (Commonwealth of PA, 2022).

Procedures

Fowler (2014) purported that with proper sampling, survey research can lead to generalizations from a sample to a population. I used the ProQOL V and CD RISC 10 to capture data to determine levels of compassion fatigue, burnout, secondary traumatic stress, compassion satisfaction, resilience, and intent to leave the field among teachers across the state of Pennsylvania. I analysed the survey responses to reveal answers to the research questions guiding this study.

Following IRB approval, I piloted the survey with approximately 17 teachers to glean feedback regarding the survey length and the questions included in the demographic section and the professional intent section (See Appendix A). Feedback from the pilot indicated no need for changes. I then sent an introductory email to contacts posted online for each of the aforementioned associations (See Appendix D). The emails included a link to the full survey including the consent form (See Appendix C). I stored survey submissions using secured Qualtrics software. Responses were anonymous, and participants were only be able to submit their answers once.

I monitored the number of responses throughout a four-week window. At the end of the four-week window, the sample size was well above the 383 minimum (n=529). Therefore, I closed the survey.

Data Analyses

After the survey closed, I uploaded the information into a Google spreadsheet from Qualtrics XM. I then scored the responses according to the ProQOL V and CD-RISC 10 guidelines (Connor & Davidson, 2003; Stamm, 2010). I uploaded these data into SPSS software.

Utilizing SPSS, I analyzed the frequencies and percentages of participation. I also tested the data to determine the presence of outliers and removed these from the data (Tabachnick & Fidell, 2019). Finally, data were analyzed to describe and measure the relationship between different variables and to determine the significance of the correlation between the variables (Creswell & Creswell, 2018; Salkind & Frey, 2020).

First, I utilized correlational analyses to examine the first and second research questions. The first question investigated the relationship among teachers' perceived STS, BO, CS, and resilience. The second examined the relationship of these factors and teachers' intent to leave the field. I analyzed the scatterplots displaying the relationships of each combination of the variables. If the data revealed linear relationships, I planned to analyze the data using Pearson correlation analysis. However, if the data revealed monotonic relationships, I planned to analyze them using Spearman's rank correlation coefficients. Laerd Statistics (2018) recommends conducting Spearman's analysis if data reveal monotonic relationships that may or may not be linear.

To further investigate the relationship among STS, BO, CS, and intent, I conducted regression analysis which analyzes the prediction of multiple independent variables on a single dependent variable (Salkind & Frey, 2020). Through this analysis, I sought to determine if the variation in BO, STS, and CS could explain the odds of observing each response category of intent (the dependent variable). In his study of trauma-informed organizational culture, Keesler (2020) utilized multiple regression analysis to estimate the contribution of trauma-informed care to each ProQOL subscale score. In the educational setting, Harris and Bostain (2021) utilized multiple regression analysis to determine how conscientiousness moderates the relationship between using

mindfulness techniques and resilience in high school teachers. Similarly, Herman et al. (2021) also surveyed teachers and utilized regression analyses to determine teacher wellness following the COVID-19 shutdown.

The third research question investigated differences in teachers' perceived BO, STS, CS, resilience, intent to leave the profession, according to their demographic characteristics, professional experience, and school characteristics. To examine these differences, I performed various comparative analyses. To examine possible differences in teachers' perceived BO, STS, CS, resilience and intent to leave the profession and their school level and gender, I utilized comparative analyses suitable for the comparison of two groups. I reviewed box plots to determine if the data were normally distributed. If normally distributed, I conducted t-tests. If the data revealed otherwise, I conducted two-tailed Mann-Whitney two-sample rank-sum tests since this analysis does not require distributional assumptions such as normality (Conover & Iman, 1981).

Furthermore, I examined the possible differences in teachers' perceived BO, STS, CS, resilience and intent to leave the profession among setting, years of experience and age utilizing simple analysis of variance (ANOVA). This analysis examines differences between more than two groups (Salkind & Frey, 2020). In their study examining the effects of organizational change on STS and BO, Sprang et al. (2021) utilized ANOVAs to measure levels across varying demographic groups.

As stated, the purpose of this study was to examine the relationship between teachers' compassion fatigue, burnout, compassion satisfaction, resilience, and intent to leave the field. Through this study, I aimed to fill the gap in the research regarding teacher burnout with a large-scale quantitative study. This study gathered information

revealing several statistically significant results that may inform educational practice and

future research. Chapter 4 details the data gathered from the survey as well as the

analyses of each hypothesis.

Chapter 4: Results

This study sought to investigate the possible relationships among compassion fatigue, burnout, compassion satisfaction, resilience, and teachers' intent to leave the field. The ProQOL V measured compassion fatigue (CF), burnout (BO), and compassion satisfaction (CS). The survey also included the Connor-Davidson Resilience Scale-10 (CD-RISC-10). Additional questions gathered demographic and school information. Finally, the survey also included a question regarding the participants' intent to leave the field prior to retirement with a Likert scale. This study sought to answer three research questions:

1. Is there a significant relationship among teachers' perceived secondary traumatic stress (STS), burnout (BO), compassion satisfaction (CS), and resilience?

2. Is there a significant relationship among teachers' perceptions of their STS, BO, CS, resilience and their intent to leave the profession?

3. Are there significant differences in teachers' perceived BO, STS, CS, resilience, intent to leave the profession, according to their demographic characteristics, professional experience, and school characteristics?

This chapter presents the findings of the study. It begins with a description of the data preparation. Next, it provides the descriptive statistics of the participants. Finally, it presents the results of the correlational analyses, multiple regression analyses, and comparative analyses as organized by the research questions.

Data Preparation

I downloaded survey responses from Qualtrics into a Google spreadsheet to prepare for analysis. A total of 716 participants started the survey. The first question asked if the participant was currently employed as a teacher in a public school in Pennsylvania. Of the 716 participants who began the survey, 103 either did not meet the participation criteria or did not respond to the first question and did not move on in the survey. An additional 64 completed part I of the survey, which included demographic and school characteristic questions but did not complete any other part of the survey. These responses were not included. Ten participants completed part II which included the ProQOL V but did not complete part III, the Connor-Davidson Resilience Scale-10 nor part IV which included the question regarding intent to leave the field. These responses are included in the descriptive analysis and the analysis of the first and third research questions with one outlier removed as described in the section "Outliers" (n=538). The total number of participants who completed all four parts of the survey with one outlier removed was 548. Some participants did not provide demographic or school characteristic information as indicated in the following summary and on Table 1.

Within a Google spreadsheet, I scored the ProQOL V and Connor-Davidson Resilience Scale 10 according to the instructions in the handbooks for each tool (Connor & Davidson, 2003; Stamm, 2010). Finally, I coded the data in preparation to upload into SPSS, a statistical software, for data analysis.

Descriptive Analyses

Frequencies and Percentages of Participation

The population for this research study consisted of K-12 public school teachers in the state of Pennsylvania. The first qualifying question identified participants who met these criteria. Table 1 displays the demographic and school characteristics of the final sample. The following results demonstrate much similarity among several categories to the larger population of teachers in Pennsylvania. The majority of participants identified as female ($n = 424$, 77.2%). Gender demographics of teachers in Pennsylvania are similar to that of the study participants, for as of 2022-23, 74% of PA classroom teachers identified as female (PDE, 2023). The most frequently observed category of experience was 16-20 years ($n = 121$, 22%). The mean years of service for PA classroom teachers is 14.8 (PDE, 2023). Therefore, participants in this study could be representative of the teachers in PA by years of service. Also, most participants responded to the age item in the 35-44 category ($n = 179$, 32.6%). In 2017-18, the median age of PA teachers was 40.6 years old (U. S. Dept. of Ed., 2018). Participation in the study is also representative of the population of PA teachers by age. Most participants reported working in schools they classified as suburban ($n = 331$, 60.3%). Whereas, in PA, 46% of schools are classified as suburban (NCES, 2017). Therefore, the sample of suburban educators was greater for this study than the distribution of urban, suburban, rural throughout PA. In addition, nearly all respondents cited in-person as their primary mode of instruction ($n = 541$, 98.5%). Furthermore, more participants indicated they taught at the secondary level ($n = 281$, 51.2%) as opposed to the elementary level. Frequencies and percentages are presented in Table 1.

Table 1

Demographic and School Characteristics of Participants

Variable	*n*	*%*
Gender		
Female	424	77.2
Male	107	19.5
Non-binary/third gender	3	0.5
Prefer not to say	3	0.5
Missing	12	2.2
Age		
18-34	117	21.3
35-44	179	32.6
45-54	175	31.9
55+	58	10.6
Missing	20	3.6
Teaching Experience		
Less than 1-5	61	11.1
6-10	86	15.7
11-15	83	15.1
16-20	121	22.0
21-25	101	18.4
26-30	63	11.5
30+	25	4.6
Missing	9	1.6
School Setting		
Urban	85	15.5
Rural	131	23.9
Suburban	331	60.3
Missing	2	0.4
Mode of Instruction		
In-person	541	98.5
Online	2	0.4
Hybrid	5	0.9
Missing	1	0.2
Level		
Secondary	281	51.2
Elementary	248	45.2
Missing	20	3.6

Note. N=549. Due to rounding, percentages may not equal 100%.

Outliers

Using SPSS, I computed Z-scores for CS, STS, BO and resilience to examine the scores for univariate outliers defined as any value which falls outside the range of +/- 3.29 standard deviations from the mean (Tabachnick & Fidell, 2019). There were no outliers present in CS, BO, or resilience. There was one outlier present in STS, case 425. This participant's data point were removed prior to the following analyses.

The responses to the ProQOL V and Connor-Davidson Resilience Scale-10 produced the following results. Table 2 provides summary information for each component. The mean score for STS was 26.22 ($SD = 6.5$), BO was 28.48 ($SD = 5.61$), and CS was 36.37 ($SD = 6.25$). For each of the factors scored through the ProQOL, the lower the number, the less of an impact of that factor on the participant's perception of that phenomenon in their work place, and the higher the number, the greater the impact. For each of these factors, scores between 23 and 41 are considered moderate (Stamm, 2010). This indicates that the means of the sample population fall within the moderate range according to the ProQOL manual (Stamm, 2010). The mean score for resilience was 37.71 ($SD = 5.84$). According to the manual for the Connor-Davidson Resilience Scale-10, the higher the number, the greater the participants' perception of their resilience. The mean score overall of US participants is 31.8 ($SD = 5.4$) (Davidson, 2023). The mean score of the participants in the sample is higher than the average cited in the manual.

Table 2

Descriptive Statistics for STS, BO, CS, and Resilience Scores

Component	n	M	SD	Range	Min	Max	Variance
STS	548	26.22	6.50	34	12	46	42.21
BO	548	28.48	5.60	30	11	41	31.42
CS	548	36.37	6.25	32	18	50	39.02
Resilience	538	37.71	5.84	32	18	50	34.10

Intent

The final item on the survey requested participants rate how strongly they agree or disagree with the following statement: I intend to leave the profession before I reach the age of retirement (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree). Figure 1 shows the frequency of responses in percentages. Responses were as follows: 16.6% of participants (n = 91) strongly disagreed, 19.5% (n = 107) disagreed, 24.1% (n = 132) were neutral, 21.2% (n = 116) agreed, and 16.4% (n = 90) strongly agreed. Thus, in this sample of teachers, fewer than half indicated a likelihood of remaining in the profession until the age of retirement. Twelve participants did not respond to the question.

Figure 1

Frequency of Intent to Leave the Field
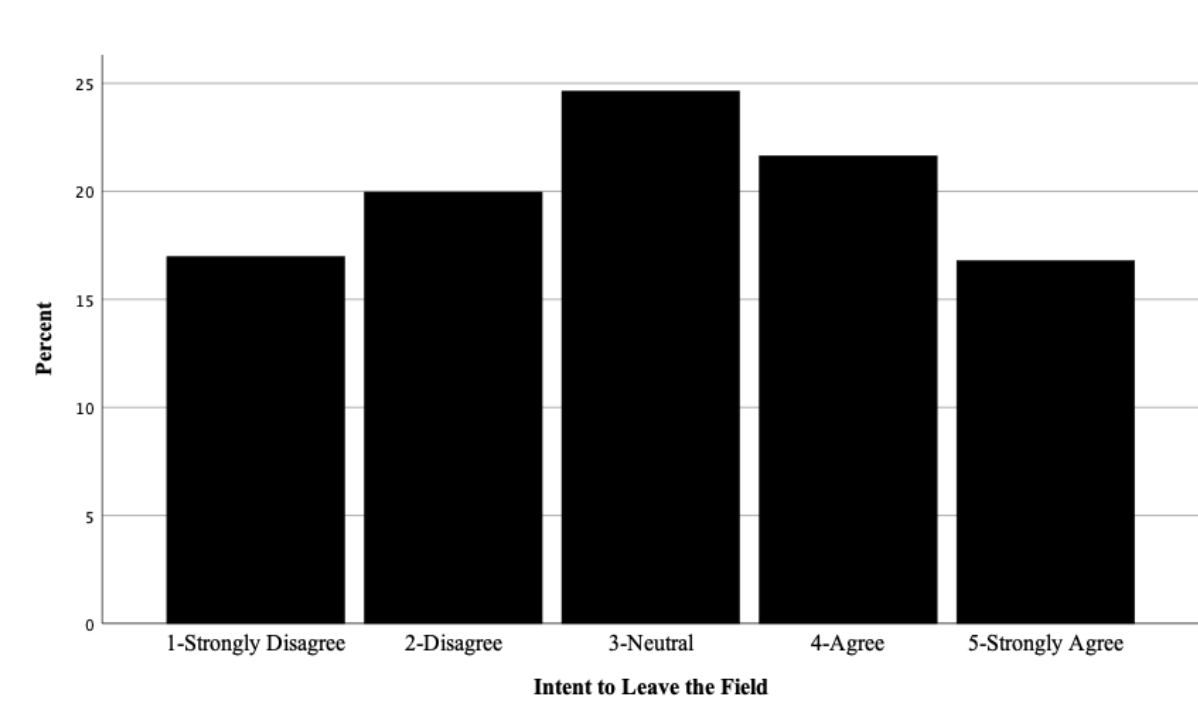
Analysis of Research Questions

Research Questions 1 & 2

      Correlational analyses. The first research question of the study investigated the

relationship among teachers' perceived STS, BO, CS, and resilience. The second

examined the relationship of these factors and teachers' intent to leave the field. To

examine the relationship among STS, BO, CS, resilience, and intent to leave the field, I

conducted Spearman correlation analyses. A Spearman correlation requires that the

relationship between each pair of variables does not change direction (Conover & Iman,

1981). This assumption is violated if the points on the scatterplot between any pair of

variables appear to shift from a positive to negative or negative to positive relationship

(Laerd Statistics, 2018). Preliminary analysis showed the relationship among all variables

to be monotonic, which I assessed through a visual inspection of the scatterplots. I

utilized recommendations for the Pearson correlation by Schober, et al. (2018) where a

coefficient of .10 indicates a weak correlation, .38 is moderate, .68 is strong, and .89 is

very strong. Table 3 demonstrates a correlation matrix displaying the results of the

analyses.

The analyses revealed several statistically significant, positive correlations. There

was a moderate positive correlation between STS and BO, r_s (546) = .619, p < .001. The

analyses also revealed a moderate positive correlation between resilience and CS, r_s (536)

= .488, p < .001. There was also a moderate positive correlation between intent to leave

the field and BO, r_s (534) = .438, p < .001. Finally, there was a weak but statistically

significant, positive correlation between intent to leave the field and STS, r_s (534) = .318,

p < .001.

Furthermore, the analyses revealed several statistically significant, inverse

correlations. There was a strong inverse correlation between CS and BO, r_s (546) = -.726,

p < .001. There was also a moderate inverse correlation between resilience and BO, r_s

(536) = -.458, p < .001, and a moderate inverse correlation between CS and STS, r_s (546)

= -.394, p < .001. There was a moderate inverse correlation between CS and intent to

leave the field, r_s (534) = -.376, p < .001. The inverse correlation between resilience and

STS was weak but statistically significant, r_s (536) = -.359, p < .001. Finally, the analyses

revealed a weak but statistically significant inverse correlation between resilience and

intent to leave the field, r_s (534) = -.140, p = .001.

The above results indicate there is a statistically significant correlation between each pairing of the variables of STS, BO, CS, resilience, and intent. Therefore, analyses indicated relationships among these variables.

Table 3

Spearman Correlation Analysis Results

Variable	n	M	SD	1	2	3	4	5
1. STS	548	26.22	6.50	—				
2. BO	548	28.48	5.60	.619*	—			
3. CS	548	36.37	6.25	-.394*	-.726*	—		
4. Resilience	538	37.71	5.84	-.359*	-.458*	.488*	—	
5. Intent	536	—	—	.318*	.433*	-.376*	-.140**	—

*$p<.001$. **$p=.001$

Regression analyses. To further investigate the relationship among STS, BO, CS, and intent, I conducted an ordinal logistic regression analysis. I chose to conduct ordinal regression analysis over other regression analyses because the dependent variable of intent to leave the field is measured at the ordinal level (Agresti, 2010). Through this analysis, I sought to determine if the variation in BO, STS, and CS could explain the odds of observing each response category of intent (the dependent variable). First, I calculated Variance Inflation Factors (VIFs) to detect the presence of multicollinearity between the predictors. Multicollinearity occurs when there is a correlation between independent variables; if significant enough, these correlations may render the results invalid (Laerd Statistics, 2018). Each of the variables in the regression model have VIFs less than 10 which is considered the maximum upper limit (Menard, 2009). The VIF for BO is 3.035, STS is 1.703, and CS is 2.16. These values indicate that multicollinearity would not affect the results of the ordinal logistic regression. Additionally, the deviance goodness-

of-fit test indicated that the model was a good fit to the observed data, $\chi2(2045) =$ 1544.25, $p = 1.000$. The final model was statistically significant and predicted the dependent variable over and above the intercept-only model, $\chi2(3) = 1567.817$, $p < .001$. Therefore, the analyses reveal relationships among these variables.

Table 4 summarizes the results of the ordinal regression model. The regression coefficient for BO was significant, $B = 0.10$, $\chi^2 = 15.74$, $p < .001$, suggesting that an increase in BO increases the odds of observing a higher category of intent to leave by 10%. The regression coefficient for STS was significant, $B = 0.03$, $\chi^2 = 4.03$, $p = .045$, indicating that an increase in STS would also increase the odds of observing higher intent to leave the profession early by 3%. The regression coefficient for CS was significant, $B = -0.05$, $\chi^2 = 7.17$, $p = .007$, which implies that an increase in CS would decrease the odds of observing a higher intent to leave the profession early by 5%.

Table 4

Ordinal Logistics Regression Results for BO, STS, and CS Predicting Intent

Predictor	B	SE	χ^2	p	OR
(Intercept):1	-0.04	1.15	0.00	.970	-
(Intercept):2	1.18	1.16	1.04	.309	-
(Intercept):3	2.35	1.16	4.11	.043	-
(Intercept):4	3.64	1.16	9.77	.002	-
BO	0.10	0.02	15.74	< .001	1.10
STS	0.03	0.02	4.03	.045	1.03
CS	-0.05	0.02	7.17	.007	0.95

Research Question 3

The third research question investigated differences in teachers' perceived BO, STS, CS, resilience, and intent to leave the profession, according to their demographic characteristics, professional experience, and school characteristics. To examine these differences, I performed various comparative analyses. Results of the comparison of these groups follow in the demographic categories: school level, school setting, experience, age, and gender.

School Level. To examine possible differences in teachers' perceived BO, STS, CS, resilience and intent to leave the profession based on school level, I conducted a Mann-Whitney U test. The two-tailed Mann-Whitney two-sample rank-sum test is an alternative to the independent samples *t*-test, but does not have any distributional assumptions such as normality (Conover & Iman, 1981). I chose this analysis because the data failed to meet the assumptions necessary to conduct the independent-samples t-tests. A review of box plots revealing the distribution of the data indicated these data are not normally distributed. Additionally, one of the variables (intent) is ordinal, and variables for independent-samples t-tests must be continuous (Laerd Statistics, 2018).

Table 5 summarizes the results of the Two-Tailed Mann-Whitney Test for CS, STS, BO, resilience and intent by level. The analyses revealed that there were no statistically significant differences in CS, STS, BO and intent to leave the field early between elementary and secondary teachers. However, the resilience scores were statistically significantly different between primary (*Mdn* = 37.00) and secondary teachers (*Mdn* = 38.00), $U = 37,628.50$, $z = 2.40$, $p = .017$. This suggests that scores for resilience are greater for secondary teachers than elementary teachers. Therefore, the null

hypothesis is rejected. Figure 2 presents a boxplot of the ranks of resilience by level. This boxplot reveals there is a much larger range of resilience scores among elementary teachers than secondary teachers.

Table 5

Two-Tailed Mann-Whitney Test for CS, STS, BO, Resilience and Intent by Level

| Variable | Elementary | | Secondary | | | | |
	Mean Rank	*n*	Mean Rank	*N*	*U*	*z*	*p*
CS	275.69	247	254.66	281	31,938.50	-1.58	.113
STS	267.14	247	262.18	281	34,052.50	-.37	.709
BO	262.96	247	265.85	281	35,083.50	.22	.828
Res	243.28	244	274.83	275	37,628.50	2.40	.017
Intent	253.95	243	263.48	274	34,519.00	.74	.459

Figure 2

Ranks of Resilience by Level
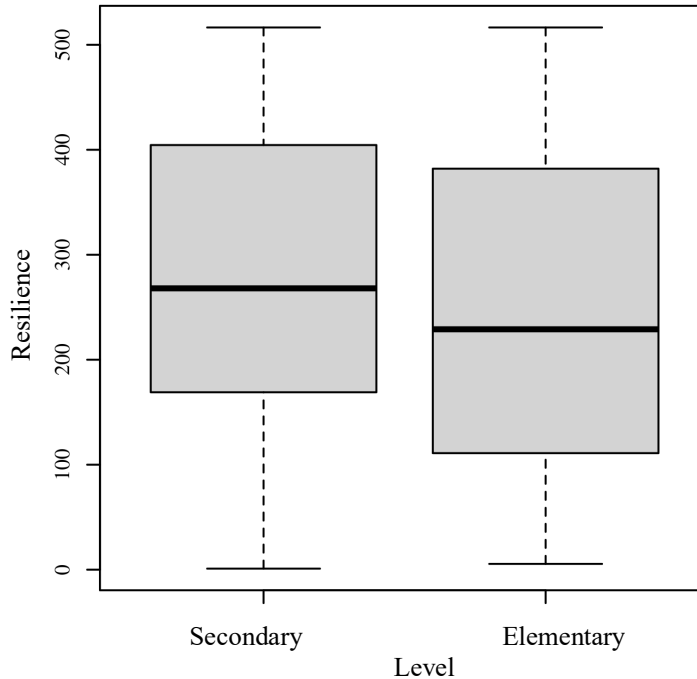
School Location. A one-way ANOVA was conducted to determine if CS, STS, BO, resilience, and intent to leave the field were different for teachers based on their school settings. The survey included a question about their school settings as classified into three groups: urban ($n = 85$), suburban ($n = 331$), and rural ($n = 130$). Each variable indicated Levene's test was not statistically significant ($p > .05$).; therefore there was homogeneity of variances.

The analyses revealed no statistically significant differences among teachers' school settings for CS, STS, BO, resilience, and intent. Ultimately, there were no significant effects in the model, and as a result, I did not conduct posthoc comparisons.

Years of Experience. To determine if CS, STS, BO, resilience, and intent to leave the field were different for teachers based on their years of experience, I conducted a one-way ANOVA. The survey question about participants' years of experience offered seven choices: less than 1 yr. to 5 ($n = 61$), 6-10 ($n = 86$), 11-15 ($n = 83$), 16-20 ($n = 121$), 21-25 ($n = 101$), 26-30 ($n = 63$), more than 30 ($n = 25$). Nine participants did not answer the question. To distribute these data more evenly, I combined these categories based on the number of participants in each. Prior to running the ANOVA, I recoded the data into three variable levels in SPSS. The resulting groups were less than 1 year to 10 ($n = 147$), 11-20 ($n = 204$), and more than 20 ($n = 188$).

For CS, STS, BO, and resilience, there was homogeneity of variances, as assessed by Levene's test for equality of variances ($p < .05$). However, for intent to leave the field, the assumption of homogeneity of variances was violated, as assessed by Levene's test for equality of variances ($p = .003$). Due to this violation, Welch ANOVA results are reported for intent.

The analyses revealed no statistically significant difference among teachers' years of experience for CS, STS, BO, resilience, and intent. Ultimately, there were no significant effects in the model, and as a result, I did not conduct posthoc comparisons.

Age. To determine if CS, STS, BO, resilience, and intent to leave the field were different for teachers based on their age, I conducted a one-way ANOVA. The survey question about participants' age offered five choices: 18-24 ($n = 117$), 25-34 ($n = 179$), 35-44 ($n = 175$), 45-54 ($n = 58$), 55+ ($n = 58$). Twenty participants did not answer the question. To distribute these data more evenly, I combined these categories based on the number of participants in each. Prior to running the ANOVA, I recoded the data into

three variable levels in SPSS. The resulting groups were 18-34 ($n = 117$), 35-44 ($n = 179$), and 45+ ($n = 232$).

For CS, STS, BO, and resilience, there was homogeneity of variances, as assessed by Levene's test for equality of variances ($p < .05$). However, for intent to leave the field, the assumption of homogeneity of variances was violated, as assessed by Levene's test for equality of variances ($p = .003$). Due to this violation, I interpreted Welch ANOVA results. The analyses revealed no statistically significant difference among teachers' age groups for CS, STS, BO, resilience, nor intent. Ultimately, there were no significant effects in the model, and as a result, I did not conduct posthoc comparisons. The null hypothesis was accepted.

Gender. To examine possible differences in teachers' perceived BO, STS, CS, resilience and intent to leave the profession between males ($n=105$) and females ($n=424$), I conducted a Mann-Whitney U test. The two-tailed Mann-Whitney two-sample rank-sum test is an alternative to the independent samples t-test, and does not have any distributional assumptions such as normality (Conover & Iman, 1981). A review of box plots revealed these data are not normally distributed. Data from non-binary/third gender participants ($n=3$) and those who preferred not to say ($n=3$) were not included due to the limited number of participants in each category. Twelve participants did not answer the question.

Table 6 summarizes the two-tailed Mann-Whitney test for CS, STS, BO, resilience and intent by gender. The CS score was statistically significantly different between female teachers ($Mdn = 37.00$) and male teachers ($Mdn = 35.00$), $U = 19,564.00$, $z = -2.17$, $p = .030$. This suggests that scores for CS are greater for female

teachers than male teachers. Figure 3 presents a boxplot of the ranks of CS by gender.

The STS scores were statistically significantly different between female teachers (Mdn =

26.00) and male teachers (Mdn = 23.00), U = 17,452.00, z = -3.66, p < .001. This

suggests that scores for STS are greater for female teachers than male teachers. Figure 4

presents a boxplot of the ranks of STS by gender. The resilience scores were statistically

significantly different between female (Mdn = 38.00) and male teachers (Mdn =

39.00), U = 24,973.00, z = 2.23, p = .026. This indicates that resilience scores are higher

for male than female teachers. Figure 5 presents a boxplot of the ranks of resilience by

gender.

However, the BO scores were not statistically significantly different between

female (Mdn = 29.00) and male teachers (Mdn = 30.00), U = 23,053.50, z = .30, p = .765.

And the intent to leave the field scores were not statistically significantly different

between female (Mdn = 3.00) and male teachers (Mdn = 3.00), U = 19,687.00, z = -
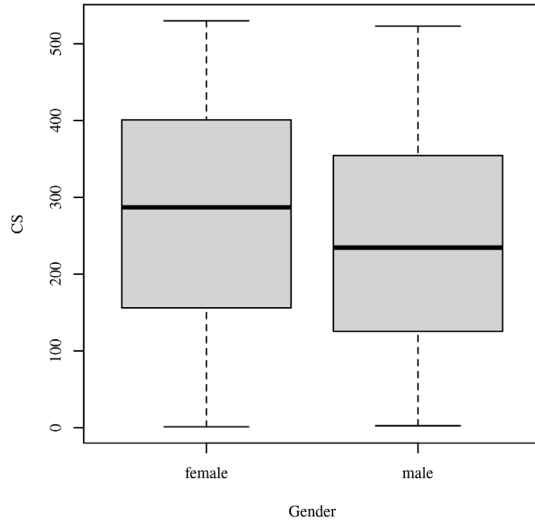
1.56, p = .119.

Table 6

Two-Tailed Mann-Whitney Test for CS, STS, BO, Resilience and Intent by Gender

	Female		Male				
Variable	Mean Rank	n	Mean Rank	n	U	z	p
CS	272.75	423	236.84	107	19564.00	-2.17	.030
STS	277.74	423	217.10	107	17,452.00	-3.66	<.001
BO	264.50	423	269.45	107	23,053.50	.30	.765
Res	254.11	417	290.84	105	24,973.00	2.23	.026
Intent	265.56	415	240.50	105	19687.00	-1.56	.119

Figure 3

Ranks of CS by Gender
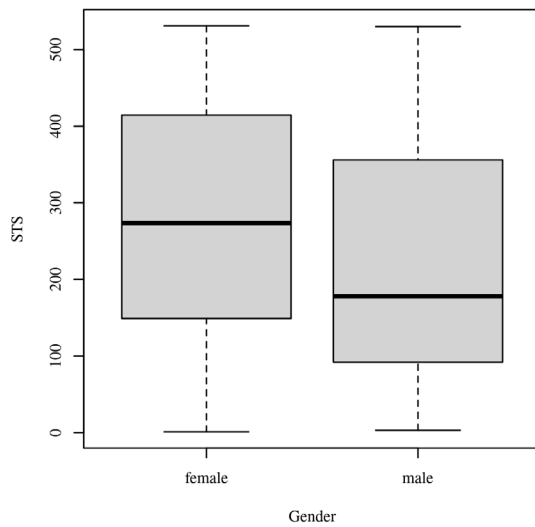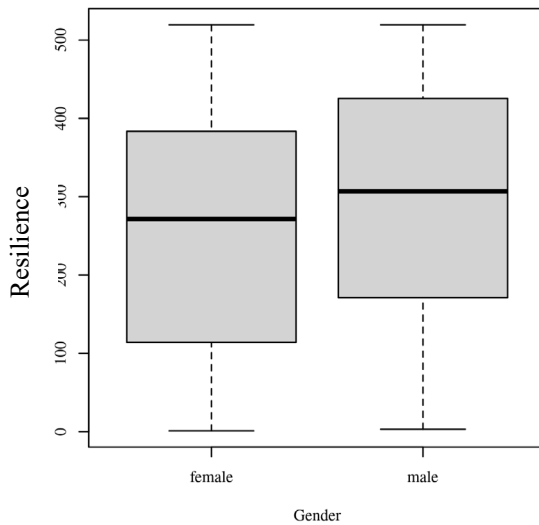

Figure 4

Ranks of STS by Gender

Figure 5

Ranks of Resilience by Gender

Conclusion

This chapter provided descriptive analyses of participants in the study. It presented the results of correlation analyses to examine the relationship among STS, BO, CS, resilience, and intent to leave the field. It also included the results of the comparative analyses used to examine differences in teachers' perceived BO, STS, CS, resilience and intent to leave the profession, according to their school level, school setting, experience, age, and gender. The following chapter will discuss the implications of these findings.

Chapter 5: Discussion

This study investigated the relationships among BO, STS, CF, CS, resilience, and teachers' intent to leave the profession before retirement. The study examined data collected through the ProQOL, the Connor-Davidson Resilience Scale-10, and demographic questions to examine three hypotheses. The first hypothesis examined the relationship among teachers' perceived secondary traumatic stress (STS), burnout (BO), compassion satisfaction (CS), and resilience. The second hypothesis examined the relationship among these factors and teachers' intent to leave the profession before retirement. The third hypothesis examined the differences in these factors and teachers' demographic characteristics, professional experience, and school characteristics. This chapter provides a review of the major findings and discusses the conclusions. It describes possible implications for research and practice and the limitations of the study and concludes with suggestions for future research.

Major Findings

Research Question 1

The first research question of the study investigated the relationship among teachers' perceived STS, BO, CS, and resilience. Correlational analyses revealed several statistically significant, positive correlations. A moderate positive correlation exists between STS and BO. This confirms prior research that revealed a positive correlation among STS and BO in helping professions (Cieslak et al., 2014; Shoji et al., 2015; van Mol et al., 2015). The analysis of this study also revealed a moderate positive correlation between resilience and CS. This aligns with the findings of a study that surveyed nurses

using the ProQOL and Connor-Davidson Resilience Scale which revealed a positive

correlation of CS and resilience (Alharbi et al., 2020).

Furthermore, the analyses revealed several statistically significant, inverse

correlations. There was a strong inverse correlation between CS and BO, a moderate

inverse correlation between resilience and BO, and a moderate inverse correlation

between CS and STS. Demir (2018) and Pretsch et al. (2012) conducted research that

indicates resilience may mediate stress, anxiety, and BO. Additional studies indicate that

professionals with higher levels of CS and higher quality of life scores have lower levels

of STS and CF (Cieslak et al., 2014; Sprang et al., 2021). Furthermore, Garcia and

Gamberte (2019) concluded that resilience protected their sample of primary teaching

staff against BO. This is an important finding, for if higher levels of CS and resilience

correlates to lower levels of BO and STS, then increasing CS and resilience may mitigate

the effects of CF on teachers.

Research Question 2

Research question two investigated the relationship among teachers' perceptions

of their STS, BO, CS, resilience and their intent to leave the profession. Correlational

analyses revealed several statistically significant correlations. Ordinal regression analyses

investigated these relationships further. A moderate positive correlation exists between

intent to leave the field and BO. Furthermore, an increase in BO increases the odds of

observing a higher category of intent to leave by 10%. A weak but statistically

significant, positive correlation exists between intent to leave the field and STS. An

increase in STS would also increase the odds of observing higher intent to leave the

profession early by 3%.

These findings align with research that indicates teacher burnout is clearly a concern for educators as a recent poll of National Education Association (NEA) members revealed 67% believe burnout is "a very serious issue," and 90% believe "a very serious or somewhat serious issue" (GBAO, 2022, p. 1). However, this study is so far singular in its measurement of both STS and BO as they relate to PA teachers' intent to leave the profession early. These findings suggest a correlation between STS, BO, and the possibility of the continued problem of teacher attrition.

Conversely, there was a weak but statistically significant negative correlation between compassion satisfaction and intent to leave the field. And an increase in CS would decrease the odds of observing a higher intent to leave the profession early by 5%. This comports the conclusion of Caringi et al. (2015) that compassion satisfaction may shield teachers from factors leading to their exodus from the field. In the nursing profession, Alharbi et al. (2020) also found increased CS mitigated compassion fatigue and increased job satisfaction. This finding indicates that measures that increase compassion satisfaction may help mitigate attrition in the profession.

Research Question 3

The third research question investigated differences in teachers' perceived burnout, secondary traumatic stress, compassion satisfaction, resilience and intent to leave the profession according to their demographic characteristics, professional experience, and school characteristics. I conducted comparative analyses in the following categories: school level, school setting, experience, age, and gender.

The analyses revealed no statistically significant differences in BO, STS, CS, resilience, or intent to leave the field according to school setting, age, and years of

experience. This could be a result of the number of participants. The desired number of

participants for a population size of 108,756 teachers with a confidence level of 95% and

a margin of error of 95% is 383 (Salkind & Frey, 2020), and the total number of

participants in this study exceeded this at *n*=529. Although the number of participants

was greater than the minimum desired, when divided among three categories, the number

of participants in each category may not have been enough to reveal differences among

categories. I discuss this possibility further in the limitations section of this chapter.

However, these results might also indicate that levels of BO, STS, CS, resilience, and

intent to leave the field are generally similar for all PA teachers according to these

demographic and school characteristics.

Prior research does not reveal evidence comparing the BO, STS, CS, or resilience

among teachers according to school setting, age, or experience. However, researchers

have conducted qualitative studies that indicate high levels of burnout in urban settings

due to a lack of resources to combat the grave needs of their students (Brunetti, 2006;

Castro et al., 2010). On the other hand, teacher attrition rate and intention to leave the

field have been studied across settings and age. Christian-Brandt et al. (2020) conducted

a study that revealed older teachers were more likely to indicate an intent to leave the

profession. Carver-Thomas' and Darling-Hammond's (2019) study revealed the youngest

and oldest categories of teachers had higher rates of attrition than those who were middle

aged. Their study also indicated that higher populations of low-income students were

more of an predictor of intent to leave the field than school setting.

School level. A Mann-Whitney U test revealed no statistically significant

differences in CS, STS, BO and intent to leave the field early between elementary and

secondary teachers. However, the resilience scores were statistically significantly higher for secondary teachers than elementary teachers. No other research directly compared resilience scores among secondary and elementary teachers. Yet, Richard et al. (2016) studied the relationship of resilience and other role stressors across elementary and secondary teachers and found no significant difference. However, research has indicated that elementary teachers have more exposure to students' trauma as they tend to be with one section of students for nearly the entire school day and are more isolated from their colleagues (Klassen, 2010). This more limited time secondary teachers have with their students might also lead to limited exposure to students' trauma and might be related to their higher levels of resilience.

Gender. Two-tailed Mann-Whitney tests revealed statistically significant differences between male and female teachers for CS, STS, and resilience. The CS score was statistically greater for female teachers than male teachers. Other studies have not indicated a significant difference in CS based on gender, yet cite other differences, such as work environment or specialized training, as factors that interfere with determining differences based on gender alone (Klassen, 2010; Sprang et al., 2021; Sprang et al., 2007). However, the STS scores were statistically significantly greater for female teachers than male teachers. This comports the findings of Sprang, et al. (2007) whose research indicated female mental health providers were more at risk for STS and ultimately CF. Furthermore, the resilience scores were statistically significantly higher for male than female teachers. Connor and Davidson (2003) found similar results in studies they conducted as they developed the CD-RISC (2003). and Ingersoll et. al (2022) decreasing number of male teachers trend

Conclusions

The findings of this study lead to several overall conclusions that will be discussed in this section. The first conclusion of the study is that teachers with higher perceived levels of STS have higher perceived levels of BO. Teachers with higher perceived levels of STS and/or BO are more likely to indicate a desire to leave the teaching profession before the age of retirement. These findings support the existing literature that indicates teachers experiencing higher levels of secondary traumatic stress also report higher levels of burnout (Christian-Brandt et al., 2020; Lawson et al., 2019). Moreover, this study establishes a connection between STS, BO, and an increased desire to leave the teaching profession prematurely, which corroborates previous research emphasizing how compassion fatigue can lead to teacher disengagement, decreased effectiveness, burnout, and even attrition (GBAO, 2022; Hoffman et al., 2007; Jennings & Greenberg, 2009; Motta, 2012; Simon et al., 2022; Talmor et al., 2005).

The next conclusion of the study is that teachers with higher perceived levels of compassion satisfaction are less likely to indicate they intend to leave the field. This aligns with prior research in the helping professions suggesting that those with higher CS levels have lower levels of STS and CF (Cieslak et al., 2014; Sprang et al., 2021). Other studies indicate that CS might act as a shield that protects teachers from the harmful effects of STS and prevents them from leaving the field (Christian-Brandt et al., 2020; McMakin et al., 2022). This study contributes by highlighting the link between higher CS and reduced intent to leave the field.

An additional conclusion of the study is secondary teachers who participated in the study have higher perceived levels of resilience than elementary teachers. Prior

research indicates that resilience is paramount to the management of stress at both levels (Beltman et al., 2011; Gu and Day, 2007). Yet no large scale research exists that compares resilience among secondary and elementary teachers across the nation or in Pennsylvania. Although Richards et al. (2016) found no significant difference in resilience among levels in their study of teachers in the Midwest.

Furthermore, there are three conclusions regarding gender-identification revealed through the study. First, male-identified participants have higher perceived levels of resilience. The manual for the CD-RISC discusses the comparisons of resilience among gender identities in numerous, and no consistent evidence exists that indicates males have more resilience (Davidson, 2023). However, the manual does not mention any such study in education. The second conclusion and third conclusions regarding gender identity comparisions are that female teachers have higher perceived levels of secondary traumatic stress and higher perceived levels of compassion satisfaction. While no large-scale study exists that compares these scores among female-identified teachers, these conclusions align with prior research. The ProQOL manual cites data from 1,289 cases from multiple studies. These data indicate women have a higher scores of STS and CS (Stamm, 2010).

Implications for Research

This study attempted to fill the research gap by identifying which teachers were experiencing CF and to what extent CF might lead to an exodus from the field. Based on the above conclusions, there are multiple research implications associated with this study. The first implication pertains to the relationship between CF and teacher attrition. The correlation of a higher rate of intending to leave the field and higher levels of BO and

STS indicates that CF might be a major factor compounding the issue of the teacher exodus. Longitudinal research could reveal if CF while teaching results in actual exodus, as this study only included current teachers and measured their intent to leave. Researchers might also study a possible causal relationship between mitigating CF and lowering teachers' intention to leave the field.

Furthermore, this study indicated that higher levels of compassion satisfaction might decrease the likelihood of a teacher leaving the profession. More research into ways in which CS can be cultivated are needed. Studies regarding mindfulness-based interventions (MBIs) show promise for decreasing STS, promoting stress management, and increasing overall feelings of well-being (Hepburn et al., 2021; Jennings & Greenberg, 2009; Zarate et al., 2019). However, researchers have not studied teacher compassion satisfaction as a factor alone nor has research uncovered the relationship between CS and actual teacher attrition.

The next implication regards the characteristics of teachers who are experiencing compassion fatigue and/or considering leaving the profession. While this survey received a robust sample from Pennsylvania teachers (n= 529), a nationwide survey might yield more participants and allow for more comparative analyses of demographic and school characteristics. For instance, research studies have examined high levels of BO in urban educators (Adnot et al., 2017; Brunetti, 2006; Herman et al., 2021; Simon et al., 2022). Yet no large-scale study exists to compare these levels among urban, rural, and suburban teachers. Additionally, research indicates that PA teacher attrition rates are greatest in the first three years of teaching until the age of retirement is reached (Fuller, 2022). This

study did not show a significant difference among the groups of experience; however, more participants may allow this trend to be examined further.

Another implication follows from the finding that secondary teachers had higher levels of resilience than elementary teachers. Further research is warranted that might look into the factors contributing to this difference. Interestingly, though, the analysis did not show a significant difference in STS, which contradicts prior studies indicating that elementary teachers might be exposed to students' trauma more often due to the structure of their day (McMakin et al., 2022). Additional research comparing elementary and secondary teachers' resilience is warranted.

Similarly, another implication for further research is regarding difference among teachers' gender identification and their levels of resilience, STS, and CS. Male teachers showed a higher perceived levels of resilience. Female teachers had higher perceived levels of CS. Both of these are potential mitigating factors for CF (Cieslak et al., 2014; Sprang et al., 2021; Stamm, 2002). However, females had higher levels of STS. This study had a limited number of male participants which limits the generalizability of the results. Therefore, research with a larger male participant sample may shed more light on this phenomenon. This could be accomplished by utilizing selective sampling.

Implications for Practice

The conclusions drawn from this study have several implications for educational leaders, administrators, and policymakers. This study revealed that participants with higher perceived levels of STS have higher perceived levels of BO, and teachers with higher perceived levels of STS and/or BO are more likely to indicate a desire to leave the teaching profession before the age of retirement. Therefore, educational leaders might

consider ways to lower burnout and STS to lower the teacher attrition rate.

Administrators can help mitigate burnout and secondary traumatic stress through

professional development and support systems. Trauma-informed PD that focuses on

increasing trauma literacy and teaching professionals how to cope with STS could be

beneficial to mitigating its effects (Brunzell et al., 2021; Castro Schepers & Young, 2022;

Christian-Brandt et al., 2020; Inbar & Shiri, 2021; Koenig et al., 2018; Lawson et al.,

2019). Given that teachers with higher STS and BO are more likely to consider leaving

before retirement, educational leaders might consider developing and implementing

retention strategies. These may include mentorship programs, professional development

opportunities, and efforts to reduce excessive workloads (Fuller, 2022). Ensuring a

healthy work-life balance is crucial.

Furthermore, teachers with higher perceived levels of compassion satisfaction are

less likely to indicate they intend to leave the field. To increase CS, educational leaders

could assess the well-being and job satisfaction of their teaching staff and make decisions

based on these data (Fuller, 2022; Yang et al., 2021). For administrators who take the

pulse of their staff and are in touch with the stress teachers face are more likely to make

changes that can positively influence teacher stress (Davis & Palladino, 2011; Hoffman et

al., 2007). Additionally, through specified professional development, research shows that

teachers developed resilience, growth mindsets, and increased gratitude (Brunzell et al.,

2021).

The study's conclusion that participating secondary teachers have higher

perceived levels of resilience than elementary teachers might also inform educational

practices. It may be beneficial to recognize and celebrate the resilience of secondary

teachers and explore ways to share best practices between different levels of education. Furthermore, recognizing the gender differences in STS and CS is essential. Female teachers are more likely to experience both STS and CS. Educational leaders may consider tailoring support programs to address the specific needs of male and female teachers, such as providing resources for managing STS and promoting CS. Understanding that male teachers have higher levels of resilience can inform recruitment and retention efforts. Promoting diversity in the teaching profession can be beneficial, and educational leaders could actively work to create an inclusive and supportive environment for all teachers (Jennings & Greenberg, 2009).

Limitations

It is essential to acknowledge several limitations that impact the generalizability of the findings of this study. There are seven limitations: geographic scope, the sample size and representation, the cross-sectional design, the self-reported data, the limited responses in some categories, the timing of the survey, and the scope of the measurement tools.

The study focused exclusively on Pennsylvania public school teachers. While this allowed for an in-depth examination of a specific group, it may limit the generalizability of the conclusions to teachers in other regions or educational settings. Different states and countries may have distinct educational systems, policies, and support structures that can influence teacher experiences and outcomes. Furthermore, most participants of this study teach in suburban schools, and the limited number of responses from urban and rural schools is worth noting.

While the study had a robust response (n=529), the sample size might not fully represent the entire population of Pennsylvania teachers. Analyses of particular subgroups, such as those based on school level and gender, could be limited by the relatively small number of participants in each category. Specifically, the study noted a gender imbalance in the sample, with a limited number of male participants. This imbalance could affect the generalizability of gender-related findings and highlights the need for more extensive research that includes a more diverse gender representation. Consequently, the findings may not apply equally to all demographic groups within the teaching profession.

The study employed a cross-sectional design, capturing data at a single point in time. This design limits the ability to establish causal relationships between variables. Longitudinal research would be necessary to determine whether or not the implied correlations translate into long-term effects. For instance, the study does not reveal whether or not BO and STS lead to attrition.

Finally, the study relied on specific survey measures to assess STS, BO, CS, (ProQOL-V) and resilience (CD-RISC-10). The choice of measurement tools can influence the results, and alternative measures might yield different findings.

Researchers might consider these limitations when applying the results to a broader context. Future research could address these limitations and provide a more comprehensive understanding of the complex relationships among these variables across diverse teacher populations and educational settings.

In summary, this study has shed light on the relationships among STS, BO, CS, resilience, and teachers' intent to leave the profession in Pennsylvania. These findings

have underscored the interconnectedness of these variables, revealing the presence of positive and inverse correlations that illuminate the challenges and protective factors experienced by teachers. Through a comprehensive analysis of data collected from Pennsylvania public school teachers, these findings hold important implications for both research and practice in the field of education. Ultimately, the conclusions from this study emphasize the importance of prioritizing teacher well-being, addressing gender-related differences, and implementing strategies to retain educators in the profession.

Notably, this study has reaffirmed previous research by highlighting the strong connection between STS and BO, signaling a critical concern for teacher well-being and the potential impact on attrition rates. The study also highlighted the buffering role of CS and resilience, suggesting that interventions aimed at enhancing these factors may help mitigate burnout and, consequently, reduce the likelihood of teachers leaving the profession prematurely.

The limitations of the study indicate the need for future investigations that encompass broader geographical contexts, larger and more diverse samples, and longitudinal designs to delve deeper into the causal relationships among these variables. Despite these constraints, this study offers valuable insights that educational leaders, administrators, and policymakers can leverage to prioritize teacher well-being, address gender-related differences, and implement strategies to retain educators. By taking proactive steps to support teachers and create a positive work environment, educational leaders can increase resilience and job satisfaction, benefiting students and the education system as a whole.

References

Adnot, M., Dee, T., Katz, V., & Wyckoff, J. (2017). Teacher turnover, teacher quality, and student achievement in DCPS. *Educational Evaluation and Policy Analysis, 39*(1), 54–76.

Agresti, A. (2010). *Analysis of ordinal categorical data* (2nd ed.). John Wiley & Sons.

Alharbi, J., Jackson, D., & Usher, K. (2020). Personal characteristics, coping strategies, and resilience impact on compassion fatigue in critical care nurses: A cross-sectional study. *Nursing & Health Sciences, 22*(1), 20–27. https://doi.org/10.1111/nhs.12650

Baltar, F. and Brunet, I. (2012). Social research 2.0: virtual snowball sampling method using Facebook, *Internet Research, 22*(1), 57-74. https://doi.org/10.1108/10662241211199960

Beltman, S., Mansfield, C., & Price, A. (2011). Thriving not just surviving: A review of research on teacher resilience. *Educational Research Review*, 6(3), 185–207.

Birch, S. H., & Ladd, G. W. (1998). Children's interpersonal behaviors and the teacher–child relationship. *Developmental Psychology, 34*(5), 934–946. https://doi.org/10.1037/0012-1649.34.5.934

Blodgett, C., & Lanigan, J. D. (2018). The association between adverse childhood experience (ACE) and school success in elementary school children. *School Psychology Quarterly, 33*(1), 137–146.

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

Borntrager, C., Caringi, J. C., van den Pol, R., Crosby, L., O'Connell, K., Trautman, A., & McDonald, M. (2012). Secondary traumatic stress in school personnel. *Advances in School Mental Health Promotion*, 5, 38-50. https://doi:10.1080/1754730X.2012.664862

Bride, B. E., Radey, M., & Figley, C. R. (2007). Measuring compassion fatigue. *Clinical Social Work Journal, 35*(3), 155–163. https://doi.org/10.1007/s10615-007-0091-7

Brunetti, G. J. (2006). Resilience under fire: Perspectives on the work of experienced, inner-city high school teachers in the United States. *Teaching and Teacher Education*, *22*(7), 812–825. https://doi.org/10.1016/j.tate.2006.04.027

Brunzell, T., Stokes, H., & Waters, L. (2018). Why do you work with struggling students? Teacher perceptions of meaningful work in trauma-impacted classrooms. *Australian Journal of Teacher Education, 43*(2), 116–142.

Brunzell, T., Waters, L., & Stokes, H. (2021). Trauma-informed teacher well-being: Teacher reflections within trauma-informed positive education. *Australian Journal of Teacher Education*, *46*(5), 91–107.

Caringi, J. C., Stanick, C., Trautman, A., Crosby, L., Devlin, M., & Adams, S. (2015). Secondary traumatic stress in public school teachers: Contributing and mitigating factors. *Advances in School Mental Health Promotion, 8*(4), 244–256. https://doi.org/10.1080/1754730X.2015.1080123

Carlson, J. S., Yohannan, J., Darr, C. L., Turley, M. R., Larez, N. A., & Perfect, M. M. (2020). Prevalence of adverse childhood experiences in school-aged youth: A systematic review (1990-2015). *International Journal of School & Educational Psychology, 8*, 2–23. https://doi.org/10.1080/21683603.2018.1548397

Carver-Thomas, D., & Darling-Hammond, L. (2019). The trouble with teacher turnover: How teacher attrition affects students and schools. *Education Policy Analysis Archives, 27*(36). https://dx.doi.org/10.14507/epaa.27.3699

Carver-Thomas, D., Leung, M., & Burns, D. (2021). California teachers and COVID-19: How the pandemic is impacting the teacher workforce. *Learning Policy Institute.* https://doi.org/10.54300/987.779

Castro, A. J., Kelly, J., & Shih, M. (2010). Resilience strategies for new teachers in high-needs areas. *Teaching and Teacher Education*, *26*(3), 622–629. https://doi.org/10.1016/j.tate.2009.09.010

Castro Schepers, O., & Young, K. S. (2022). Mitigating secondary traumatic stress in preservice educators: A pilot study on the role of trauma-informed practice seminars. *Psychology in the Schools*, *59*(2), 316–333. https://doi.org/10.1002/pits.22610

The Center for Victims of Torture (2023). https://www.cvt.org/

Christian-Brandt, A. S., Santacrose, D. E., & Barnett, M. L. (2020). In the trauma-informed care trenches: Teacher compassion satisfaction, secondary traumatic stress, burnout, and intent to leave education within underserved elementary schools. *Child Abuse & Neglect*, *110*(Part 3). https://doi.org/10.1016/j.chiabu.2020.104437

Cieslak, R., Shoji, K., Douglas, A., Melville, E., Luszczynska, A., & Benight, C. C. (2014). A meta-analysis of the relationship between job burnout and secondary traumatic stress among workers with indirect exposure to trauma. *Psychological Services, 11*(1), 75–86. https://doi.org/10.1037/a0033798

Clement, M. (2017). Why combatting teachers' stress is everyone's job. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas, 90*(4), 135–138. https://doi:10.1080/ 00098655.2017.1323519

Commonwealth of Pennsylvania. (2022). Mental health resources. https://www.pa.gov/guides/mental-health/#FindHelpandTreatment

Connor, K. M., & Davidson, J. R. T. (2003). Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression and Anxiety*, 18, 76-82. http://dx.doi.org/10.1002/da.10113

Conover, W. J., & Iman, R. L. (1981). Rank transformations as a bridge between parametric and nonparametric statistics. *The American Statistician, 35*(3), 124-129. https://doi.org/10.1080/00031305.1981.10479327

Creswell, J. W. & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage.

Daniilidou, A., Platsidou, M., & Gonida, E. (2020). Primary school teachers´ resilience: Association with teacher self-efficacy, burnout and stress. *Electronic Journal of Research in Education Psychology*, *18*(52), 549–582. https://doi.org/10.25115/ejrep.v18i52.3487

Davidson, J. R. T. (2023). Connor-Davidson Resilience Scale (CD-RISC) Manual. Unpublished.

Davis, K. C., & Palladino, J. M. (2011). Compassion fatigue among secondary special education teachers: A case study about job stress and burnout. Online Submission. ERIC.

https://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,sso&db=eric
&AN=ED522807&site=ehost-live&scope=site&custid=s3915936

Demir, S. (2018). The relationship between psychological capital and stress, anxiety, burnout, job satisfaction, and job involvement. *Eurasian Journal of Educational Research*, *75*, 137–153. https://doi.org/10.14689/ejer.2018.75.8

Diliberti, M. K., Schwartz, H. L. & and Grant, D. (2021). *Stress topped the reasons why public school teachers quit, even before COVID-19*. RAND Corporation. https://www.rand.org/pubs/research_reports/RRA1121-2.html.

Drew, S. V., & Sosnowski, C. (2019). Emerging theory of teacher resilience: A situational analysis. *English Teaching: Practice & Critique*, *18*(4), 492–507. https://doi.org/10.1108/ETPC-12-2018-0118

Edelman, A (2022, Feb. 1). More than half of teachers looking to quit due to Covid, burnout, poll suggests. *NBC News*. https://www.nbcnews.com/politics/politics-news/more-half-teachers-looking-quit-due-covid-burnout-poll-suggests-n1288365

Education Commission of the States. (2020). *What are the mental health and trauma training requirements for K-3 teachers? 50-State comparison: State K-3 policies.* https://files.eric.ed.gov/fulltext/ED608357.pdf

Endedijk, H. M., Breeman, L. D., van Lissa, C. J., Hendrickx, M. M. H. G., den Boer, L., & Mainhard, T. (2022). The teacher's invisible hand: A meta-analysis of the relevance of teacher–student relationship quality for peer relationships and the contribution of student behavior. *Review of Educational Research*, *92*(3), 370–412. https://doi.org/10.3102/00346543211051428

Espinoza, D., Saunders, R., Kini, T., & Darling-Hammond, L. (2018). *Taking the long view: State efforts to solve teacher shortages by strengthening the profession*. Learning Policy Institute. https://learningpolicyinstitute.org/product/long-view-report

Eyal, M., Bauer, T., Playfair, E., & McCarthy, C. J. (2019). Mind-Body group for teacher stress: A trauma-informed intervention program. *Journal for Specialists in Group Work, 44*(3), 204–221. https://doi.org/10.1080/01933922.2019.1634779

Farmer, D. (2020). Teacher Attrition: The Impacts of Stress. *Delta Kappa Gamma Bulletin*, 87(1), 41–50.

Figley, C. R. (Ed.). (1995). *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized*. Brunner/Mazel.

Figley, C. R., & Ludick, M. (2017). Secondary traumatization and compassion fatigue. In S. N. Gold (Ed.), *APA Handbook of trauma psychology: Foundations in knowledge* (pp. 573–593). American Psychological Association. https://doi.org/10.1037/0000019-029

Fleming, N. (2020). Curbing teacher burnout during the pandemic. *Edutopia*. https://www.edutopia.org/article/curbing-teacher-burnoutduring-pandemic

Fowler, F. J. (2014). *Survey research methods* (5th ed.). Sage.

Fuller, E. (2022). *Pennsylvania teacher staffing challenges*. Pennsylvania State University. https://ed.psu.edu/sites/default/files/inline-files/CEEPA_report_V2.pdf

García, M. I. V. de V. & Gambarte, M. I. G. (2019). Relationships between the dimensions of resilience and burnout in primary school teachers. *International*

Electronic Journal of Elementary Education, *12*(2), 189–196.

https://doi.org/10.26822/iejee.2019257666

GBAO. (2022, January 31). Poll results: Stress and burnout pose threat of educator

shortages. https://www.nea.org/sites/default/files/2022-

02/NEA%20Member%20COVID-19%20Survey%20Summary.pdf

Geoffrion, S., Lamothe, J., Morizot, J. & Giguère, C.-É. (2019). Construct validity of the

Professional Quality of Life (ProQoL) scale in a sample of child protection

workers. *Journal of Traumatic Stress*, 32, 566-576.

https://doi.org/10.1002/jts.22410

Graff, M. (2020). *The compassion fatigued organization: Restoring compassion to*

helping professionals. Cultivating Human Resiliency.

Green, J. G., & Bettini, E. (2020). Addressing teacher mental health during the COVID-

19 pandemic. *Teachers College Record*. https://www.tcrecord

.org/Content.asp?ContentId=23395

Greig, J., Bailey, B., Abbott, L., & Brunzell, T. (2021). Trauma-informed integral

leadership: Leading school communities with a systems-aware approach.

International Journal of Whole Schooling, 17(1), 62–97.

https://files.eric.ed.gov/fulltext/EJ1313336.pdf

Gu, Q., & Day, C. (2007). Teachers resilience: A necessary condition for effectiveness.

Teaching and Teacher Education, *23*(8), 1302–1316.

https://doi.org/10.1016/j.tate.2006.06.006

Hargreaves, A. (2001). The emotional geographies of teachers' relations with colleagues. *International Journal of Education Research, 35*, 503–527. https://doi.org/10.1016/S0883-0355(02)00006-X

Harris, A. T., & Bostain, N. S. (2021). The effect of mindfulness techniques on teacher resilience as moderated by conscientiousness. *Journal of Educational Research and Practice*, *11*(1), 81–94. https://doi.org/10.5590/JERAP.2021.11.1.06

Hepburn, S.-J., Carroll, A., & McCuaig-Holcroft, L. (2021). A complementary intervention to promote well-being and stress management for early career teachers. *International Journal of Environmental Research and Public Health*, *18*(12), 6320. http://dx.doi.org/10.3390/ijerph18126320

Hemsworth, D., Baregheh, A., Aoun, S., & Kazanjian, A. (2018). A critical enquiry into the psychometric properties of the Professional Quality of Life scale (ProQOL-5) instrument. *Applied Nursing Research*, 39, 81–88. https://doi.org/10.1016/j.apnr.2017.09

Heritage, B., Al Asadi, A. A., & Hegney, D. G. (2021). Examination of the Connor-Davidson Resilience Scale 10 (CD-RISC-10) using the polytomous Rasch model. *Psychological Assessment*, *33*(7), 672–684. https://doi.org/10.1037/pas0001011

Herman, J. L. (1992). *Trauma and recovery*. Basic Books.

Herman, K. C., Sebastian, J., Reinke, W. M., & Huang, F. L. (2021). Individual and school predictors of teacher stress, coping, and wellness during the COVID-19 pandemic. *School Psychology, 36*(6), 483–493. https://doi.org/10.1037/spq0000456

Hoffman, S., Palladino, J. M., & Barnett, J. (2007). Compassion fatigue as a theoretical framework to help understand burnout among special education teachers. *Journal of Ethnographic and Qualitative Research, 2*(1), 15–22. https://files.eric.ed.gov/fulltext/ED558015.pdf

Howard, S., & Johnson, B. (2004). Resilient teachers: Resisting stress and burnout. *Social Psychology of Education*, *7*(4), 399–420. https://doi.org/10.1007/s11218-004-0975-0

Hupe, T. M., & Stevenson, M. C. (2019). Teachers' intentions to report suspected child abuse: The influence of compassion fatigue. *Journal of Child Custody, 16*(4), 364–386. https://doi.org/10.1080/15379418.2019.1663334

Hydon, S., M., Wong, A. K. Langley, B. D. Stein, and S. H. Kataoka. (2015). Preventing secondary traumatic stress in educators. *Child and Adolescent Psychiatric Clinics of North America 24* (2): 319–333. https://doi:10.1016/j.chc.2014.11.003.

Inbar, L., & Shiri, S. A. (2021). Managing the emotional aspects of compassion fatigue among teachers in Israel: A qualitative study. *Journal of Education for Teaching: International Research and Pedagogy*, *47*(4), 562–575. https://doi: 10.1080/02607476.2021.1929876

Ingersoll, R. M., Merrill, E., Stuckey, D., Collins, G., & Harrison, B. (2022). Five trends shaping the teaching force. *State Education Standard, 22*(3), 6–11. https://repository.upenn.edu/gse_pubs/579/

Jennings, P. A., & Greenberg, M. T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. *Review of*

*Educational Research, 79(*1), 491–525.

https://doi.org/10.3102/0034654308325693

Joinson, G. (1992). Coping with compassion fatigue. *Nursing*, 22, 116-122.

Keesler, J. M. (2020). Promoting satisfaction and reducing fatigue: Understanding the

impact of trauma-informed organizational culture on psychological wellness

among direct service providers. *Journal of Applied Research in Intellectual*

Disabilities, 33(5), 939–949. https:///doi.org/10.1111/jar.12715

Koenig, A., Rodger, S., & Specht, J. (2018). Educator burnout and compassion fatigue:

A pilot study. *Canadian Journal of School Psychology, 33*(4), 259–78.

https://doi.org/10.1177/0829573516685017

Koslouski, J. B., & Stark, K. (2021). Promoting learning for students experiencing

adversity and trauma: The everyday, yet profound, actions of teachers.

Elementary School Journal, 121(3), 430–453. https://doi.org/10.1086/712606

Laerd Statistics (2015). *Statistical tutorials and software guides*.

https://statistics.laerd.com/

Lawson, H. A., Caringi, J. C., Gottfried, R., Bride, B. E., & Hydon, S. P. (2019).

Educators' secondary traumatic stress, children's trauma, and the need for trauma

literacy. *Harvard Educational Review*, *89*(3), 421-447, 517-519.

Learning Policy Institute. (2017, February). The role of principals in addressing teacher

shortages. Research brief. https://learningpolicyinstitute.org/product/role-

principals-addressing-teacher-shortages-brief

Ludick, M., & Figley, C. R. (2017). Toward a mechanism for secondary trauma induction

and reduction: Reimagining a theory of secondary traumatic stress. *Traumatology,*

23(1), 112–123. https://doi.org/10.1037/trm0000096

Mansfield, C. F., Beltman, S., Price, A., & McConney, A. (2012). "Don't sweat the small

stuff:" Understanding teacher resilience at the chalkface. *Teaching and Teacher*

Education, *28*(3), 357–367. https://doi.org/10.1016/j.tate.2011.11.001

McMakin, D., Ballin, A., & Fullerton, D. (2022). Secondary trauma, burnout, and teacher

self-care during COVID-19: A mixed-methods case study. *Psychology in the*

Schools, pits.22764. https://doi.org/10.1002/pits.22764

Menard, S. (2009). *Logistic regression: From introductory to advanced concepts and*

applications. Sage Publications. https://doi.org/10.4135/9781483348964

Motta, R. W. (2012). Secondary trauma in children and school personnel. *Journal of*

Applied School Psychology, *28*(3), 256–269.

https://doi.org/10.1080/15377903.2012.695767

Najjar, N., Davis, L. W., Beck-Coon, K., & Carney Doebbeling, C. (2009). Compassion

fatigue: A review of the research to date and relevance to cancer-care providers.

Journal of Health Psychology, *14*(2), 267–277.

https://doi.org/10.1177/1359105308100211

Office of Postsecondary and Higher Education (OPHE). (2023, March 1). Report on

educator certificates issued by the Pennsylvania Department of Education as

required under Act 82 of 2018.

https://www.education.pa.gov/DataAndReporting/Pages/Act82.aspx

Ormiston, H. E., Nygaard, M. A., & Apgar, S. (2022). A systematic review of secondary

    sraumatic stress and compassion fatigue in teachers. *School Mental Health, 14*(4),

    802–817. https://doi.org/10.1007/s12310-022-09525-2

Parker, C., Scott, S. & Geddes, A. (2019). Snowball sampling. *SAGE Research Methods*

    Foundations. https://dx.doi.org/10.4135/

Patterson, J. H., Collins, L., & Abbott, G. (2004). A study of teacher resilience in urban

    schools. *Journal of Instructional Psychology, 31*(1), 3–11.

Pennsylvania Department of Education (PDE). 2023. Data and reporting.

    https://www.education.pa.gov/DataAndReporting/Pages/default.aspx

Pressley, T. (2021). Elementary hybrid and virtual teacher stress during COVID-19.

    Journal of Research in Education, 30(3), 97–116.

Pretsch, J., Flunger, B., & Schmitt, M. (2012). Resilience predicts well-being in teachers,

    but not in non-teaching employees. *Social Psychology of Education*, *15*(3), 321

Reiser, J. E., Murphy, S. L., & McCarthy, C. J. (2016). Stress prevention and

    mindfulness: A psychoeducational and support group for teachers. *The Journal*

    for Specialists in Group Work, 41, 117–139. https://doi.org/10.1007/s11218-012-

    9180-8

Research for Action (RFA). (2022). https://www.researchforaction.org/wp-

    content/uploads/2022/09/Teachers-and-students-by-race_202021-revised.xlsx

Richards, K. A., Levesque-Bristol, C., Templin, T. J., & Graber, K. C. (2016). The

    impact of resilience on role stressors and burnout in elementary and secondary

    teachers. *Social Psychology of Education: An International Journal, 19*(3), 511–

    536. https://dx.doi.org/10.1007/s11218-016-9346-x

Salkind, N. J. & Frey, B. B. (2020). *Statistics for people who think they hate statistics.* Sage.

Schmidt, J. & DeCourcy, K. (2022, December 6). The pandemic has exacerbated a long-standing national shortage of teachers. *Economic Policy Institute.* https://www.epi.org/publication/shortage-of-teachers.

Shapero, B. G., Greenberg, J., Pedrelli, P., de Jong, M,. Desbordes, G. (2018). Mindfulness-based interventions in psychiatry. *Focus 16*(1):32-39. https://doi.org/10.1176/appi.focus.20170039.

Schober, P., Boer, C., Schwarte, L. (2018, May). Correlation coefficients: Appropriate use and interpretation. *Anesthesia & Analgesia 126*(5), 1763-1768. https://doi.org/10.1213/ANE.0000000000002864

Shoji, K., Lesnierowska, M., Smoktunowicz, E., Bock, J., Luszczynska, A., Benight, C. C., & Cieslak, R. (2015). What comes first, job burnout or secondary traumatic stress? Findings from two longitudinal studies from the U.S. and Poland. *PLoS One, 10*(8), e0136730. https://doi.org/10.1371/journal.pone.0136730

Simon, K., Petrovic, L., Baker, C., & Overstreet, S. (2022). An examination of the associations among teacher secondary traumatic stress, teacher–student relationship quality, and student socio-emotional functioning. *School Mental Health*. https://doi.org/10.1007/s12310-022-09507-4

Sorensen, L. C., & Ladd, H. F. (2020). The hidden costs of teacher turnover. *AERA Open, 6*(1). https://doi.org/10.1177/2332858420905812

Sprang, G., Lei, F., & Bush, H. (2021). Can organizational efforts lead to less secondary traumatic stress? A longitudinal investigation of change. *American Journal of Orthopsychiatry, 91*(4), 443–453. https://doi.org/10.1037/ort0000546

Sprang, G., Whitt-Woosley, A., & Clark, J. J. (2007). Compassion fatigue, compassion satisfaction, and burnout: Factors impacting a professional's quality of life. *Journal of Loss and Trauma*, *12*(3), 259–280. https://doi.org/10.1080/15325020701238093

Stamm, B.H. (2010). The Concise ProQOL Manual, 2nd Ed. https://proqol.org/proqol-manual

Stamm, B. H. (2002). Measuring compassion satisfaction as well as fatigue: Developmental history of the compassion satisfaction and fatigue test. In C. R. Figley (Ed.), *Treating compassion fatigue* (107–119). Brunner-Routledge.

Strolin-Goltzman, J., Breslend, N., Hemenway Deaver, A., Wood, V., Woodside-Jiron, H., & Krompf, A. (2020). Moving beyond self-care: Exploring the protective influence of interprofessional collaboration, leadership, and competency on secondary traumatic stress. *Traumatology*. https://doi.org/10.1037/trm0000244

Tabachnick, B. G., & Fidell, L. S. (2019). *Using multivariate statistics* (7th ed.). Pearson.

Talmor, R., Reiter, S., & Feigin, N. (2005). Factors relating to regular education teacher burnout in inclusive education. *European Journal of Special Needs Education, 20*(2), 215–229.

Tepper, E. L., & Palladino, J. M. (2007). Compassion fatigue and burnout: Precursors to elementary special educators' exodus from teaching. https://files.eric.ed.gov/fulltext/ED522930.pdf

U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), "Public School Teacher Data File," 2017–18.

Valent, P. (2002). Diagnosis and treatment of helper stresses, traumas, and illnesses. In C. R. Figley (Ed.), *Treating compassion fatigue.* (pp. 17–37). Brunner-Routledge.

van Mol, M. M. C., Kompanje, E. J. O., Benoit, D. D., Bakker, J., & Nijkamp, M. D. (2015). The prevalence of compassion fatigue and burnout among healthcare professionals in intensive care units: A systematic review. *PLOS ONE, 10*(8). https://doi.org/10.1371/journal.pone.0136955

Walker, T. (2021, Nov. 12). Getting serious about teacher burnout. *NEA Today.* https://www.nea.org/advocating-for-change/new-from-nea/getting-serious-about-teacher-burnout

Walsh, C. R., Mathieu, F., & Hendricks, A. (2017). Report from the secondary traumatic stress San Diego think tank. *Traumatology, 23*(2), 124–128. https://doi.org/10.1037/trm0000124

Will, M. (2022, March 22). Fewer people are getting teacher degrees: Prep programs sound the alarm. *Education Week.* https://www.edweek.org/teaching-learning/fewer-people-are-getting-teacher-degrees-prep-programs-sound-the-alarm/2022/03.

Yang, C., Manchanda, S., & Greenstein, J. (2021). Educators' online teaching self-efficacy and compassion fatigue during the COVID-19 pandemic: The dual roles of "connect." *School Psychology, 36*(6), 504–515. https://doi.org/10.1037/spq0000475

Zarate, K., Maggin, D. M., & Passmore, A. (2019). Meta-analysis of mindfulness training on teacher well-being. *Psychology in the Schools, 56*(10), 1700–1715. https://doi.org/10.1002/pits.22308

Appendix A

Survey
Consent Agreement (See Appendix C)

Participation Requirements:
Are you currently employed as a teacher in a public school within Pennsylvania? Y/N

Part I - Demographics and School Characteristics

Personal Demographics
1. What is your age?

2. What is your gender identification? (male, female, non-binary, other)

3. How many years of teaching experience do you have including the 2022-23 school year? (ranges)

School Characteristics
1. Please choose best description of the level at which you teach: elementary, secondary

2. Which of the following best describes your school setting? (urban, suburban, rural)

3. What is your primary mode of instruction? (in-person, online, hybrid)

Part II - Professional Quality of Life Scale (ProQOL) Version 5 (2009)

When you [help] people you have direct contact with their lives. As you may have found, your
compassion for those you [help] can affect you in positive and negative ways. Below are some questions about your experiences, both positive and negative, as a [helper].
Consider each of the following questions about you and your current work situation. Select the number that honestly reflects how frequently you experienced these things in the last 30 days.

1=Never 2=Rarely 3=Sometimes 4=Often 5=Very Often
1. I am happy.

2. I am preoccupied with more than one person I [help].

3. I get satisfaction from being able to [help] people.

4. I feel connected to others.

5. I jump or am startled by unexpected sounds.

6. I feel invigorated after working with those I [help].

7. I find it difficult to separate my personal life from my life as a [helper].

8. I am not as productive at work because I am losing sleep over traumatic experiences of a person I [help].

9. I think that I might have been affected by the traumatic stress of those I [help].

10. I feel trapped by my job as a [helper].

11. Because of my [helping], I have felt "on edge" about various things.

12. I like my work as a [helper].

13. I feel depressed because of the traumatic experiences of the people I [help].

14. I feel as though I am experiencing the trauma of someone I have [helped].

15. I have beliefs that sustain me.

16. I am pleased with how I am able to keep up with [helping] techniques and protocols.

17. I am the person I always wanted to be.

18. My work makes me feel satisfied.

19. I feel worn out because of my work as a [helper].

20. I have happy thoughts and feelings about those I [help] and how I could help them.

21. I feel overwhelmed because my case [work] load seems endless.

22. I believe I can make a difference through my work.

23. I avoid certain activities or situations because they remind me of frightening experiences of the people I [help].

24. I am proud of what I can do to [help].

25. As a result of my [helping], I have intrusive, frightening thoughts.

26. I feel "bogged down" by the system.

27. I have thoughts that I am a "success" as a [helper].

28. I can't recall important parts of my work with trauma victims.

29. I am a very caring person.

30. I am happy that I chose to do this work.

Part III - Connor-Davidson Scale 10

THIS SECTION INTENTIONALLY LEFT BLANK

Part IV - Professional Intent

Please rate how strongly you agree or disagree with the following statement. (1- strongly disagree to 5 strongly agree)

I intend to leave the profession before I reach the age of retirement.

Appendix B

Connor-Davidson Scale User Agreement

THIS PAGE INTENTIONALLY LEFT BLANK

Appendix C

Consent to be Part of a Research Study

THIS PAGE INTENTIONALLY LEFT BLANK

Appendix D

Dear Educational Professional:

My name is Theresa Jackson, and I am a doctoral candidate enrolled in Millersville & Shippensburg Universities' joint education leadership program. I also a principal at Valley View Elementary School in the York Suburban School District. I am passionate about what I see as one of the main threats to public education: teacher stress.

While the teacher shortage is being felt nationwide, the state of Pennsylvania specifically has experienced a drastic decline in the number new teaching certificates issued (OPHE, 2023). At the same time, districts have added more than 3000 educator positions across the state over the past 6 years (Fuller, 2022). Although Pennsylvania's attrition rate hovers at 6% (Fuller, 2022), the lack of teachers in the pipeline and the increasing number of vacancies available make it imperative to retain teachers currently in the profession.

I am conducting large-scale, quantitative survey research in an attempt to gather data regarding who across the state is experiencing job dissatisfaction and intending to leave the field early. To date, no such research exists. This research also examines to what extent compassion satisfaction and resilience may mitigate the effects of compassion fatigue and job burnout. This information may inform administrative practices to ease teacher stress and retain teachers (Christian-Brandt et al., 2020). Furthermore, the relationship among personal demographics, school characteristics, compassion satisfaction, and resilience may indicate which teachers are likely to remain in the profession.

I am kindly requesting that you email the attached consent form that includes a secure link to the survey to your database of current Pennsylvania teachers. I am not requesting access to your contact list, and the survey does not ask for any personally identifying information. It is completely voluntary and anonymous and poses no major risks to the participants.

If you require any additional information or have any questions, please feel free to contact me or my research committee chair. Our contact information is included below.

Please let me know whether or not you intend to share out this survey. I thank you in advance for your consideration of this request, and I look forward to hearing from you in the near future.

Respectfully,

Theresa M. Jackson