5-2021

Addressing Secondary Traumatic Stress and Burnout of Teachers Who Work with Students Who Have Trauma Backgrounds

Rachael Larson
rachylarson@hotmail.com

Addressing Secondary Traumatic Stress and Burnout of Teachers Who Work with

Students Who Have Trauma Backgrounds

by

Rachael Larson

A Starred Paper

Submitted to the Graduate Faculty of

St. Cloud State University

in Partial Fulfillment of the Requirements

for the Degree

Master of Science in

Special Education

March, 2021

Starred Paper Committee:
Jennifer Christensen, Chairperson
Bradley Kaffar
Semya Hakim

Table of Contents

List of Tables

Chapter 1: Introduction

Being an educator can be a very rewarding profession. Many choose this profession because they are passionate and dedicated about influencing and impacting the lives of others. Unfortunately, an increased number of students are being affected by trauma, which directly correlates to an increased number of teachers being at risk for developing compassion fatigue (National Child Traumatic Stress Network [NCTSN], 2011). More children are coming to school unprepared, yet our teachers are expected to provide emotional support, create a nurturing classroom environment, model emotion regulation, coach students through conflict resolution, manage challenging behaviors, while juggling the growing demands brought on by standardized testing (Cohan & Honigsfeld, 2011).

The field of education is seeing an increase in teacher demands and a decrease in sufficient, qualified teachers. The shortage is real and has consequences to both teachers and students. According to a report by Garcia and Weiss (2019), the following were found to be some of the reasons why teaching is becoming a less attractive profession and how it is contributing to the current teacher shortage:

- Schools struggle to find and retain highly qualified people to teach, which is an even tougher struggle in high-poverty schools.
- Low teacher pay is making the profession less attractive especially in high-poverty schools.
- Current school environments are tough and demoralizing to teachers.

- Teachers are not getting adequate training, professional development or receiving the early career support they need.

Having an instability and shortage in the teaching profession, negatively affects student achievement and their ability to learn.

The shortage is felt even greater in our high-poverty schools where we see a greater population of school-dependent children. According to Jackson (2015), a school-dependent child is one who depends on the school to give them enrichment, access to resources, and deep dialogue that other children get outside of school. The majority of school-dependent children are poor, urban students. These urban schools are being labeled as failures, causing large amounts of stress and fear for the teachers. Stress and fear inhibits the teacher's creativity and ability to teach.

Teachers juggle many responsibilities including meeting students' academic needs and managing disciplinary standards creating a burden. Along with increased responsibilities, teachers are given less time for planning, minimal time for collaboration with their team, and less administrative support for professional development opportunities. Teachers often become attached to the children they work with in turn, they experience distress when they witness daily the reminders that these children face many hardships at home, including abuse, neglect, divorce, poverty, and household danger. This attachment comes from the many hours a day they spend with these children supporting them, teaching them, and advocating for them. That does not include the hours of time they put into working with their families and outside resources. Teachers are at risk for experiencing Secondary Traumatic Stress (STS) by the repeated

exposure to traumatized children and the disclosure of trauma from some children. This exposure is highly likely considering more than 10 million children experience trauma each year (Hupe & Stevenson, 2019). In 2015, 1,650 special educators reported an injury/illness in the workplace; 1,190 of those incidents resulted in missing work and 1,440 were attributed to violence/negative events (Bureau of Labor, 2015, as cited in Sharp, Donohoo, Siegrist, & Garrett-Wright, 2018). This is just one of many reasons why special educators are leaving the professions. The U.S. Department of Education spends around $90 million a year to increase the number of special education teachers to replace those who left. This drains districts resources with the constant hiring and training, which hinders the learning potential of students (Hoffman, Palladino, & Barnett, 2007).

According to the National Education Association, by government standards describing poverty, 51% of public school students live in poverty. Poverty has direct impacts on the students' lives. It creates social and emotional challenges, chronic stressors, cognitive gaps, and health issues. Between 50-80% of students living in poverty have experienced trauma. Educators are speaking up about their added responsibilities that go beyond the classroom, arguing that they are not trained social workers or therapists (Izard & National Education Association, 2016).

According to the National Child Traumatic Stress Initiative (NCSTI), two-thirds of children will report experiencing at least one traumatic event before the age of 16. These incidences are known as Adverse Childhood Experiences, or ACEs and are defined as potentially traumatic events that occur between the ages of 0-17. ACE scores can

range from 0-10. The higher a person's ACE score, the greater risk they have of experiencing social and emotional issues. One way for a school to respond to this increase in trauma exposure is by becoming trauma-informed. A trauma-informed school is where the adults in that school community are prepared to recognize and respond to students who have been impacted by traumatic stress. It is an approach or practice that encourages the staff to approach the students with an informed understanding of the impact trauma can have on the entire human. This approach can be applied to a program, organization, or system. These practices can use educational strategies that are already in place such as multi-tiered systems of support and positive behavioral interventions and supports (Cavanaugh, 2016).

In the United States, more than 10 million children a year endure the trauma of abuse, violence, natural disasters, or other adverse events (NCTSN, 2011). The increase in children being directly exposed to trauma is negatively impacting the educators who are being secondarily exposed to this trauma. This repeated exposure is known as secondary traumatic stress. When the helping professional is suffering from STS they run the risk of not being able to effectively perform their job and end up leaving the profession.

Work-related stress among those professionals indirectly exposed to trauma, suggest that burnout and STS may co-occur. Currently there is a lack of longitudinal studies assessing the correlation between burnout and STS and if one leads to the other (Shoji et al., 2015).

"A lack of sufficient, qualified teachers threatens students' ability to learn. Instability in a school's teacher workforce (i.e., high turnover and/or high attrition) negatively affects student achievement and diminishes teacher effectiveness and quality" (Garcia & Weiss, 2019, p. 2).

Secondary Traumatic Stress

As of now, a concrete consensus definition has not been established leading to several differing definitions and interpretations. Some of the research uses the terms of secondary traumatic stress, compassion fatigue, and vicarious trauma interchangeably even though they have been separately defined.

"Secondary traumatic stress is the traumatic stress that professionals vicariously experience from close involvement with a traumatized client" (Bride, Robinson, Yegidis, & Figley, 2004).

According to the NCTSN (2011), secondary traumatic stress is defined as the emotional duress that results when an individual hears about the firsthand trauma experiences of another. It is caused by at least one indirect exposure to traumatic material. The symptoms are said to be almost identical to those of post-traumatic stress disorder (PTSD). This indirect trauma exposure can cause the individual to experience a number of symptoms. A partial list of symptoms includes hypervigilance, hopelessness, inability to embrace complexity, inability to listen/avoidance of clients, anger and cynicism, sleeplessness, fear, chronic exhaustion, physical ailments, minimizing, and guilt. The simple act of listening to someone's trauma story has the risk of taking an emotional toll on the helping professional (NCTSN, 2011).

Teachers may experience physical and emotional problems, interpersonal isolation, behavioral changes, cognitive dysfunction, and diminished professional performance. Although no research has explored the correlation between compassion fatigue and teachers' interactions with students, the depersonalization from the student is likely to reduce the teacher's ability and willingness to contribute sincere work (Hupe & Stevenson, 2019).

Research Questions

Two questions guide this literature review:

1. How does secondary traumatic stress affect teachers working with students who have experienced trauma?

2. What self-care strategies/practices are effective for teachers in addressing symptoms of secondary traumatic stress and reducing burnout?

Historical Background

The research is expanding regarding secondary traumatic stress (STS) but is still limited in its research on the incidences of STS. Individual responses to secondary trauma exposure are said to fall on a continuum that starts with compassion satisfaction and ends with STS or compassion fatigue (Whitt-Woosley & Sprang, 2017).

No consensus definition has been established for STS resulting in a lack of systematic research and development on preventions and interventions. The inconsistency in the way STS is conceptualized and measured has hampered the advancement in research (Sprang, Ford, Kerig, & Bride, 2019).

Charles R. Figley is one of the key players in the trauma research being done around STS. Some of his accomplishments include co-founding the Society for Traumatic Stress Studies (ISTSS) as its first President, 1985 and 1986, founding the online journal Traumatology in 1994 that is currently published and owned by the American Psychological Association, and he edited the book Compassion Fatigue in 1995 that started a movement focused on managing work-place stress in the human service community of professional and volunteers (Figley, n.d.).

In 1983, Figley recognized stress disability among crisis workers that at that time included police, firefighters, emergency technicians and other emergency workers. It was not until the 1990s that he identified "hidden victims" such as social workers and other mental health workers (Kanno & Giddings, 2017).

Beth Hudnall Stamm, Ph.D. is a retired professor and researcher in the field of traumatic stress. She specialized in traumatic stress, cultural trauma, and secondary traumatic stress with her work being used in over 30 countries. Stamm worked with Figley in the creation of the ProQol and she served as the director of ProQOL.org until she retired in 2012 (ProQOL Team, 2019).

In 1993, Figley first developed the term compassion fatigue, which was considered a less stigmatizing way to describe the idea of STS. In 1995, he defined STS as symptoms nearly identical to PTSD. Research will use these terms interchangeably, although they slightly differ in measures used. Karen W. Saakvitne and Laurie Anne Pearlman have taken a different approach in the impact of indirect exposure to trauma. Dr. Saakvitne has her doctorate in clinical psychology and has been practicing for over

34 years. Dr. Pearlman is a clinical psychologist and is the co-director for the Traumatic

Stress Institute. Saakvitne and Pearlman described vicarious trauma as the cumulative

impact of learning the details of another's traumatic experiences and the altering of the

professional's cognitive schemas and systems of meaning as a result (Sprang et al.,

2019).

Theoretical Background

Saakvitne and Pearlman approached indirect exposure to traumatic stressors using

the cognitive self-development theory. This theory focuses on three psychological

dimensions of the individual who has experienced trauma: the self, the traumatic

memories, and the psychological needs and related cognitive schemas. Due to the

ambiguity in terminology, few studies have investigated interventions for STS. The

strategies in the research do not directly target STS symptoms and have not specifically

been tested on those suffering from STS. The *Diagnostic and Statistical Manual, Fifth*

Edition (DSM-5) has expanded the criteria defining a traumatic event. The new

definition includes "experiencing repeated or extreme exposure to aversive details of

traumatic events." This added definition opens the doors to the opportunity of aligning

clinical investigations on STS interventions. A scientific meeting was held in October of

2017 including researchers, clinicians, trainers, and policymakers to consider the state of

STS interventions and to establish an agenda to advance the field toward developing

evidence-based treatments for symptoms resulting from indirect exposure (Sprang et al.,

2019).

Importance/Rationale

As a special education teacher, I have spent 16 years working with students with Emotional Behavioral Disorders. In these 16 years I have witnessed and indirectly experienced many accounts of students' trauma. I have been verbally, physically, and emotional mistreated. I have been called names, been physically hurt; shed tears feeling as though I have failed. I have experienced secondary traumatic stress.

Research indicates that 68% of children experience at least some form of trauma event, particularly students with emotional and behavioral disorders. This trauma can lead to challenges with emotional regulation (Cavanaugh, 2016).

More students are coming to school with trauma backgrounds yet educational professionals are not being given the proper training to address these student needs.

Secondary Traumatic Stress is recognized as a common occupational hazard for professionals who work with traumatized children. Studies show that up to 50% of child welfare workers are considered at high risk of STS and vicarious trauma. This is not limited to child welfare workers; it includes any professional who works directly with children who have experienced trauma and have the potential to hear the recounting of any of their traumatic experiences. Risks of STS are greater among women (about 76% of teachers in the United States are women), those who are highly empathetic, have unresolved trauma, carry a heavy caseload of traumatized children, are socially isolated, or feel they have had inadequate training (NCTSN, 2011).

Teachers need to be able to connect with children in order to make a difference in their learning. If the teachers do not have a well-being strategy in place, to help

counteract the indirect trauma exposure, it will lead to stress, burnout and eventually

leaving of the profession. Teacher retention and attrition is becoming a global concern.

Teacher stress and burnout affects the schools' climate, lowers morale, and prevents

meeting educational objectives (McCallum & Price, 2010).

Teaching is a profession that is associated with high levels of stress. The stress

stems from multiple factors including discipline issues, constant change in the classroom,

unengaged students, larger class sizes, increased paperwork, lack of support from

administration, low salaries, and parental conflicts. Research is revealing that this stress

is having a direct effect on an increase in job burnout (Hupe & Stevenson, 2019).

Definition of Terms

Burnout: the emotional exhaustion, depersonalization, and a reduced feeling of

personal accomplishment. It develops as a result of general occupational stress; it is not a

term used to describe the effects of indirect trauma exposure (NCTSN, 2011).

Compassion: feeling and acting with deep empathy and sorrow for those who

suffer (Stamm, 2002).

Compassion Fatigue: a more "user friendly" term to describe the phenomena of

secondary traumatic stress (Bride, Radey & Figley, 2007). This term is interchangeably

used in literature with secondary traumatic stress and vicarious trauma. It can be defined

"as a syndrome consisting of a combination of the symptoms of secondary traumatic

stress and professional burnout" (as cited in Newell & MacNeil, 2010, p. 61).

Compassion Satisfaction: refers to the positive feelings derived from competent

performance as a trauma professional. It is characterized by positive relationships with

colleagues, and the conviction that one's work makes a meaningful contribution to clients and society (NCTSN, 2011).

Secondary Traumatic Stress: relates to the natural and consequential behaviors and emotions resulting from knowing or being exposed to a traumatizing event that has been experienced by someone else and the stress resulting from wanting to help the individual who is suffering (Newell & MacNeil, 2010).

Self-Care: the utilization of skills and strategies by people to maintain their own personal, familial, emotional, and spiritual needs while attending to the needs of the individuals they work with (Newell & MacNeil, 2010).

Trauma: an emotional response to a terrible event (APA, 2015).

Traumatic Countertransference: was defined as a professional's affective, ideational, and physical responses to their clients and the professionals defense against those affects, intrapsychic conflicts. It is a defensive reaction triggered by the traumatized client and based on the professional's own life experiences or unresolved trauma (Kanno & Giddings, 2017).

Trauma-informed Practice: when providers approach clients personal, mental, and relational distress with an informed understanding of the impact trauma can have on the human experience (Cavanaugh, 2016).

Vicarious Trauma: refers to a process of cognitive change resulting from chronic empathetic engagement with trauma survivors (Newell & MacNeil, 2010). It is the change in the inner experience of the therapist. It is a theoretical term that focuses less on

trauma symptoms and more on the cognitive changes that follow an exposure to another person's trauma (NCTSN, 2011).

    Well-being: encompasses all the dimensions (social, emotional, physical, cognitive, and spiritual), which is referred to as 'whole person' (Mccallum & Price, 2010). According to the Merriam-Webster Dictionary (2016), well-being is defined as the state of being happy, healthy, or prosperous.

Chapter 2: Review of Literature

The literature review looks at 15 articles with publication dates ranging from 1999 to 2019. Eight of these articles pertain to research Question Number 1 addressing the definition, measurement, symptoms, and effects of Secondary Traumatic Stress and Burnout. Seven of the articles pertain to research Question Number 2 addressing effective self-care strategies/practices used to address the effects of Secondary Traumatic Stress and reduce burnout. This chapter is organized into four major sections: varying definitions, measurement tools, causation/symptoms, and effective self-care strategies/practices.

Varying Definitions

Advancements in research have been hindered by the inconsistencies in the way secondary traumatic stress (STS) has been measured and conceptualized. Different terms and definitions have been used when referencing the concept of STS.   In the early 1990s, Charles Figley was the first to define and characterize STS as a syndrome that was nearly identical to that of PTSD. Figley (1995) defined STS as "the natural and consequent behaviors and emotions resulting from knowing about a traumatizing event experienced by a significant other–the stress resulting from helping or wanting to help a traumatized or suffering person" (p. 7). Figley later coined the term comassion fatigue as a less stigmatizing way to describe this syndrome. Figley defined compassion fatigue as "the feelings of helplessness, confusion, isolation, numbness or avoidance, and persistent arousal in those who interact with traumatized individuals" (Sprang et al., 2019, p. 72). Throughout research and literature, the terms STS and compassion fatigue are used

interchangeably although their measurements and definitions sometimes differ (Sprang et al., 2019).

Pearlman and Saakvitne (1995) had a different approach and developed the concept of vicarious trauma. They described vicarious trauma as "the cumulative impact of learning about the details of clients' traumatic experiences on a professional, and specifically the alterations in an individual's cognitive schemas and systems of meaning that may occur as a result (Pearlman & Saakvitne, 1995)" (Sprang et al., 2019, p. 73).

The Diagnostic and Statistical Manual (5th ed.) has expanded its criterion on defining a traumatic event to include "experiencing repeated or extreme exposure to aversive details of traumatic events" (American Psychiatric Association, 2013, p. 271). This addition to the definition has the potential to help align clinical investigations pertaining to STS interventions (Sprang et al., 2019).

According to a study done by Motto, Chirichella, Maus, and Lombardo (1999), secondary traumatic stress disorder is defined as "the acquisition and experiencing of trauma symptoms as a result of close and extended contact with traumatized individuals." Vicarious trauma is defined as "the acquisition of trauma responses due to close association with a traumatized individual." Compassion fatigue is defined as "trauma reactions that are acquired by individuals who work in a therapeutic manner with those who have been traumatized" (Motta, Kefer, Hertz, & Hafeez, 1999, p. 54).

Burnout was first introduced in 1974 by Freudenberger and defined as being the response to prolonged work tension and stressors. In 1981, Maslach and Jackson (as cited in Hoffman et al., 2007) changed the definition to being a "syndrome of emotional

exhaustion, depersonalization, and a reduced sense of personal accomplishment"
(Hoffman et al., 2007). Although multiple definitions have been used, burnout has
consistently been conceptualized as including three dimensions: emotional exhaustion,
depersonalization, and lack of personal accomplishment (Shoji et al., 2015).

A concrete consensus definition of terms has not been established, leading to
several differing definitions and interpretations. Varying of definitions and terms makes
it difficult to establish effective measurement/assessment tools and treatments and
hinders continued research.

Measurement Tools

Bride et al. (2004) developed the Secondary Traumatic Stress Scale (STSS). This
is a 17-item measurement tool designed to measure intrusion, arousal, and avoidance
symptoms that are associated with indirect exposure to trauma events. The STSS was not
only designed for social workers but other helping professionals. The STSS was first
developed based off of an initial pool of items from the *DSM-IV* Criteria B (intrusion),
C (avoidance), and D (arousal) for PTSD. The STSS was piloted as a 65-item version
given to a sample of 37 direct service providers to reduce the item pool. The STSS was
reduced to a 50-item version given to a sample of 200 school social work alumni for the
purpose of finding the final scale version. The study was guided by three research
questions looking at the internal consistency of the subscales, subscale correlations of
related and unrelated variables, and the extent that each item represents the factors of
intrusion, avoidance, and arousal.

The study sample was 287 randomly selected master's-level social workers.

Participants had a mean age of 44.8 with an average of 16.1 years of experience. The

17-item, paper-and-pencil, version of the STSS was administered. Participants were

asked to base their answers off the past 7 days. They were also given a 23-item survey in

order to gather demographic and professional activity information. This was used to

gather correlate information. The STSS has a Likert-type response ranging from 1

(*never*) to 5 (*very often*). To address their first research question of reliability, the SPSS

system was used to determine a coefficient alpha error and suggested a level of .80 as

sufficient. The alpha levels for the STSS and its subscales were: Full STSS ($\alpha = .93$),

Intrusion ($\alpha = .80$), Avoidance ($\alpha = .87$), and Arousal ($\alpha = .83$). To address convergent

and discriminant validity the Boneferroni technique was used to set the family-wise error

rate at $\alpha = .05$ that gives a per comparison level 0f .00179 (.05/28). The results showed

significant correlations between the STSS and subscales and each convergent variable

(extent, frequency, depression, and anxiety). Significant correlations were not found

between the STSS and the discriminant variables (age, ethnicity, and income). These

results might show that not all persons exposed to trauma developed related symptoms.

The risk depends on the individual and the type of trauma that was experienced.

Research indicates that there is factorial validity with the following factor

intercorrelations (Intrusion-Avoidance = .737, $p < .001$; Intrusion-Arousal = .784,

$p < .001$; Avoidance-Arousal = .831, $p < .001$). This study has proven that the STSS is a

reliable and valid instrument designed to measure the negative effects resulting from

exposure to trauma. It is also easy to administer, score, and interpret. Researchers

cautioned others in using this on other populations and stated that additional studies

should be conducted on other groups as they may lead to differing results (Bride et al.,

2004).

This following scale (Table 1) is a 17-item questionnaire, created by Bride et al.

(2004), where individuals rate how frequently the statement is true for them in the past 7

days. It uses the following Likert scale: 1 never, 2 rarely, 3 occasionally, 4 often, 5 very

often. The STSS is broken into 3 subscales: Intrusion subscale (items 2, 3, 6, 10, 13),

Avoidance subscale (1, 5, 7, 9, 12, 14, 17), and Arousal subscale (4, 8, 11, 15, 16).

Table 1

Secondary Traumatic Stress Scale

1. I felt emotionally numb.
2. My heart started pounding when I thought about my work with clients.
3. It seemed as if I was reliving the trauma(s) experienced by my client.
4. I had trouble sleeping.
5. I felt discouraged about the future.
6. Reminders of my work with clients upset me.
7. I had little interest in being around others.
8. I felt jumpy.
9. I was less active than usual.
10. I thought about my work with clients when I didn't intend to.
11. I had trouble concentrating.
12. I avoided people, places, or things that reminded me of my work with clients.
13. I had disturbing dreams about my work with clients.
14. I wanted to avoid working with some clients.
15. I was easily annoyed.
16. I expected something bad to happen.
17. I noticed gaps in my memory about client sessions.

The Compassion Fatigue Self-test for Psychotherapists was developed to assess burnout and compassion fatigue in therapists that work with traumatized clients. From this, along with the symptomology for PTSD from the DSM-IV, the Secondary Trauma Questionnaire was derived. The study looked at two different groups who had all been consistently exposed to traumatized individuals. One of the samples consisted of 157 middle-class college students who had extended contact with a traumatized family member, friend, or person whom they were emotionally involved with. This was a course requirement for an introductory psychology class. The second sample consisted of 261 mental health professionals who were consistently exposed to distressing experiences. Both groups were administered the Secondary Trauma Questionnaire and 53 participants from the student sample and all from the mental health sample also completed the Impact of Event Scale-Revised. This was to help assess whether the questionnaire shared characteristics associated with PTSD. Results found that the questionnaire showed adequate internal consistency with .88 for student sample and .75 for the mental health sample. In both samples the responses to the questionnaire were significantly correlated supporting that secondary trauma and PTSD share similar symptoms.

Table 2

Pearson Correlations Between Score on Secondary Trauma Questionnaire and Standard Trauma Measures

Student Sample (*n*=53)   Mental Health Sample (*n*=261)

Measure	1	2	3	4	5
1. Secondary Trauma Questionnaire Modified PTSD Symptom Scale Self-Report		.47	.46	.49	.33
2. Frequency	.54		.93	.64	.51
3. Severity (Impact of Event Scale)	.56	.94		.61	.43
4. Intrusion	.41	.28	.31		.62
5. Avoidance	.46	.34	.31	.76	

p < .01

The administration of the questionnaire should be on-going across more diverse populations to help improve consistency and validity (Motta et al., 1999).

Table 3 represents a 20-item questionnaire that asks you to rate yourself considering a negative experience that has happened to someone close to you using the following rating system: 1 = rarely/never, 2 = at times, 3 = not sure, 4 = often, 5 = very often. The rater is asked to identify the relationship to that person and the negative experience.

Table 3

Secondary Trauma Questionnaire

1. I force myself to avoid certain thoughts or feelings that remind me of (person above) difficulties.
2. I find myself avoiding certain activities or situations because they remind me of their problems.
3. I have difficulty falling or staying asleep.
4. I startle easily.
5. I have flashbacks (vivid unwanted images or memories) related to their problems.
6. I am frightened by things that he or she said or did to me.
7. I experience troubling dreams similar to their problems.
8. I experience intrusive, unwanted thoughts of their experiences.
9. I am losing sleep over thoughts of their experiences.
10. I have thought that I might have been negatively affected by their experience.
11. I have felt "on edge" and distressed and this may be related to thoughts about their problem.
12. I have wished that I could avoid dealing with the person or persons named above.
13. I have difficulty recalling specific aspects and details of their difficulties.
14. I find myself losing interest in activities that used to bring me pleasure.
15. I find it increasingly difficult to have warm and positive feelings for others.
16. I find that I am less clear and optimistic about my future life than I once was.
17. I have had some difficulty concentrating.
18. I would feel threatened and vulnerable if I went through what the person above went through.
19. I would have experienced horror or intense fear if I had their problems.
20. I have disturbing recollections and intruding thoughts of their experiences.

Motta et al. (1999) did a second study reducing this scale to a more easily measured 18-item scale. The purpose of this study was to establish cutoff scores that could be helpful in clinical practice. Establishing cutoff scores allows one to judge whether STS symptoms are associated with emotional difficulties or whether the trauma reactions are of transient nature. The sample consisted of 118 adult undergraduate students with a mean age of 23.37 who volunteered to participate to fulfill a requirement of research participation. Participants were administered the 18-item Secondary Trauma

Scale and were asked to consider a negative experience that happened to someone close to them. Participants were also administered the following five rating scales: Beck Depression Inventory-II, Beck Anxiety Inventory, Impact of Events Scale–Intrusion, Impact of Events Scale–Avoidance, and Peritraumatic Dissociative Experiences Questionnaire. Table 4 shows the results of the Pearson correlation that was done between the scores on the Secondary Traumatic Scale and the other five measures.

Table 4

Pearson Correlation Scores

Measure	1	2	3	4	5	6
1. Secondary Trauma Scale		.47	.61	.48	.47	.47
2. Beck Anxiety Inventory			.52	.50	.38	.35
3. Beck Depression Inventory				.51	.43	.48
4. Impact of Event Scale – Intrusion					.65	.46
5. Impact of Event Scale – Avoidance						.50
6. Peritraumatic Dissociative Experiences Questionnaire						

(N=118) All correlation coefficients $p < .05$
(Motta et al., 2004)

The overall reliability of the STS in this sample was ($r = .89$) which is consistent with previous studies. The study concluded that STS scores of 38 or higher appear to indicate mild to severe anxiety and depression and are related to problems associated with symptoms of intrusion and avoidance. Scores higher than 45 should be considered to possibly be of significant emotional concern. Still, none of the secondary-trauma measures have a cutoff score and assume subjective judgment. It is recommended that more studies take place to help establish causation (Motta et al., 2004). Bride et al.

(2007) also looked at the Secondary Traumatic Stress Scale (STSS) to assess its

reliability and validity. He interpreted the scoring as follows:

At or below 50th percentile (less than 28) = *little* or no secondary traumatic stress

51st to the 75th percentile (28-37) = *mild* secondary traumatic stress

76th to the 90th percentile (38-43) = *moderate* secondary traumatic stress

91st to 95th percentile (49 and above) = *severe* secondary traumatic stress

The STSS is only a screening tool and should not be used in place of a full clinical

interview. The internal consistency scores for the STSS and its subscales are as follows:

Total = .93, Intrusion = .80, Avoidance = .87, and Arousal = .83. Construct validity has

been determined by a convergent, discriminant, and factorial analyses (Bride et al.,

2007). The STSS was conceptualized and designed to be congruent with the DSM-IV

criteria for PTSD, although the scope of symptoms represented is narrow (Sprang et al.,

2019).

Charles Figley coined the less stigmatizing term of compassion fatigue and

created an assessment tool to of measurement. The Compassion Fatigue Self Tests

(CFST) initial development was based off clinical experience. It not only measured

compassion fatigue but also job burnout. The CFST is made up of 40 items, 23 related to

compassion fatigue, and 17 related to burnout. Respondents are asked to respond by how

frequently (1 = rarely/never, 2 = at times, 3 = not sure, 4 = often, 5 = very often). Cutoff

scores on this scale have been established and are as follows:

Compassion Fatigue Subscale

26 or below = extremely low risk

31-35 = moderate risk

36-40 = high risk

41 or more = extremely high risk

Burnout Subscale

36 or below = extremely low risk

37-50 = moderate risk

51-75 = high risk

76-85 = extremely high risk

Internal consistency ranges from α = .86 to .94. In 1996, Stamm and Figley revised the CFST. The revision included measures of compassion satisfaction increasing it to a 66-item instrument and naming it the Compassion Satisfaction and Fatigue Test. The revised version was piloted, and its subscales showed internal consistency as follows: compassion satisfaction α = .87, burnout α = .90, and compassion fatigue α = .87 shown in Table 5 (Bride et al., 2007). This test is being used around the world in a number of studies in a variety of fields to help determine whether it is a good measure of what it seeks to test (Stamm, 2002).

Table 5

Compassion Satisfaction and Fatigue Test Subscales

SCALE	ALPHA	MEAN	STANDARD DEVIATION	INTERPRETATION
Compassion Satisfaction	.87	92.10	16.04	Higher score is better satisfaction with ability to caregiver (e.g., likes colleagues, feels good about ability to help, makes contribution).
Burnout	.90	24.18	10.78	Higher score is higher risk for burnout (e.g., feels hopeless and unwilling to deal with work).
Compassion Fatigue	.87	28.78	13.15	Higher score is higher risk for compassion fatigue (e.g., symptoms of work-related PTSD, onset is rapid as a result of exposure to highly stressful caregiving).

Continued development of the CFST took place along with renaming it the Professional Quality of Life Scale (Pro-QOL). The Pro-QOL consists of three subscales: compassion satisfaction, burnout, and compassion fatigue/secondary traumatic stress. It was condensed into 30 items and respondents are asked to indicate frequency of each item within the past 30 days. Each item has a Likert scale (0 = never, 1 = rarely, 2 = a few times, 3 = somewhat often, 4 = often, and 5 = very often). The Pro-QOL subscales showed internal consistency as follows: compassion satisfaction (α = .87), burnout (α = .72), and compassion fatigue (α = .80). The data supporting the validity, both discriminant and convergent, have not been published or made publicly available (Bride et al., 2007).

In October of 2017, a group of STS researchers, trainers, and policymakers met to address the gap in STS interventions, assessments, and development of evidence-based treatments in an attempt to move the field forward on this topic (Sprang et al., 2019).

Causation/Symptoms

The PTSD like symptoms caused by secondary traumatic exposure can vary from mild to clinically significant. These symptoms do not constitute a *DSM-5* diagnosis making it important to bring attention to STS as a phenomenon. Missed or unaddressed symptoms have the potential to cause substantial impairment in one's personal and professional lives (Sprang et al., 2019). As discussed in the previous section, a variety of measurement instruments have been used to measure aspects of STS. There are some limitations with these instruments being there currently is no single instrument that measures the entire domain of STS.

Research has separately defined burnout, secondary traumatic stress, and compassion fatigue. They all show some overlapping symptomology and effects.

Figley (1995) categorized compassion fatigue reactions into three categories: psychological stress, cognitive shift, and relational disturbances. Psychological stress can include emotions, nightmares, difficulty sleeping, headaches, obsessive behavior, physiological symptoms, and/or impairment of daily activities. Cognitive shift is when the person experiences feelings of complete helplessness. Relational disturbances include distancing and detaching from friends, family, and colleagues. Hoffman et al. (2007) ran a multiple case qualitative study addressing the research question: "Do special education teacher become so engaged in their students' disability needs that they experience fatigue relative to their students' struggles?" (p. 17) The authors defined compassion fatigue as related to the following five components:

(a) Specific situations (e.g., a student who displays excessive oppositional defiance),

(b) Workload assignments (e.g., number of special education students assigned to a teacher),

(c) Past histories (e.g., former student's threat of violence toward a teacher),

(d) Symptoms (e.g., calling in sick to avoid student interactions),

(e) Professional development/support opportunities (e.g., addressing compassion fatigue issues and concerns as part of an annual evaluation).

A semi-structured 90-minute interview protocol was designed based off these five components. The sample was 20 middle school special education teachers with 0-6 years' experience. The article only reported on the results of five of the 20 participants. Participants' responses were sorted according to the terms set by Gertsen, Keating, Yovanoff, and Harniss's (2001) description of job design, organizational stress, role conflict, role ambiguity, and dissonance were the components that were identified as job-based compassion fatigue. Next, they identified three themes as examples that justified the use of the compassion fatigue theoretical framework: loss of control, responsibility, and empathy. Results for loss of control showed two of the participants feeling like no matter what they did they always felt out of control. They expressed their concern with general education teachers holding a no tolerance policy for their special education student's behavior and how that caused the student's behaviors to increase and their feeling of having no control over either side. One participant expressed her negative

experience to be with her principal who had no special education experience. One stated she just gives in and tries to keep her students and herself low on the radar. Responsibility was communicated by participants in terms of fortitude toward general education teachers perceiving them as irresponsible. They reported never considering calling in sick to avoid stress, as it would be considered quitting or not sticking it out. Empathy toward participant's students and their needs is what resolved their ongoing employment. Participants could identify a specific student as being their reason for returning another year. Responding to the well-being and sustainability of special education teachers is more likely to occur in the future if it is linked to student achievement or understood as and ethical way in treating employees. Participants knowingly engaged in unhealthy behaviors to avoid breakdowns and negative stereotypes. Consideration of a compassion fatigue framework for special education teacher exodus should be addressed in future research (Hoffman et al., 2007).

Albrecht, Johns, Mounsteven, and Olorunda (2009) addressed the current shortage of EBD teachers in a qualitative and quantitative study. This was a pilot study done looking at working conditions of special education teachers who worked with students identified as EBD and how that effects the likely hood of them leaving the profession. An email was sent to 4,000 members of the CCBD (Council for Children with Behavior Disorders) requesting participation in the study including the link to the survey. The sample included 776 teachers and related service providers who primarily work with students with EBD. Of the 776 participants, 33.4% reported working in urban settings, 30.3% indicated working in rural settings, 35.8% indicated working in suburban settings,

and .5% indicated working in a combined setting. The survey consisted of 28 questions that included Likert scales, forced choice, multiple responses, and opportunity for narrative comments. The survey was made available through *Survey Monkey* and made available for 6 months. The responses were collected and inputted into the SPSS software program for analysis.

A qualitative analysis was done by two of the authors with the questions that required a narrative response. These responses were coded and sorted by themes of those who intended to stay teaching and those who intended to leave. A quantitative analysis looked at the potential variables influencing a teacher staying or leaving and correlates were done examining demographics, working conditions and the intent to continue teaching. Of the 776 participants, not all answered every question; however, the sample size was at least 610 with a median response rate of 712. The following variables were considered significant with the intent to continue administrative support daily, availability of support personnel on a daily basis, adequate time to complete paperwork, years of teaching EBD (more than 10), and approach used (PBIS with point system and level system). The following variables were considered significant with intent to leave administrative support upon request, availability of support personnel upon request, years of teaching EBD (2-5 years), and approach used (point system daily). The following variables were labeled not significant but related to intent to leave population setting, licensure, instructional setting, availability of selected personnel resources, use of physical restraint, and injury by student.

Inferential statistics gathered were broken into the following areas: demographic

data, working conditions, access to support personnel and instructional resources, and

methodologies and classroom responsibility. Under the area of demographics, they did

an association between years of teaching in EBD and the plan to stay or leave. A post

hoc test was done to determine the extent of discrepancy between the estimated and

observed occurrences. Examiners found that 84.8% of teachers with 10+ years of

experience were likely to continue, whereas 70.7% of teachers with 2-5 years of

experience were likely to continue. Working condition items were rated using a 5-point

Likert scale. An ANOVA was run as well as a t test due to concerns of unequal error

variance. The mean rating for those who intended on staying was higher than for those

who intended on leaving. When access to support personnel and instructional resources

was looked at, significant association was found between teachers reporting availability

of administrative support in the classroom verses those reporting such support as

unavailable and their intent to stay or leave ($x^2 = 16.694$, $df = 1$, $p < .001$). Narrative

comments from participants indicated that support for students and respect among staff

were other factors supporting teacher's decisions to stay. Of the teachers intending to

stay, 87.3% reported administrative support available daily ($t = 3.6$) 75.4% reported this

support available upon request ($t = -2.9$). Of the teachers intending to leave, 12.7%

reported administrative support available daily ($t = -3.6$) and 24.6% reported support

upon request. The third and final area looked at was methodologies and classroom

responsibility. Participants were asked questions related to physical restraints and being

injured on the job. No association was found between intent to stay or leave and the use

of physical restraint or having been injured on the job. Of the 14 methodological

approaches looked at, teachers who used Positive Behavior Interventions and Supports (PBIS) along with point systems and level systems were likely to continue; whereas, teachers using only point systems and other non-PBIS were likely to leave.

Qualitative analysis data showed that 140 respondents indicated they intended to leave with the main reason being lack of support. Four out of five respondents indicated their intent to stay with the main reason being support systems being provided by administration.

The overarching theme in retention of special education teachers was found to be the existence of administrative support in their school and the availability of that support on a daily basis.

Brunsting, Sreckovic, and Lane (2014) reviewed a synthesis of research between 1979 and 2013 looking at burnout in the field of special education. In order for a study to be included in this review it needed to meet all of the listed criteria: (a) contain quantitative measure of emotional exhaustions, depersonalization, or lack of personal accomplishment, (b) include Special Education Teacher's (SET's) working at a public or private school setting, (c) differentiate the outcomes for SET's if general education teachers also participated in the study, (d) present data and explain the analysis in a clear and interpretable manner, and (e) occur in the US and be published in a peer-reviews journal between 1979 and 2013. The Ecological Model was used to organize variables that may be associated with SET burnout. A total of 23 articles met criteria and were used. The following table organizes the results:

Table 6

Variables Associated with Special Education Teacher Burnout

INDIVIDUAL LEVEL VARIABLES	ASSOCIATION WITH BURNOUT
Age and Gender	Older teachers experienced less depersonalization and emotional exhaustion and felt they have greater personal accomplishment. Males experienced higher rates of depersonalization and had a positive correlation with burnout.
Experience and Level of Education	Teaching experience in number of years was negatively correlated to burnout. Higher levels of education were associated with lower levels of exhaustion and depersonalization.
Teacher Traits and Self-Perceptions	Experiential Avoidance was positively correlated with burnout. Mindful Awareness and Valued Living correlated negatively with burnout.

CLASSROOM LEVEL VARIABLES	ASSOCIATION WITH BURNOUT
Student Age	Teachers of student's aged 13-19 had a higher mean of burnout scores.
Special Education Category	Teachers of EBD students had the highest or second highest mean levels of burnout. Teachers of ID student's had lower burnout.
Service Model and Setting	Those teaching in self-contained settings experienced higher mean levels of burnout. It was suggested that service model and burnout could be impacted by other factors.

SCHOOL LEVEL FACTORS	ASSOCIATION WITH BURNOUT
Work Hindrances	Overall workload correlated with an increase in burnout.
Emotional experiences in school	The degree at which security, social, esteem, autonomy, and self-actualization were met was a significant predictor of burnout.
Role ambiguity/Role conflict	This factor was found to account for 31% of variance in first-year teacher burnout.
Support from Coworkers and Parent	Support received from administration and fellow teachers was inversely correlated with burnout.

	Support from parents was associated with less burnout.

Shoji et al. (2015) did a longitudinal study was done by that looked at the relationships between job burnout and secondary traumatic stress (STS). A cross-lagged panel design was used to help determine whether job burnout predicts STS at the 6-month follow-up and whether STS symptoms increased job burnout at the 6-month follow-up. There were two participation groups, the group from Study 1 were behavioral or mental healthcare providers working with military personnel suffering from trauma (T1/N = 294, T2/N = 135) and the group from Study 2 were healthcare providers, social workers providing services for civilian trauma survivors in Poland (T1/N = 304, T2/N = 194).

Three hypotheses were explored:

1. Job burnout at Time 1 would predict STS at Time 2 whereas STS at Time 1 would not predict job burnout at Time 2.

2. STS at Time 1 would predict job burnout at Time 2 whereas job burnout at Time 1 would not explain STS at Time 2.

3. Job burnout at Time 1 would explain STS at Time 2, and STS at Time 1 would predict job burnout at Time 2.

Participants in Study 1 completed a set of questionnaires assessing STS (The Secondary Traumatic Stress Scale, The Secondary Trauma Exposure Scale), job burnout (The Oldenburg Burnout Inventory), and demographic information. Online informed consent was obtained and T1 survey was set. Six months later T2 survey was emailed with the mean time between T1 and T2 being 195.80 days. Pearson correlations were calculated for items on the OLBI and items on the STSS to make sure the constructs were

measured distinctly, and results showed they were. Results of Study 1 indicated that the first hypothesis should be accepted; job burnout at T1 predicted higher STS 6 months later.

Participants in Study 2 completed the same measures as Study 1. The survey was emailed out to all participants along with an informed consent. The mean elapsed time between T1 and T2 was 162.35 days. Pearson's correlation was completed again and determined that job burnout and STS were two distinct concepts. Results were consistent with those of Study 1. Job burnout at T1 had higher level of STS at T2 and levels of STS at T1 did not predict job burnout at T2.

Overall, the studies found that job burnout may increase STS, but STS symptoms did not prove to increase job burnout. The relationship between job burnout and STS proved to be unidirectional but correlational data provided limited information to argue causation.

Table 7

Summary of Chapter 2 Findings Related to Research Question #1

AUTHOR(S) (DATE)	STUDY DESIGN	PARTICIPANTS AND SETTING	PROCEDURE	RESULTS
Motta, Kefer, Hertz, & Hafeez (1999)	Quantitative	261 Mental Health Professionals 157 College Students They have been exposed on a consistent basis to other people's trauma.	Two tests were given: Secondary Trauma Questionnaire Impact of Event Scale-Revised (PTSD)	The questionnaires showed adequate internal consistency and are significantly correlated. STS and PTSD share similar symptoms.

Table 7 (continued)

AUTHOR(S) (DATE)	STUDY DESIGN	PARTICIPANTS AND SETTING	PROCEDURE	RESULTS
Stamm (2002)	Quantitative	Two sample groups: -Health Care Providers (n=210) -Caregivers & Caregivers in training (n=160)	Two rating scales were given: Compassion Fatigue and Burnout. Participants were given the test 3 months later and mean scores were reported.	Tests showed a repeated reliability of .85 to .90. More research needs to be continued to determine if these tests are a good measure.
Bride, Robinson, Yegedis, & Figley (2004)	Qualitative	287 social workers	The final version of the STSS, 17-item paper-and-pencil, self-report instrument. It is a Likert scale response. They were also asked to complete a 23-item survey seeking demographic information.	This study provides evidence toward the reliability and validity of the STSS scale.
Motta, Chirichella, Maus, & Lombardo (2004)	Qualitative	108 adults (48 male, 70 female) who volunteered to participate. Goal was to test reliability of the STS	Participants were administered the Secondary Trauma Scale and asked to consider a negative event that had happened to someone close to them. Four other tests were administered related to testing depression, anxiety, and stress.	The reliability for STS was $r = .89$ and was consistent with previous studies.

Table 7 (continued)

AUTHOR(S) (DATE)	STUDY DESIGN	PARTICIPANTS AND SETTING	PROCEDURE	RESULTS
Hoffman, Palladino, & Barnett (2007)	Qualitative	Six middle school special education teachers	Designed an interview protocol based around the five components. 90-minute interviews.	Three consistent thematic findings: loss of control, responsibility, and empathy
Albrecht, Johns, Mountsteven, & Orlorunda (2009)	Preliminary study was Qualitative Survey was Quantitative	776 teachers and related service providers whose primary responsibility is working with EBD students.	A survey was electronically sent to 4,000 CCBD members requesting participation.	Qualitative: 140 participants said they do not intend to stay for the next two years. Four of five respondents intend to continue in their current setting for the next 2 years. There is a high likelihood that teachers with fewer than 6 years of EBD teaching experience will leave their current position within the next 2 years. Admin support is a defining factor in retention of SPED teachers.
Brunsting, Sreckovic, & Lane (2014)	Quantitative	Special Education Teachers	Literature Review of 23 quantitative studies. Inclusion criteria was set by all the authors to determine the eligibility: a) be quantitative b) include SETs working c) present clear data d)occur in U.S.	Role conflict, role ambiguity, and administrator support were found to be factors in teacher burnout.

Table 7 (continued)

AUTHOR(S) (DATE)	STUDY DESIGN	PARTICIPANTS AND SETTING	PROCEDURE	RESULTS
Shoji, Lesnierowski, Smoktunowicz, Bock, Luszczynska, Benight, & Cieslak (2015)	Quantitative Longitudinal	Study 1 (U.S.) Behavioral or Mental Health Workers (n=135) Study 2 (Poland) Healthcare Providers, Social Workers, other Human Service Professionals (n=194)	Participants completed a set of questionnaires assessing job burnout, STS, & demographic info. OLBI, STSS, STES These surveys were given online.	Study 1 Significant link between job burnout and 2 variables The levels of STS at T1 did not predict job burnout at T2.

Effective Self-Care Strategies/Practices

Roeser et al. (2013) researched the effects of a mindfulness-training program on teacher stress and burnout. The purpose of this study was to determine the efficacy of a professional development program of mindfulness training for teachers and the reduction of job stress and reduction of burnout symptoms. The study took place in western Canada and The United States in 2009-2010 that consisted of two groups: mindfulness training condition, and waitlist-control condition. Data and results of research question #2 were reviewed: "Do teachers randomized to mindfulness training (MT) show greater reductions in psychological and physiological indicators of occupational stress and burnout post-program and 3-month follow-up than those in a waitlist-control group?" (Roeser et al., 2013, p. 4). Participation was voluntary and people were selected based off their response to the advertisement flyers. Baseline assessments were done and then participants were randomly assigned to one of the two conditions. Participants were assessed three times: baseline (T1), post-program (T2), and 3-month follow-up (T3). The Canadian sample consisted of 58 elementary school teachers and the U.S. sample

included 55 elementary public school teachers. The two samples were combined upon analysis. A simple ANCOVA results showed that teachers in the MT reported significantly less stress and burnout at T2 and T3 than the wait-list condition group. Table 8 shows the effects of randomization on teachers' symptoms of stress and burnout and anxiety and depression at T1, T2, and T3.

Table 8

Effects of Randomization to Mindfulness Training

CONSTRUCT AND MEASURE	TIME	MINDFULNESS GROUP M (SD)	CONTROL GROUP M (SD)	DF
Occupational stress (1-5)	T1	3.41 (0.69)	3.61 (0.66)	
	T2	3.19 (0.60)	3.56 (0.70)	1, 109
	T3	3.04 (0.64)	3.49 (0.60)	1, 95
Occupational burnout (1-7)	T1	2.74 (0.80)	3.19 (0.88)	
	T2	2.57 (0.81)	3.20 (0.86)	1, 108
	T3	2.48 (0.77)	3.05 (0.95)	1, 94
Anxiety Symptoms (20-80)	T1	44.93 (13.66)	47.74 (10.28)	
	T2	38.78 (12.84)	47.02 (10.77)	1, 53
	T3	34.68 (8.79)	46.71 (13.27)	1, 43
Depression symptoms (0-57)	T1	27.46 (7.15)	30.57 (5.22)	
	T2	22.93 (5.21)	29.22 (6.77)	1, 53
	T3	21.09 (4.32)	28.43 (5.28)	1, 43

Overall results show that the 8-week mindfulness program was acceptable, feasible, and efficacious in reducing teachers stress and symptoms of burnout. Reducing teacher stress and burnout symptoms potentially increases classroom climate and student outcomes, which are key next steps in this line of research.

Mindfulness-based interventions were addressed in a second study by Beshai, McAlpine, Weare, and Kuyken (2016) and the effects it had on reducing stress and improving well-being in teachers. Participants consisted of 108 teachers from seven secondary schools across five regions in England, having an intervention and comparison group. The intervention used was a pilot program developed by the Mindfulness in

Schools Project (MiSP) and consisted of nine presentation sessions 75 minutes in duration along with 10-40 minutes home practice sessions that were expected to be completed 6 days a week. Measurement tools used were Perceived Stress Scale (PSS), Warwick-Edinburgh Mental Well-being Scale (WEMWBS), Five Facet Mindfulness Questionnaire (FFMQ), Neff Self-Compassion Scale (SCS), and two post test questions were asked regarding acceptability of the program. An ANOVA was done to examine the predictions related to the primary and secondary outcomes, a series of paired t tests was conducted for each of the four outcome measures, and a Bonferroni correction was applied to reduce the likelihood of a Type I error. Alpha level was set at .05. Due to the sample size being over-represented by females, an ANOVA for gender was done and found there to be no significant effect of gender on the four dependent variables.

Results of the four independent sample t tests comparing the intervention group to the comparison group showed significant differences with scores on the PSS ($t(87)=3.43$, $p < .001$), WEMWBS ($t(87)=-2.99$, $p < .004$), and the FFMQ ($t(87)=-3.96$, $p < .001$). There were no significant differences between groups on the SCS ($t(87)=-1.96$, $p < .096$). The results from the questions regarding program acceptability showed that 78% reported enjoying the course "a lot," 20% said "quite a lot," and 2% said "not much."

Overall, results showed a significant decrease in the teachers stress at post-intervention compared to those in the comparison group. Teachers that participated in the mindfulness training also reported a higher level of well-being at post-intervention. The preliminary results suggest customized mindfulness training for teachers may help in

reducing stress, increasing well-being, and cultivating mindfulness and self-compassion among participants.

Langher, Caputo, and Ricci (2017) looked at the association between perceived support and collaboration with regular education teachers and the three dimensions of burnout. The independent variable in the study is perceived support and the dependent variable is burnout. A two-step sampling process was used to determine study participants. The study sample consisted of 276 special education teachers, 130 from lower secondary schools and 146 from higher secondary schools. Of the 276, there were 224 females and 52 males. The perceived Collaboration and Support for Inclusive Teaching (CSIT) Scale and Maslach Burnout Inventory, Educators Survey (MBI-ES) were the two instruments used in the study. The CSIT evaluates the special education teacher's perception of support in their role. The MBI-ES measures the three different burnout dimensions: emotional exhaustion, depersonalization, and personal accomplishment. A multi-level regression analysis was used in order to predict each burnout measure as a dependent variable.

The results from a one-tailed Pearson's correlations looking at perceived support and burnout dimensions showed coefficients that were significant but low. The correlation between perceived support and emotional exhaustion is -.277, depersonalization is -.124, and personal accomplishment is .219. Perceived support is negatively correlated with emotional exhaustion and depersonalization, while positively correlated with personal accomplishment. Results of the multilevel regression analysis suggests that perceived support may potentially reduce emotional exhaustion and

improve personal accomplishment but does not influence depersonalization when control variables are added.

Overall, personal accomplishment did not prove to be affected by any covariate. Emotional exhaustion was influenced by gender and socio-economic disadvantage: being female teaching in a low socio-economic school contributed to emotional exhaustion. Access to greater professional development appeared to reduce the depersonalization and impersonal responses toward students. It is possible that there is some bias in the reporting of depersonalization where teachers may choose to respond in a more social, desirable way denying their true attitude toward students. Depersonalization can also become a strategy for coping with stress; therefore, support from colleagues may not be effective as this strategy is difficult to change. Professional development was a key factor in preventing depersonalization but also noted that burned out teachers are less likely to attend professional development compared to their enthusiastic and motivated peers.

Koenig, Rodger, and Specht (2018) researched the influence professional development would have on teachers regarding knowledge, skills, and awareness around burnout, CF, and self-care. Researchers hypothesized that educators would report an increase in knowledge, understanding and awareness of CF and burnout immediately after the workshop, and that individuals who had higher burnout scores would also have higher CF scores. The sample consisted of 64 Canadian educators (58 female, two male, two unspecified), 31 worked in an elementary setting, 19 in a secondary setting, and 12 in both. Participants attended a workshop lasting 1 hour and 40 minutes and were given a

pretest (Time 1) and a posttest (Time 2) questionnaire. Measurement tools used were the

MBI-ES, STSS, and a Researcher's Questionnaire (RQ) developed to gain educators

current knowledge. At Time 1, participants were given the MBI-ES and RQ.

Participants were asked the following question, "Within the last year, and within your

work environment, have you observed a student or co-worker who has experienced

trauma?" (Koenig et al., 2018, p. 267). If they responded yes, they were given the STSS

at Time 1. Participants attended the workshop and then were asked to complete the RQ

as the Time 2 evaluation.

Results for the RQ regarding knowledge and understanding showed significant

differences between times, ($t(59) = 10.29$, $p < .001$) with a 95% confidence interval. For

awareness there were also significant differences between times, ($t(59) = 7.82$, $p < .001$)

with a 95% confidence interval, and for skills and behaviors significant differences were

also noted, ($t(59) = 10.37$, $p < .001$) with a 95% confidence interval.

Pearson's correlation was used for examining the relationships between the STSS

scores and the subscale scores of the MBI-ES. There were significant relationships

between emotional exhaustion and total STSS score, depersonalization and total STSS

scores, but no relationship between personal accomplishment and total STSS scores.

Support was found for the first hypothesis stating that people were more

knowledgeable and in need of less development after the workshop. Partial support was

indicated for the prediction of there being a positive relationship between CF and

burnout. It should be noted that effect size of the relationships not only is dictated by the

type of measurement used, but also by the theoretical framework in conceptualizing the concepts.

Cancio, Larasen, Mathur, Estes, Johns, and Change (2018) conducted a study whose purpose was to look at the major sources of stress and to identify adaptive coping strategies. Survey responses were sent out to 512 special education teachers in Illinois, Ohio, Texas, and Arizona in the 2016- 2017 academic school year. They received responses from 211 teachers. The majority of participants identified as female, Caucasian, and working in low socioeconomic schools with 6+ years of experience. A stress survey was developed and piloted by the authors prior to distributing it to the participants and contained question regarding five areas: (a) satisfaction with various aspects of the job, (b) feeling experienced concerning the job, (c) self-descriptive statements, (d) how the teachers cope with the stress of the job, and (e) demographic information. A 4-point Likert-type rating scale was used for all five areas. The survey was distributed using Survey Monkey and was completed only once by participants. SPSS software was used to complete statistical computations.

Results showed that the highest indicator of stress was feelings of being tired because of work ($M = 3.62$) followed by teachers bringing their work home ($M = 3.27$). The highest rated effective coping strategies were seeking support ($M = 3.66$) and listening to music ($M = 3.52$). Exercising had a mean score of 2.74 and engaging in staff development had a mean of 2.34. The stress endured by these special education teachers interferes with their quality of work and has significant impact on retention. Caution

should be used in the interpretation of the study results, as the survey was not tested for reliability, which limits the ability to generalize the findings.

Sun, Wang, Wan, and Huang (2019) looked at multiple and individual mediation effects of self-acceptance and perceived stress on the relationship between mindfulness and burnout. The purpose was to look at the mechanics of mindfulness and its effects on burnout with intent of providing new intervention strategies to address burnout. The study had three hypotheses: "(1) self-acceptance and perceived stress will have serial multiple mediation effects on the relationship between mindfulness and burnout, (2) self-acceptance will mediate the relationship between mindfulness and burnout, and (3) perceived stress will mediate the relationship between mindfulness and burnout" (Sun et al., 2019, p. 2). The sample was 336 special education teachers who worked with children ages 6-12. The majority of participants were women (n=260) who had been teaching for more than 5 years (n=136). Participants were given paper-and-pencil surveys that were anonymous. The following four measurement scales were used: Mindful Attention Awareness Scale, Self-Acceptance Questionnaire, Perceived Stress Scale, and Teacher Burnout Inventory. Descriptive statistics, Cronbach's α, and Pearson's correlations were computed using SPSS.

Results showed mindfulness was positively correlated with self-acceptance, perceived stress was positively correlated with burnout, self-acceptance was negatively correlated with perceived stress and burnout, and perceived stress was positively correlated with burnout. The estimated coefficients were significant at $p < .001$, therefore hypothesis 1 and 3 were accepted and hypothesis 2 was rejected needing further

verification. Mindfulness was found to be negatively related to burnout indicating that the more mindful special education teachers are of their current experience, the less likely they are to experience burnout. More mindful special education teachers are able to accept their current situation with a non-judgmental attitude; they have higher self-acceptance, which has been related to self-efficacy enabling special education teachers to face stressors in a more positive way. Less stress then puts special education teachers at a lower risk of having less psychological and physical symptoms reducing the rate of burnout. I n conclusion, mindful-based interventions that target self-acceptance and perceived stress should be the focus to help mitigate and prevent burnout.

Sharp, Donahoo, Siegrist, and Garrett-Wright (2017) looked at the effectiveness of alternative therapies such as mindfulness and prayer in addressing compassion fatigue and stress. Participants included 67 special education employees in a rural Western Kentucky school district. Participants were randomly put into two groups, one group received electronic reminders weekly and the other did not. Participants ranged in age from 25-65 and years of experience 0 to 20+. Two measurement tools were used, Professional Quality of Life (ProQOL) and the Perceived Stress Scale (PSS).

Participants received the ProQOL, PSS, and demographic information surveys followed by a 3-hour presentation on stress and compassion fatigue. The ProQOL and PSS were administered 4-5 weeks after the initial test. The benefits of mindfulness, prayer, and social support were presented along with tips and available resources. Participants chose an intervention or a combination of interventions to practice.

Data from the ProQOL and PSS were entered into the Statistical Analytics Software. The level of significance was set at $p \leq .05$ and independent and paired t test comparisons were done to address each hypothesis question. ProQOL and PSS scores were compared between groups that practiced mindfulness < 20 times and those that practiced mindfulness ≥ 20 times. ProQOL scored showed no significant variance but PSS scores varied significantly indicating that increased practice of mindfulness may result in lower levels of perceived stress. When comparing groups based on frequency of prayer, no significant differences were found as well as comparing groups based on receipt of reminders. On the ProQOL, there was improved compassion satisfaction from those who participated in high frequencies of mindfulness and prayer ($t(16) = -2.40$, $p = .0289$). On the PSS there was significant difference between those who practiced prayer and mindfulness frequently and perceived levels of stress ($t(16) = -2.40$, $p = .024$).

Results suggest that mindfulness and prayer are effective in reducing compassion fatigue and the levels of stress. Participants that practiced mindfulness and prayer at higher frequencies showed lower PSS scores. The retention rate of this study was 56.25%. Limitations include the small narrow geographical sample, as well as the timing of the surveys as the pretest was giving just after returning from summer break and the posttest approximately one month into the school year.

Table 9

Summary of Chapter 2 Findings Related to Research Question #2

AUTHOR(S) (DATE)	STUDY DESIGN	PARTICIPANTS AND SETTING	PROCEDURE	RESULTS
Roeser et al. (2013)	Qualitative	113 elementary and secondary teachers from Canada and United States	Teachers were put into a training group and a control group. Measures were taken at baseline, post-program, and 3-month follow-up.	Teachers in the randomized mindfulness training group showed greater focused attention, working memory, occupational self-compassion, and lower levels of occupational stress and burn-out.
Beshai, McAlpine, Weare, & Kuyken (2016)	Qualitative	89 Secondary School Teachers (n=49) intervention group (n=40) comparison group	Multiple surveys were completed a baseline and after the intervention. Surveys measured stress, well-being, mindfulness, and self-compassion.	Intervention group reported significant reduction in stress and increases in well-being in comparison to the control group. A customized mindfulness-based program was a successful way in reducing stress and increasing well-being and self-compassion.
Sharp, Donahoo, Siegrist, & Garnett-Wright (2017)	Quantitative	27 teachers and professional staff working in special education in rural Kentucky school.	Pre/Posttest were given. Perceived Stress Scale and Professional Quality of Life. All attended a presentation on stress, CS, mindfulness, and prayer. All were offered a support group.	Prayer and mindfulness may effectively reduce levels of stress and CF. Electronic reminders and support groups revealed no statistical significance of help.

Table 9 (continued)

AUTHOR(S) (DATE)	STUDY DESIGN	PARTICIPANTS AND SETTING	PROCEDURE	RESULTS
Koenig, Rodger, & Specht (2018)	Quantitative	64 Canadian educators from Southwestern Ontario	2-hour voluntary workshop discussing the emotional labor and consequences experienced by educators focusing on burnout and compassion fatigue. They also completed a burnout survey, STSS scale, and researcher's questionnaire. These were given before and after the workshop.	-teacher stress is impacting student performance -the larger the discrepancy of perception and expectations about efforts and the resultant student outcome the more stress teachers experience -participants reported more knowledge and less need for development -there was a sig. correlation between burnout and CF subscales of emotional exhaustion and depersonalization but not with personal accomplishment.
Langher, Caputo, & Ricci (2017)	Quantitative	276 Special Educators lower grades (n=130) higher grades (n=146)	Participants completed the Maslach Burnout Inventory-Educators Survey (MBI-ES) and a scale on the perceived collaboration and support from general education teachers. Two-step sampling procedure	Perceived support and burnout dimensions in SPED teachers show perceived support is negatively correlated w/emotional exhaustions and depersonalization.

Table 9 (continued)

AUTHOR(S) (DATE)	STUDY DESIGN	PARTICIPANTS AND SETTING	PROCEDURE	RESULTS
Cancio, Larasen, Mathur, Estes, Johns, & Chang (2018)	Quantitative	211 Special Education Teachers From four urban school districts	Survey Monkey was used to send the surveys by email to 512 teachers. 50 items in five clusters. Participants also gave feedback on the wording of the questions after they had completed it.	Special educators experienced work-related stress that interferes with their quality of work. Most use adaptive strategies. Rated being tired as one of the highest indicators of stress. Next was teacher bringing work stress home.
Sun, Wang, Wan, & Huang (2019)	Qualitative	336 Special Education Teachers whose pupils are 6-12 years of age.	Participants completed a paper pencil survey. It was done anonymously and voluntarily. Scales Given: -Mindful Attention Awareness Scale -Self Acceptance Questionnaire -Perceived Stress Scale -Teacher Burnout Inventory	Mindfulness was positively correlated with self-acceptance and negatively correlated with perceived stress and burnout. Self-acceptance was negatively correlated with perceived stress and burnout. Perceived stress was positively correlated with burnout.

Chapter 2 reviewed 15 research articles on the subjects of secondary traumatic stress, burnout, and self-care. It covered concepts in terminology, measurement tools, causation/symptoms, and self-care strategies/practices related to secondary traumatic stress and burnout. Research on secondary traumatic stress and its effects on teachers is limited and needs to be increased to better address burnout and the current attrition rate.

Chapter 3: Conclusions and Recommendations

This literature review examined the effects of secondary traumatic stress (STS) and burnout on teachers working with students with trauma backgrounds and looked at self-care strategies/practices to help combat the effects. The focus of the paper examined the historical and theoretical background of secondary traumatic stress and burnout, the limitations on past and current research, and the effects it has on teachers today. It discussed the concepts and terminology associated with secondary traumatic stress and burnout, measurement tools, causation/symptoms, and effective self-care strategies/practices. Chapter 1 gave the reader an introduction of secondary traumatic stress and its contribution to the current teacher shortage, historical/theoretical background, importance/rationale, and focus of the literature review. Chapter 2 was a review of 15 research articles on the subjects of secondary traumatic stress, burnout, and self-care with publication dates ranging from 1999 to 2019. Eight of these articles pertain to research Question Number 1 and seven of the articles pertain to research Question Number 2. Chapter 3 presents conclusions, recommendations for future research, and current practices and limitations with STS, burnout, and self-care.

Conclusions

Studies in this literature review focused on answering two research questions. The first question being how secondary traumatic stress affects teachers working with students who have experienced trauma. Eight of the articles specifically addressed varying definitions, measurement tools, and causation/symptoms related to research question one. The majority of the research on secondary traumatic stress has been based

on therapists, medical professionals, and social workers working with clients who have experienced trauma. With the increase in kids being exposed to and directly experiencing trauma, the effects of secondary traumatic stress are starting to be seen and felt in our schools amongst our teachers. Secondary traumatic stress has been interchanged with the term compassion fatigue that was coined by Charles Figley in an attempt to make it less stigmatizing. Although these terms are used interchangeably, their measurements and definitions are not consistent (Sprang et al., 2019).

Throughout the articles reviewed, four main measurement tools/scales were consistently used and tested. The four are the Secondary Traumatic Stress Scale (STSS), the Secondary Trauma Questionnaire, the Compassion Fatigue Self-Test (CFST), and the Professional Quality of Life Scale (Pro-QOL). The Secondary Traumatic Stress Scale (STSS), created by Bride in 1999, was initially based off *DSM-IV* criteria and was proven to be a reliable and valid instrument. The limitation is that it was designed to be used on social workers and should be tested on other professionals (Bride et al., 2004). Motto, Chirichella, Maus, and Lobardo (2004), also tested the STSS and found its reliability to be consistent with Bride's results and suggested further studies take place. The Compassion Fatigue Self-Test (CFST) was developed to assess compassion fatigue and burnout in therapists. The CFST combined with the *DSM-IV* PTSD symptomology is what was used to develop the Secondary Trauma Questionnaire. Motto et al. (2004) revised this questionnaire and established cutoff scores. The purpose of these scores was to help determine if symptoms were connected to emotional difficulties or reactions from other factors. This is the only STS measurement tool that currently has established cutoff

scores. A few years later, Bride et al. (2007) established interpretation of scores for the STSS but are only to be used for screening purposes and not in place of a clinical assessment. Charles Figley created the Compassion Fatigue Self-Test, which was revised in 1996 by Stamm and Figley and renamed the Compassion Satisfaction and Fatigue Test. The CFST was renamed once again and is now known as the Professional Quality of Life Scale (Pro-QOL). There has yet to be published data on the validity of this test (Bride et al., 2007). In October of 2017, the gap in STS interventions and assessments was addressed by a group of researchers, trainers and policy makers in hopes of moving the field forward regarding this topic (Sprang et al., 2019).

The limitations with the measurement tools have made it difficult to solidify causation and symptomology but researchers continue to move forward in their efforts. Secondary traumatic stress symptoms share similarities with those of PTSD, yet do not constitute a diagnosis but have the potential to cause substantial impairment. Figley (1995) established three categories of symptoms related to compassion fatigue, which was originally termed secondary traumatic stress: psychological stress, cognitive shift, and relational disturbances. Gertsen et al. (2001) identified loss of control, responsibility, and empathy as three themes justifying the use of the compassion fatigue framework. In a qualitative analysis, Albrecht et al. (2009) found that administrative support, availability of that support, adequate time to complete paperwork, years of experience, and behavior response systems used were the main factors in determining whether the teacher stayed or left the profession. The main theme throughout this study identified administrative support as the cause of a teacher deciding to stay or leave the profession.

Shoji et al. (2015) found that job burnout has the ability to increase STS, but increased STS symptoms did not increase job burnout.

Varying definitions of terminology has made it difficult to conceptualize and generalize the data. Although each research study establishes a definition, the definitions differ slightly between studies making it difficult to compare and generalize results.

Seven of the research articles pertain to the second question being effective self-care strategies/practices in addressing the effects and symptoms related to STS and burnout. A few recurring themes were found throughout the research regarding strategies and practices effective in addressing symptoms of STS and burnout. They are mindfulness, collaboration/support, professional development/awareness, and general stress related coping strategies (exercise, healthy eating, hydration).

Mindfulness was positively correlated with self-acceptance and negatively correlated with perceived stress and burnout (Sun et al., 2019). Roeser et al. (2013) also found that mindfulness programs were efficacious in reducing teacher stress and symptoms of burnout. Teachers that were in the mindfulness group also reported increased levels of well-being.

Perceived support was negatively correlated with emotional exhaustion and depersonalization suggesting that it may potentially reduce emotional exhaustion while improving personal accomplishment (Langher et al., 2017). Koenig et al. (2018), found professional development to be beneficial in increasing teacher knowledge and awareness around burnout, CF, and self-care. The more awareness and education that can be

delivered the better chance teachers have of implementing proactive strategies into their daily routine.

Limitations/Recommendations for Future Research

Conceptual distinctions between constructs (Bride et al., 2004) and narrow definitions of terminology (Brunsting et al., 2014) is a limitation noted throughout the research and noted as a recommendation for future research. Although assessment tools have been developed, scoring, validity, reliability, and generalization have not been solidified and require further research. Scoring on assessment tools is theoretically derived (Stamm, 2002) and few scales report cutoff scores relying on subjective judgment in interpretation (Motta et al., 2004). Stamm (2002) listed 10 questions that need to be addressed before full confidence can be placed in the reliability of Figley's CSF Test:

1. How does the measure of CF compare with other measures of traumatic stress?

2. Does the underlying factor structure support the subscales?

3. Is the measurement sensitive to change across time?

4. How do the constructs of CF, CS, and burnout relate to one another?

5. Do the theoretical constructs make sense across differences in age, race, gender, or culture?

6. Are there differences between people based on age, race, gender, or culture?

7. Do CF, CS, and BO constructs that apply to people with Western, individualist orientation apply to those with a collectivist, group orientation?

8. Do the constructs measured by the test apply equally to those with an external orientation (extraverted) as to those with an interior orientation (introversion)?

9. Do the constructs apply equally well across a variety of different professions, such as caregivers, teachers, public safety workers, news reporters, clergy, and volunteers?

10. Are there quantifiable relationships between CF, CS, and BO that could predict potential risks and protective factors concurrently? (pp. 113-114)

If these questions are addressed, it will broaden the spectrum of research for traumatic stress-related work.

Caution should be used in generalizing several of the studies' results to other populations as most of the research has been done on social workers and therapists (Bride et al., 2004). Albrecht et al. (2009) shared the same concern regarding generalization of results due to the sample and sampling method used. Brunsting et al. (2014) suggested that samples from other countries be looked at to take into account different teaching models used with special populations of students. Overall, researchers agree that sample sizes need to be increased and broadened to cover more populations/groups of people as it is not just social workers and therapists that are being secondarily exposed to trauma (Beshai et al., 2016) added the limitation for his study being a relatively homogeneous sample (mostly white and female).

Roeser et al. (2013) listed two next steps for future research: (1) examine the effects of stress reduction on teachers and burnout on teaching practice, student outcome, and classroom climate, and (2) increase the study design rigor. Two studies addressed

mindfulness-based interventions, which was found to be a strength being there are only a handful of studies currently out there. Koenig et al. (2018) recommended that research be included that looks at the impact of bringing education and awareness about these concepts to teachers in their initial education level allowing coursework to be done. The hope for this recommendation is to bring more awareness around teacher wellness and potentially seeing an increase in government funding toward educator mental health.

The research that is currently available is a great start in addressing the concepts of STS, CF, and burnout, but advancement is needed in conceptualizing definitions, establishing reliability of measurement tools, and increasing the diversity of the sample used.

Implications for Current Practice

As a special education teacher, I am one of the few who have successfully made it over 15 years in the profession. I attribute this to my daily focus on my mental and physical health, my awareness of the effects the job can have on me, having a supportive administrator, and an empathetic group of family and friends. As the attrition rate of special educators continues to increase, the research behind why needs to match that increase as well. Research needs to expand beyond white women working in middle class school districts and include other races, genders, and socio-economic areas. Study results cannot be generalized when only certain populations are looked at.

In an article posted by Education Week, Brown (2019) stated that we need to fundamentally address educators' reasons for burnout and capitalize on the best practices to retain and support new teachers. As I fully agree with this statement, I feel the

education needs to start earlier in the teacher preparation programs. Research identified lack of time management, overwhelming paperwork, negative relationships with colleagues, and lack of awareness of the effects of secondary trauma as some of the main causes for burnout and reasons teachers are leaving the profession. Addressing these causation factors early on may have a positive impact on the retention rate of our teachers. Teaching has become more than reading, writing and math. Teachers are now also responsible for behavior management, communication with families and outside providers, increased expectations of student achievement, and managing co-workers while meeting the basic safety and security needs of our kids. Teacher preparation programs and field experiences focus mostly on lesson planning and the teaching of reading, writing, and math. Some educators are leaving the profession before they even graduate from their program due to not feeling adequately prepared. This is more of a systematic macro issue rather than a specific district issue. More funding and resources need to be in place at a state and national level on teacher mental health. Secondary traumatic stress and burnout are real issues that need to be taken seriously as they decrease one's self-efficacy and are negatively affecting the retention rate. "A lack of sufficient, qualified teachers threatens students' ability to learn. Instability in a school's teacher workforce (i.e., high turnover and/or high attrition) negatively affects student achievement and diminishes teacher effectiveness and quality" (Garcia & Weiss, 2019, p. 2). An increase in self-efficacy positively affects one's self-advocacy abilities, professional growth, and satisfaction which can increase student achievement.

Summary

Overall findings from the data reviewed showed that secondary traumatic stress and burnout are alive and growing in our education system today. A common theme among the studies stated that further research is needed for multiple reasons: to establish reliable and valid measurement tools with specific cut off scores, to specifically identify causation, and to broaden the scope of the populations used in the samples. Definitions of terminology need to be explicitly conceptualized and consistently used throughout the research. Past research has focused mostly on social workers and mental health providers but now needs to move to our field of educators, as they are being face with an increase in students who have experienced trauma. Most researched self-care practices are generalized for overall stress. As research continues to develop, it is my hope that the government and education systems can put more funding and education into teacher mental health and well-being.

References

Albrecht, S. F., Johns, B. H., Mounsteven, J., & Olorunda, O. (2009). Working

conditions as risk or resiliency factors for teachers of students with emotional and

behavioral disabilities. *Psychology in the Schools, 46*(10), 1006–1022.

American Psychological Association. (2013). *Diagnostic and statistical manual of mental

disorders* (5th Ed.). Washington DC: Author.

American Psychological Association. (2015). *Trauma*. Retrieved from

www.apa.org/topics/trauma.

Beshai, S., McAlpine, L., Weare, K., & Kuyken, W. (2016). A non-randomised

feasibility trial assessing the efficacy of a mindfulness-based intervention for

teachers to reduce stress and improve well-being. *Mindfulness, 7*(1), 198–208.

Bride, B. E., Radey, M., & Figley, C. R. (2007). Measuring compassion fatigue. *Clinical

Social Work Journal, 35*(3), 155-163.

Bride, B. E., Robinson, M. M., Yegidis, B., & Figley, C. R. (2004). Development and

validation of the secondary traumatic stress scale. *Research on Social Work

Practice, 14*(1), 27–35.

Brown, J. (2019, March 12). *What really causes special education teachers to burn out?*

Retrieved from: https://www.edweek.org/teaching-learning/opinion-what-really-

causes-special-education-teachers-to-burnout/2019/03?s_kwcid=AL!6416!3!4865

440 88589!b!!g!!&utm_source=goog&utm_medium=cpc&utm_

campaign=ew+dynamic+recent%20&ccid=dynamic+ads+recent+articles&am

p;ccag=recent+articles+dynamic&cckw=&cccv=dynamic+ad&gclid

=EAIaIQobChMIsPeqwZuP7wIV9z2tBh34PQsgEAAYAiAAEgKdUvD_BwE.

Brunsting, N. C., Sreckovic, M. A., & Lane, K. L. (2014). Special education teacher

burnout: A synthesis of research from 1979 to 2013. *Education and Treatment of

Children, 37*(4), 681–711.

Cancio, E. J., Larasen, R., Mathur, S. R., Estes, M. B., Johns, B., & Chang, M. (2018).

Special education teacher stress: Coping strategies. *Education and Treatment of

Children, 41*(4), 457–481.

Cavanaugh, B. (2016). Trauma-informed classrooms and schools. *Beyond Behavior,

25*(2), 41-46.

Cohan, A., & Honigsfeld, A. (2011). Promoting teachers' social and emotional

competencies to support performance and reduce burnout. In P.A. Jennings (Eds.),

*Breaking the mold of preservice and in-service teacher education: Innovative and

successful practices for the twenty-first century*. (pp. 133-142). Rowman &

Littlefield Education.

Figley, C. R. (n.d.). Retrieved October 9, 2020, from https://charlesfigley.com/.

Figley, C. R. (1995). Compassion fatigue: Toward a new understanding of the costs of

    caring. In B. H. Stamm (Ed.) *Secondary traumatic stress: Self-care issues for*

    clinicians, researchers, and educators (pp. 3–28). The Sidran Press.

Garcia, E., & Weiss, E. (2019). *The teacher shortage is real, large, and growing, and*

    worse than we thought (pp. 1-19, Rep.). Washington, DC: Economic Policy

    Institute. doi:https://www.epi.org/publication/the-teacher-shortage-is-real-large-

    and-growing-and-worse-than-we-thought-the-first-report-in-the-perfect-storm-in-

    the-teacher-labor-market-series/.

Gertsen, R., Keating, T., Yvanoff, P., & Harniss, M. (2001). Working in special

    education: Factors that enhance special educators' intent to stay. *Exceptional*

    Children, 67, 549-567.

Hoffman, S., Palladino, J. M., & Barnett, J. (2007). Compassion fatigue as a theoretical

    framework to help understand burnout among special education teachers. *Online*

    Submission, 2(1), 15–22.

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.

Izard, E., & National Education Association. (2016). *Teaching children from poverty and*

    trauma. National Education Association.

Jackson, Y. (2015). *Pedagogy of confidence: Inspiring high intellectual performance in*

    urban schools. Hawker Brownlow Education.

Kanno, H., & Giddings, M. M. (2017). Hidden trauma victims: Understanding and preventing traumatic stress in mental health professional. *Social Work in Mental Health, 15*(3), 331-353.

Koenig, A., Rodger, S., & Specht, J. (2018). Educator burnout and compassion fatigue: A pilot study. *Canadian Journal of School Psychology, 33*(4), 259–278.

Langher, V., Caputo, A., & Ricci, M.E. (2017). The potential role of perceived support for reduction of special education teachers' burnout. *International Journal of Educational Psychology*, *6*(2), 120-147.

Mccallum, F., & Price, D. (2010). Well teachers, well students. *The Journal of Student Wellbeing, 4*(1), 19.

Merriam-Webster. (2016). *The Merriam-Webster Dictionary*. Merriam-Webster.

Motta, R. W., Chirichella, D. M., Maus, M. K., & Lombardo, M. T. (2004). Assessing secondary trauma. *The Behavior Therapist, 27*(3), 54–57.

Motta, R. W., Kefer, J. M., Hertz, M. D., & Hafeez, S. (1999). Initial evaluation of the secondary trauma questionnaire. *Psychological Reports, 85*(3), 997–1002.

National Child Traumatic Stress Network. (2011). *Secondary traumatic stress: A fact sheet for child-serving professionals*. Retrieved from: https://www.nctsn.org/sites/default/files/resources/fact-sheet/secondary_traumatic_stress_child_serving_professionals.pdf.

Newell, J. M ., & MacNeil, G. A. (2010). Professional burnout, vicarious trauma,

    secondary traumatic stress, and compassion fatigue: A review of theoretical terms,

    risk factors, and preventative methods for clinicians and researchers. *Best Practice*

    in Mental Health, 6(2), 57-68.

Pearlman, L. A., & Saakvitne, K. W. (1995). Treating therapists with vicarious

    traumatization and secondary traumatic stress disorders. In C. R. Figley (Ed.),

    Compassion fatigue: Coping with secondary traumatic stress disorder in those who

    treat the traumatized (pp. 150–177).

ProQOL Team. (2019). Retrieved December 30, 2020, from https://proqol.org/About_us.

    html.

Roeser, R. W., Schonert-Reichl, K. A., Jha, A., Cullen, M., Wallace, L., Wilensky, R.,

    …& Harrison, J. (2013). Mindfulness training and reductions in teacher stress and

    burnout: Results from two randomized, waitlist-control field trials. *Journal of*

    Educational Psychology, 105(3), 787–804.

Sharp Donahoo, L. M., Siegrist, B., & Garrett-Wright, D. (2018). Addressing compassion

    fatigue and stress of special education teachers and professional staff using

    mindfulness and prayer. *Journal of School Nursing, 34*(6), 442–448.

Shoji, K., Lesnierowska, M., Smoktunowicz, E., Bock, J., Luszczynska, A., … &

    Benight, C.C. (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.

Sprang, G., Ford, J., Kerig, P., & Bride, B. (2019). Defining secondary traumatic stress

    and developing targeted assessments and interventions: Lessons learned from

    research and leading experts. *Traumatology, 25*(2), 72-81.

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* (pp. 107–119). Brunner-Routledge.

Stamm, B. H., & Figley, C. R. (1996). Compassion satisfaction and fatigue test.

    Retrieved September 23, 2001, from: http//www.isuy.edu/bhstamm/tests.htm.

Sun, J., Wang, Y., Wan, Q., & Huang, Z. (2019). Mindfulness and special education

    teachers' burnout: The serial multiple mediation effects of self-acceptance and

    perceived stress. *Social Behavior and Personality: An International Journal,*

    47(11), 1–8.

Whitt-Woosley, A., & Sprang, G. (2017). Secondary traumatic stress in social science

    researchers of trauma-exposed populations. *Journal of Aggression, Maltreatment &*

    Trauma, 27(5), 475-486.