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The Effects of Secondary Traumatic Stress and Resilience on the Indicators of Compassion Fatigue Among Occupational Therapists

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Abstract

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by

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OTD, Rocky Mountain University of Health Professionals, 2010

MS, Walden University, 2019

BS, University of Texas Health Science Center, 1995

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Compassion fatigue (CF) has been described as the “cost of caring” for traumatized individuals, which may lead to missed workdays, diminished work satisfaction, increased turnover, and decreased client care. CF has long been studied in other caring professionals, but occupational therapy practitioners (OTPs) have been largely overlooked. The purpose of this quantitative correlation study was to determine the relationship between secondary traumatic stress (STS) and resilience (RES) on burnout (BO) and compassion satisfaction (CS; i.e., indicators of CF) in OTPs. In this study, the moderation effect that RES has on STS and BO as related to CF in 68 completed surveys were analyzed. The Compassion Satisfaction-Compassion Fatigue model and the Compassion Fatigue Resilience Model were used as a framework for this study. Findings from this study suggest STS and RES impact BO and RES impacts CS ($p < .001$); however, STS does not significantly impact CS in OTPs ($p = .056$). Furthermore, the direct effect of BO on CF was significant ($p = .007$) as was the direct effect of STS on CF ($p < .001$); however, when controlling for the significant main effects of BO on RES and STS on RES, the interactions were not significant. These findings suggest that RES does not significantly moderate the relationship between BO and CF or STS and CF in OTPs. These findings will benefit OTPs by providing information that can lead to positive social change through better prevention and treatment, decreased missed workdays, improved work satisfaction, and reduced therapist turnover while improving client care and decreasing medical costs.

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Dedication

I dedicate this dissertation to all of my occupational therapy colleagues who have worked tirelessly for their clients. I also dedicate this to my wonderful husband, who has been my support through my career as a therapist, an educator, and a student. Without him, I would not be doing what I do.

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Thank you, Dr. Napoli and Dr. Talpade, for guiding me through this process and getting me to this point. I was so lucky to have you both as support and for early morning phone calls.

I also want to thank my friends and colleagues who supported me through this crazy ride. Dr. Inti Marazita, we started this together and have spent many hours laughing, crying, and pulling our hair out, not to mention our many breakfasts! Dr. Mary Shotwell, you helped me more than you will know. Dr. Eric Sarrett, yes, I made it too! Dr. Margaret Nonamaker, you made me do this, and I thank you for that. Drs. Anne Moscony and Cynthia Haynes, your support and cheerleading over the last few years was incredible.

My incredible daughter Elizabeth, who has tirelessly helped in editing! You are next, my sweet girl.

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Chapter 1: Introduction to the Study

Compassion fatigue (CF) has been described as the "cost of caring" for traumatized individuals (Figley, 1995b; Figley & Figley, 2017; Joinson, 1992; Sorenson et al., 2017). Although there are multiple studies on nurses and other caring professionals (e.g., Cavanagh et al., 2020; Cocker & Joss, 2016; Papazoglou et al., 2019; Sinclair et al., 2017; Sorenson et al., 2016; Xie, Chen, et al., 2021), little is known regarding CF in occupational therapy professionals (OTPs; Brown & Pashniak, 2018; Brown et al., 2017; Chen, 2020; Chung, 2020; Sorenson et al., 2016). In the current study, I explored the relationship between the independent variables of secondary traumatic stress (STS) and resilience (RES) on the indicators of CF, burnout (BO), and compassion satisfaction (CS) in OTPs. Additionally, the goal of this analysis was to determine if the impact of the independent variables of STS and BO on the dependent variable of CF was moderated by RES. The insight gained from this study will benefit OTPs, their employers, and their clients by providing data that can lead to better prevention and treatment of CF and its associated adverse outcomes.

In this chapter, I provide an overview of the current study, including background information, the problem statement, the purpose of the study, the research questions and the hypotheses, the theoretical framework, the nature of the study, definitions, assumptions, scope and delimitations, the significance of the study, and a summary.

Background

CF has been studied for many decades in caring professionals, such as psychologists and other mental health professionals (Cieslak et al., 2013; Merlo et al.,

2020; Turgoose & Maddox, 2020), physicians (Hegel et al., 2021; Sarosi et al., 2021), nurses (Alharbi et al., 2019; Hegel et al., 2021; Xie, Chen, et al., 2021; Xie, Wang, et al., 2021), and police officers (Papazoglou et al., 2019). However, there is limited research regarding this phenomenon among OTPs (Brown & Pashniak, 2018; Brown et al., 2017; Chen, 2020; Chung, 2020; Sorenson et al., 2016). Scholars initially concentrated their research on trauma and traumatic stress in veterans but expanded their focus to include STS, CF, and vicarious traumatization (VT) in the individuals who treated these clients (Figley, 1995a). Realizing that health care workers exposed to individuals who had experienced trauma often shared similar symptoms with their clients, Figley (1988) began to look at STS (Stamm, 2010). Figley suggested that individuals such as mental health care providers, emergency workers, and physicians could have indications of posttraumatic stress disorder (PTSD) due to the clients they served. It was not until 1992 that a nurse in a nursing article first used the term CF to describe the phenomenon (Figley, 1995a). This nurse, Joinson (1992), explained that the unique stress and BO that was seen in some nursing staff could be quite costly to them and the health care system. Individuals who experienced CF demonstrated with symptoms similar to PTSD, including depression, sleeplessness, and anxiety (Figley, 1995a; Joinson, 1992).

Occupational therapy is considered a caring profession, and these therapists often treat the same individuals as nurses and may feel the same stressors (Brown et al., 2017; Chen, 2020; Chung, 2020; Huang et al., 2019; Maisano & Beder, 2017). Though studies on trauma and the STS caused from caring for traumatized individuals are abundant, Cavanagh (2020) and Sorenson et al. (2016) found no literature regarding OTPs and CF.

Recently, a few studies have emerged involving CF and OTPs, yet none have explored the intercorrelation between STS and RES on the indicators of CF, including BO and CS, in this group (Brown et al., 2017; Chen, 2020; Chung, 2020; Huang et al., 2019). I addressed this gap in the research by surveying OTPs and investigating the relationship between STS and RES and BO and CS as indicators of CF. An additional goal of the analysis was to determine if the impact of STS and BO on CF was moderated by RES. Understanding the indicators of CF and how they are affected by STS and RES can lead to improved prevention and treatment options for OTPs, which will improve their physical and psychological outcomes, increase staff retention, improve client care, and reduce socio-economic losses.

Problem Statement

CF, also explained as the "cost of caring," has been the focus of previous research among nurses and other health care providers caring for clients who have experienced traumatic events (e.g., Cavanagh et al., 2020; Cocker & Joss, 2016; Papazoglou et al., 2019; Sinclair et al., 2017; Sorenson et al., 2016; Xie, Chen, et al., 2021). CF and the associated symptoms are known to decrease these health care providers' quality of life and contribute to poor quality of care for their clients (Figley, 1995a; Sorenson et al., 2017; Stamm, 2010). CF caused by working with traumatized clients leads to physical and psychological health issues that include symptoms of PTSD and other shared client symptoms, which lead to poor client care, increased job loss and worker turnover, and subsequently substantial socio-economic losses (Figley, 1995a; Sorenson et al., 2017; Stamm, 2010).

Though CF has been studied in detail among other health care providers, there is minimal research related to OTPs who treat these same clients (Brown et al., 2017; Chen, 2020; Chung, 2020; Fette et al., 2019; Huang et al., 2019). Among studies regarding occupational therapists and CF, no research exists exploring the indicators of CF and how they are affected by STS and RES. Understanding the CF indicators of BO and CS and the effects that STS and RES have on these indicators in OTPs can lead to improved prevention and treatment options for these individuals, which in turn will improve their physical and psychological outcomes, increase staff retention, improve client care, and decrease socio-economic losses.

The specific research problem that was addressed through this study was the lack of evidence regarding CF among OTPs. Specifically, the lack of research exploring the CF indicators of BO and CS and how they are affected by STS and RES as well as the possible moderating effect that RES has on BO and STS as they relate to CF.

Research Questions and Hypotheses

RQ1: Are the variables of STS and RES correlated with BO and CS as indicators of CF among OTPs?

$H_0$1: STS and RES are unrelated to BO and CS in OTPs.

H_a1: STS and RES are related to BO and CS in OTPs.

RQ2: Does RES moderate, or buffer, the effects of BO on CF?

$H_0$2: The impact of BO on CF is not moderated by RES.

H_a2: The impact of BO on CF is moderated by RES.

RQ3: Does RES moderate, or buffer, the effects STS on CF?

$H_0$3: The impact of STS on CF is not moderated by RES.

H_a3: The impact of STS on CF is moderated by RES.

I measured the variables of STS, BO, CS, and CF using the Professional Quality of Life 5 (ProQOL 5; see Stamm, 2010) and measured the variable of RES using the Brief Resilience Scale (BRS; see Smith, 2008).

Purpose of this Study

Previous researchers have suggested that health care professionals, such as nurses, mental health professionals, and other caregivers who demonstrated with CF had high levels of BO and low levels of CS, while others with lower levels of CF demonstrated with high levels of CS and low levels of BO (Cavanagh, 2020; Sorenson et al., 2017). Burnett (2017) and Gonzalez et al. (2019) found a relationship between CS and RES in workers, including emergency workers and trauma responders. Other studies have suggested that RES may be a protective factor against CF and BO (Alharbi et al., 2019; Chen, 2020; Chung, 2020; Kyriazos et al., 2021; Labrague & de los Santos, 2021). In this quantitative correlation study, I explored the possible intercorrelation between the independent variables of STS and RES and the dependent variables of BO and CS among OTPs. The possible moderating effect that RES has on BO and STS as they relate to CF was also examined.

Theoretical Framework

I used Stamm's (2010) CS-CF theory (ProQOL, n.d.), which focuses on CF, and Figley and Figley's (2017) compassion fatigue resilience model (CFRM), which focuses on RES as it relates to CF, as the conceptual framework for this study. The CS-CF theory

focuses specifically on the professional quality of life, including CS, CF, and BO, and has been used extensively in research regarding CF among health professionals. This theory has a model and a measure that I used to assess CF among the 68 OTPs who participated in the current study (see Stamm, 2010). The CFRM was also used in the current study because it addresses the relationship between RES and CF (see Figley & Figley, 2017). I used the BRS to measure RES in the participants (see Psytoolkit.com, 2021; Smith et al., 2008). More details regarding the theoretical foundation are provided in Chapter 2.

Nature of Study

To address the research questions, I employed a quantitative, cross-sectional, survey design that included a multiple regression analysis to explore the unique impact (i.e., controlling for the other variables in the model) of STS and RES on the two CF indicators of BO and CS (see Cox, 2016; Creswell & Creswell, 2020; Warner, 2013). An additional goal of the study was to determine if the impact of STS and BO on CF was moderated by RES. I conducted an a priori and post hoc power analysis to estimate the statistically appropriate sample size employing the GPower 3.1.9.4 statistical software (see Faul et al., 2013). The initial power analysis suggested that 68 participants would be needed for a $1-\beta = .80$. Seventy-five participants attempted the survey; however, only 68 completed it in full; therefore, the post hoc analysis suggested the same $1-\beta = .80$.

I used the ProQOL-5 (see Stamm, 2010) and the BRS (see Psytoolkit.com, 2021; Smith et al., 2008) to collect data on the CF indicators and RES. Additionally, demographic information was gathered to explore possible correlations.

The target population for this study was OTPs, including occupational therapists (OTs) and occupational therapy assistants (OTAs) currently in practice. According to the U.S. Bureau of Labor and Statistics (2022a; 2022b), approximately 127,830 OTs and 41,980 OTAs are employed in the United States. The sample for this study was drawn from this population. I obtained the sample through a message posted with information about the study and a link to the survey in CommunOT (see American Occupational Therapy Association [AOTA], n.d.) and the Walden University Respondent Pool.

I adapted the ProQOL-5 (see Stamm, 2010) for an internet survey and used it to gather information on CF, including BO, STS, and CS. The BRS (see Psytoolkit.com, 2021; Smith et al., 2008) was also adapted for the current study as an internet survey and was used to determine RES among the participants. Both surveys were used in their entirety. I also gathered demographic information for age, gender, ethnicity, geographic region, occupational therapy license level, highest degree, practice area, and years of experience to assess the fit of the sample to the population.

Definitions

BO: One of the CF elements associated with negative feelings of "hopelessness and difficulties in dealing with work or in doing your job effectively" (Stamm, 2010, p. 13). BO can be due to the job demands and a nonsupportive work environment, among other things (Stamm, 2010).

CF: "A state of exhaustion and dysfunction- biologically, psychologically, and socially- as a result of prolonged exposure to compassion stress and all that it evokes"

(Figley, 1995b, p. 253). CF is associated with BO and secondary trauma in individuals who care for traumatized individuals (Stamm, 2010).

CS: The satisfaction felt from working with clients, especially those who have been traumatized (Stamm, 2010). This pleasure also includes the satisfaction felt about colleagues and contributions to the work setting and society (Stamm, 2010).

STS: Also an element of CF; the "work-related, secondary exposure to people who have experienced extremely or traumatically stressful events" (Stamm, 2010, p. 13). STS can lead to multiple physical and psychological issues in the caregiver (Stamm, 2010).

RES: "The ability of a human service worker to spring back into their old selves following a work-related incident or any highly stressful event or setback" (Figley & Figley, 2017, p. 5). RES is the "indicator of numerous human resources that, together, enable the worker to overcome challenges, including the emotional upset from providing direct client services" (Figley & Figley, 2017, p. 5).

Assumptions

I made several assumptions for this study. Because data were collected for this study through a self-reporting survey completed online, it was assumed that the participants were truthful in opting into the survey and that their responses to the questionnaire were an honest and accurate depiction of themselves. To mitigate these possible issues, the OTPs who responded to this study were reminded that their answers were recorded anonymously, that they should respond truthfully, and that information from this study may help improve the outcomes of other OTPs. I also assumed that these

participants were an appropriate representation of the intended population of OTPs, including both OTs and OTAs, and that an appropriate representation had access to this survey through AOTA. Demographic information shows that the group of participants was a close proximation of the population (see Demographics in Chapter 4). The final assumption was that the instruments used for this study accurately measure the CF indicators of CS and BO and that STS and RES were also accurately measured. I selected these tools because of the psychometric data found supporting their validity and reliability.

Scope and Delimitations

The scope of this study was to understand the relationships between variables and not to assume causation. The independent variables for the initial part of this study were STS and RES, while the dependent variables were CS and BO. For the moderator model, STS and BO were the independent variables, CF was the dependent variable, and RES was the moderating variable. The research participants were delimited to OTPs, including OTs and OTAs. All participants were required to hold an OT or OTA license in the United States, and they had to have access to the surveys through the link in the AOTA's CommunOT or the Walden University Respondent Pool. All OTPs who met the inclusion criteria, had access to the survey, and fully completed the ProQOL-5 and the BRS portions of the survey were included in the study. OTPs who did not have access to this survey, who chose not to participate, or did not complete the ProQOL-5 and the BRS were not included. Of the 75 OTPs who began the survey, only 68 completed it in

entirety and were included in the final analysis. Because of these delimitations, findings for this survey may not be generalized to all OTPs.

Limitations

The current study had several limitations worthy of consideration. One limitation was that I used a quantitative, cross-sectional, survey design; therefore, causation could not be assumed, limiting the findings to relationships only (see Creswell, 2020). Another limitation was related to the use of a convenience sample consisting of volunteers who had to have access to either AOTA's (n.d.) CommunOT or Walden University Respondent Pool; thus, many possible respondents may not have had access to participating in the study. The increased demands on OTPs may have decreased participation by those more susceptible to BO and CF (see Zeman & Harvison, 2017). The sample's demographics only grossly matched that of the population, possibly resulting in a limtation. For instance, participants' ethnicity was overrepresented by White respondents and was underrepresented for all other groups. All these sampling deficiencies limit generalizability. The survey was self-reporting, so I had to assume that the respondents answered honestly. Finally, of the 75 respondents, only 68 completed the survey. Internet issues; ease of completion; other technical issues; or personal issues, such as sensitivity to the topic, may have been of issue for possible participants, and because the survey was completed anonymously with no identifying data collected, I was unable to follow up with these individuals. These limitations in survey type, sampling, and survey completion decreased the generalizability of the results to the greater population of OTPs.

Significance

Current studies on CF have focused on many health care professionals, including nurses, physicians, and psychology professionals, yet few studies have addressed this issue among OTPs (Cavanagh et al., 2020; Cocker & Joss, 2016; Papazoglou et al., 2019; Sinclair et al., 2017; Sorenson et al., 2016; Xie, Chen, et al., 2021) though the need has been documented (Brown et al., 2017; Chen, 2020; Chung, 2020; Huang et al., 2019; Sorenson et al., 2016). With the current study, I attempted to determine the intercorrelation of STS and RES on the CF indicators of BO and CS among OTPs. An additional goal of this analysis was to determine if the impact of STS and BO on CF is moderated by RES in this same populations. The findings of this study will help fill the gap in research by providing a better understanding of CF in OTPs, which may be used to improve the treatment and prevention of CF in OTPs.

Enhancements in the treatment and prevention of CF can improve the mental and physical well-being of OTPs (Figley, 1995a; Sorenson et al., 2017; Stamm, 2010). Improving OTPs' well-being would, in turn, improve client care, reduce job loss and worker turnover, and lessen socio-economic losses. Because there is minimal research in this area, this study also provides a preliminary exploration and indicates the need for additional research in providing support to OTPs and the clients they serve.

Summary

CF and the associated symptoms are known to decrease health care providers' quality of life and contribute to poor quality of care for their clients (Figley, 1995a; Sorenson et al., 2017; Stamm, 2010). CF can cause physical and psychological health

issues that lead to poor client care, increased job loss and worker turnover, and substantial socio-economic losses (Figley, 1995a; Sorenson et al., 2017; Stamm, 2010). Studies regarding OTPs and CF are limited despite a need being recognized in the literature (Brown & Pashniak, 2018; Brown et al., 2017; Chen, 2020; Chung, 2020; Sorenson et al., 2016).

In the current study, I explored the relationship between STS and RES on the CF indicators of BO and CS in OTPs using a quantitative, cross-sectional, survey design, including a multiple regression analysis (see Warner, 2013). Additionally, the possible moderator effect that RES has on both BO and CS as they relate to CF was explored. The insight gained from this study will benefit OTPs, their employers, and their clients by providing data that can be used to improve prevention and treatment of CF and its associated adverse outcomes.

In Chapter 1, I provided an overview of this study, including background information, the problem statement, the purpose of the study, the research questions and the hypotheses, the theoretical framework, the nature of the study, definitions, assumptions, scope and delimitations, the significance of the study, and a summary. Chapter 2 will include a literature review pertaining to the variables of this study.

Chapter 2 Literature Review

Health care providers often work with clients who have been victims of trauma, and these victimized individuals require high levels of compassion and empathy from their caregivers (Figley, 1995a, 1995b; Figley & Figley, 2017; Figley & Ludick, 2017; Sorenson et al., 2017; Stamm, 2010). This secondary stress on the caring person often causes CF (Figley, 1995a, 1995b; Figley & Figley, 2017; Figley & Ludick, 2017; Sorenson et al., 2017; Stamm, 2010). Symptoms associated with CF can be debilitating and lead to missed work, diminished work satisfaction, and reduced client care (Figley, 1995a, 1995b; Figley & Figley, 2017; Figley & Ludick, 2017; Sorenson et al., 2016; Sorenson et al., 2017; Stamm, 2010). This "cost of caring" also affects these caring professionals' health and overall well-being (Figley, 1995a, 1995b; Figley & Figley, 2017; Figley & Ludick, 2017; Sorenson et al., 2017; Stamm, 2010). Additional, CF leads to poor client care, increased job loss and worker turnover, and subsequently substantial socio-economic losses (Chen, 2020; Chung, 2020; Huang et al., 2019; Figley, 1995a, 1995b; Figley & Figley, 2017; Figley & Ludick, 2017; Sorenson et al., 2017; Stamm, 2010). Much of the current research on CF involves nurses and other health care professionals; however, research is limited regarding OTPs although they treat the same or similar clients (Chen, 2020; Chung, 2020; Huang et al., 2019; Lambdin-Pattavina et al., 2022; Sorenson et al., 2016).

To better understand CF among OTPs, I reviewed the literature regarding the history of CF and STS disorder and found a plethora of research regarding CF in caring professionals, such as psychologists and other mental health professionals (Cieslak et al.,

2013; Merlo et al., 2020; Turgoose & Maddox, 2020), physicians (Hegel et al., 2021; Sarosi et al., 2021), nurses (Alharbi et al., 2019; Hegel et al., 2021; Xie, Chen et al., 2021; Xie, Wang, et al., 2021), and police officers (Papazoglou et al., 2019). However, there was minimal research regarding this phenomenon among OT professionals (Chen, 2020; Chung, 2020; Huang et al., 2019; Sorenson et al., 2016).

Initially, researchers examined trauma and traumatic stress before focusing on STS, CF, and VT (Figley, 1995a). Realizing that health care workers exposed to individuals who had experienced trauma, notably military veterans, often shared similar symptoms, Figley (1988) began to look at STS (Stamm, 2010). Figley suggested that individuals, such as mental health workers, emergency workers, and physicians, could have PTSD due to the clients they served. It was not until 1992 that a nurse in a nursing article first used the term CF (Figley, 1995a). Joinson (1992) explained that this unique form of stress and BO that was seen in some of nursing staff could be quite costly to them and the health care system. Joinson explained that these nurses who experienced CF demonstrated with symptoms similar to PTSD, including depression, sleeplessness, and anxiety (Figley, 1995a).

OTPs are considered caring professionals, and these therapists often treat the same individuals as nurses and may feel the same sorts of stressors as other professionals (Brown et al., 2017; Chen, 2020; Chung, 2020; Huang et al., 2019; Lambdin-Pattavina et al., 2022; Maisano & Beder, 2017). Though studies on trauma and caregivers are abundant, Cavanagh (2020) and Sorenson et al. (2016) found no literature regarding OTPs. Recently a few studies have emerged regarding workplace fatigue and CF among

OTPs; for instance, Chung (2020) studied CF in OTPs in Korea and found that these individuals demonstrated with similar levels of CS, CF, STS, and BO as nurses. However, Chen (2020) studied OTPs from multiple countries and suggested that OTPs do not demonstrate with CF. Lambdin-Pattavina et al. (2022) completed a survey on OTPs in the United States and found that between 71% and 80% of OTPs reported demonstrating with BO while 77% to 92% reported CF. These authors, among others, suggested a need for more research in this area (see Brown et al., 2017; Chen, 2020; Chung, 2020; 2019; Huang et al., 2019; Lambdin-Pattavina et al., 2022; Zeman & Harvison, 2017).

Understanding CF and its predictors can lead to improved prevention and treatment options for OTPs, increase staff retention, and improve client care (Chen, 2020; Chung, 2020; Zeman & Harvison, 2017). In this chapter, I review related theories and provide the theoretical foundation of this study; examine the history of CF; define terms relevant to CF; discuss OTPs, their role in client care, and why they may experience CF; and describe RES and how it may be a factor in CF.

Literature Search Strategies

To complete this literature review, I used the following keyword search terms individually and in combination: *occupational therapy/occupational therapists, occupational therapy practitioners, compassion satisfaction, compassion fatigue, cost of caring, secondary traumatic stress, secondary trauma, vicarious traumatization, posttraumatic stress disorder/PTSD, burnout, professional quality of life, ProQOL, job satisfaction, workplace stress, workplace fatigue, resilience,* and *resiliency*. I accessed the following databases in the Walden University Library: CINAHL & MEDLINE combined search, CINAHL Plus, MEDLINE Plus, PubMed, PsycINFO, OVID, and SCOPUS. I also searched the websites and journals of the AOTA, the Canadian Occupational Therapy Association, and the World Federation of Occupational Therapists. After my initial searches, I found that Figley and others began researching STS and CF in the 1980s, so search dates from 1980 until the present were used. Textbooks, book chapters, peer-reviewed journal articles, conference presentations, and articles relevant to CF were included in the study.

Theoretical Foundation

Many theories exist regarding CF; however, for this study, I used Stamm's (2010) CS-CF theory and model (see ProQOL, n.d.) and the CFRM, an expanded version of Figley's CF model (Figley & Figley, 2017; Figley & Ludick, 2017), as the theoretical foundation.

CS-CF Theory Model

The CS-CF theory model was developed after years of research considering the adverse effects of caring for traumatized individuals on the professional quality of life of the caregiver (Stamm, 2010). In the CS-SF model, Stamm (2010) suggested that both a positive and negative side to caring occurs. CS, a feeling of fulfillment and gratefulness for working with individuals who have been traumatized, is said to be the positive side to caring, while the negative side of caring, CF, is the BO and STS that result from caring for these same clients (Stamm, 2010). CS may include the satisfaction an individual feels about their colleagues and their contributions to work and society (Stamm, 2010). BO, as explained by Stamm, is one of the elements that can occur as part of CF and can be due to the job demands, a nonsupportive work environment, and a feeling of not making a difference. BO is associated with difficulties in doing one's job effectively and feeling hopeless (Stamm, 2010). STS is another element of CF and is the "work-related, secondary exposure to people who have experienced extremely or traumatically stressful events" (Stamm, 2010, p. 13). STS can lead to multiple physical and psychological issues in the caregiver. CS is said to offset some of the negative feelings felt by the caregivers of traumatized clients and may provide a buffer decreasing the likelihood of CF (Stamm, 2010). The overall professional quality of life brought on by CS and CF then affects how the caregiver provides treatment (Stamm, 2010).

Stamm (2010) stated that three environmental components contribute to professional quality of life and CS-CF: the work environment, the client environment, and the person environment. The work environment includes the support or lack of support that the caregiver feels from the setting and individuals they work with. The client environment is the person being cared for and how they affect the caregiver, while the person environment is the caregiver's past and present experiences. These environments either support the caregiver's sense of satisfaction or increase the likelihood of the BO and CF they feel (Stamm, 2010).

The CS-CF theory model, along with the ProQOL have been used to help researchers better understand CF, CS, STS, and BO as well as how these elements relate to the professional quality of life of individuals in caring fields (Chen, 2020; Chung, 2020; ProQOL, n.d.; Stamm, 2010). The ProQOL (n.d.) is the specific tool developed to measure CS and CF (BO and STS) for the CS-CF model (Stamm, 2010). Bride et al. (2007) suggested that the ProQOL, as developed by Stamm and Figley to measure CF, was the most widely used assessment tool at that time. More recently, Cavanagh et al. (2020) found that 94.4% of recent CF studies used the ProQOL, to measure the professional quality of life and CF in caregivers. They suggested that the ProQOL can successfully measure CF, including CS, BO, and STS, in health care practitioners. De La Rosa et al. (2018) reviewed multiple studies to help provide normative data for the ProQOL and found that the ProQOL accurately measures CS and CF (STS and BO) in these individuals. A systematic review and metanalysis completed by Xie et al. (2021) analyzed quantitative data regarding CF in nurses from around the world. The authors

explained that the most reliable and commonly used measure for CF among caregivers was the ProQOL.

To better understand OTs' professional quality of life, both Chen (2020) and Chung (2020) completed separate quantitative studies using the ProQOL 5. Chen and Chung both explained that the ProQOL had been used for over 20 years to measure CS, CF, STS, and BO in other professionals and that the tool demonstrated good overall internal consistence, and therefore, both authors felt the ProQOL was the most appropriate tool to use in measuring the quality of life in OTPs. Because the ProQOL and its associated CS-CF model has been widely used to measure CF in caring professionals, I used this model and its assessment tool, the ProQOL for the current study.

CFRM

Developed after many years of research regarding STS and CF, Figley's CFRM provides a means to "account for the helper's quality of empathic response: exposure to the suffering, empathic ability, and empathic concern" (Figley & Figley, 2017, p. 580). This model helps explain how CF resiliency may improve outcomes of CF and includes risk and protective factors that can be used to predict CF among caregivers (Figley, 1995; Figley & Figley, 2017; Figley & Ludick, 2017). Figley and Figley (2017) suggested that developing RES in caregivers may decrease their risk of developing CF. Using Hobfoll et al.'s (2015) concept of RES to understand stress management, Figley and Figley developed the CFRM to predict the vulnerability of caregivers to CF, BO, and VT.

According to Figley's CFRM, multiple variables play a role in a caregiver's response to compassion stress and this explains why some individuals are resilient to CF

while others are not (Figley & Ludick, 2017). Figley and Figley (2017) explained that the variables introduced in this model could predict compassion stress RES and CF. Because of the predictive nature of these variables, I believed that this model would help support the current study.

Several studies regarding RES and CF in health care providers have recently been conducted. Labrague and de los Santos (2021) completed a study on nurses working with COVID-19 clients and found that the nurses with high levels of RES had decreased symptoms of CF and improved outcomes. Kyriazos et al. (2021) examined the relationship between RES and BO in OTPs in a quantitative study, findings that OTPs with high RES had lower BO scores and those with low RES had higher BO scores. Furthermore, Burnett (2017) and Gonzalez et al. (2019) examined the relationship between RES and CF, BO, and CS. Both studies found a relationship between CS and RES in workers, including emergency workers and trauma responders. Gonzalez et al. also found that RES was highly correlated with CS, CF, and BO, with RES and CS being a protective factor against CF and BO in emergency workers. All these studies helped to support the use of the CFRM and RES in the current research. Understanding the relationship between RES, CF, CS, BO, and STS in OTPs may help improve treatment and prevention options.

Both the CS-CF and CFRM models were developed by individuals who have researched CF since its introduction, and both have research to support their use (Figley, 1995; Figley & Figley, 2017; Figley & Ludick, 2017; Stamm, 2010). These models and the studies relevant to them helped in framing the current study.

OTPs

OTPs are caregiving professionals who work with individuals, groups, and populations to improve their participation in everyday activities or occupations (AOTA, 2020; Boyt Schell et al., 2019; Brown et al., 2017; Chen, 2020; Chung, 2020; Fette et al., 2019; Maisano & Beder, 2017). “Therapeutic use of self,” a guiding principle of OT treatment, is used in developing and maintaining therapeutic relationships (AOTA, 2020; Boyt Schell et al., 2019; Maisano & Beder, 2017). Empathy, understanding, and collaboration are some of the skills used in the development of these therapeutic relationships (AOTA, 2020; Boyt Schell et al., 2019; Brown et al., 2017; Escudero-Escudero, 2020; Fette et al., 2019; Maisano & Beder, 2017).

OTPs are likely to work with traumatized clients in settings, such as inpatient hospitals, outpatient rehabilitation centers, home health, and the community, to promote health and wellness in their clients (AOTA, 2015, 2020; Boyt Schell et al., 2019; Chen, 2020; Chung, 2020; Escudero-Escudero, 2020; Fette et al., 2019: Maisano & Beder, 2017; Zeman & Harvison, 2017). Maisano and Bender (2017) explained that OTPs have assisted in the care of traumatized veterans returning from combat from very early on. In fact, at the initiation of the OT profession, the Federal Board for Vocational Education (1918) recommended the utilization of OTPs in working with traumatized veterans to improve their psychological and physical abilities and their overall function.

Clients share their life experiences, goals, and priorities when working with OTPs (AOTA, 2020; Boyt Schell et al., 2019; Fette et al., 2019). These experiences may include the trauma they suffered, leading them to OT (Brown & Pashniak, 2018; Brown

et al., 2017; Chen, 2020; Chung, 2020; Huang et al., 2019; Maisano & Beder, 2017). The OTPs uses client input and clinical reasoning skills in a nonjudgmental fashion in their development of treatment plans to improve the client's overall well-being (AOTA, 2020; Boyt Schell et al., 2019; Fette et al., 2019; Zeman & Harvison, 2017). The relationships that develop can lead to the same BO, STS, and CF in OTPs as seen in nurses and other professionals (Brown et al., 2017; Chen, 2020; Chung, 2020; Escudero-Escudero, 2020; Kim et al., 2020; Kyriazos et al., 2021; Sorenson et al., 2016; Zeman & Harvison, 2017).

Though there is a plethora of research on nurses and other professionals regarding CF, there is little research regarding the professional quality of life and CF among OTPs (Brown & Pashniak, 2018; Brown et al., 2017; Sorenson et al., 2016). Researchers have recognized the need to understand CF in OTPs and recommended more research in the area (Chen, 2020; Chung, 2020; Huang et al., 2019; Zeman & Harvison, 2017).

STS

CF has long been an interest of scholars, such as Figley, Ludick, Stamm, and Solomon. Solomon (1988) initially studied STS in families of individuals who had PTSD after traumatic experiences during combat (Figley,1995a; Figley & Figley, 2017; Ludick & Figley, 2017; Sorenson et al., 2017). Solomon explained that spouses and children of these combat veterans often act out and demonstrate symptoms similar to their traumatized family members with PTSD. Figley (1988) proposed that the symptoms felt by the victim could be transferred to their caregiver. This "secondary victimization" is felt by anyone with the knowledge of the traumatic event, especially those treating the individual, and can be described as the duress resulting from the knowledge of these

traumatic events (Figley, 1988, 1995a; Figley & Ludick, 2017). Figley (1995a) and Figley and Ludick (2017) described behavioral and emotional concerns in the caregiver of traumatized individuals. These concerns can include sleeplessness, anxiety, sadness, and depress.

Families, mental health workers, emergency workers, and physicians may all suffer from secondary victimization (Figley, 1988, 1995a; Figley & Ludick, 2017). Figley (1995a) termed this STS and suggested it as the consequence of knowing about a traumatic experience. Secondary victimization, traumatic stress, and STS, terms often used interchangeably, continue to be studied in families and health care workers (Bride et al., 2007; Cavanagh et al., 2020; Figley, 1995a; Sorenson et al., 2017; Turgoose & Maddox, 2017).

Though studies on STS and secondary victimization began in the 1980 (Figley, 1988, 1995a; Solomon, 1988) it was in an article published by a nurse in 1992 that the term CF was coined (Figley, 1995a). This nurse discussed the "cost of caring" that nurses and other caring professionals often felt (Joinson, 1992). Joinson would term the phenomenon as CF (Figley, 1995a, Figley & Figley, 2017; Figley & Ludick, 2017). Since then, CF continues to be one of the terms used to describe the "exhaustion and disfunction-biologically, psychologically, and socially- as a result of prolonged exposure to compassion stress and all that it evokes" (Figley, 1995a, p. 252). In fact, Figley and Ludick (2017) suggested that CF is the direct outcome of STS.

Figley (1995b) continued to study STS and CF and their related symptoms in caregivers of traumatized clients (Cavanagh et al., 2020; Figley, 1995a, Joinson, 1992,

Leland & Armstrong, 2015). Figley (1995a) further confirmed mental and physical symptoms in individuals with CF. These symptoms, Figley (1995a) explained, decrease with self-care and social support. Continued research (Bride et al., 2007; Cavanagh et al., 2020; Chen, 2020; Chung, 2020; Cocker & Joss, 2016; Figley, 1995a; Sinclair et al., 2017; Sorenson et al., 2016) suggested that if left untreated CF caused poor client care, increased job loss, worker turnover, and substantial socio-economic losses.

BO

BO, a contributor to CF, was described as a feeling of hopelessness attributed to exposure to other individuals' traumatic experiences (Joinson,1992; Stamm, 2010). Together BO and STS lead to CF (Stamm, 2010). Symptoms of BO include exhaustion, frustration, anger, and depression (Stamm, 2010). Though BO is a contributor to CF, its symptoms are brought on slowly and may be realized over time, while CF may begin suddenly and without warning (Figley, 1995a; Figley & Figley, 2017; Figley & Ludick, 2017; Ludick & Figley, 2017; Stamm, 2010). Studies including OTPs have shown that caregivers who work with traumatized individuals are at a high risk of BO due to the nature of their work (Brown et al., 2017; Chen, 2020; Chung, 2020; Escudero-Escudero et al., 2020; Kim et al., 2020; Kyriazos et al., 2021; Reis et al., 2018). Escudero-Escudero et al. (2020) and Kim et al. (2020) suggested that BO is a substantial risk for OTPs.

CF

CF, often associated with BO and secondary trauma in individuals who treat traumatized individuals (Stamm, 2010) can be debilitating and lead to missed work, diminished work satisfaction, and reduced client care (Figley, 1995a, 1995b; Figley &

Figley, 2017; Figley & Ludick, 2017; Stamm, 2010; Sorenson et al., 2016; Sorenson et al., 2017). The STS these caregiver feels from their clients along with other factors including BO often causes CF (Figley, 1995a, 1995b; Figley & Figley, 2017; Figley & Ludick, 2017; Sorenson et al., 2017; Stamm, 2010;). Symptoms associated with CF also affect overall health and well-being of the caregiver (Figley, 1995a, 1995b; Figley & Figley, 2017; Figley & Ludick, 2017; Sorenson et al., 2017; Stamm, 2010;).

Recent studies confirmed CF in caring professionals such as nurses, psychology professionals, physicians, community service providers, law enforcement officers, and animal care provides (Cavanagh et al., 2020; Cocker & Joss, 2016; Papazoglou et al., 2019; Sinclair et al., 2017; Sorenson et al., 2016; Xie, Chen, et al., 2021). Studies involving OTPs are limited, however, available studies show that OTPs are not immune (Brown & Pashniak, 2018; Brown et al., 2017; Chung, 2020; Sorenson et al., 2016).

CS

CS may be a protective factor of CF, including BO and STS (Figley & Figley, 2017; Ludick & Figley, 2017; Stamm, 2010). Stamm (2010) explained that BO and STS as CF are the negative sides of professional quality of life, and CS is the positive side. In the CS-CF model, CS is the “good” part of working with traumatized clients and decreases the likelihood of the development of CF (Stamm, 2010). Multiple studies show that CS can decrease the instance of CF in caring professions (Brown et al., 2017; Chen, 2020; Chung, 2020; Escudero-Escudero, 2020; Kim et al., 2020; Kyriazos et al., 2021). These CF contributors were measured using the ProQOL (Stamm, 2010).

RES

RES, as defined by Figley and Figley (2017), is "the ability of human service workers to spring back into their old selves following a work-related incident or any highly stressful event or setback" (p. 5). Merlon et al. (2020) explained that RES "represents a dynamic phenomenon, which, depending on the environmental conditions, leads the subject to get closer to adaptation" (p. 2). In the CFRM, Figley and Figley (2017) explained four protective factors that increase RES. These factors are self-care, detachment, empathetic responses, a sense of satisfaction, and social support (Figley & Figley, 2017; Figley & Ludick, 2017; Ludick & Figley, 2017).

Figley and Figley (2017) and Ludick and Figley (2017) proposed that resilient practitioners can endure more STS than their less resilient counterparts. Further, individuals with low RES tend to demonstrate increased BO, a contributing factor in CF (Figley & Figley, 2017; Figley & Ludick, 2017; Ludick & Figley, 2017). In multiple studies, RES was found to be a protective factor against CF and BO (Alharbi et al., 2019; Burnett, 2017; Chen, 2020; Chung, 2020; Gonzalez et al., 2019; Kyriazos et al., 2021; Labrague & de los Santos, 2021). Zeman and Harvison (2017) recommended that OTPs should improve their RES through self-care to decrease their risk of BO and CF.

In separate studies completed by Burnett (2017) and Gonzalez et al. (2019), it was found that RES negatively correlated with BO and CF and had a positive relationship with CS in trauma workers. In a review of the literature, Alharbi et al. (2019) found that RES was a predictor of CF. Alharbi et al. explained that individuals with increased RES showed fewer symptoms of BO and CF. Kyriazos et al. (2021) found this same

relationship true in OTPs. In a study completed with nurses during the initial COVID-19 breakout, Labrague and de los Santos (2021) found that RES mediated the relationships between CF and quality of care, CF and job satisfaction, and CF and turnover rates. Labrague and de los Santos also suggested that RES "safeguards" nurses from mental health issues associated with CF. Caregiving professionals with the ability to successfully adapt to difficult client situations are more likely to demonstrate with CS and less likely to demonstrate with BO and CF (Burnett, 2017; Figley & Figley, 2017; Gonzalez et al., 2019; Ludick & Figley, 2017).

Summary and Conclusions

CF is a debilitation condition that affects health care providers who care for traumatized individuals. The knowledge of the traumatic experience, known as STS, leads to CF. Physical and psychological symptoms similar to those seen in the traumatized individual develop, causing diminished client care, missed work, and increased job turnover resulting in substantial socio-economic losses. Research on CF in nurses, psychology professionals, physicians, and first responders shows that RES can reduce this "cost of caring."

Resilient practitioners can adapt to and be less affected by STS than their less resilient counterparts. These resilient individuals experience CS with their work and may not show the harmful effects of CF and its contributing factors BO and STS.

Multiple studies are available among health professionals worldwide; however, there is little research regarding OTPs and CF. OTPs are health care professionals who treat the same or similar clients as nurses, psychology professionals, and physicians;

however, there was no research regarding these specialists until recently. The current research on OTPs is minimal, yet a need was established. The available research shows that OTPs are at risk for developing BO and CF and that the resilient OTPs is less likely to develop BO, contributing to CF.

In order to better understand CF, its predictors BO and STS, CS, and RES in OTPs, a quantitative study utilizing a survey including demographic data, the ProQOL questionnaire (Stamm, 2010), and the BRS (Smith et al., 2008) was completed. This study will help to fill the gap and contribute to the body of knowledge regarding CF, CS, STS, BO, and RES in OTPs. The finding from this study will inform the development of programs to improve quality of life, health, overall well-being, improved client care, and reduced absenteeism among OTPs.

In this chapter I provided an overview of the literature, including the search strategies used and the foundation for this study. I also detailed the OTPs' role in client care, summarized STS, CF, and RES, and presented a summary. In chapter 3 I will introduce the quantitative correlation study including the research design and rationale for the study. The methodology, instrumentation, and operationalization of constructs along with the data analysis completed are also explained. Finally, the threats to validity and ethical procedures are presented.

Chapter 3: Research Method

The purpose of this quantitative, cross-sectional, survey study that included a multiple regression analysis was to explore the unique impact (i.e., controlling for the other variables in the model) of the two independent variables of STS and RES on the two CF indicators of BO and CS (see Cox, 2016; Creswell & Creswell, 2020; Warner, 2013). I also conducted this study to determine if the impact of STS and BO on CF would be moderated by the RES.

Stamm (2010) proposed a CS-CF model where CS represents the positive side of caring for traumatized individuals, while CF, with its components of BO and STS, represents the negative side of caring. Figley and Figley (2017) proposed a CFRM indicating that RES may diminish the effects of STS and BO on CF in caring professionals. Many studies on health care professionals have supported the premise that there is a relationship between RES and CF and that RES may buffer the effects of STS and BO as they relate to CF (Burnett, 2017; Gonzalez et al., 2019; Kyriazos et al., 2021; Labrague & de los Santos, 2021); however, few studies exist regarding CF in OTPs (Chen, 2020; Chung, 2020; Huang et al., 2019; Sorenson et al., 2016). For this study, I hypothesized that STS and RES are related to both BO and CS as indicators of CF in OTPs. I also hypothesized that RES would moderate the impact of STS and BO on CF in OTPs.

In this chapter, I discuss the research design and rationale, methodology used, population and sampling procedures, data collection method, instrumentation and

operationalization of constructs, data analysis plan, possible threats to validity, and ethical procedures.

Research Design and Rationale

I employed a quantitative, cross-sectional, survey design, including a multiple regression analysis, to explore the unique impact (i.e., controlling for the other variables in the model) of the two independent variables of STS and RES on the two CF indicators of BO and CS (see Cox, 2016; Creswell & Creswell, 2020; Warner, 2013). An additional goal of this analysis was to determine if the impact of STS and BO on CF is moderated by RES. I selected this design because quantitative research uses numerical data (i.e., either nominal, ordinal, interval, or ratio) to explore relationships between variables (see Cox, 2016; Creswell & Creswell, 2020; Warner, 2013). A cross-sectional design is used to explore relationships at one point in time rather than longitudinally or across time (Cox, 2016; Creswell & Creswell, 2020; Warner, 2013). A multiple regression analysis allows for an exploration of possible correlations between variables, and a moderation design allows the researcher to examine the buffering effect a moderating variable might have on a dependent variable (Cox, 2016; Creswell & Creswell, 2020; Warner, 2013).

This design was appropriate for the current study because data were collected using a one-time survey that was completed by OTPs (see Cox, 2016; Creswell & Creswell, 2020; Warner, 2013). I developed a brief questionnaire using demographic information, the ProQOL 5 (Stamm, 2012), and the BRS (Smith et al., 2008), to collect numerical data regarding demographic information, CF, and RES. Both the ProQOL 5 and the BRS are used to collect quantitative data on a 5-point Likert scale. Demographic

information was collected to explore the strength of the sample and possible correlation between demographics and CF. Using a quantitative, cross-sectional, survey design for this study allowed me to evaluate the independent variables of STS and RES and their relationship with the dependent variables of BO and CF in OTPs. This design also allowed me to test for a possible moderator effect that RES may have on STS and BO.

I considered using a qualitative approach to explore CF in OTPs; however, this would have limited the number of participants and would not have provided information about the relationship between the proposed variables (see Cox, 2016; Creswell & Creswell, 2020). An experimental design also would not have been appropriate because no treatment was provided, and data were only collected at one point in time (see Creswell & Creswell, 2020). Thus, a nonexperimental survey design was the most appropriate to answer my research questions.

Research Questions and Hypotheses

RQ1: Are the variables STS and RES correlated with BO and CS as indicators of CF among OTPs?

$H_0$1: STS and RES are unrelated to BO and CS.

H_a1: STS and RES are related to BO and CS.

RQ2: Does RES moderate, or buffer, the effects of BO on CF?

$H_0$2: The impact of BO is not moderated by RES.

H_a2: The impact of BO is moderated by RES.

RQ3: Does RES moderate, or buffer, the effects STS on CF?

$H_0$3: The impact of STS is not moderated by RES.

H_a3: The impact of STS is moderated by RES.

Methodology

Population

The target population for this study was OTPs, including both OTs and OTAs, who were currently in practice/treating clients. According to the U.S. Bureau of Labor and Statistics (2022a, 2022b), there were approximately 127,830 (75%) OTs and 41,980 (25%) OTAs for a total of 169,810 OTPs employed in the United States in 2021. Eighty-three percent of these therapists were female and 16% were male. Seventy-eight percent of OTPs were White, 8.6% were Asian, 6.1% Hispanic/Latino, and 5% Black/African American. More than half (52%) of this population was over the age of 40 years old.

Sampling and Sampling Procedures

Sampling Design

I recruited a nonprobability purposive sample for an online, opt-in survey to assess CF in OTPs. Nonprobability propulsive sampling is used for surveys requiring specific characteristics in their sample (Cox, 2016). The sample frame for this study was OTPs, both OTs and OTAs, who were currently in practice and who responded to the survey. Those OTPs who did not have access to or who did not complete the entire survey were excluded.

Sample Size

Creswell and Creswell (2020) recommended that a power analysis be conducted before gathering data for a study to determine the appropriate sample size. To conduct a power analysis, it is necessary to decide on the effect size, the power value (1-β, where β

is the likelihood of a Type II error), and the alpha (α, where α is the likelihood of a Type I error; Creswell & Creswell, 2020). I used the recommended conservative effect size = .15, 1-β = .80, and α = .05 for this study (see Creswell & Creswell, 2020). For the current study, there were two predictor variables (i.e., STS and RES); therefore, the number of predictors was set to two. The overall significance of the model was tested with an *F*-ration for *R*; therefore, the test family setting was set at *F* test. I conducted the analysis before the study; therefore, the type of analysis was a priori. Using the G*Power 3.1.9.4 with these values, the noncentrality parameter λ = 10.2000000, the Critical *F* = 3.1382419, and the numerator *df* = 2, and the denominator *df* = 65 for a total sample size of 68 and the actual power = 0.8044183 (see Faul et al., 2013). The final sample consisted of 68 OTPs from this population, consisting of 65 OTs (95.6%) and three OTAs (4.4%).

Procedure for Recruitment, Participation, and Data Collection

After receiving approval from the Walden University Institutional Review Board (IRB; Approval No. 10-04-22-0649649), I began the recruitment process for this study. OTPs were recruited using the AOTA's (n.d.) CommunOT board and Walden University's Participant Pool. AOTA provides an area for members to submit survey requests to be post on the CommunOT.

Upon IRB approval, I posted a survey description with a link to the survey itself on the CommunOT site in the general area and in specific treatment sections. Individuals reviewed the post that explained the purpose of the study and inclusion and exclusion criteria. They were provided a survey link in Qualtrics (2022) where they viewed an opt-

in, informed consent form, including descriptions of the time commitment, risks and benefits, and how privacy would be maintained. Participants were told that they could exit the survey at any time during the process without question. Individuals who agreed to the informed consent were directed to the rest of the survey that included demographic information, the BRS (Smith et al., 2008) and the ProQOL (Stamm, 2010). Upon completion of the survey, participants were directed to a completion page where they were thanked for their participation. I collected the data from each survey using Qualtrics 9.22 (2022) and later moved the data into Statistical Package for the Social Sciences (SPSS) Version 28 software (IBM Corporation, 2021) for analysis.

Instrumentation and Operationalization of Constructs

I used the ProQOL 5 (Stamm, 2010) and the BRS (Smith et al., 2008) in this study. Demographic information was also collected for evaluation. I compiled the data from the surveys and the demographic information using Qualtrics 9.22 (2022). Both surveys are free to use in research and can be reformatted for online purposes (Smith et al., 2008; Stamm, 2010). A citation is required for the BRS (Smith et al., 2007), and I secured permission for using the ProQOL 5 (Stamm, 2010) and can be found in Appendix A: Permission to Use ProQOL.

Demographics

I developed the demographic questionnaire using Qualtrics's (2022) suggested demographics. The demographic questions can be found in Appendix B: Survey Consent and Demographics.

ProQOL 5

I selected the ProQOL 5 (Stamm, 2010) for this study because it has been used for over 20 years and is considered the most used measure in research for evaluating CF in caring professionals (see Bride et al., 2007; Cavanagh et al., 2020; Chen, 2020; Chung, 2020; De La Rosa et al., 2018). The ProQOL, first developed by Figley, was called the CF Self-Test (Stamm, 2010). Figley later collaborated with Stamm and developed the first ProQOL; however, the latest version, the ProQOL 5 (Stamm, 2010), was used for this study. The ProQOL 5 has three subscales that measure CS, BO, and STS, and these scales are scored separately for an overall score rather than a combined score (Stamm, 2010). Each scale consists of 10 questions measured on a 5-point Likert scale, with 1 = *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *often*, and 5 = *very often*. Questions 1, 4, 15, 17, and 29 are reverse scored. An example question is, "I get satisfaction from being able to [help] people" (Stamm, 2009, p. 1). A score of 42 or higher on any of the three scales is considered high, 23–41 is considered average, and 22 or less is considered low. CS is the positive feelings one gets from caring for others, while BO and STS (components of CF) are considered the negative feelings associated with CF (Stamm, 2010). High scores in CS are thought to have an inverse relationship with STS (Stamm, 2010).

Reliability and validity for the ProQOL 5 are good, with alpha reliability between .75 and .88 on the three scales (Bride et al., 2007; Stamm, 2010). Test/retest reliability and construct validity are good, and the ProQOL is overall psychometrically sound (Bride et al., 2007; Chung, 2020; Stamm, 2010).

I conducted a reliability analysis using Cronbach's alpha to assess the reliability of the 30 items in the ProQOL 5 as it applies to this sample. The ProQOL 5 displayed good reliability (Cronbach's alpha = .70; see Kline, 2000).

BRS

I selected the BRS developed by Smith et al. (2007) because of its capacity to measure RES as the ability to "bounce back" or recover from stress or stressful situations and because of its strong psychometric data (see Smith et al., 2007; Windle et al., 2011). Furthermore, the BRS has been used in multiple studies regarding health care providers and their ability to overcome diversity, including CF, BO, and STS (Labrague & de Los Santos, 2021; Leys et al., 2021; Windle et al., 2011).

The BRS is a simple self-assessment that measures RES and comprises six questions graded on a 5-point Likert scale (Smith et al., 2008). Questions 1, 3, 5 have scores of 1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree*, and 5 = *strongly agree*, and Questions 2, 4, and 6 have scores of 1 = *strongly agree*, 2 = *agree*, 3 = *neutral*, 4 = *disagree*, and 5 = *strongly disagree* (Smith et al., 2007). An example question is, "I tend to bounce back quickly after hard times" (Smith et al., 2007, p. 196). The scores for the six questions are then added and divided by 6 to give the overall score (Smith et al., 2007). Individuals with scores between 1.00 and 2.99 have low RES, between 3.00 and 4.30 have normal RES, and between 4.31 and 5 have high RES.

In a systematic review of RES scales, Windle et al. (2011) found that the BRS had strong psychometric data for measuring resilience with an internal consistency of $\alpha > 0.70$ but < 0.95. Smith et al. (2007) suggested that the BRF's internal consistency was

between α 0.68 and 0.91. Test-retest and internal consistency are good (Smith et al., 2007). I conducted a reliability analysis using Cronbach's alpha to assess the reliability of the six items in the BRS as it applies to this sample. The BRS displayed excellent reliability (Cronbach's alpha = .90; see Kline, 2000).

Data Analysis

To assess the hypothesis that the variables of STS and RES are related to BO and CS among OTPs and that RES moderates the impact of BO and CS on CF, I recruited a sample of OTPs through an online survey posted on AOTA's (n.d.) CommunOT and the Walden University Participant Pool site. STS, BO, and CS were measured using the online version of the ProQOL 5, and the STS and BO sections of the ProQOL 5 were combined for an overall CF score (see Stamm, 2010). I used an online version of the BRS was utilized to measure the level of RES (see Smith et al., 2008). Demographic information was also gathered to assess the strength of the sample and assess possible correlations that may be explored later. Qualtrics (2022) was used to collect data, and then data were exported to SPSS Version 28.0 for analysis (see IBM Corporation, 2021). I removed incomplete surveys from the data during cleaning, and they were not included in the final analysis.

Data analysis included a simple bivariate correlation analysis between STS, RES, CS, and BO using Pearson's *r*; a multiple regression analysis to examine the direct impact of STS and RES on BO; a multiple regression analysis to examine the direct impact of STS and RES on CS; a multiple regression analysis to test a moderator model in which CF served as the dependent variable, and the predictor variables of BO and RES

and their (centered) interaction were simultaneously entered in the regression model; and a multiple regression analysis to test the moderator model in which CF served as the dependent variable, and the predictor variables of STS and RES and their (centered) interaction were simultaneously entered in the regression model.

Threats to Validity

Internal validity is the degree to which inferences can be drawn from the data (Creswell & Creswell, 2020). This study was a correlation study in which I attempted to find a relationship between the independent and dependent variables, and therefore, internal validity issues were minimal. The threat of history was mitigated by screening questions that ensured all participants had the same backgrounds. Maturation may have caused one of the initial participants to not complete the survey with only three questions left; however, 68 participants completed the entire survey.

External validity is the degree to which the data can be generalized to the population (Creswell & Creswell, 2020). Issues with generalizability are clear. First, participants for this study were self-enrolled and not randomly selected. Next, participants closely mirror the OTPs population but there are some areas such as gender and license level where participants clearly do not (see Table 1). Therefore, the sample may not represent all OTPs, thus minimizing the study's external validity. Though this study will not be generalizable to all OTPs: it can serve as an initial study that should be repeated with a larger participant pool.

Threats to statistical validity were avoided by ensuring that the correct statistical power was accurate and assumptions for the data are not violated.

Ethical Procedures

The American Psychological Association (APA; 2017) ethical standards associated with research were followed for this study. Before collecting data, this researcher received IRB approval through Walden University. AOTA (n.d.) CommunOT allows individual surveys to be posted on their site without preapproval, however, I contacted the site manager who provided suggestions about timeframes, individual CommunOT boards.

Informed consent was written explicitly following APA and Walden University standards and included:

> (1) the purpose of the research, expected duration, and procedures; (2) their right to decline to participate and to withdraw from the research once participation has begun; (3) the foreseeable consequences of declining or withdrawing; (4) reasonably foreseeable factors that may be expected to influence their willingness to participate such as potential risks, discomfort, or adverse effects; (5) any prospective research benefits; (6) limits of confidentiality; (7) incentives for participation; and (8) whom to contact for questions about the research and research participants' rights. (Section 8.2: Informed Consent)

Participants were included in the study if they agree to the informed consent and selected "yes, I wish to participate." Skip logic was used in the informed consent and individuals who did not wish to participate were directed to the last page and thanked (see Appendix B: Survey Consent and Demographics).

Individuals were able to leave the survey at any time without issue. No identifying data was be collected, and all participants were coded in consideration of anonymity. Data will be securely stored on a password-protected and kept in a locked file cabinet in my office for 5 years. All data will be deleted in 5 years. No vulnerable populations were included in this research, and minimal risk was anticipated for the participants.

Summary

The purpose of this quantitative cross-sectional survey design which included a multiple regression analysis (Warner, 2013), was to explore the unique impact (controlling for the other variables in the model) of the two independent variables, STS and RES, on the two indicators dependent variables of CF, BO and CS (Cox, 2016; Creswell & Creswell, 2020; Warner, 2013). Further, this study sought to analyze the moderation effect that RES had on STS and BO as related to CF in these individuals. Stamm (2010) proposed a CS-CF model where CS represents the positive side of caring for traumatized individuals while CF, with its components, BO and STS, represents the negative side of caring.

Figley and Figley (2017) developed a CFRM model indicating that RES may diminish the effects of STS and BO on CF in caring professionals. Many studies on health care professionals support the premise that there is a relationship between RES and CF and that RES may buffer the effects of STS and BO as they relate to CF (Burnett, 2017; Chung, 2020; Gonzalez et al., 2019; Kyriazos et al., 2021; Labrague & de los Santos, 2021). Few studies regarding CF and RES in OTPs exist (Chen, 2020; Chung, 2020; Huang et al., 2019; Sorenson et al., 2016). For this study, I hypothesized that STS

and RES are related to both BO and CS as indicators of CF. I also hypothesize that RES would moderate the impact of STS and BO on CF in these individuals.

This chapter addressed the research design and rationale, the methodology used, the population and sampling procedures, data collection method, instrumentation and operationalization of constructs, the data analysis, possible threats to validity, and ethical procedures. Data collection began after the proposal was accepted, and IRB approval was granted. Chapter 4 will provide information on the data and the research results, and Chapter 5 will summarize the findings and provide a conclusion and recommendations.

Chapter 4: Results

The purpose of this quantitative, cross-sectional, survey study that included a multiple regression analysis was to explore the unique impact (i.e., controlling for the other variables in the model) of the two independent variables of STS and RES on two CF indicators, BO and CS among OTPs. I analyzed the data regarding this relationship using two multiple linear regressions. An additional goal of this analysis was to determine if the impact of STS and BO on CF was moderated by RES. STS, BO, CS, and CF were all measured using the ProQOL-5 (Stamm, 2010) and RES was measured using the BRS (Smith et al., 2008). For this study, I hypothesized that STS and RES are related to both BO and CS as indicators of CF in OTPs and that RES would moderate the impact of STS and BO on CF in OTPs. In this chapter, I describe the data collection process, sample demographics, preliminary analysis results including the tests for assumptions, and the major findings after data analysis before concluding the chapter with a summary of the findings.

Data Collection

I was granted IRB approval to conduct the study on October 4, 2022. Following this approval, my survey was posted to both the Walden Participant Pool website and the CommunOT on October 5th. On October 17th, the number of responses had plateaued, and following the advice of my chair, I added a reminder post to CommunOT. By October 25th, there were 75 respondents, and there had not been any new responses in several days. At that point, I downloaded all the data and noted that of the 75, I would be able to use 68, the original amount suggested by the a priori G*Power analysis. I met

with my chair on October 28, and we agreed that I had enough participants to complete my study.

Sample Demographics

Of the 68 completed surveys, 94% (n = 64) of the respondents were female and 4.5% (n = 3) were male, one participant did not provide a response. Fifty-eight (85.5%) of the respondents were White, 65 (95.6%) were OTs, and 54 (79.4%) had a master's degree or higher. The sample's demographics grossly match that of the population. For instance, ethnicity overrepresented White participants and underrepresented all other groups. Table 1 provides a comparison of the research sample and U.S. Bureau of Statistics Labor and Statistics data.

Full demographic information can be found in Table 1. Table 2 includes a breakdown of participants by work setting. Figure 1 shows the frequency of OTPs respondents by age, and Figure 2 shows the frequency of OTPs by the region of the country they live in.

Table 1

Frequency of Sample Demographics Compared with Bureau of Labor and Statistics

Variable	Variable category	Respondent percent	BLS percent
Gender	Male	4.5 (*n* = 3)	17
	Female	94.1 (*n* = 64)	83
	Missing	1.5 (*n* = 1)	--
Ethnicity	White/Caucasian	85.3 (*n* = 58)	78.7
	Asian - Eastern	2.9 (*n* = 2)	8.6
	Hispanic	2.9 (*n* = 2)	6.1
	African American	2.9 (*n* = 2)	5.0
	Mixed race	2.9 (*n* = 2)	--
	Asian - Indian	1.5 (*n* = 1)	--
	Other	1.5 (*n* = 1)	1.6
Geographic region	Midwest	39.7 (*n* = 27)	--
	Northeast	14.7 (*n* = 10)	--
	Southeast	19.1 (*n* = 13)	--
	Southwest	7.4 (*n* = 5)	--
	West	17.6 (*n* =12)	--
	Missing	1.5 (*n* = 1)	--
License level	Occupational therapy assistant	4.4 (*n* = 3)	25
	Occupational therapist	95.6 (*n* = 65)	75
Education level	Associates	1.5 (*n* = 1)	5
	Bachelors	19.1 (*n* = 13)	55
	Entry-level masters	32.4 (*n* = 22)	37
	Post-professional masters	22.1 (*n* = 15)	--
	Entry-level doctorate	7.4 (*n* = 5)	1
	Postprofessional doctorate	14.7 (*n* = 10)	--
	Other	2.9 (*n* = 2)	2
Years of experience	0–3	7.4 (*n* = 5)	--
	4–6	11.8 (*n* = 8)	--
	7–10	2.9 (*n* = 2)	--
	11–15	13.2 (*n* = 9)	--
	Over 15	64.7 (*n* = 44)	--

Variable	Variable category	Respondent percent	BLS percent
Age range	18–30	8.9 (*n* = 6)	17
	31–40	14.7 (*n* = 10)	31
	40+	76.4 (*n* = 52)	52

Note: N = 68. Data compared with Occupational employment and wages, May 2021, *U.S. Bureau of Labor and Statistics*, 2022a, 2022b (OES Home : U.S. Bureau of Labor Statistics (bls.gov).

Table 2

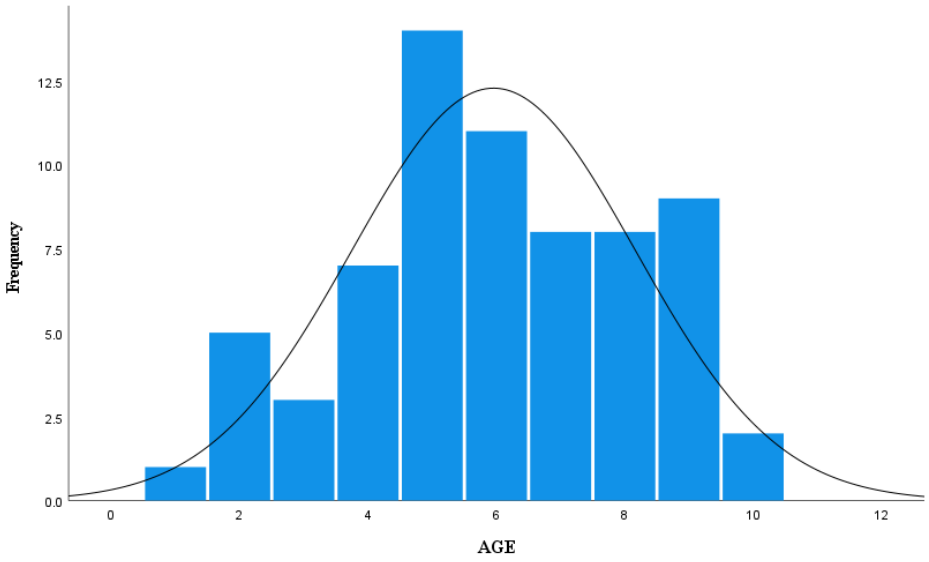
Frequency of Practice Setting

Setting	Frequency	Percent
In-patient rehab	2	2.9
SNF/Subacute/Long term care	4	5.9
General rehab outpatient	4	5.9
Pediatric hospital outpatient	1	1.5
In-patient psych	2	2.9
Behavioral health community	4	5.9
Older adult community	3	4.4
Home health	7	10.3
Pediatric outpatient clinic	8	11.8
Early intervention	5	7.4
School based	11	16.2
Other	11	16.2

Note. N = 68. SNF = skilled nursing facility.

Figure 1

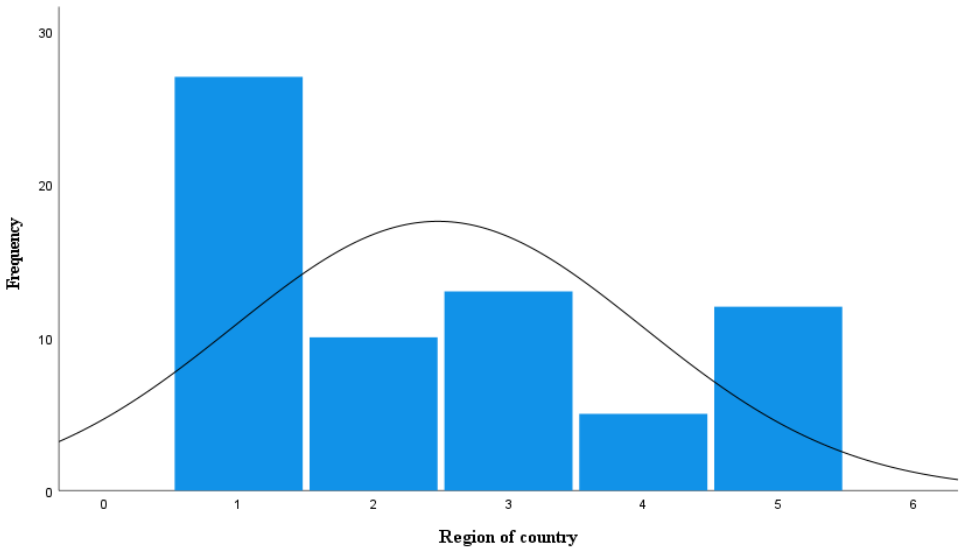
Age of Respondents



Note. 1 = 18–25 years, 2 = 26–30 years, 3 = 31–35 years, 4 = 36–40 years, 5 = 41–45 years, 6 = 46–50 years, 7 = 51–55 years, 8 = 56–60 years, 9 = 61–70 years, 10 = over 70 years.

Figure 2

Respondent by Geographic Region



Note. 1 = Northwest, 2 = Northeast, 3 = Southeast, 4 = Southwest, 5 = West.

Presentation of Findings

Test for Assumptions

I conducted a data analysis using the SPSS 28.0 software package (see IBM Corporation, 2021). An exploratory data analysis employing the Kolmogorov-Smirnov (K-S) test for univariate normality indicated that BO and STS were both normally distributed (i.e., the *p* values for the K-S were all above .05); however, CS and RES were not (i.e., the *p* values on the K-S were less the .05). Using a criterion of +/- 3.0 (see Laerd Statistics, 2015), no univariate outliers were detected on any of the measures. In an examination of Maholanobis distances from the regression of BO on STS and RES and

the regression of CS on STS and RES, I failed to identify any significant multivariate outliers at the 1% significance level.

I assessed and ruled out collinearity between the two predictor variables (i.e., STS and RES) based on the Tolerance statistic (T = .696); the squared multiple correlation between STS and RES equaled .304, well below the .90 criteria (see Field, 2007). Homoscedasticity was confirmed through an examination of the scatter plots of the standardized residuals for both BO and CS (see Appendix C: Scatter Plot for Dependent Variable BO & Appendix D: Scatter Plot for Dependent Variable CS) that showed the standardized residual scores were evenly distributed over predicted (fitted) standardized BO and CS scores.

Major Findings

I computed simple bivariate correlations between STS, RES, CS, and BO Pearson's r. Based on the correlations appearing in Table 3, STS was significantly and positively related to BO (r = .709, p < .01, r^2 = .502) and significantly and negatively related to RES (r = -.551, p < .01, r^2 = .304) and CS (r = -.411, p < .01, r^2 = .169). RES was significantly and positively related to CS (r = .425, p < .01, r^2 = .181) and significantly and negatively related to BO (r = -.592, p < .01, r^2 = .350). CS was significantly and negatively related BO (r = -.748, p < .01, r^2 = .560).

Table 3

Summary Statistics and Intercorrelations

Correlations	*M*	*SD*	RES	CS	BO
STS	22.99	5.45	-.551**	-.411**	.709**
RES	3.51	.80		.425**	-.592**
CS	40.68	5.89			-.748**
BO	23.15	6.08			

Note. STS = secondary traumatic stress, RES = resilience, CS = compassion satisfaction, BO = burnout.
** $p < .01$.

To examine the direct impact of STS and RES on BO, I conducted a multiple regression analysis. In the standard (simultaneous) model, the two predictor variables were entered into the regression simultaneously. Tables 4 and 5 display the results of the analysis. The multiple correlation ($R = .749$) was large and differed significantly from zero (F (2,65) = 41.437, $p < .001$). The R^2 equaled .560 (adjusted $R^2 = .547$) and indicated that STS and RES are strong predictors of BO (see Table 4). Approximately 55% of the variance in BO is explained by STS and RES.

An examination of the regression weights appearing in Table 5 indicated that the predictor variable of STS, after controlling for RES, had a positive and significant impact on BO, while RES, after controlling for STS, had a significant and negative impact on BO. The regression coefficient (B) for STS equaled .613, (95% CI for B = -.557 to .008) is statistically significant (t (65) = 5.6, $p < .001$) and represents a strong effect size (see Cohen, 1988) accounting for approximately 5.8% of the variability of BO ($sr^2 = .058$, β = .338). The regression coefficient (B) for RES equaled -2.206 (95% CI for B = .176 to 4.042), which is statistically significant (t (65) = 2.929, $p = .005$) and represents a strong

effect size (see Cohen, 1988) accounting for approximately 3.3% of the variability of BO (sr^2 = .033, β = -.289). These findings show that BO is substantially dependent on STS and RES. The multiple regression predicts that for each unit increase in STS, the respondent's BO would increase by (*B*=) .61, and for RES, BO would decrease by (*B*=) -2.21. The predictive equation would be BO = 16.80 + .61 (STS) – 2.21 (RES).

Table 4

ANOVA Table for the Regression Model With BO as the Dependent Variable

Model	*SS*	*df*	*MS*	*F*	*p*
Regression	1,387.94	2	693.97	41.44	<.001
Residual	1,088.59	65	16.75		
Total	2,476.53	67			

Note. *N* = 68.

Table 5

Multiple Regression Analysis Results With BO as the Dependent Variable

	Coefficients					95% *CI*			Collinearity	
	B	*SE*	β	*t*	*p*	for *B*		sr^2	*T*	*VIF*
Constant	16.80	4.58		3.67	<.001	27.81	51.35			
STS	0.61	0.11	0.55	5.58	<.001	-0.56	0.01	0.058	0.696	1.44
RES	-2.21	0.75	-0.29	2.93	0.005	0.18	4.04	0.033	0.696	1.44

Note. Secondary traumatic stress (STS) and resilience (RES) are the independent variables.

To examine the direct impact of STS and RES on CS, I conducted a multiple regression analysis. In the standard (simultaneous) model, the two predictor variables were entered into the regression simultaneously. Tables 6 and 7 display the results of the analysis. The multiple correlation (*R* = .226) was large and differed significantly from

zero (F (4,45) = 9.479, p < .001). The R^2 equaled .226 (adjusted R^2 = .202) and indicated that STS and RES are strong predictors of CS (see Table 6).

Table 6

ANOVA Table for the Regression Model With CS as the Dependent Variable

Model	*SS*	*df*	*MS*	*F*	*p*
Regression	524.53	2	262.27	9.48	<.001
Residual	1,798.35	65	27.67		
Total	2,322.88	67			

Note. N = 68.

An examination of the regression weights appearing in Table 7 indicated that the predictor variable of STS, after controlling for RES, had a negative impact on CS; yet, this impact is not significant at the .05 level, and RES, after controlling for STS, had a positive and significant impact on CS.

Table 7

Multiple Regression Analysis With CS as the Dependent Variable

	Coefficients					95% *CI* for *B*			Collinearity	
	B	*SE*	β	*t*	*p*			sr^2	*T*	*VIF*
Constant	35.58	5.89		6.72	<.001	27.81	51.35			
STS	-0.28	0.14	0.25	-1.94	0.056	-0.56	0.01	0.045	0.696	1.44
RES	2.12	0.97	0.29	2.18	0.033	0.18	4.04	0.057	0.696	1.44

Note. Secondary traumatic stress (STS) and resilience (RES) are the independent variables.

The regression coefficient (B) for STS equaled -0.28 (95% CI for B = -0.56 to 0.01), is not statistically significant (t (65) = -1.94, p = .056), and represents a small effect size (see Cohen, 1988) accounting for approximately 4.5% of the variability of CS (sr^2 = .045, β = .254). The regression coefficient (B) for RES equaled 2.11 (95% CI for B

= .176 to 4.042), is statistically significant (t (65) = 2.18, p = .033), and represents a small effect size (see Cohen, 1988) accounting for approximately 5.7% of the variability of CS (sr^2 = .057, β = .285). These findings indicate that CS is not substantially dependent on STS; however, it is dependent on RES. The multiple regression predicts that for each unit increase in RES, CS will increase by (B=) 2.11. The predictive equation for CS would be CS = 39.58 + 2.11 (RES).

To test the moderator model, I conducted a multiple regression analysis in which CF served as the dependent variable, and the predictor variables of BO and RES and their (centered) interaction were simultaneously entered in the regression model. The overall regression model was significant and explained a large proportion of the variability in CF (R^2 = .874, F(3, 64) = 147.43, p < .001; see Table 8 for regression analysis results). The direct effect of BO on CF was significant (B = 1.52, p < .001, *sr2* = .49), positive, and accounted for approximately 49% of the variability. The direct effect of RES on CF was significant (B = -1.46, p = .049, *sr2* = .008), negative, and accounted for approximately 1% of the variability. Most notably, after controlling for the significant main effects of BO and RES, the interaction of BO and RES was not significant (B = 0.002, p = .982, *sr2* < .001). These findings suggest that RES does not significantly moderate or buffer the relationship between BO and CF in OTPs.

Table 8

Multiple Regression Analysis With Compassion Fatigue as the Dependent Variable

	Coefficients					95% *CI*	
	B	*SE*	β	*t*	*p*	for *B*	
Constant	51.42	2.64		19.51	<.001	46.15	56.68

BO	1.52	0.10	0.87	15.79	<.001	1.32	1.71
RES	-1.46	0.73	-0.11	-2.00	0.049	-2.94	-0.00
BOCxREC	0.002	0.09	0.001	0.02	0.982	-0.18	0.19

Note. BO = burnout, RES = resilience, BOCxREC = the center of burnout and the center of resilience.

To test the moderator model, I conducted another multiple regression analysis in which CF served as the dependent variable, and the predictor variables of STS and RES and their (centered) interaction were simultaneously entered in the regression model. The overall regression analysis explained a significant and large proportion of the variability in CF (R^2 = .847, $F(3, 64) = 124.45$, $p < .001$; see Table 9 for regression analysis results). The direct effect of STS on CF was significant ($B = 1.60$, $p < .001$, *sr2* = .46), positive, and accounted for approximately 46% of the variability. The direct effect of RES on CF was significant ($B = -2.18$, $p = .007$, *sr2* = .02), negative, and accounted for approximately 2% of the variability. Most notably, after controlling for the significant main effects of STS and RES, the interaction of STS and RES was not significant ($B = 0.005$, $p = .965$, *sr2* < .001). These findings suggest that RES does not moderate the effect of STS on CF in OTPs.

Table 9

Multiple Regression Analysis With Compassion Fatigue as the Dependent Variable

	Coefficients					95% *CI* for *B*	
	B	*SE*	β	*t*	*p*		
Constant	17.11	4.82		3.55	<.001	7.48	26.74
STS	1.60	0.11	0.82	14.20	<.001	1.32	1.71
RES	-2.18	0.78	-0.16	-2.78	0.007	-2.85	0.10
STSCxREC	0.01	0.12	0.00	0.04	0.965	-0.23	0.24

Note. STS = secondary traumatic stress, RES = resilience, STSCxREC = the center of secondary stress and the center of resilience.

Hypothesis Testing

RQ1: Are the variables STS and RES correlated with BO and CS as indicators of CF among OTPs?

$H_0$1: STS and RES are unrelated to BO and CS in OTPs.

H_a1: STS and RES are related to BO and CS in OTPs.

Findings suggest STS has a significant and positive impact on BO while RES has a significant and negative effect on BO. Findings also suggest that STS may have an impact on CS, but this impact is not significant while RES has a significant and positive impact on CS. Therefore, the null hypothesis can only be partially rejected.

RQ_2: Does RES moderate, or buffer, the effects of BO on CF?

H_{o2}: The impact of BO on CF is not moderated by RES.

H_{a2}: The impact of BO on CF is moderated by RES.

Findings for this hypothesis suggest that RES does not significantly buffer the effects that BO has on CF in OTPs and I fail to reject the null hypothesis.

RQ_3: Does RES moderate, or buffer, the effects STS on CF?

H_{o3}: The impact of STS on CF is not moderated by RES.

H_{a3}: The impact of STS on CF is moderated by RES.

Findings suggest that RES does not significantly moderate or buffer the effects of STS on CF in OTPs and therefore I fail to reject the null hypothesis.

Summary of Findings

The purpose of this study was to explore the unique impact (when controlling for other variables in the model) that the independent variables STS and RES have on BO and CS in OTPs. Additionally, the possible moderating effect that RES the moderating variable has on BO and STS the independent as they relate to CF the dependent variable was examined. Data were collected from 68 OTP who responded to an online survey posted in CommunOT.

For this study I completed two multiple regression analyses and two moderator analyses. Data regarding demographics was used to better understand the sample and its nearness to the OTPs population. Assumptions for the multiple regressions were assessed with no major violations noted. Both regression models for STS and RES on BO (F (2,65) = 41.437, $p < .001$, R^2 =.560) and STS and RES on CS (F (4,45) = 9.479, $p < .001$, R^2 = .226) were significant. With STS and RES accounting for approximately 56% of the variance in BO and approximately 23% of the variance in STS. Specifically, STS and RES had an impact on BO and RES had an impact on CS, however, STS did not have a significant impact on CS.

In reviewing the moderator model, it was noted that the direct effect of BO on CF was significant (B = 1.52, $p < .001$, *sr2* = .49) and positive, and the direct effect of RES

on CF was significant (B = -1.46, p = .049, $sr2$ = .008) and negative, however, when controlling for the significant main effects of BO and RES, the interaction of BO and RES was not significant (B = 0.002, p = .982, $sr2$ < .001). These findings suggest that RES does not significantly moderate the relationship between BO and CF in OTPs. Further, the direct effect of STS on CF was also significant (B = 1.60, p < .001, $sr2$ = .46) and positive, and the direct effect of RES on CF was significant (B = -2.18, p = .007, $sr2$ = .02) and negative, however, after controlling for the significant main effects of STS and RES, the interaction of STS and RES was not significant (B = 0.005, p = .965, $sr2$ < .001). These findings suggest that RES does not moderate the effect of STS on CF in OTPs. In Chapter 5 I will summarize these findings and provide conclusions to them. I will also discuss the limitations and recommendations for future research in this area. Finally, I will discuss the implications for positive social change of this study.

Chapter 5: Discussion, Conclusions, and Recommendations

CF, often seen in caring professionals who work with traumatized individuals, is debilitating and leads to missed work, diminished work satisfaction, and reduced client care (Figley, 1995a, 1995b; Figley & Figley, 2017; Figley & Ludick, 2017; Sorenson et al., 2016; Sorenson et al., 2017; Stamm, 2010). This "cost of caring" affects these caregivers' health and overall well-being (Figley, 1995a, 1995b; Figley & Figley, 2017; Figley & Ludick, 2017; Sorenson et al., 2017; Stamm, 2010). CS, the positive side of caring, along with BO and STS, the negative side of caring, all contribute to a caregivers' CF (Stamm, 2010). In the CS-CF model, Stamm (2010) suggested that high CS contributes to lower levels of BO and STS, while high levels of STS coupled with BO are CF. Figley and Figley (2017), in the CFRM, suggested that RES can be a protective factor against CF and its effects.

Though CF has been studied in caring professionals for many years (e.g., Cavanagh et al., 2020; Cocker & Joss, 2016; Papazoglou et al., 2019; Sinclair et al., 2017; Sorenson et al., 2016; Xie, Chen, et al., 2021), research regarding OTPs is limited (Brown & Pashniak, 2018; Brown et al., 2017; Chen, 2020; Chung, 2020; Lambdin-Pattavina et al., 2022; Sorenson et al., 2016). This gap in the research was of interest to me as an OT; therefore, I conducted the current cross-sectional survey study to explore CF in these individuals. Specifically, I wanted to find the unique impact (i.e., controlling for the other variables in the model) that STS and RES has on the CF indicators of BO and CS in OTPs. Furthermore, I wanted to understand the possible moderation effect that RES has on STS and BO as related to CF in these OTPs.

Findings from this study suggested that both STS and RES had significant impacts on BO, with STS having a positive effect and RES having a negative one in OTPs. RES also had a significant and positive impact on CS; however, though STS may have a negative impact on CS, this relationship was not significant at the .05 level (p = .056). There was also a direct, significant, and positive effect of BO on CF and a direct, significant, and negative effect of RES on CF; however, when controlling for the significant main effects of BO and RES, the interaction of BO and RES was not significant. Furthermore, the direct effect of STS on CF was significant and positive, and the direct effect of RES on CF was significant and negative. When controlling for the significant main effects of STS and RES, the interaction of STS and RES was not significant. These findings suggest that RES may not significantly moderate the effects of BO or STS on CF in OTPs.

In this chapter, I further interpret the findings of this study, discuss the limitations, provide recommendations for using the results of this research and future studies, and suggest implications for positive social change.

Interpretation of Findings

It is clear that OTPs are caring professionals who treat many of the same patients as nursing and others and that they may experience CF similar to these individuals (Brown & Pashniak, 2018; Brown et al., 2017; Chen, 2020; Chung, 2020; Lambdin-Pattavina et al., 2022; Sorenson et al., 2016). However, little research has focused on CF in OTPs (Brown & Pashniak, 2018; Brown et al., 2017; Chen, 2020; Chung, 2020; Lambdin-Pattavina et al., 2022; Sorenson et al., 2016). For this study, I sought to

understand CF in OTPs, discover any relationship between STS and RES on BO and CS (as predictors of CF), and delve into RES and its possible buffering effects on BO and STS as they relate to CF. To do this, I used the CS-CF model (Stamm, 2010) and the CFRM (Figley & Figley, 2017; Figley & Ludick, 2017) as the theoretical foundation.

For this study, I collected demographic information and used the ProQOL and the BRS to survey a group of OTPs. The sample of OTPs who responded to the current study appeared to resemble that of the general OTP population grossly (see Tables 1 and and Figures 1 and 2 for specific demographic information). Respondents were specific to the United States and were limited to those who had access to the survey. Of the 75 original respondents, only 68 completed all survey sections and were included in the final study analysis.

Current studies specific to OTPs and CF are limited and conflicting with Chen (2020) suggesting that OTPs are immune to CF, while Chung (2020) found high levels of both STS and BO leading to CF in OTPs. More recently, Lambdin-Pattavina et al. (2022) found that between 71% and 80% of OTPs reported demonstrating with BO, while 77% to 92% of OTPs reported CF.

Interestingly, the mean levels of CS, BO, and STS in the OTPs who participated in the current survey were all moderate, with CS at the upper limit of the moderate level and BO and STS at the lower limits. Of further interest, RES levels in the respondents were in the normal range, though 14 individuals had low levels of RES. To compare, Chung (2020) found that only 27% of the individuals surveyed had a high CS level, with 21.5% demonstrating low CS. Chen (2020) found that 52% of respondents had high

levels of CS, and no respondents had low CS. The current study findings were closely aligned with Chen's and showed that 42.6% of respondents had high CS and none had low CS.

Furthermore, 21% of Chung's (2020) respondents demonstrated high BO, and only 19.5% demonstrated low BO, while 0% of Chen's (2020) respondents demonstrated high BO and 60.5% demonstrated low BO. In the current study, I found no respondents with high BO, 53% with moderate BO, and 47% with low BO.

Finally, Chung (2020) reported that 21.5% of OTPs demonstrated high levels of STS, while 22% demonstrated low STS. Chen (2020) found that only 1.3% of respondents had high levels of STS, and 78.9 had low levels. In the current study, I found no respondents with high STS, 50% with both moderate and low STS. Though the findings from this current study do not suggest a lack of CF in OTPs, most respondents demonstrated moderate levels of both BO and STS (as predictors of CF).

The results of this study add to the knowledge about CF in OTPs because although Chen (2020) and Chung (2020) studied the CF in OTPs, neither sought to find the correlation between the factors of CF in OTPs or examine the relationship that RES may have with CF and its predictors as I did in the current study. The Chen study was completed on mostly OTPs from the United States using the English version of the ProQOL, as was the current study, while the Chung study was completed on individuals in Korea using the Korean version of the ProQOL.

Interpretation of Findings Related to the Theoretical Foundation

Findings from the current study support both the CS-CF (Stamm, 2010) model and the CFRM (Figley & Figley, 2017; Figley & Ludick, 2017). In the CS-CF model, Stamm (2010) suggested that there are two sides to caring for traumatized individuals: CS, or the positive side of caring, and CF (consisting of both BO and STS), or the negative side of caring. When considering the CS-CF model, it is crucial to understand the relationship between CS, BO, STS, and CF (Stamm, 2010). Many scholars have used this model to guide research regarding CF and professional quality of life. Chen (2020), Gonzalez et al. (2019), Labrague and de los Santos (2021), Turgoose and Maddox (2017), and Stamm all suggested that CS is a protective factor against CF and that CS, BO, and STS are all correlated. In this study, I specifically looked at the correlation between STS on BO and on CS. I found that in the group of OTPs participants, STS was positively and significantly correlated with BO ($p < .001$); however, its relationship to CS was negative but not significant at the .05 level ($p = .056$). This study fills the gap in the literature and can help OTPs better understand CS, BO, and CF in themselves and their colleagues.

According to the CFRM, some factors could predict CF, including RES (Figley & Figley, 2017; Figley & Ludick, 2017). Kyriazos et al. (2021) found a negative relationship between RES and BO in OTPs, while Burnett (2017), Gonzalez et al. (2019), and Labrague and de los Santos (2021) found this to be true in other caring professionals. In the current study, I looked at the relationships between RES and BO and RES and CS. The current study findings were aligned with the CFRM (see Figley & Figley, 2017;

Figley & Ludick, 2017). Specifically, RES was shown to have a significant impact on both BO and CS. RES had a negative impact on BO and a positive impact on CS, both predictive factors of CF (see Figley & Figley, 2017; Stamm, 2010). The knowledge gained from this study can help initiate positive social change by providing a better understand of RES and its relationship to BO and CS as they relate to CF. This understanding can provide evidence to support the need for OTPs to participate in self-care and improve their own RES while improving their overall personal well-being and their client care.

Interpretation of Findings Related to Research Questions

Research Question 1

I found that both STS and RES were significantly correlated with BO where STS was positively correlated ($p < .001$) and RES was negatively correlated ($p = .005$) to BO. Additionally, I found that RES was positively correlated with CS ($p = .033$); however, the negative relationship between STS and CS was not significant at the .05 level ($p = .056$). Therefore, I failed to reject the null hypothesis for Research Question 1.

Current studies involving OTPs and CF by Chen (2020) and Chung (2020) did not examine the relationships between the variables of STS, RES, BO, and CS. However, Kyriazos et al. (2021) studied OTPs and BOand found that OTPs with low RES were more likely to be at risk for higher BO and that RES was protective against BO. Burnett (2017), Gonzalez et al. (2019), and Turgoose and Maddox (2017) found similar correlations between RES and BO in other health professionals. Gonzalez et al., Kyriazos et al., and Turgoose and Maddox also found a relationship between RES and CS. Burnett

further suggested that RES mediated CF and BO in first responders. Gonzalez et al. also found a relationship between STS and BO, though others did not. Kyriazos et al. also reported that RES could be learned.

Research Questions 2 and 3

When evaluating the moderating effect that RES has on BO as related to CF and the moderating effect that RES has on STS as related to CF, I found that both BO and RES had direct effects on CF; however, after controlling for the main effects of BO and RES, the interaction of BO and RES was not significant ($p = .982$) and the interaction of STS and RES was not significant ($p = .965$). Therefore, I failed to reject the null hypotheses for Research Questions 2 and 3.

In reviewing the literature regarding CF, I found several studies that ran a mediation analysis on RES, CF, and BO (Burnett, 2017; Burnett & Wahl, 2015; Labrague & de los Santos, 2021) but did not find any regarding the moderating effects of RES on STS or BO as they relate to CF. However, Kyriazos et al. (2021) did study the moderating effects of personal and organizational resources on BO and found that there was a significant relationship between these resources and the severity of BO symptoms. Kyriazos et al. suggested that these personal and organizational resources build RES and can decrease the symptoms of BO. The authors further advised that these traits could be learned and act as protective factors against BO.

Limitations of the Study

The current study on OTPs and CF had several limitations worthy of consideration. Because this was a quantitative, cross-sectional, survey study, no causation

can be assumed, limiting the findings to relationships (see Creswell, 2020). However, the power of prediction still renders the findings useful to inform and guide practitioners. I used a convenience sample consisting of volunteers who had to have access to either AOTA's (n.d.) CommunOT or the Walden University Respondent Pool; thus, many possible respondents may not have had access. Many OTPs also have high work demands and other time constraints (Zeman & Harvison, 2017), which may have decreased participation by those more susceptible to BO and CF. However, I attained the target sample size through purposive sampling. Another limitation could have stemmed from the sample's demographics only grossly matching that of the population. For instance, ethnicity was overrepresented with White participants and underrepresented all other groups. The results must, therefore, be used with caution when generalizing to the underrepresented groups. The survey was self-reported, so I had to assume that the respondents answered honestly, which could have been a limitation. However, the analyses revealed common trends that increase the reliability of the reported data. Finally, of the 75 respondents, only 68 completed the survey. There could have been multiple reasons for this, including internet issues, ease of completion from a cell phone, other technical issues, or personal issues such as sensitivity to the topic. Because the survey was completed anonymously with no identifying data collected, it was impossible for me to follow up with these individuals. However, 90% of the respondents completed the full survey, which is greater than a chance response rate. Despite the importance and applications of the results, these limitations due to survey type, sampling, and survey completion are acknowledged, and may affect the generalizable of the results to the

greater population of OTPs. Future studies can circumvent some of these limitations to improve generalizability.

Recommendations

This study is one of the first that considers CF and its predictors among OTPs. The limitations of this study may decrease its generalization; however, the information gained can be used to guide new research in this area. Therefore, my first recommendation would be to use the data from this study to explore CF in these individuals further. I want to analyze further relationships between respondents' age, years of experience, gender, and practice setting as they relate to RES, CS, BO, STS, and CF. I would also like to determine the possible mediating effect that RES has on BO and STS as they relate to CF.

Another recommendation is for more studies with a larger, more representative group of OTPs for a greater understanding of CF in these professionals. A mixed methods study may provide a deeper understanding of these therapists, their struggles, and their successes. Results from these future studies will help in providing better education and training for OTPs regarding RES, BO, and CF, as recommended by Lambdin-Pattavina et al. (2022) and Zeman and Harvison (2017).

Finally, as Lambdin-Pattavina et al. (2022) and Zeman and Harvison (2017) suggested, better training for OTPs in the areas of self-care and RES during their academic and professional training should be implemented. As an OT educator, I believe that teaching students to care for themselves while treating their clients will help them become better practitioners.

Social Change Implications

It is clear that CF can be devastating to caregivers who work with victims of trauma (Figley, 1995a, 1995b; Figley & Figley, 2017; Figley & Ludick, 2017; Sorenson et al., 2017; Stamm, 2010). The symptoms of CF can be debilitating to the provider and costly to the health care system (Figley, 1995a, 1995b; Figley & Figley, 2017; Figley & Ludick, 2017; Sorenson et al., 2017; Stamm, 2010). Better self-care improves CS and RES, which may improve these outcomes (Figley & Figley, 2017; Figley & Ludick, 2017; Sorenson et al., 2017; Stamm, 2010; Zeman & Harvison, 2017). However, there is limited research on CF among OTPs though they care for the same clients as other more researched professions (Brown & Pashniak, 2018; Brown et al., 2017; Chen, 2020; Chung, 2020; Lambdin-Pattavina et al., 2022; Sorenson et al., 2016; Zeman & Harvison, 2017). Researchers have provided information regarding the need for more studies in this area and the need for RES training to help prevent and improve the harmful effects of CF in OTPs (Chen, 2020; Chung, 2020; Lambdin-Pattavina et al., 2022; Zeman & Harvison, 2017).

In the current study I found that there is a negative relationship between RES and BO and a positive relationship between RES and CS. I also found that there is a positive correlation between STS and BO. These findings suggest that those therapists with higher levels of RES may enjoy their jobs more (CS) and, in fact, be protected from BO, a contributor to CF. I also found that individuals with increased levels of STS may demonstrate with higher levels of BO. These findings contribute to the literature and are supported by studies such as that of Kyriazos et al. (2021), who found that personal and

organizational resources build resilience and can decrease the symptoms of BO, a contributing factor of CF, in OTPs. Burnett (2017), Gonzalez et al. (2019), Labrague and de los Santos (2021), and Turgoose and Maddox (2017) found this same relationship in other professionals and called for support and training to improve outcomes.

There is little known about CF in OTPs. Findings from this study provide crucial evidence that RES decreases BO and improves CS in OTPs, two predictors of CF. These results can impart positive social change by providing data supporting the need for enhancements in treatment and preventive care for both BO and CF in OTPs. Further, these findings verify the importance of education and training in RES to decrease BO, improve CS, and reduce the effects of CF. Thus, improving OTPs' mental and physical well-being can have a ripple effect by improving client care and therapist retention and thus decreasing medical costs. Lessening the consequences of working with clients who have been traumatized will further decrease the personal and monetary "cost of caring" in OTPs.

Conclusion

CF has been studied since the late 1900s (Figley & Figley, 2017; Figley & Ludick, 2017; Stamm, 2010; Sorenson et al., 2017). These researchers suggested the severity of symptoms related to CF among those afflicted The physical and psychological toll that CF takes on the caregiver affects their patient care, quality of life, job retention, and medical cost (Chen, 2020; Chung, 2020; Figley, 1995a, 1995b; Figley & Figley, 2017; Figley & Ludick, 2017; Huang et al., 2019; Lambdin-Pattavina et al., 2022; Sorenson et al., 2017; Stamm, 2010). Unfortunately, OTPs have been mostly overlooked

when it comes to CF research (Chen, 2020; Chung, 2020; Huang et al., 2019; Lambdin-Pattavina et al., 2022; Sorenson et al., 2017).

A recent study conducted in a group of OTPs by Lambdin-Pattavina et al. (2022) found that 77% to 92% reported having CF, yet they did not feel they had sufficient training or support to combat it. The current study delved into CF in OTPs by examining possible relationships between RES and STS on CS and BO (two predictors of CF). Findings from this study indicate that both RES and STS have significant impacts on CS and RES has a significant impact on BO. These findings are supported by Kyriazos et al. (2021), who found that personal and organizational resources build resilience while decreasing BO. Kyriazos et al. also explained that RES education can lessen the impact of BO on OTPs.

Therefore, I recommend further studies pertaining to OTPs and CF. Mixed methods studies may provide a richer understanding of these professionals and their experiences with CF and may provide possible remediation strategies. Bettering OTPs' skills in preventing and overcoming CF can decrease the incidence, improve care, improve quality of life, reduce employee turnover, and decrease medical costs.

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Appendix A: Permission to Use ProQOL

Permission to Use the ProQOL

Thank you for your interest in using the Professional Quality of Life Measure (ProQOL). Please share the following information with us to obtain permission to use the measure:

Please provide your contact information:

Email Address

XXXXXXXXName

Gayla Aguilar

Organization Name, if applicable

Walden University

Country

United States

Please tell us briefly about your project:

I am doing my dissertation on predictors of CF in Occupational Therapy Practitioners Who Treat Military Veterans.

What is the population you will be using the ProQOL with?

Occupational Therapy Practitioners

In what language/s do you plan to use the ProQOL?

Listed here are the languages in which the ProQOL is currently available

(see https://proqol.org/ProQol_Test.html). If you wish to use a language not listed here, please select "Other" and specify which language/s.

English

The ProQOL measure may be freely copied and used, without individualized permission from the ProQOL office, as long as:

You credit The Center for Victims of Torture and provide a link towww.ProQOL.org; It is not sold; and

No changes are made, other than creating or using a translation, and/or replacing "[helper]" with a more specific term such as "nurse."

Note that the following situations are acceptable:

You can reformat the ProQOL, including putting it in a virtual format

You can use the ProQOL as part of work you are paid to do, such as at a training: you just cannot sell the measure itself

Does your use of the ProQOL abide by the three criteria listed above? (If yes, you are free to use the ProQOL immediately upon submitting this form. If not, the ProQOL office will be in contact in order to establish your permission to use the measure.)

Yes

Thank you for your interest in the ProQOL! We hope that you find it useful. You will receive an email from the ProQOL office that records your answers to these questions and provides your permission to use the ProQOL.

We invite any comments from you about the ProQOL and the experience of using it at proqol@cvt.org. Please also contact us if you have any questions about using the ProQOL, even if you noted them on this form. Note that unfortunately, our capacity is quite limited so we may not be able to respond to your note: however, we greatly appreciate your engagement.

Appendix B: Survey Consent and Demographics

You are invited to complete an anonymous survey by a Walden University student working toward a doctoral degree.

Study title: The Effects of Secondary Traumatic Stress and Resilience on the Indicators of Compassion Fatigue Among Occupational Therapists

Doctoral student name: Gayla Aguilar

Doctoral student contact information: XXXXXXX

Number of volunteers needed: approximately 70 volunteers

Number of minutes needed for survey: 10 minutes

Volunteers must be:
- Occupational therapists or occupational therapy assistants
- Currently treating clients

Your role:
- Can end any time you wish
- Involves no more risk than daily life
- Involves no payment

Benefits to you:
This study offers no direct benefits to individual volunteers. The aim of this study is to add to the body of knowledge about compassion fatigue in occupational therapy practitioners and the possible benefits of resiliency.

Voluntary Nature of the Study:
Research should only be done with those who freely volunteer. So, your decision to join or not will be respect.
If you decide to join the study now, you can still change your mind later. You may stop at any time and exit the survey.
There are no gifts or compensation associated with this study.

Purpose of the study:
The purpose of this study is to explore the unique impact of secondary traumatic stress and resilience on burnout and compassion satisfaction, two indicators of compassion fatigue. Additionally, this analysis aims to determine if the impact secondary traumatic stress and burnout on compassion fatigue is moderated by resilience.

Data Collection: This study will involve you completing the following steps:

- Completing a brief online survey including:
  - Demographic questions that will not include any identifying information
  - the ProQOL 5 survey consisting of 30 questions (5-point Likert scale)
  - the Brief Resilience Scale six questions (5-point Likert scale)

Here are a few example questions:
"I am happy"
"I get satisfaction from being able to [help] people"
"I feel invigorated after working with those I help"
"I tend to bounce back quickly after hard times"
"I have a hard time making it through stressful events"
"I usually come through difficult times with no trouble"

Privacy:
To protect your privacy, the doctoral student will not collect, track, or store your identity or contact info.

In place of a consent signature, your completion of the survey would indicate that you consent to your responses being analyzed in the study.

Data will be kept secure by using password-protected devices and platforms. Data will be kept for a period of at least 5 years, as required by the university.

Use of your responses:
Your survey responses will be used for academic research purposes only. Once the doctoral student graduates, the study's results will be posted online in Scholarworks (a searchable publication of Walden University research).

Protecting You If you want to talk privately about your rights as a participant or any negative parts of the study, you can call Walden University's Research Participant Advocate at 612-312-1210 or email IRB@mail.waldenu.edu. Walden University's approval number for this study is IRB will enter approval number here and it expires on IRB will enter expiration date.

Please print a copy of this consent form for your records

If you consent to participate, please indicate your response below:

Yes, I wish to participate (this will take participant to the rest of the survey)
No, I do not wish to participate (this will take the participant to the thank you page and not allow them to complete the survey)

Demographic information:

What is your age range?: 1=18-25, 2= 24-30, 3= 31-35, 4= 36-40, 5= 41-45, 6= 46-50, 7= 51-55, 8=56-60, 9= 61-70, 10= over 70

What gender do you identify as?: 1= male, 2= female, 3= non-binary/ third gender, 4= prefer not to answer

What is your ethnic background? 1= White / Caucasian, 2= Asian – Eastern, 3= Asian – Indian, 4= Hispanic, 5= African American, 6= Native-American, 7= Mixed race, 8= Other (with a blank entry field for the participant to self-identify), 9= I prefer not to say

Which region of the country do you live in? 1= Midwest - IA, IL, IN, KS, MI, MN, MO, ND, NE, OH, SD, WI; 2= Northeast - CT, DC, DE, MA, MD, ME, NH, NJ, NY, PA, RI, V; 3= Southeast - AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV; 4= Southwest - AZ, NM, OK, TX; 5= West - AK, CA, CO, HI, ID, MT, NV, OR, UT, WA, WY

Are you and occupational therapy assistant or an occupational therapist? 0= OT 1=OTA

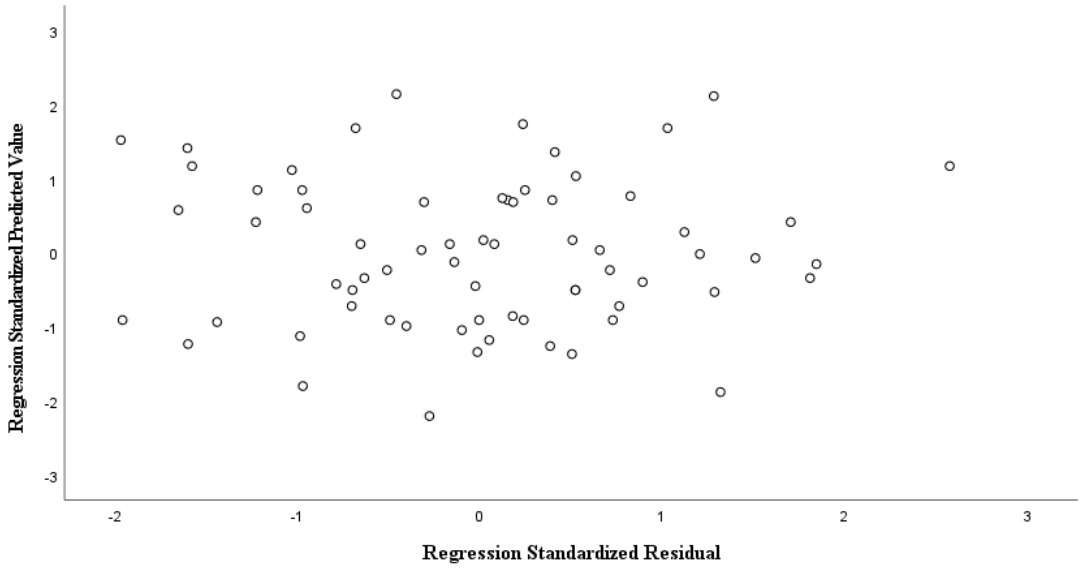
What is the highest level of occupational therapy education you have acquired? 1= associates, 2= bachelors, 3= entry level masters, 4= post professional masters, 5= entry level doctorate, 6= post professional doctorate

How many years of experience as an occupational therapy practitioner do you have? 1= 0-3, 2= 4-6, 3= 7-10, 4= 10-15, 5=over 15

What is your primary practice area? 1= inpatient acute, 2= inpatient rehab, 3= SNF/Sub-acute/long term care, 4= general rehab outpatient, 5= outpatient hands, 6= pediatric

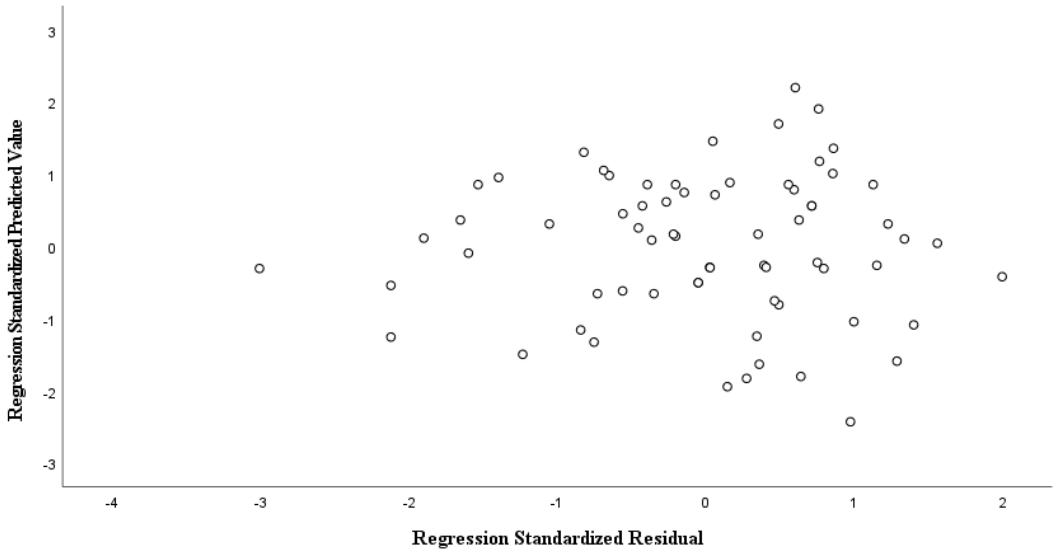
hospital, 7= pediatric hospital outpatient, 8= in patient psych, 8= pediatric community, 9= behavioral health community, 10= older adult community, 11= older adult day program, 12= home health, 13= pediatric outpatient clinic, 14= early intervention, 15= schools, 16= other

Appendix C: Scatter Plot for Dependent Variable BO



Note. $N = 68$. Burnout (BO) is the dependent variable and the independent variables secondary traumatic stress (STS) and resilience (RES).

Appendix D: Scatter Plot for Dependent Variable CS



Note. $N = 68$. Compassion satisfaction (CS) is the dependent variable and the independent variables secondary traumatic stress (STS) and resilience (RES).