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Secondary Traumatic Stress and Spiritual Practices Among U.S. Psychologists: A Quantitative Study

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Walden University
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Abstract

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MS, Walden University, 2019

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Clinical Psychology

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Abstract

Studies suggest that 8% to 20% of mental health providers struggle with secondary traumatic stress (STS), but the number of investigations evaluating psychologists' STS is limited. Furthermore, although literature on the effects of self-care practices on STS is vast, no studies have examined the role of such practices on U.S. psychologists' level of STS. Informed by Stamm's theory of professional quality of life, this study analyzed variations in 159 U.S. psychologists' STS and frequency of participation in spiritual-based self-care practices between different religious identity groups. This study also explored the effect of spiritual-based self-care on U.S. psychologists' STS. An exploratory nonexperimental cross-sectional design using Stamm's Professional Quality of Life (ProQOL-5) scale was employed to address these purposes. One-way between subject analysis of variance (ANOVA), Pearson's correlation, and multiple regressions helped answer the research questions. Nonreligious but spiritual psychologists endorsed more symptoms of STS than religious and nonreligious psychologists. However, the overall sample endorsed low levels of STS. Religious psychologists reported the highest frequency of participation in prayer and reading spiritual scriptures. Frequency of participation in spiritual-based self-care practices had no effect on participants' STS. Findings from the study may be used by psychologists to focus on STS prevention and maintain job satisfaction leading to positive social change.

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Dedication

To my wife, Keren. For accompanying and encouraging me throughout this journey. Your patience and love make you a virtuous woman, and I will forever proclaim I am blessed to have found you. I love you!

To my sons, Zuriel and Gedeón. For inspiring me and motivating me to be an example for you. May you grow old in wisdom and in righteousness, and may His word guide your steps and His love grant the desires of your hearts.

To my mother, Magda; my father, José; my second mother, Hilda; and my brothers, Joshua, William, and Emmanuel. For your unconditional love and friendship. Although geographically apart, I always carry you in my spirit and my heart.

To my "psychology dad," Dr. Don. For your guidance and your mentorship. Your feedback and advice have paved a way for my ethical and competent practice as a future psychologist. I laud your passion for educating our communities on the importance of mental health.

Acknowledgments

To Dr. Baker and Dr. Sukal, thank you for the feedback and the guidance, and for challenging me to make this project come true. Knowing you were always available to answer questions made this process bearable. May your wisdom and knowledge guide the way to other future students and researchers.

Also, thank you to all the faculty of Walden University's College of Social and Behavioral Sciences. Each of you have planted a seed of professional knowledge and practice that, I am confident, will guide me as I join you and other professionals within the field.

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Chapter 1: Introduction to the Study

Introduction

After a 2009 fire killed 49 children and injured 40 others at a childcare center in Mexico, ten psychologists were chosen to provide intervention services (Shannonhouse, Barden, Jones, Gonzalez & Murphy, 2016). Afterwards, the responding psychologists reported increased levels of psychological distress, evidenced by increased feelings of sadness, helplessness, fatigue, guilt, and anger (Shannonhouse, Barden, Jones, Gonzalez & Murphy, 2016). The enervation experienced by these psychologists is what much of the literature on compassion fatigue calls *secondary traumatic stress* (STS; Shannonhouse, Barden, Jones, Gonzalez & Murphy, 2016).

With over 94,000 doctoral level, practicing psychologists in the United States workforce (American Psychological Association [APA], 2018), it is assumed that secondary traumatic stress (STS) is prevalent in the field. However, studies that have researched the prevalence of STS have mostly focused on other professions, such as nurses, teachers, clergymen, and social workers. Furthermore, no studies have examined the potential factors that could prevent or decrease the effects of STS among U.S. psychologists.

The aim of this study was to analyze differences in STS levels, as measured by the Professional Quality of Life (ProQOL-5) scale, between religious, nonreligious but spiritual, and nonreligious U.S. psychologists. The goal was also to analyze differences in frequency of participation in meditation, prayer, and reading spiritual scriptures between the different groups. The final purpose of this research was to explore the effect

of participation in meditation, prayer, and reading spiritual scriptures on U.S. psychologists' reported levels of STS.

Studying the phenomenon of STS and the role of spiritual-based self-care practices on U.S. psychologists has great potential for social change in that psychologists can have empirically validated ways to cope with STS, and in the process, comply with ethics codes that require they ensure that personal problems do not interfere with their work-related activities (APA, 2010). In this chapter, the background, problem statement, and purposes of this study are discussed. The study's research questions and hypotheses, theoretical framework, nature of the study, definitions of relevant concepts, assumptions, scope and delimitations, as well as limitations and significance of the study are also discussed.

Background

Chirico (2017), Harris (2013), LaBarbera and Hetzel (2016), Sharp et al. (2018), and Visker et al. (2017) have researched the phenomenon of STS among mental health providers. However, their studies focused primarily on social workers, psychiatrists, and psychiatric nurses. Working with traumatized individuals increases the risk for providers to develop posttraumatic stress-like symptoms, arrive late or miss their appointments, or consider leaving their field altogether (Ivicic & Motta, 2017; Slayers et al., 2015). On the other hand, research suggests that spiritual-based self-care practices help decrease the effects of STS (Bloomquist et al., 2015).

Ivicic and Motta (2017) evaluated the impact of 88 mental health professionals' exposure to traumatized client material on their experienced level of STS. The sample

was comprised of psychologists, social workers, mental health counselors, and creative arts therapists. However, the authors failed to specify how many of their participants were psychologists. The researchers used a modified Stroop task and had the participants read both neutral and trauma-related words from 8x11 cards. All the words had different colors, and the participants were to say the color of the words, not the actual words. The researchers documented the participants' response times for both the neutral and trauma-related words. After comparing the participants' response times, 27.3% of the participants demonstrated higher response latency on cards with trauma-related words than cards with neutral words. The results of this study suggested that almost 30% of the participants experienced high levels of STS due to working with traumatized clients. The researchers recommended mental health agencies to support their staff's wellbeing by having them practice therapeutic techniques that could palliate the detrimental effects of STS.

Similarly, Slayers, et al. (2015) examined the detrimental effects of STS on 113 mental health providers' self-reported quality of care in a community mental health center in the state of Indiana. Unfortunately, participants' professions were not specified, so it is unknown if psychologists were included in the sample. The participants were to rate their level of burnout, job satisfaction, intention to turnover, and quality of care provided to their clients. The results of the study showed significant relationships between both emotional exhaustion and depersonalization with providers missing appointments or being late. However, participants' who reported higher levels of personal accomplishments indicated that the quality of service provided to their clients

was not affected. The authors recommended future research to evaluate the effect of mental health providers' accomplishments, emotional exhaustion, and depersonalization on their quality of service to their clients.

While studying the effects of self-care practices on STS among 786 master's level social workers, Bloomquist et al. (2015) found that the participants valued and believed that self-care was effective in mediating STS. However, participants reported limited engagement in such practices. The authors recommended future research to explore other factors that may affect professionals' quality of life.

Problem Statement

Around 8% to 20% of mental health providers report problems with STS (Ewer et al., 2015; Kintzle et al., 2013). However, these percentages come from studies conducted overseas (e.g., Australia) or that did not specify the number of psychologists that participated in the research. With approximately 94,000 actively working psychologists in the United States (APA, 2018), these percentages suggest that between 7,500 and almost 19,000 psychologists nationwide could be struggling with STS. However, because the studies by Ewer et al. (2015) and Kintzle et al. (2013) included a small number of psychologists in the sample, the prevalence of STS among U.S. psychologists is unknown. Also, although Bonamer and Aquino-Russell (2019), Heeter et al. (2017), and Hinderer et al. (2014) found spiritual practices such as prayer, meditation, and reading spiritual scriptures to decrease STS, no research has focused on psychologists' use of these practices as a coping mechanism against this phenomenon. Additionally, no

research has explored the rate in which psychologists engage in these spiritual-based self-care practices nor the effect that these have on their reported level of STS symptoms.

Researchers that have studied the effect of STS among other professions (e.g., social workers and nurses) have recommended future investigations to not only study the phenomenon of STS among other professions, but to also investigate the role of spiritual and religious practices in mitigating STS among these professions (Bonamer & Aquino-Russel, 2019; Chirico, 2017; Heeter et al., 2017; Hinderer et al., 2014; LaBarbera & Hetzel, 2016). Given the size of the active U.S. psychology workforce and the detrimental effects of STS, understanding the impact of this phenomenon among this population as well as identifying empirically supported strategies to counteract this problem, is necessary. This study added to the literature on STS by exploring the levels of STS among actively licensed U.S. psychologists and the effect of their participation in meditation, prayer, and reading spiritual scriptures.

Purpose of the Study

This quantitative study had three purposes. The first purpose of this study was to analyze differences in STS levels, as measured by the ProQOL-5, between religious, nonreligious but spiritual, and nonreligious psychologists. The second purpose was to examine differences in frequency of participation in meditation, prayer, and reading spiritual scriptures between the three groups. The final purpose of this study was to explore the effect of participation in meditation, prayer, and reading spiritual scriptures on U.S. psychologists' reported levels of STS.

Research Questions and Hypotheses

The research questions and hypotheses for this study were:

RQ1: Are there significant differences in terms of U.S. psychologists' secondary traumatic stress levels (as measured by their score on the ProQOL-5) between religious identities?

$H_0 1$: There are no significant differences in terms of U.S. psychologists' secondary traumatic stress levels between religious identities.

$H_a 1$: There are significant differences in terms of U.S. psychologists' secondary traumatic stress levels between religious identities.

RQ2: Are there significant differences in terms of U.S. psychologists' frequency of participation in spiritual-based self-care practices between religious identities?

$H_0 2$: There are no significant differences in terms of U.S. psychologists' frequency of participation in spiritual-based self-care practices between religious identities.

$H_a 2$: There are significant differences in terms of U.S. psychologists' frequency of participation in spiritual-based self-care practices between religious identities.

RQ3: Regardless of U.S. psychologists' religious identity, is there a significant relationship between frequency of participation in spiritual-based self-care practices and U.S. psychologists' STS levels?

$H_0 3$: Regardless of U.S. psychologists' religious identity, there is no significant relationship between frequency of participation in spiritual-based self-care practices and U.S. psychologists' STS levels.

H_a3: Regardless of U.S. psychologists' religious identity, there is a significant relationship between frequency of participation in spiritual-based self-care practices and U.S. psychologists' STS levels.

Theoretical Framework

The theoretical framework used to inform this study was Stamm's (2010) professional quality of life theory. Stamm developed this theory after realizing that professionals who helped traumatized individuals developed symptoms associated with posttraumatic stress disorder. The theory was developed to explain how the professional quality of life of those in helping professions increases or decreases risks for developing secondary trauma.

Stamm (2010) argues that the professional quality of life is has two qualities: compassion satisfaction and compassion fatigue. Compassion satisfaction is the sense of accomplishment that results from helping a traumatized individual, while compassion fatigue is the burnout and STS that results from the same work. STS usually presents as fear, intrusive thoughts, or avoidance, but burnout presents as exhaustion, frustration, and anger (Stamm, 2010). Since Stamm theorizes that STS and burnout comprise compassion fatigue (the negative aspect of the profession), it is not uncommon for the literature around this topic to use all three concepts interchangeably. However, as it is discussed in Chapter 2, each term refers to different phenomena.

Stamm (2010) also proposes three environments that play a role in the professional quality of life: work environment, person environment, and client environment. The first refers to helping professionals' access to resources, supervision,

and support (to name a few) available to them in their workplace. Person environment refers to providers' personal qualities (e.g., personal history with trauma, lack of coping skills, etc.). The client environment refers to clients' characteristics (e.g., extent of traumatization, personality, attachment styles, etc.). Stamm argues that these environments can lead to compassion satisfaction or compassion fatigue.

This study only focused on the person environment, characterized by U.S. psychologists' religious identity and frequency of participation in spiritual-based self-care practices. This study built upon Stamm's (2010) theory by examining the role of religious identity and frequency of participation in meditation, prayer, and reading spiritual scriptures on U.S. psychologists' levels of STS as measured by the ProQOL-5.

Nature of the Study

An exploratory, quantitative research approach helped answer the research questions and test hypotheses. This study involved an exploratory nonexperimental cross-sectional survey design. The exploratory nature of this study involved examining prevalence rates of STS, frequency of participation in spiritual-based self-care practices, and the effects of these practices on STS among an unstudied population. Also, since the research questions are descriptive, and because data were collected at one point in time, a cross-sectional survey design was best because it facilitated the rapid collection of quantifiable data in a short period and described participants' attitudes and opinions about a phenomenon the moment data were collected.

For the first and second purposes of this study, participants' religious identity was the independent variable. Participants' level of STS was the dependent variable for the

first purpose, and frequency of participation spiritual-based self-care practices (meditation, prayer, and reading spiritual scriptures) was the dependent variable for the second purpose. For the third purpose, participants' frequency of participation in meditation, prayer, and reading spiritual scriptures were the independent variables, while participants' level of STS was the dependent variable.

Data were collected from U.S. doctoral level, practicing psychologists' answers to the ProQOL-5 scale, an instrument developed by Stamm to measure levels of compassion satisfaction, burnout, and STS. Participants' level of STS was measured through responses to items on the STS subscale of the ProQOL-5. Descriptive statistics included demographic information and participants' STS levels and frequencies of participation in spiritual-based self-care practices. One-way between-subject analyses of variance (ANOVA) was used to examine the variations in STS levels and frequency of participation in spiritual-based self-care in relation to participants' religious identity. Lastly, Pearson correlations and multiple regression analyses were used to determine the relationships between variables and examine combined and individual effects of the independent variables on the dependent variables.

Definitions

Compassion fatigue: Negative outcomes of helping traumatized individuals, characterized by the development of burnout and secondary trauma (Stamm, 2010).

Meditation: Traditionally, the process of achieving philosophical or spiritual enlightenment, or "direct experiential knowledge of an absolute" (West, 2016, p. 5). This involves the ability to experience the present moment, increasing one's awareness of

bodily sensations, emotions, thoughts, and qualities of the mind as they occur (West, 2016).

Prayer: The process of communicating with a deity (Beckman, 1995); or, a relationship between two unequal beings, where the weaker of the two (the human being) turns to the stronger (the deity) for help (Spilka & Ladd, 2013).

Religious identity: Individuals' identification with one or more religious groups (Hashemi, Marzban, Sebar, & Harris, 2019)

Secondary traumatic stress (STS): One of the components of compassion fatigue, characterized by posttraumatic stress-like symptoms such as fear, intrusive thoughts, and avoidance (Stamm, 2010).

Assumptions

The primary assumption of this study was that each participant's scores on the STS scale of the ProQOL-5 would yield some level of STS, whether that be a low score (<22), an average score (between 23 and 41), or a high score (>42). Also, due to this study's purposes, it was also assumed that any reported elevation in STS scores was only attributed to participants' religious identity and frequency of participation in self-care. The role of work and client environments were not included as it was out of the scope of this study.

Scope and Delimitations

This study was delimited to actively licensed and practicing psychologists in the U.S. Since participation in this study was limited to U.S. practicing psychologists, recruitment of participants was limited to organizations that provided easy access to this

population, such as state psychological associations. Lastly, convenience sampling measures were used to ensure only actively licensed and practicing U.S. psychologists were included in the study.

Limitations

Since participants could only assign a number between 1 (Never) and 5 (Very Often) to each item of the ProQOL-5, a major limitation of this study was that there was no way to differentiate between participants who genuinely experienced low levels of STS and participants who had no STS. Two factors that may have impacted psychologists' participation in this study was reluctance to disclose problems with STS and hesitation to participate in a spiritual-based study. Also, it was impossible to know if participants underreported or overreported their levels of STS and frequency of participation in spiritual-based self-care, which raises questions about the true prevalence of STS or frequency of participation in these practices. Given the convenient nature of sampling procedures, some conclusions (e.g., frequency of participation in spiritual-based self-care) could not be generalized to psychologists in other countries. Also, overall results from this study cannot be generalized to other professions.

Significance

Understanding the impact of STS on U.S. practicing psychologists and identifying empirically supported strategies to counteract this problem is necessary given the lack of literature on this topic. Focusing on psychologists' experiences involving STS and exploring the role of religious identity and frequency of participation in spiritual-based self-care practices could provide an understanding of the prevalence of STS among U.S.

psychologists. This study added to the current literature on STS and set a foundation from which future research could identify necessary intervention strategies to help struggling psychologists.

Knowing the number of U.S. psychologists whot struggle with STS could help determine if identifying and developing effective interventions is necessary. Knowing potential rates of U.S. psychologists who experience high levels of STS can also help in gauging urgency in terms of promoting and executing the identification and development of effective intervention strategies. For example, if research finds that STS is minimal or inexistent among practicing U.S. psychologists, then promoting and developing interventions may be impractical. However, if research suggests that psychologists experience high levels of STS, then the development of such interventions would be warranted and should be given priority.

Evaluating the efficacy of spiritual-based self-care practices in terms of lessening providers' STS symptoms can provide psychologists with an empirically validated resource for countering this problem. However, if studies find such practices to be ineffective, future research could then focus on identifying other, more successful forms of interventions. Future researchers and interventions can also focus on prevention instead of treatment.

Summary

While working the in the field of psychology may have its positive outcomes, continued exposure to traumatic experiences of clients and lack of protective resources can lead to STS (Stamm, 2010). Developing STS can also lead to feelings of sadness,

helplessness, fatigue, guilt, and anger (Shannonhouse, Barden, Jones, Gonzalez & Murphy, 2016), and hinders the service that psychologists provide to their clients (Slayers et al., 2015).

Through this quantitative cross-sectional survey study, information regarding levels of STS among practicing U.S. psychologist was sought. This study will add to the literature on this topic by evaluating variances of STS among U.S. psychologists as it is related to their religious identity. This study also expanded on current literature by examining the frequency of U.S. psychologists' participation in meditation, prayer, and reading spiritual scriptures, as well as analyzing the effects of these spiritual practices on reported levels of STS.

Chapter 2 reviews literature on STS, its effects on helping professionals, and the role of spiritual-based self-care practices in mitigating those effects. The chapter also expands on Stamm's professional quality of life theory and its relation to this study, as well as highlights the literature on meditation, prayer, and reading spiritual scriptures. The chapter ends with a summary of the conclusions obtained from the literature.

Chapter 2: Literature Review

Introduction

Between 8% and 20% of mental health providers experience moderate to high STS (Ewer et al., 2015; Kintzle, et al., 2013). With approximately 94,000 doctoral-level practicing psychologists in the United States (APA, 2018), these percentages imply that at least 7,000 psychologists nationwide struggle with STS and are likely experiencing increased feelings of sadness, helplessness, fatigue, guilt, and anger (Shannonhouse et al., 2016). Consumers of psychological services may suffer collateral damage because mental health providers who struggle with STS often arrive late to or miss their appointments, or consider early retirement or changing careers altogether, (Sherba et al., 2019).

Recognizing these detrimental effects of STS (expanded on further in this chapter), Bonamer and Aquino-Russell (2019), Heeter et al. (2017), and Hinderer et al. (2014) have investigated the role of self-care in appeasing the experience of STS among those in the helping professions. Three self-care strategies believed to alleviate the effects of STS are meditation, prayer, and reading spiritual scriptures. These spiritual-based self-care practices have been found to decrease STS by decreasing helping professionals' level of compassion fatigue and increasing their awareness of physical sensations and emotions resulting from these phenomena (Bonamer & Aquino-Russell, 2019; Heeter et al., 2017; Hinderer et al., 2014).

Chirico (2017), Harris (2013), LaBarbera and Hetzel (2016), Sharp Donahoo et al. (2018), and Visker et al. (2017) have examined the effects of spiritual-based self-care

practices on symptoms of STS. However, their studies focused mostly on social workers, religious and nonreligious teachers, physicians and nurses, or clergymen. None of the studies identified from the literature search focused solely on psychologists' use of meditation, prayer, and reading spiritual scriptures as a coping mechanism against STS. Also, none of the studies explored the rate in which psychologists engage in these spiritual-based self-care practices nor the effect that these have on their reported level of STS symptoms.

Hinderer et al. (2014), and LaBarbera and Hetzel (2016) recommended future research to identify effective coping strategies and interventions that help decrease the effects of STS. Bonamer and Aquino-Russel (2019), Chirico (2017), and Heeter et al. (2017) also recommended future studies to examine the role of spiritual and religious practices in mitigating mental health providers' STS. However, none of the articles found through the literature search addressed these gaps. Therefore, the purpose of this study was trifold: to analyze variations in STS symptom rates among U.S. psychologists as they relate to their religious identity, analyze participants' frequency of participation in meditation, prayer, and reading spiritual scriptures, and explore the effect of participation in meditation, prayer, and reading spiritual scriptures on U.S. psychologists' reported levels of STS.

This chapter begins with a description of the literature search strategy used to identify pertinent articles supporting the need for this study. Then, Stamm's (2010) theory of professional quality of life is explained, followed by a literature review

involving all pertinent variables in this study. The chapter then ends with a summary of literature search findings.

Literature Search Strategy

Walden University's online library search engine and EBSCOHost served as the main tools to conduct the literature search for this study. Using Thoreau helped navigate multiple databases simultaneously. These included Academic Search Complete, CINAHL Plus, PsycINFO, and MEDLINE. Google Scholar was also used to identify current literature on secondary traumatic stress and spirituality. Key terms related to this study's topic that were used in the search were *secondary traumatic stress, mental health providers, psychologists, spirituality, spiritual practices, meditation, prayer, spiritual scriptures*. An example of a key terms combination used to complete the search was *spirituality <AND> secondary traumatic stress <AND> counselors <OR> therapists <OR> psychologists <OR> psychotherapists* (see Appendix A for a more detailed list of search terms and search combinations).

The literature search led to various resources, including dissertations and both peer- and non-peer-reviewed articles, but only peer-reviewed studies published after 2014 were included in this review. Despite literature confirming the significant psychological, emotional, and behavioral consequences resulting from STS, most of the studies found through the literature search focused on STS among nurses, clergy, and educators. Only a small portion of the literature included psychologists in their sample, and those that did, used combined psychologists with social workers and psychiatrists. None of the identified studies researched the phenomenon of STS among psychologists alone.

Consequently, studies about STS were pulled from various fields to provide a multidisciplinary literary foundation involving the detrimental effects of this phenomenon, as well as the role of spiritual-based self-care practices.

Theoretical Foundation

Professional Quality of Life Theory

Theory origin and description. Stamm's professional quality of life theory emerged from decades of research confirming that people who help traumatized individuals risk developing symptoms associated with burnout, depression, and posttraumatic stress disorder after prolonged indirect exposure to the trauma of the individuals they are helping. The emergence of these detrimental symptoms (later discussed in this chapter) by indirect exposure to traumatic material is known as secondary or vicarious traumatization (Stamm, 2010). Stamm's focus was on the professional quality of life (e.g., the quality of the work environment) of those in the helping professions (e.g., psychologists, psychiatrists, social workers, nurses, etc.). Stamm developed this theory to explain how the overall professional quality of life of those in helping professions can either promote or prevent the development of secondary trauma.

Theoretical assumptions. According to Stamm (2010), professional quality of life refers to "the quality one feels in relation to their work as a helper" (p. 8). The professional quality of life theory argues that this "quality of life" is affected by the positive and negative aspects of one's job, leading to either compassion satisfaction or compassion fatigue. Compassion satisfaction is the pleasure and sense of

accomplishment that professionals feel after effectively helping a traumatized client (Stamm, 2010). Compassion fatigue is the burnout and STS that results from helping the traumatized (Stamm, 2010). Since the Stamm hypothesized that burnout and STS result from compassion fatigue, the literature on this topic often uses all three terms as synonymous of each other. However, these concepts describe different experiences.

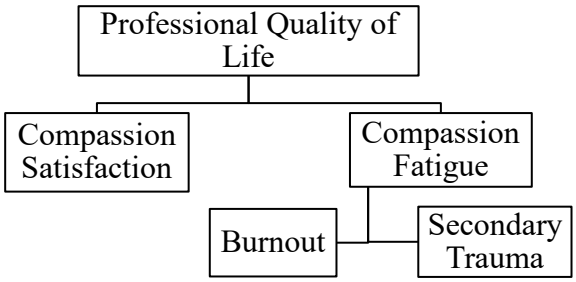

Figure 1. Diagram of Professional Quality of Life. Obtained from "The Concise ProQOL Manual (Second Edition)," by B. H. Stamm

Secondary traumatic stress versus burnout. Stamm (2010) argues that STS presents as fear, sleep problems due to nightmares, intrusive thoughts, or avoidance of the aided person's traumatic incidents Burnout is characterized as feelings of hopelessness, exhaustion, frustration, anger and depression, and problems handling work effectively (Stamm, 2010). The focus of this study is on U.S. psychologists' reported level of STS, not burnout. However, the term "compassion fatigue" is used in this study as a synonym for STS, and each word is used interchangeably.

Stamm's (2010) assumes that STS emerges from professionals' secondary exposure to their clients' traumatic experiences, and that the professional's work environment as well as their personal and their clients' characteristics increase or decrease the risk for developing compassion fatigue. Stamm said that STS emerges from

the complex interrelationship between poor work environments, professionals' own characteristics, and professionals' continuous exposure to their clients' trauma.

For example, while studying the phenomenon of compassion fatigue among 135 Serbian child welfare workers (social workers, psychologists, nurses, and other professionals), Borjanić Bonić (2019) found that providers who spent up to half of their working hours with traumatized clients reported higher levels of STS. Fisackerly et al. (2016) found that 154 certified child life specialists' continuous exposure to the traumatic stories of children and families in intensive care units increased their risk for developing compassion fatigue. Yi et al. (2019) examined the role of personal distress and years of employment in the professional quality of life of 97 South Korean medical social workers and found that anxiety, low empathy, and more years of employment correlated with higher levels of STS. These studies validate Stamm's (2010) assumption that poor work environments, professionals' distress, and professionals' exposure to traumatic material pose a risk for STS.

Conversely, Stamm (2010) also hypthesized that the relationship between positive work environments, healthy personal characteristics, and factors that protect against trauma exposure lead to positive aspects of the professional quality of life (compassion satisfaction). For example, Fisackerly et al. (2016) also found that professionals who experienced frequent patient recovery and overall job satisfaction, as well as frequently debriefed their cases with other staff, reported lower levels of compassion fatigue. Yi et al. (2019) also found religious affiliation, greater empathy, and lower levels of personal distress to be associated with lower levels of compassion fatigue. Once again, these

studies confirm Stamm's assumption that positive outcomes also come from the quality of life one experiences in the work environment. Figure 2 provides a visual explanation of how professionals' work environment and personal and client factors interrelate to result in compassion fatigue or compassion satisfaction.

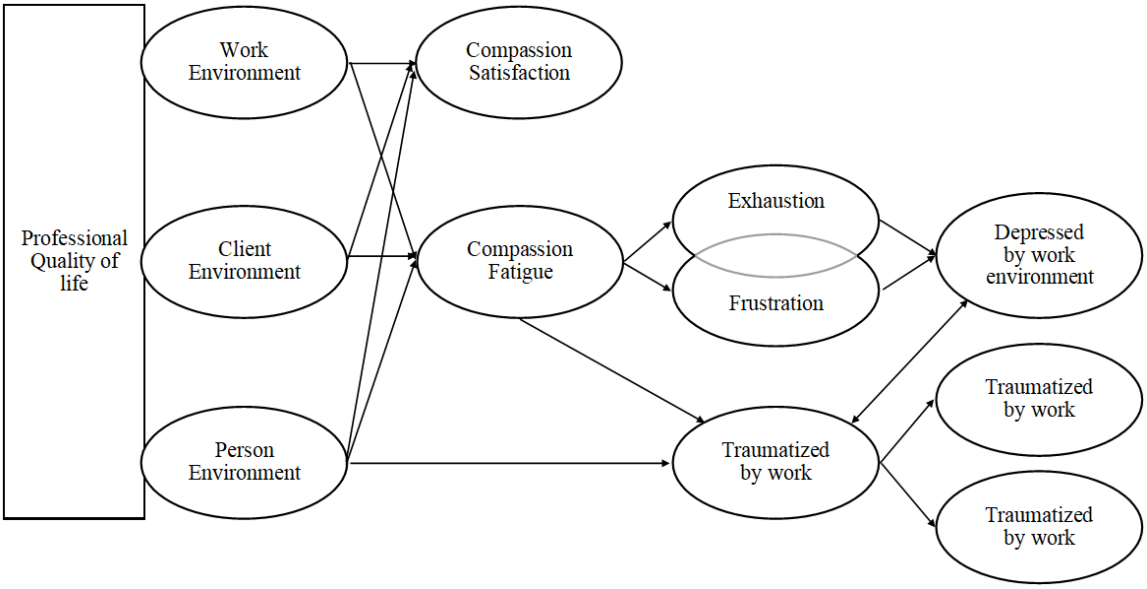

Figure 2. Theoretical path analysis of the ProQOL Theory. Adapted from "The Concise ProQOL Manual (Second Edition)," by B. H. Stamm.

Literature validating the Stamm's (2010) assumption that work environments and professionals' characteristics affect the professional quality of life of those in the helping professions is vast. Due to the influence that work environments, personal characteristics, and exposure to traumatic material has on the professional quality of life, the above researchers agree that employers and providers alike must foster a culture that promotes self-care practices and coping strategies that reduce compassion fatigue, as well as identify protective factors that help mitigate the effects of STS.

The professional quality of life theory and the current study. The research questions of this study built upon the professional quality of life theory in several ways.

First, this study analyzed the differences in U.S. psychologists' STS levels, as measured by the ProQOL-5, between three religious identity groups. The ProQOL-5 is a self-report instrument, informed by the professional quality of life theory, that measures levels of STS. For this first purpose, religious identity served as the independent variable, and the reported level of STS was the independent variable. Informed by the professional quality of life theory, U.S. psychologists' religious identity (religious, nonreligious but spiritual, or nonreligious) encompassed the person-related factors of participants' professional quality of life.

Second, this study analyzed the differences in U.S. psychologists' frequency of participation in spiritual-based self-care practices between the previously noted religious identity groups. Like in the previous purpose, religious identity was the independent variable. However, for this second purpose, the frequency of participation in spiritual-based self-care practices (meditation, prayer and reading spiritual scriptures) were the dependent variables. Again, participants' religious identity comprised the person-related factor of their professional quality of life.

Lastly, this study explored the effect of participation in meditation, prayer, and reading spiritual scriptures on U.S. psychologists' reported levels of STS as measured by the ProQOL-5 and participants' self-report of the frequency of their participation in such practices. For this final purpose, frequency of participation in spiritual-based self-care was the independent variable, while the reported level of STS was the dependent variable. Informed by Stamm's professional quality of life theory, frequency of

participation in meditation, prayer and reading spiritual scriptures comprised U.S. psychologists' person-related factors believed to mitigate the experience of STS.

The ProQOL-5 will include quantitative data involving U.S. psychologists' level of STS while self reports will provide data about participants' participation in spiritual-based self-care practices. For this study, participants' religious identity and participation in spiritual-based self-care practices will be the person-related factors of their professional quality of life. This study examined the role of these person-related factors on U.S. psychologists' level of STS. The following section further discusses the role of work environments, personal characteristics, and exposure to client trauma in promoting STS among helping professionals by synthesizing the literature on the symptoms associated with STS and the mitigating role of mediation, prayer, and spiritual scriptures.

Literature Review Related to Key Variables

STS

According to Figley (1995), STS refers to the behavioral and emotional consequences a helper experiences after learning about a traumatizing event suffered by someone he or she has helped, making STS a work-related phenomenon. STS has serious consequences for those who struggle with it and lack the means to appropriately cope with it. For instance, helping professionals who experience STS report flashbacks of work experiences, intrusive thoughts, sleep problems due to nightmares, avoidance of clients' traumatic stories, numbness, increased vigilance, feelings of powerlessness, weakness, sadness, helplessness, fatigue, guilt, anger, and difficulty separating work and

personal life (Günüsen et al., 2018; Johansen et al., 2019; Rzeszutek et al., 2015; Shannonhouse et al., 2016).

Günüsen et al. (2018) explored 106 Muslim nurses' STS experiences while caring for chronically ill children in a Turkish hospital. Quantitative data were obtained from participants' responses to the ProQOL-5, and qualitative data was obtained through semi-structured interviews. The quantitative results suggested that over 40% of the participants were at high risk for STS, with age (a personal-related factor of professional quality of life) being the most significantly (p=.003) correlated variable. Upon interviewing the participants at high risk for STS, they reported that witnessing the suffering of their patients caused sadness, leading to frequent crying and feelings of fear for their patients' death. The nurses also reported feeling useless and helpless due to their inability to reduce their clients' suffering.

In a web-based cross-sectional study, Johansen et al. (2019) examined the prevalence of STS and its symptoms among 383 Norwegian substance-abuse therapists. The sample consisted of social workers, psychologists, nurses, and child protective service workers. The researchers used the term "compassion fatigue" as a synonymous of STS and asked participants to complete the Compassion Fatigue Short Scale, a 13-item instrument assessing STS symptoms such as flashbacks and feelings of weakness due to work-related factors. Of the 383 participants, 22% reported experiencing symptoms of secondary trauma, females being more likely than males to report such symptoms. The most reported symptoms were flashbacks and intrusive thoughts of work situations,

followed by sleep disturbances due to patients' reported problems, and dreams about work.

In a similar study, Rzeszutek et al. (2015) also examined the severity of STS symptoms among 80 Polish trauma therapists. After having participants complete the PTSD Questionnaire: Factorial Version (PTSD-F), which measures symptoms of intrusion/arousal and avoidance/numbing, correlation results showed emotional reactivity to be significantly (p=<.01) associated with arousal and numbing. The authors concluded that elevated levels of affective agitation and excitability exacerbate the symptoms of arousal and numbing, while awareness of and ability to react to sensory stimuli decreased the intensity of these symptoms.

Shannonhouse et al. (2016) first employed semi-structured interviews to describe the experiences of ten psychologists who interviewed and counseled the family members of children who had either died or were injured by a fire at a childcare center in Hermosillo, Mexico. The authors had the participants complete the ProQOL-5 scale to quantify the level of distress they experienced by helping those affected by the fire. Quantitative data of the ProQOL-5 results, analyzed by using nonparametric analyses due to the sample size, suggested that most of the psychologists developed significant levels of STS. During the qualitative, semi-structured interviews, participants reported feelings of fear, sadness, guilt, distractibility, and numbness because of intervening with the survivors.

It is evident from this literature that helping professionals who struggle with STS often report psychological distress characterized by fear, avoidance, intrusive thoughts,

guilt, anger, and other PTSD-like symptoms. Hence, it was recommended that future studies continue expanding the literature on this topic by examining the role of demographic and work-related factors affecting mental health providers' STS (Johansen et al., 2019). Given the detrimental effects of STS on helping professionals, it is also recommended that future research evaluate the role of social support, self-monitoring of STS symptoms, self-care, and coping in abating these effects (Johansen et al., 2019; Rzeszutek et al., 2015; Shannonhouse et al,2016). Some researchers also recommend assessing the effectiveness of support groups and spiritual care activities in counteracting the effects of STS (Günüsen et al., 2018).

It is clear from the literature that STS causes severe, life-altering psychological problems. The literature also suggests that STS has no professional or cultural boundaries, affecting individuals from different careers and in different cultural contexts alike. However, the psychological disturbances reported by helping professionals who experience STS are not the only adverse effects of this phenomenon. STS also affects professionals' attitudes about and the overall quality of the work they do.

For example, Sherba et al. (2019) studied the impact of client suicide on mental health providers in Ohio. Participants were behavioral health providers working in different psychiatric institutions within the state, comprised of psychiatrists, psychologists, nurse practitioners, nurses, social workers, counselors, and case managers. A total of 121 providers from 34 of Ohio's 88 counties participated in the study. Participants completed the Compassion Satisfaction and Fatigue Self-Test before undergoing an interview regarding their experiences with client suicidality. The effect of

client suicide on mental health clinicians was varied. Some of the reported impacts included participants feeling distressed by press publicity of the suicide (or attempt), as well as by the possibility of litigation. Additionally, almost 15% of the participants reported considering retiring early while another 34% said they have considered changing careers altogether.

These reported percentages have negative implications for the field of psychology. For instance, with an active psychology workforce of over 94,000 psychologists (APA, 2018), and assuming STS was highly prevalent among the population, 15% to 34% would imply that between 14,000 to almost 32,000 psychologists may be considering retiring early or changing careers completely. None of the studies identified in the literature search studied the phenomenon of STS among U.S. psychologists alone; so, such calculations must be submitted to empirical scrutiny. However, the findings from the study by Sherba et al. (2019) still raise the questions of how psychologists are dealing with STS and how much of this problem may be collaterally affecting the efficacy of the field in resolving the psychological problems of our communities. In response to these questions, the researchers recommended future studies to determine best practices for meeting clinicians' needs following possible traumatic experiences (e.g., client suicidality).

Recent literature has shown increased interest on and have studied the role of coping and self-care in the experience of STS among helping professionals. Some of the proposed strategies have been of a spiritual nature. This interest in spiritual-based coping emerged from the works of authors like Dombo and Gray (2013) who believed that

meditation and prayer could serve as an intervention against the effects of STS at the personal level. In fact, investigating the validity of this assertion, research has found meditation, prayer, and reading spiritual scriptures to be effective in decreasing STS.

STS and Meditation

Humans have practiced meditation for over 2,500 years across diverse cultures (West, 2016). Traditionally, the practice of meditation serves to achieve enlightenment, a "direct experiential knowledge of an absolute" (West, 2016, p. 5). For centuries, religions and personal beliefs have labeled these "absolutes" as God, Krishna, Buddha, Mother Nature, a sense of oneness, a sense of being, and a sense of connection with something more significant, to name a few. Recent use of the term "meditation" has focused on defining this "absolutism" as one's ability to experience the present moment more fully by encountering one's mind directly (West, 2016). It involves increasing one's awareness of the bodily sensations, emotions, thoughts, and qualities of the mind as they occur. Much of the literature on meditation call this *mindfulness*.

Although the reasons for practicing meditation may, at times, be unclear, the underlying theme appears to be the search for more understanding and a closer connection to the spiritual (West, 2016). However, despite its association with religion, meditation has been found to be negatively associated with compassion fatigue and improve STS-associated symptoms by increasing healthcare providers' awareness of physical sensations and emotions (Bonamer & Aquino-Russell, 2019; Heeter et al., 2017; Hinderer et al., 2014).

For example, Bonamer and Aquino-Russel (2019) evaluated the impact of transcendental meditation on nurses' level of compassion fatigue. In this pre- and post-test study, 27 nurses from a nonprofit organization in the southeastern United States were taught and practiced a traditional form of transcendence meditation. The participants completed the ProQOL-5 scale before and after participating in the meditation technique, and they were required to practice the learned techniques for 20 minutes before and after working a shift. After four months of engaging in transcendental meditation, participants' STS scores on the ProQOL-5 scale decreased considerably.

In another pre- and post-survey study, Heeter et al. (2017) examined the effect of a 6-week technology-assisted meditation program on 93 midwestern U.S. hospice and palliative care providers' interoceptive awareness and compassion fatigue. *Interoception* is defined as "the process of receiving, accessing, and appraising internal bodily signals" (Farb et al., 2015, p. 1). The 6-week meditation program used in the study consisted of five 10- to 12-minute yoga sessions offered via smartphone applications and supported by biweekly e-mails. Each session engaged participants in activities of attention, synchronized breath, gentle movements, and meditation. Participants completed the ProQOL-5 before and after completing the meditation regimen. Although pre scores suggested that participants were experiencing low levels of compassion fatigue, post scores showed that higher interoceptive awareness due to participation in meditation resulted in even lower levels of distress.

Hinderer et al. (2014) conducted a cross-sectional study to explore the relationship between meditation and compassion fatigue among 262 nurses working at a

100-bed trauma center in the eastern United States. Almost half of the participants completed the ProQOL-5 scale; but, unlike other studies, Pearson correlations tests found no significant association between meditation and compassion fatigue. However, one factor promoting the discrepancy in these results was that most of the participants denied problems with STS.

Regardless of these findings, though, it is widely recognized among the literature that meditation helps fight the detrimental effects of STS. However, common limitations around this topic include small sample sizes, convenient samples comprised of participants from one profession or organization (often times from the field of nursing), the lack of control groups with which to compare changes in reported levels of compassion fatigue, low reported levels of STS among research participants, and low meditation participation rates (Bonamer & Aquino-Russel, 2019; Heeter et al., 2017; Hinderer et al., 2014). Due to these limitations, results from studies around this topic are usually ungeneralizable.

To address these concerns, Bonamer and Aquino-Russel (2019), and Heeter et al. (2017) recommended future studies to include larger samples and control groups, as well as conduct randomized trials to assess pretest and posttest differences. Future studies are also recommended to evaluate whether meditation serves as a preventative measure against compassion fatigue, to identify factors that impede or promote the willingness to participate in meditation practices, and to identify other effective coping strategies and interventions that help decrease STS (Bonamer & Aquino-Russel, 2019; Heeter et al., 2017; Hinderer et al., 2014).

STS and Prayer

Prayer is often confused with or used as a synonym for meditation. However, both terms describe different experiences. As previously noted, meditation is the process by which a person experiences that which is higher than himself or herself (West, 2016). Whether it be a sense of oneness, the mind, or God (note that this term is used loosely and not solely referring to the Judeo-Christian God, Jehovah), meditation is believed to assist human beings in acquiring full knowledge of such greatness (West, 2016). Prayer, on the other hand, is "man's intercourse with God" (Stolz, 1923, p. 18). It is a relationship between two unequal beings, where the weaker of the two (the human being) turns to the stronger (a deity) for help (Spilka & Ladd, 2013). Dubois-Dumee (1989) defined prayer as the way toward a supreme being. Beckman (1995) also described it as being in communication with a deity (p. 8). Hence, while meditation describes the process of acquiring a higher sense of being, prayer refers to the process of relating to that higher being.

Like meditation, many authors believe prayer holds protective traits against the detrimental effects of trauma. Dombo and Gray (2013) believed that prayer, like meditation, serves as a coping mechanism against the psychological distress that results from STS. Despite their recommendation for future research to evaluate the role of payer in STS, none of the articles identified in the literature search addressed this gap. Instead, the studies evaluated the role of prayer in work-related stress and burnout.

Although this study will not focus on work-related stress or burnout, these studies were still reviewed to provide an empirical foundation that analyzes prayer's palliative

role among helping professionals. The studies were also considered relevant given Stamm's (2010) assumption that burnout is another component of the compassion fatigue that results from work-related secondary exposure to trauma. It is worth noting that the results of these studies varied. Chirico (2017), Harris (2013), Jacobson and Stallwood (2018), and LaBarbera and Hetzel (2016) concluded that prayer decreases workplace stress and emotional exhaustion and depersonalization, as well as assists helping professionals feel lifted and peaceful. However, Sharp Donahoo et al. (2018), and Visker et al., (2017) found no significant correlations between prayer and compassion fatigue.

Chirico (2017) studied the prevalence of job strain and burnout among 40 lay and 40 consecrated teachers in Italy, and he also evaluated the effect of religious coping on their mental health. Religious coping was defined as participants' frequency of church attendance and participation in prayer, and mental health was comprised of participants' reported level of emotional exhaustion and depersonalization, as measured by the Italian version of the Maslach Burnout Inventory. While consecrated teachers reported higher church attendance and participation in prayer, lay teachers reported varied frequencies of church attendance and prayer engagement, fluctuating from never to every day. Spearman analysis results found a significant negative correlation between prayer and emotional exhaustion and depersonalization, suggesting that higher frequency of prayer decreased the severity of these concerns.

To address similar concerns as those in Chirico's (2017) study, Jacobson and Stallwood (2018) developed a weekly virtual prayer group where nurses talked about their experiences, and to pray for each other. By the end of the virtual group, participants

shared a deeper understanding of prayer's role, as well as an elevated sense of peace. The participating nurses also described feeling as though their burdens were lifted, expressing higher personal satisfaction. However, the main limitation of the article consisted of a low participation rate (n=3 nurses). Also, the article mostly described the participants' subjective experiences while engaging in the virtual group. Furthermore, it was unclear if the reported conclusions resulted from a structured qualitative study (e.g., a semi-structured interview). Consequently, the participants' descriptions of prayer's apparent role in decreasing burdens and increasing personal satisfaction are not generalizable.

Unlike Jacobson and Stallwood's (2018) article, however, the publication by Harris (2013) resulted from a formally conducted exploratory, qualitative study. By conducting several focus groups, Harris identified several coping strategies used by 19 hospice nurses in South Carolina that were reportedly effective against workplace stress. Among the preferred coping strategies were social support, humor, and prayer and meditation. Qualitative analyses regarding the role of prayer showed that participants viewed prayer times as therapeutic opportunities to decompress from daily stress.

In a cross-sectional study, LaBarbera and Hetzel (2016) studied the prevalence of stress among over 1,500 Christian teachers in over 38 countries, as well as the factors influencing such stress and the coping strategies used to counteract it. Results showed that over 56% of the participants ranked prayer as the most important coping strategy against work-related stress and considered this practice to play a helping role in mitigating this problem. ANOVA results provided further clarification by demonstrating

that lower levels of work-related stress were due to the significant positive relationship between prayer and job satisfaction.

Although these studies did not necessarily investigate the phenomenon of STS, they provide some empirical evidence for the soothing role of prayer. Nonetheless, they do not present without limitations. All authors concluded that their small convenient samples made it so that their results were ungeneralizable. The authors also agreed in their recommendation for future research to continue examining the palliative role of prayer and to do so using larger populations from different careers.

Despite these studies arguing in favor of the palliative role of prayer, other studies deny any significant association between prayer and compassion fatigue. For example, a group of special education teachers in a Kentucky school district participated in a quasi-experimental study conducted by Sharp et al. (2018). All participants (n=48) completed a 3-hour educational session about stress. Half of the sample (n=24) was encouraged via text message reminders to participate in mindfulness and prayer support groups for several weeks to reduce stress and compassion fatigue. Pre- and post-evaluation results from the ProQOL-5 and the Perceived Stress Scale (PSS) found no significant differences between the reported levels of burnout and STS and two months of participating in mindfulness and prayer.

Similarly, in another cross-sectional study, Visker, Rider, and Humphers-Ginther (2017) examined the relationship between burnout and coping strategies among Assemblies of God ministers. The researchers used the Clergy Burn-Out Inventory and the COPE Inventory to assess burnout levels and coping strategies, respectively, among

this sample. Religious coping included spiritual practices such as prayer and seeking divine assistance. Results from the Clergy Burn-Out Inventory suggested that over 65% of the participants were bordering on or experiencing burnout. Although Pearson statistics showed some negative correlation between religious coping mechanisms and burnout, these relationships were not statistically significant.

Like the studies supporting the comforting role of prayer, these studies also had their limitations, including small convenient samples and lack of correlation between the variables. All authors recommended future studies to conduct longitudinal investigations to assess how prayer affects compassion fatigue over time, as well as look at other coping mechanisms that may serve as mitigating factors for compassion fatigue. One other such factor is reading spiritual scriptures.

STS and Spiritual Scriptures

As discussed until now, research documents well the palliative nature of religious and spiritual practices. Most of the literature on spiritual-based self-care focuses on the comforting role of meditation, prayer, or the combination of the two. Hardly any studies have examined the role of reading spiritual scriptures in compassion fatigue, despite major religions' sacred scriptures promising some form of peace during tribulations.

For example, the Jewish Torah and the Christian Bible are both filled with verses that promise peace and serenity. From the Old Testament to the New Testament, believers are encouraged and soothed by words of tranquility and comfort. Psalm 4 says: "In peace I will lie down and sleep, for you alone, Lord, make me dwell in safety." The book of Jude also abounds with promises of mercy, peace, and love. Likewise, the New

Testament is also replete with words of peace, promising the "God of peace" to be with those who are not anxious but, instead, present all requests to God in prayer (Philippians 4). A renown prayer in the book of Numbers states: "The Lord bless you and keep you; the Lord make his face shine on you and be gracious to you; the Lord turn his face toward you and give you peace."

Like Judaism and Christianity, Islam and Buddhism also promise peace and tranquility. Baqarah: 248 reads: "The sign of his kingship is that the Ark shall come to you, carried by the angels, having therein *tranquillity* from your Lord…' Similarly, Fath: 4 says that "He [Alla] is such that He sent down *tranquility* into the hearts of the believers so that they grow more in faith in addition to their [existing] faith." The Buddhist sutras talk about peace of the mind and peace among fellow beings. One verse reads:

"Victory breeds hatred,
The defeated live in pain.
Happily, the peaceful live,
Giving up victory and defeat."

Despite major religions' assertion that reading spiritual scriptures brings peace and tranquility, little to no research has studied their role in mitigating the effects STS. The research review only generated two relevant articles. The first was a poster presentation by Aberilla (2016), and the other was a qualitative study by Hamilton and colleagues (2013).

Aberilla's (2016) poster presentation was about a study that examined intensive care unit (ICU) nurses' use of prayer and Bible study as coping strategies against workplace stress and compassion fatigue. It was a quasi-experimental study using pre-

and post-cross-sectional survey data to determine the effects of participation in prayer and Bible study on stress and compassion fatigue. From the data presented on the poster, participants fell within one of three groups: those who engaged in no spiritual activities, those who participated in prayer, and those who joined a combination of prayer and Bible study. Aberilla concluded that prayer and Bible study could be implemented in the ICU setting, implying that participating in such practices alleviates work-related stress and compassion fatigue. However, none of the presented results showed this relationship between the variables. Most of the results were between-group differences in the reported level of compassion satisfaction, burnout, and STS at baseline, at a 2-week follow-up, and at a 4-week follow-up. The role of practicing prayer and Bible study on alleviating work-related stress and burnout is uninterpretable from the presented results.

Hamilton et al. (2013) examined African Americans' use of scripture passages from the Bible to find comfort in times of stress. A total of 54 individuals participated in semi-structured interviews. Each participant described their use of biblical passages and personal meanings in the context of family deaths or life-threatening illnesses. Most of the participants were retired, older women affiliated with Baptist churches. All participants reported resorting to biblical scriptures to seek comfort in times of need and stress. Most of the identified scripture passages described themes such as "God as Protector," "God as Beneficent," "Praise and Thanksgiving," "Prayers to God," and "Life after Death." Although participants reported such scriptures to elicit comfort amidst tribulation, the convenient nature of the sample and study design make it so that these results are ungeneralizable.

Like other studies cited so far, some of the limitations of these two studies included small sample sizes, convenient sampling procedures, and low baseline levels of compassion fatigue (burnout *and* STS). It was recommended that future research examine the relationship between the use of scriptures and quality of life (Hamilton et al., 2013).

Summary

Literature on STS confirms that the quality of the working environment, the personal characteristics of helping professionals, and the frequency of their exposure to the trauma of their clients increases the risk for STS (Borjanić Bonić, 2019; Fisackerly et al., 2016; Yi et al., 2019). Developing STS could lead to psychological distress in the form of intrusive thoughts, sleep problems, feelings of powerlessness and weakness, difficulty separating work and personal life, avoidance, numbing, emotional exhaustion, and depersonalization (Günüsen et al., 2018; Johansen et al., 2019; Rzeszutek et al., 2015; Shannonhouse et al., 2016). However, spiritual-based coping and self-care practices, such as meditation, prayer, and reading spiritual scriptures, have been found to counteract the detrimental effects of STS (Bonamer & Aquino-Russell, 2019; Heeter et al., 2017; Hinderer et al., 2014).

The literature on coping strategies involving the effects of STS provides strong support for the relieving effect of meditation practices. However, research on prayer's mediating role is varied and, while some literature supports the correlation between prayer and low levels of STS, other literature has found no statistically significant relationship. Additionally, research that assesses the healing role of reading spiritual

scriptures is scant. The only two articles found in the search focused on the Bible. Unfortunately, studies examining the effect of reading other religious passages (e.g., the Quran, the Torah, etc.) were not found.

With that, several gaps in the literature were addressed with this study. First, focusing solely on the prevalence of STS among U.S. psychologists addressed the recommendations for future research to examine the prevalence of this phenomenon among different professions (Chirico, 2017; Harris, 2013; Jacobson & Stallwood, 2018; LaBarbera & Hetzel, 2016). Also, evaluating the differences in participation rates in meditation, prayer, and reading spiritual scriptures and their role in alleviating STS addressed the recommendations for future studies to identify and examine the role of different spiritual-based coping mechanisms in mitigating the effects of compassion fatigue (Sharp Donahoo et al., 2018; Visker et al., 2017). Considering that no studies to date have met these recommendations in relation to U.S. psychologists, a quantitative, exploratory, cross-sectional research design was conducted to address these gaps. Therefore, the following chapter explains the research design and methodology used to address these gaps, answer the research questions, and test this study's hypotheses.

Chapter 3: Research Method

Introduction

This study examined the differences in STS levels and frequency of participation rates in spiritual-based self-care practices between religious, nonreligious but spiritual, and nonreligious U.S. psychologists. This study was also used to explore the effects of frequency of participation in meditation, prayer, and reading spiritual scriptures on U.S. psychologists' reported levels of STS. This chapter includes the research design employed to address each of the purposes and explains the design. The population, sampling procedures, and power analysis are also described, followed by detailed information about participant recruitment, participation, and data collection procedures. The chapter continues with a description of instruments used to measure the study variables, instruments' appropriateness in terms of the study, and their validity and reliability. The chapter ends with an explanation of threats to external and internal validity and how these were addressed, as well as ethical considerations.

Research Design and Rationale

An exploratory nonexperimental cross-sectional survey design was employed to answer the research questions for this study. The exploratory nature of this study involved the investigation of the phenomenon of STS among U.S. psychologists, an understudied population among the literature on compassion fatigue. This research was

also the first to analyze the frequency of U.S. psychologists' participation in spiritual-based self-care practices and their effects on participants' reported levels of STS.

This study was nonexperimental because the purpose was to analyze group means and evaluate relationships between variables. Also, participants were not assigned to a treatment or control group and causation was not the focus of this investigation. A cross-sectional survey design was employed because the purpose was to collect quantitative data that represented U.S. psychologists' STS levels, frequency of participation in spiritual-based self-care practices, and the effects of such practices on STS.

Nonexperimental cross-sectional designs are limited in that causal inferences cannot be made from collected data, and these types of study designs only capture a moment of the phenomenon in question, making it difficult to assess changes in the studied event over time (Levin, 2006). However, nonexperimental, cross-sectional designs are relatively inexpensive and require little time to conduct, good for estimating the prevalence of an outcome, and useful for understanding social problems and providing information that can be used for public health planning (Levin, 2006).

Given the nature of this study's design, there were no significant concerns with resource constraints because all data were collected using Stamm's (2010) ProQOL-5 which is publicly available through the Internet. Detailed information about the population of interest, sampling, recruitment and data collection procedures, instruments

used to collect data, study variables, and tests used to analyze data are discussed in the following section.

Methodology

Population

The population of interest for this research consisted of licensed, practicing psychologists in the United States. According to the APA (2018), the U.S. psychology workforce in 2016 comprised of approximately 94,000 active psychologists, about 7,400 semi-retired psychologists, and an additional 8,100 retired psychologists. Ages ranged between 26 and 75 years, with a mean age of 50. The age group with the largest number of active psychologists in 2016 was between 36 and 45 years. Of the 2016 psychology workforce, 65% (n = 60,787) were women and 84% (n = 79,500) were White.

Sampling Procedures

Given the cross-sectional nature of this study, and to ensure the sample was representative of the population, the goal was to identify and recruit as many participants as possible, in the shortest amount of time possible. Therefore, a multistage sampling method was used.

Since the goal of this study was to investigate the phenomenon of STS among a sample of a specific population (U.S. practicing psychologists), a convenience sampling procedure was also used. Convenience sampling ensured only the targeted population participated in the study. Due to the nature of the sampling procedure, and because STS emerges from work-related, vicarious exposure to traumatic material (Figley, 1995), only active and semi-retired psychologists were included in the study. Fully retired

psychologists were not included due to the assumption that the likelihood of their exposure to client traumatic material was significantly less than the active and semi-retired psychology workforce.

Power Analysis

As reviewed in Chapter 2, lots of research have studied the phenomenon of STS, but very few have investigated the role of spiritual-based self-care practices in STS; and, even less studies have researched the role of spiritual-based self-care in STS among psychologists alone. Studies around this topic have focused primarily on the role of meditation, and they have included sample sizes ranging between 29 and 829 participants (Hinderer et al., 2014; Silver et al., 2018). While the study by Silver and colleagues (2018) found a significant negative correlation between mindfulness and level of compassion fatigue ($r = -0.48$, $p<0.001$), the study by Hinderer et al. (2014) found no association between these variables ($r = -0.097$, $p = .288$).

An a priori computation for an ANOVA was completed using G*Power (Faul et al., 2009) to estimate the sample size required for this study. When completing a power analysis, commonly accepted alpha, beta, and effect size values are $\alpha = .05$, $\beta = .80$, and $f = 0.25$, respectively (Creswell & Creswell, 2018). The values used to calculate the sample size for this study were: $\alpha = .05$, $\beta = .80$, and $f = 0.25$. Additionally, because participants could choose membership into one of three religious' identities, the design for this study resulted in three groups, with a degrees of freedom level of $df = 2$. Using these parameters, the power analysis calculations resulted in a total sample size of 159 participants, with each group consisting of 53 individuals.

Recruitment and Data Collection Procedures

Prior to recruiting participants for the study, a participation inquiry email was sent to all 50 U.S. state psychological associations to identify which let non-member, graduate students recruit participants from their organizations via their listserv (see Appendix B). A total of 19 state psychological associations responded to the initial inquiry email; five said they let non-member graduate students submit requests through their listservs (see Appendix C), and eight said only student members could post on their listserv; all others said they did not allow such requests. This researcher was a member of two of the associations that only let members post research requests at the time of data collection: the Arizona Psychological Association (AzPA) and the Iowa Psychological Association (IPA).

Due to the multistage sampling procedures used for this study, participation requests were also sent to the Facebook group The Testing Psychologist Community, an online group intended solely for psychologists and psychology students. Upon IRB approval, a request for research participation was sent to all state psychological associations that agreed to share the information on their listserv or website, and it was also posted on the social media group. The request for participation included a summary of the research study and purpose, target population, and a link to the online survey (see Appendices D and E).

The link on the research advertisement took participants to an online survey through SurveyMonkey. All the data that was required for this study was collected from this survey. Subjects needed to read all necessary information concerning participation

requirements and ethical considerations prior to beginning the survey. To provide consent and start the survey, the Informed Consent box had to be checked prior to clicking on the Next button. Otherwise, the survey would not let participants answer the questions. The questionnaire asked participants about their demographic information and religious identity, and it also asked them to report the frequency of their participation in meditation, prayer, and reading spiritual scriptures. The survey ended with the 30 items of the ProQOL-5.

The survey was created so that participants could not leave questions unanswered (unless they discontinued their participation). Doing so did not let them progress through the questionnaire. Individuals who answered all questions could submit a completed survey by clicking the "Submit" button at the end of the questionnaire. Participants who chose to discontinue the survey could opt out by closing their Internet browser on their computer, tablet, or smartphone. Since this was a cross-sectional study, a follow-up email was not necessary. Data analysis was completed with all finalized and successfully submitted survey responses.

Instrumentation

Demographic data. Each subject answered study-specific survey questions, and the ProQOL-5. The study-specific, demographic survey questions mirrored the descriptive data on the U.S. psychology workforce collected by the APA (2018). These questions asked participants to report their age, gender (limited to female or male), and race and ethnicity (Asian, Black/African American, Hispanic, White, or Other). Participants were also asked to specify their membership into one of three religious

identities (religious psychologist, nonreligious but spiritual psychologist, or nonreligious psychologist).

Frequency of participation in self-care. Participants were asked to report the approximate hours a week they engaged in meditation, prayer, and reading spiritual scriptures. The questions were developed so that subjects reported their hours in numerical format, ranging anywhere between 0 and 100 hours a week. To facilitate data analysis, answers to these questions were limited to full digits, not decimals.

ProQOL-5 Scale. The ProQOL-5 is a 30-item self-report instrument that measures levels of compassion satisfaction (CS), burnout (BO), and STS. Using a 5-point Likert-style scale, individuals assign a number from 1 (Never) to 5 (Very Often) to indicate how frequently they experience the symptoms described in each item. Once answered, each item loads into one of the three scales that comprise the ProQOL-5: the Compassion Satisfaction Scale (10-items), the Burnout Scale (10-items), and the STS Scale (10-items).

Examples of questions on the Compassion Satisfaction Scale include: "I get satisfaction from being able to *[help]* people;" and "I like my work as a *[helper]*." Some items on the Burnout Scale read as follows: "I feel trapped by my job as a *[helper]*;" and "I feel worn out because of my work as a *[helper]*." For the Secondary Traumatic Stress Scale, some items include: "I find it difficult to separate my personal life from my life as a *[helper]*;" and "I feel depressed because of the traumatic experiences of the people I *[help]*." Italicized words in brackets can be substituted for other concepts that may better

resemble the population the instrument is administered to (e.g., counselor, psychologist, therapist, etc.; Stamm, 2010).

Once the instrument is administered and items are scored, cutoff scores for all three scales help identify a respondent's level of CS, BO and STS. Typically, a score ≤22 suggests a Low level of CS, BO and STS; a score between 23 and 41 corresponds to an Average level of CS, BO and STS; and a score ≥42 indicates High levels of CS, BO and STS (Stamm, 2010). Since the purpose of this study was to examine the differences in STS levels among U.S. psychologists and explore the effect of participation in meditation, prayer, and reading spiritual scriptures on such levels, subjects' STS was measured by their total score on the Secondary Traumatic Stress Scale (STSS) of the ProQOL-5. Although this research did not focus on U.S. psychologists' CS or BO, participants were asked to answer the entire ProQOL-5 for several reasons: this version of the instrument was validated using all three scales, using the STSS on its own could yield inaccurate results, and administering the full instrument could prevent participants from feeling perceived as being "impaired" and, consequently, tempted to underreport their true experiences (Stamm, 2010). See Appendix H and Appendix I for a copy of the consent form and online survey, including a copy of the full ProQOL-5.

Validity and reliability of the ProQOL-5. The ProQOL-5 is the most common used self-report measure of secondary trauma among the STS literature, and its development was informed by the professional quality of life theory. Stamm (2010) first measured the instrument's validity with a sample of 1,187 professionals (career was unspecified) and found good internal consistency for all subscales (CS $\alpha = .88$; STS $\alpha =$

.81; BO α = .75). He also found a small but equally shared variance between the STS and CS scales and the BO and CS scales (r = .14; co-σ = 2.0%), meaning that both the STS and BO scales produced equal amounts of variance on the CS scale. Stamm also found the variance between the STS and BO scales to be significant (r = .58), with a 34% overlap between the two.

This overlap between the STS and BO scales and the equal amount of influence they have on the CS scale led some researchers to question the ProQOL-5's validity by pointing out two potential flaws: the significant overlap between the STS and BO scales suggests that both concepts are almost identical, and the similarities in the variances between the STS and CS scales and the BO and CS scales makes it so that the ProQOL-5 cannot truly discriminate between STS and BO (Cieslak et al., 2014). However, because Stamm (2010) assumed that the overall experience of CF is characterized by both STS and BO, he foresaw that this level of overlap between the STS and BO scales would happen.

In the study by Hemsworth et al. (2018), similar concerns with the internal validity of the ProQOL-5 were found. The researchers conducted an analysis of the psychometric properties of the instrument among nurses and palliative care professionals in Australia and Canada. A total of 1,083 participated in their survey, which consisted in completing the ProQOL-5. Inter-item correlations, tests of reliability, convergent and discriminant validity, construct validity, exploratory factory analysis, and confirmatory factory analysis results showed that the STSS's validity in measuring STS was reasonable. However, two items ("I jump or am startled by unexpected sounds" and "I

am preoccupied with more than one person I help") had very low loadings (< .5), decreasing the convergent validity of the scale. After removing both items from the analysis, the researchers found the overall scale's reliability increased. Hence, they recommend that these items be removed or replaced, especially since they appear to not be directly linked to work-related traumatic experiences (Hemsworth, Baregheh, Aoun & Kazanjian, 2018).

Although Cieslak et al. (2014) demonstrated due diligence in pointing out the similarities between the BO and STS scales and, thus, their ineffectiveness in differentiating both constructs, Hemsworth et al. (2018) findings provide an empirical foundation in favor of the ProQOL-5's ability to accurately measure STS levels so long the items mentioned above are removed. Therefore, these conclusions not only make the ProQOL-5 empirically valid, they also make the STSS of the ProQOL-5 an appropriate instrument for this study, mostly because this study focused solely on STS.

Although Hemsworth et al. (2018) recommend that these two "problematic" items be removed, they were still included in this study because Stamm (2010) incorporated them in the ProQOL-5's cut-off scores. Removing these items from this study would lead to a lower ceiling; hence, increasing the risk for underestimating the level of STS among the sample. Future research can choose to remove these items once new cut-off scores for the ProQOL-5 have been identified without them.

Study Variables

Due to the exploratory nature of this study, several variables were the focus of attention. For clarity and organizational purposes, Table 1 lists each of the independent and dependent variables as they relate to each of the three purposes of this study.

Table 1

Independent and Dependent Variables per Study Purpose

Purpose	Independent Variables	Dependent Variables
1. Analyze the variation in STS levels among U.S. psychologists as they relate to their religious identity.	IV = *Religious Identity* 1. Religious 2. Nonreligious but spiritual 3. Nonreligious	DV = STS level as measured by the ProQOL-5
2. Analyze the variation of participation in meditation, prayer, and reading spiritual scriptures among U.S. psychologists as they relate to their religious identity.	IV = *Religious Identity* 1. Religious 2. Nonreligious but spiritual 3. Nonreligious	DV_1 = IV = *Frequency of participation in spiritual-based self-care practices** 1. Meditation 2. Prayer 3. Reading spiritual scriptures
3. Explore the effect of participation in meditation, prayer, and reading spiritual scriptures on U.S. psychologists' reported levels of STS.	IV = *Frequency of participation in spiritual-based self-care practices** 1. Meditation 2. Prayer 3. Reading spiritual scriptures	DV = STS level as measured by the ProQOL-5

* Frequency of participation will be measured as the estimated number of hours participants engage in each self-care activity every week.

For this study, participants' reported level of STS and their frequency of participation in spiritual-based self-care were interval variables. Interval variables are quantifiable factors that can represent any value between their lowest and highest value

(Thomas, 2014). Participants' reported level of STS is an interval variable because total scores on the STS subscale of the ProQOL-5 can range anywhere from a 10 to a 50. Similarly, the frequency of participation in spiritual-based self-care is also an interval variable because it measured the estimated number of hours a week subjects engaged in spiritual-based self-care practices.

Lastly, subjects' religious identity is a nominal variable. Nominal variables are unranked, categorical variables (Thomas, 2014). Participants' religious identity is a nominal variable because subjects had to choose between three, non-hierarchical categories. The following section provides information about the statistical tests that were used to analyze the data and answer the research questions.

Data Analysis Plan

Data Analysis Software

IBM SPSS Statistics Version 25 was used to run all data analyses for this study. All completed surveys were included in the data analysis.

Research Questions and Statistical Tests

Several research questions with their respective hypotheses were developed according to each purpose of this study. Table 2 restates each purpose with their research questions and their corresponding hypotheses.

Table 2

Study Purposes, Research Questions, and Hypotheses

Purpose	Research Questions	Hypotheses
1. Analyze the difference in U.S. psychologists' STS	Is there a significant difference in U.S. psychologists' secondary	H_0: There are no significant differences in U.S. psychologists'

(table continues)

levels between different religious identity groups.	traumatic stress level (as measured by their score on the ProQOL-5) between religious identities?	secondary traumatic stress level between religious identities. H_1: There are significant differences in U.S. psychologists' secondary traumatic stress level between religious identities.
2. Analyze the difference in U.S. psychologists' frequency of participation in spiritual-based self-care practices between different religious identity groups.	Is there a significant difference in U.S. psychologists' frequency of participation in spiritual-based self-care practices between religious identities?	H_0: There are no significant differences in U.S. psychologists' frequency of participation in spiritual-based self-care practices between religious identities. H_1: There are significant differences in U.S. psychologists' frequency of participation in spiritual-based self-care practices between religious identities.
3. Explore if a relationship exists between U.S. psychologists' frequency of participation in spiritual-based self-care practices and STS level.	Regardless of U.S. psychologists' religious identity, is there a significant relationship between frequency of participation in spiritual-based self-care practices and U.S. psychologists' STS level?	H_0: Regardless of U.S. psychologists' religious identity, there is no significant relationship between frequency of participation in spiritual-based self-care practices and U.S. psychologists' STS level. H_1: Regardless of U.S. psychologists' religious identity, there is a significant relationship between frequency of participation in spiritual-based self-care practices and U.S. psychologists' STS level.

Several statistical tests were used to analyze the collected data and answer the research questions above. Descriptive statistics report U.S. psychologists' demographic information, as well as means for STS levels and frequency of participation in spiritual-based self-care practices. Second, a one-way between-subject ANOVA was used to answer the first two research questions. A one-way between-subject ANOVA compares means on a quantitative outcome variable across two or more groups (Warner, 2013). Since the purpose of this study was to examine the variances in two quantitative dependent variables (STS level and frequency of participation in spiritual-based self-care practices) across three religious identity groups (religious, nonreligious but spiritual, and nonreligious), a one-way between-subject ANOVA was appropriate to answer the first two research questions.

Two assumptions must be met to run a one-way between-subject ANOVA. First, the scores on the outcome variables must be quantitative and almost normally distributed; and second, the variances of scores must be relatively homogenous across the three groups (Warner, 2013). To ensure these assumptions are met and that a one-way between-subject ANOVA is appropriate, an examination of a histogram helps analyze the frequency of distribution of the outcome variables (Warner, 2013). Also, a Levene's test of homogeneity helps examine if the variances of scores are homogenous across the three groups (Warner, 2013).

Lastly, Pearson's correlations and a multiple regression helped answer the third research question. Pearson's correlations helped determine the interrelationship between the independent variables, as well as the relationship of each independent variable with

the dependent variable. Also, a multiple regression helped examine the combined effect of the independent variables on the dependent variable (Warner, 2013). Interpretation of results was done using a confidence interval level of 95%.

Threats to Validity

It is possible that threats to external validity arose from psychologists' over or underreporting of STS levels and frequency of participation in spiritual-based self-care practices. However, there was no way to assess this assertion and, therefore, it was assumed that participants were being truthful in their responses. Also, psychologists' attitudes about religious or spiritual practices, as well as the nature of some of the questions on the ProQOL-5, may have encouraged some psychologists to participate and discouraged others from doing so. Although these threats to external validity were outside the control of this researcher, several ways to minimize their effects included: encouraging participants to respond to all questions honestly and reassuring them that responses were confidential, specifying on all recruitment attempts that all psychologists, regardless of their religious beliefs, were encouraged to participate in the study, and offering struggling participants resources they could use to address their STS.

Due to the nature and methodology used for this study, threats to internal validity arose in the form of convenience sampling. This resulted in conclusions that cannot be generalized to psychologists from other countries or other professions. Also, given the cross-sectional nature of this study, results from this research cannot represent the long-term transformative effect of spiritual-based self-care practices on psychologists' STS. To ensure recruitment of sufficient participants within each religious identity group, a

follow up email and social media post was sent one week and then again two weeks after the initial request of participation was sent to referral sources.

Ethical Procedures

Approval for this study was granted by Walden University's Institutional Review Board (IRB). The IRB approval number for this study was 06-05-20-0676648. The approval was valid through June 4, 2021.

Recruitment of participants was done with collaboration from state psychological associations who let non-members post research requests on their listservs for no additional cost. Therefore, there were no potential ethical concerns related to participant recruitment. Since this researcher was a member of the Arizona and the Iowa Psychological Associations at the time recruitment was conducted, a potential ethical concern was members feeling coerced to participate in the study since the request for participation came from another member of the organization. However, participants were reassured that participation was voluntary and confidential, that they could discontinue their participation at any time by closing their Internet browser, and that their consent or decline to participate would not affect any professional relationships between them and this researcher.

Collected data was only accessed by this researcher, and once all answers were transcribed into SPSS, all SurveyMonkey survey responses were deleted from the website to ensure confidentiality of IP addresses and other potentially identifiable data. All data will remain property and will be stored in a password-protected computer only accessible by this researcher for at least 5 years. After this time frame, all data will be permanently

deleted. There were no foreseen conflicts of interests or power differential concerns with this study. Lastly, to avoid potential coercion of participants, there was no direct incentive for participating in this study

Summary

The purpose, research questions, and hypotheses of this study were discussed in this chapter. This chapter also highlighted the quantitative cross-sectional survey design as well as procedures that were used for recruiting participants, sampling, data collection and analysis, and instrumentation. Chapter 4 explains results of the data analyses.

Chapter 4: Results

Introduction

The purpose of this study was to analyze the variations in STS levels (as measured by the ProQOL-5) and frequency of participation in spiritual-based self-care practices between religious, nonreligious but spiritual, and nonreligious U.S. psychologists. It was also the goal of this study to explore the relationship between frequency of participation in meditation, prayer, and reading spiritual scriptures on U.S. psychologists' levels of STS. Three research questions were addressed with this study.

RQ1: Is there a significant difference in U.S. psychologists' secondary traumatic stress level (as measured by their score on the ProQOL-5) between religious identities?

$H_0$1: There are no significant differences in U.S. psychologists' secondary traumatic stress level between religious identities.

Ha1: There are significant differences in U.S. psychologists' secondary traumatic stress level between religious identities.

RQ2: Is there a significant difference in U.S. psychologists' frequency of participation in spiritual-based self-care practices between religious identities?

$H_0$2: There are no significant differences in U.S. psychologists' frequency of participation in spiritual-based self-care practices between religious identities.

Ha2: There are significant differences in U.S. psychologists' frequency of participation in spiritual-based self-care practices between religious identities.

RQ3: Regardless of U.S. psychologists' religious identity, is there a significant relationship between frequency of participation in spiritual-based self-care practices and U.S. psychologists' STS level?

H_03: Regardless of U.S. psychologists' religious identity, there is no significant relationship between frequency of participation in spiritual-based self-care practices and U.S. psychologists' STS level.

H_a3: Regardless of U.S. psychologists' religious identity, there is a significant relationship between frequency of participation in spiritual-based self-care practices and U.S. psychologists' STS level.

Data Collection

Data collection occurred between June 5 to June 24, 2020. Participants completed an online survey through SurveyMonkey, consisting of a demographic questionnaire, questions about the frequency of participation in spiritual-based self-care practices, and the ProQOL-5 scale. Inclusion in the study was limited to actively licensed practicing psychologists in the U.S.

A total of 310 responses were received. Of these, 29 were incomplete and removed, leaving a total of 281 participants eligible for inclusion in the study. Since the purpose of this study was to evaluate differences between groups, power analyses indicated that each group had to have consisted of at least 53 participants. By the end of data collection, the nonreligious group had the least members, with 88 participants. Therefore, an additional four participants from the religious group and 17 members of the nonreligious but spiritual group were randomly removed from the sample to ensure all

groups had an equal number of members. The final sample included in this study consisted of 264 licensed U.S. psychologists, each group consisting of 88 participants.

Demographic Characteristics of the Sample

Of the 264 participants included in this study, 80.7% were female (n = 213) and 19.3% were male (n = 51). Caucasians comprised most of the sample (n = 228; 86.4%), followed by Hispanics (n = 16; 6.1%), other races/ethnicities (n = 12; 4.5%), African Americans (n = 6; 2.3%), and Asians (n = 2; 0.8%). All three religious identity groups had an equal number of members (n = 88). Participants' ages ranged between 23 and 77 years ($\bar{x}$ = 44.09).

Table 3

Frequency Distribution of Participants' Demographics

Variable	Frequency	Percent
Gender		
Male	51	19.6
Female	213	80.4
Race/Ethnicity		
Caucasians	228	86.4
Hispanics	116	6.1
African Americans	6	2.3
Asians	2	0.8
Other	12	4.5
Religious Identity		
Religious	88	33.3
Nonreligious but spiritual	88	33.3
Nonreligious	88	33.3

The sample for this study was slightly younger than the 2016 active U.S. psychology workforce ($\bar{x}$ age in 2016 was 50 years), and there was significantly lower representation of males, Asians, and African Americans. In 2016, 35% of the U.S.

psychology workforce was male, 4% was Asian, and another 4% was African American. However, representation of Caucasians and Hispanics was like that of 2016, where 84% of the U.S. psychology workforce was Caucasian and another 5% was Hispanic.

Results

A one-way between-subject ANOVA was done to compare the mean scores on the ProQOL-5 and frequency of participation in spiritual-based self-care practices for U.S. psychologists claiming membership into one of three religious identity groups: religious, nonreligious but spiritual, and nonreligious. STS scores were relatively normally distributed with few outliers. However, scores for frequency of participation in spiritual-based self-care practices were skewed, with most respondents reporting little to no participation in meditation, prayer, and reading spiritual scriptures.

Although Warner (2013) suggests that normalization of data be forced prior to running a one-way ANOVA, this was not done for this study. Forced normalization of collected data would have distorted the true nature of the frequency of participation in spiritual-based self-care practices. For example, it is expected that religious individuals report more participation in spiritual practices than nonreligious individuals. Therefore, forced normalization would have provided an inaccurate representation of U.S. psychologists' true participation in meditation, prayer, and reading spiritual scriptures. Furthermore, forcing the collected data to represent, as much as possible, a normal distribution would have increased the risk for interpretation error.

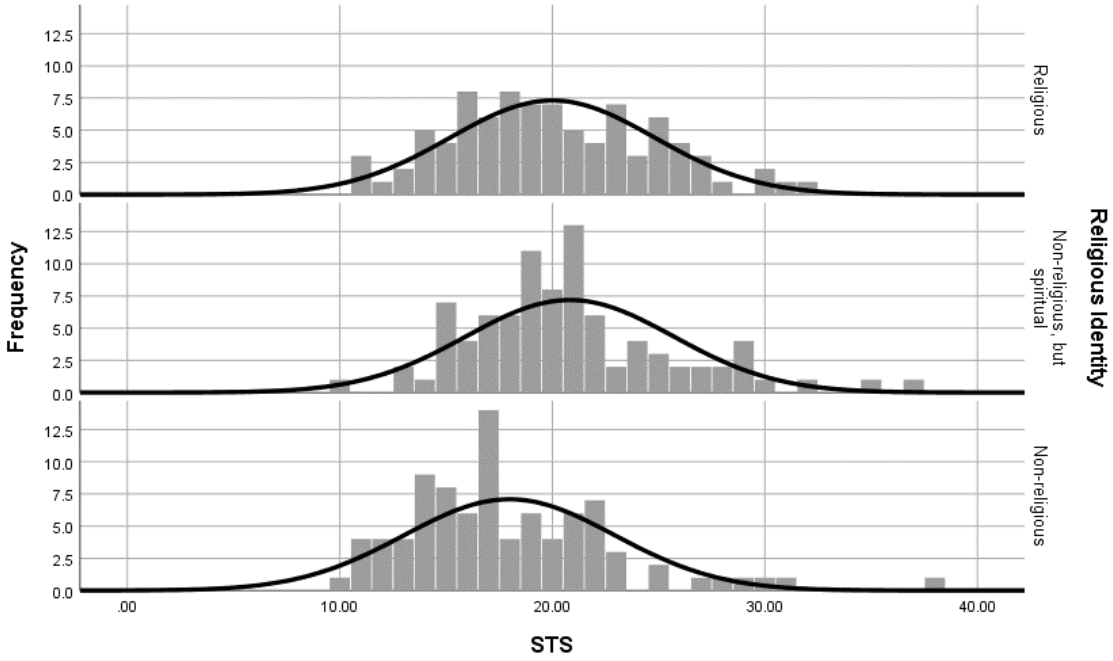

Figure 3. Distribution of STS scores by religious group

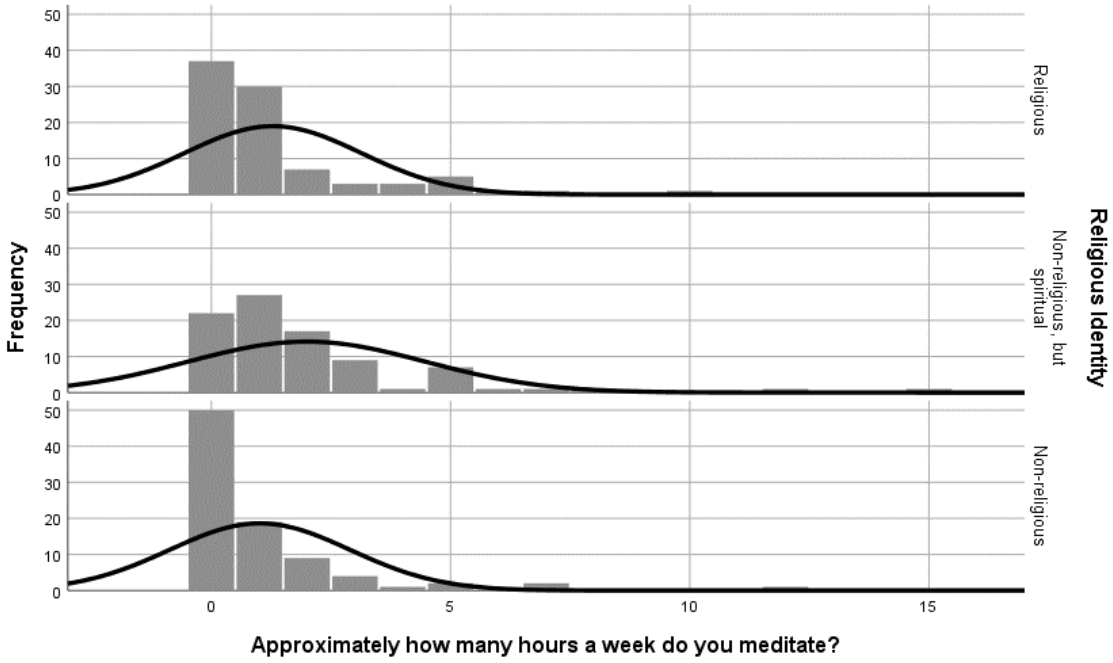

Figure 4. Distribution of frequency of meditation by religious group

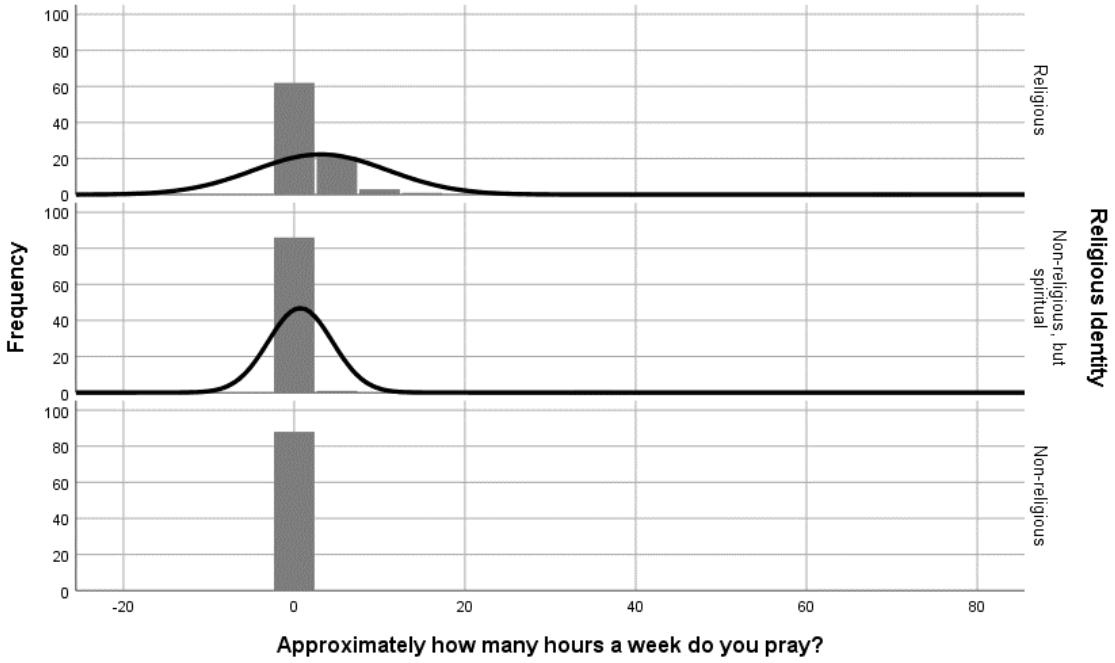

Figure 5. Distribution of frequency of prayer by religious group

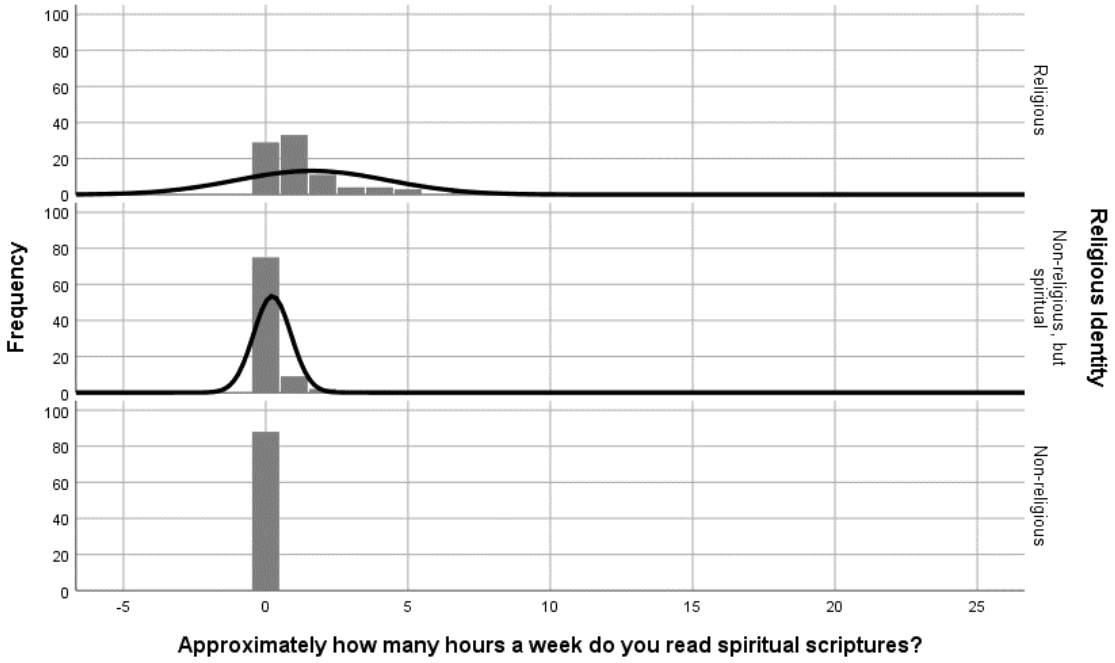

Figure 6. Distribution of frequency of reading spiritual scriptures by religious group

Prior to the analysis, the Levene test for homogeneity (see Table 4) was used to evaluate whether there were violations of the homogeneity of variance assumption. Test results revealed no significant violation of the assumption when it came to the homogeneity of STS scores (F[2, 261] = .184, p = .832) and frequency of meditation (F[2, 261] = 1.867, p = .157). However, results indicated that scores for frequency of prayer (F[2, 261] = 8.786, p = .000) and reading spiritual scriptures (F[2, 261] = 32.682, p = .000) was significantly disproportionate. Therefore, ANOVA results for these two variables are interpreted with caution.

Table 4

Levene's Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
STS	.184	2	261	.832
Approximately how many hours a week do you meditate?	1.867	2	261	.157
Approximately how many hours a week do you pray?	8.786	2	261	.000
Approximately how many hours a week do you read spiritual scriptures?	32.682	2	261	.000

Research Question 1

Is there a significant difference in U.S. psychologists' secondary traumatic stress level (as measured by their score on the ProQOL-5) between religious identities?

H_0: There are no significant differences in U.S. psychologists' secondary traumatic stress level between religious identities.

H_1: There are significant differences in U.S. psychologists' secondary traumatic stress level between religious identities.

Research Question 2

Is there a significant difference in U.S. psychologists' frequency of participation in spiritual-based self-care practices between religious identities?

H_0: There are no significant differences in U.S. psychologists' frequency of participation in spiritual-based self-care practices between religious identities.

H_1: There are significant differences in U.S. psychologists' frequency of participation in spiritual-based self-care practices between religious identities.

Table 5

ANOVA Results

		Sum of Squares	df	Mean Square	F	Sig.
STS	Between Groups	376.394	2	188.197	7.898	.000
	Within Groups	6219.045	261	23.828		
	Total	6595.439	263			
Approximately how many hours a week do you meditate?	Between Groups	44.758	2	22.379	5.106	.007
	Within Groups	1143.875	261	4.383		
	Total	1188.633	263			
Approximately how many hours a week do you pray?	Between Groups	465.508	2	232.754	9.170	.000
	Within Groups	6624.398	261	25.381		
	Total	7089.905	263			
Approximately how many hours a week do you read spiritual scriptures?	Between Groups	134.273	2	67.136	26.617	.000
	Within Groups	658.318	261	2.522		
	Total	792.591	263			

The overall F for the one-way ANOVA was statistically significant for all variables: STS ($F[2, 261] = 7.898$, $p = .000$), frequency of meditation ($F[2, 261] = 5.106$,

p =<.01), frequency of prayer (F[2, 261] = 9.170, p<.001), and frequency of reading spiritual scriptures (F[2, 261] = 26.617, p<.001). This corresponded to a small effect size on meditation (η^2=0.037), a medium effect size on STS (η^2=0.057) and prayer (η^2=0.065), and a large effect size on reading spiritual scriptures (η^2=0.165). One-way ANOVA results indicate that religious identity predicted about 4% of the variance in frequency of meditation, almost 6% of the variance in STS scores, approximately 7% of the variance in frequency of prayer, and close to 17% of the variance in frequency of reading spiritual scriptures. Below are the means and standard deviations for the three groups, as well as the between group comparisons with Tukey HSD post hoc test (p = .05).

Table 6

STS and Frequency of Participation in Spiritual-Based Self-Care by Religious Identity

		N	Mean	SD
STS	Religious	88	20.00	4.80
	Nonreligious, but spiritual	88	20.82	4.89
	Nonreligious	88	17.98	4.95
	Total	264	19.60	5.01
Approximately how many hours a week do you meditate?	Religious	88	1.28	1.85
	Nonreligious, but spiritual	88	1.99	2.48
	Nonreligious	88	1.01	1.89
	Total	264	1.43	2.13
Approximately how many hours a week do you pray?	Religious	88	3.10	7.88
	Nonreligious, but spiritual	88	.70	3.75
	Nonreligious	88	.00	.00
	Total	264	1.27	5.19
Approximately how many hours a week do you read spiritual scriptures?	Religious	88	1.61	2.67
	Nonreligious, but spiritual	88	.23	.66
	Nonreligious	88	.00	.00
	Total	264	.61	1.74

Table 7

Between-Group Comparisons

Dependent Variable	(I) Religious Identity	(J) Religious Identity	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
STS	Religious	Non-religious, but spiritual	-.82	.74	.508	-2.55	.9164
		Non-religious	**2.02***	.74	**.018**	.29	3.7573
	Non-religious, but spiritual	Religious	.82	.74	.508	-.92	2.5528
		Non-religious	**2.84***	.74	**.000**	1.11	4.5755
	Non-religious	Religious	**-2.02***	.74	.018	-3.76	-.2881
		Non-religious, but spiritual	**-2.84***	.74	**.000**	-4.58	-1.1063
Approximately how many hours a week do you meditate?	Religious	Non-religious, but spiritual	-.71	.32	.068	-1.45	.04
		Non-religious	.27	.32	.663	-.47	1.02
	Non-religious, but spiritual	Religious	.71	.32	.068	-.04	1.45
		Non-religious	**.98***	.32	**.006**	.23	1.72
	Non-religious	Religious	-.27	.32	.663	-1.02	.47
		Non-religious, but spiritual	**-.98***	.32	**.006**	-1.72	-.23
Approximately how many hours a week do you pray?	Religious	Non-religious, but spiritual	**2.40***	.76	**.005**	.61	4.19
		Non-religious	**3.10***	.76	**.000**	1.31	4.89
	Non-religious, but spiritual	Religious	**-2.40***	.76	**.005**	-4.19	-.61
		Non-religious	.71	.76	.623	-1.09	2.49
	Non-religious	Religious	**-3.10***	.76	**.000**	-4.89	-1.31
		Non-religious, but spiritual	-.71	.76	.623	-2.49	1.09
Approximately how many hours a week do you read spiritual scriptures?	Religious	Non-religious, but spiritual	**1.39***	.24	**.000**	.82	1.95
		Non-religious	**1.61***	.24	**.000**	1.05	2.18
	Non-religious, but spiritual	Religious	**-1.39***	.24	**.000**	-1.95	-.82
		Non-religious	.23	.24	.610	-.34	.79
	Non-religious	Religious	**-1.61***	.24	**.000**	-2.18	-1.05
		Non-religious, but spiritual	-.23	.24	.610	-.79	.34

*. The mean difference is significant at the 0.05 level.

The overall sample for this study endorsed low levels of STS ($\bar{x}$ = 19.60; σ = 5.01). However, nonreligious but spiritual psychologists endorsed significantly more STS symptoms than nonreligious psychologists ($\bar{x}$ difference = 2.84; p<.001) but not significantly more than religious psychologists ($\bar{x}$ difference = .82; p = .508). On the other hand, nonreligious psychologists endorsed significantly lesser symptoms than religious ($\bar{x}$ difference = -2.02; p<.05) and nonreligious but spiritual ($\bar{x}$ difference = -2.84; p<.001) psychologists. Like STS, the overall group of participants also reported low frequency of participation in spiritual-based self-care practices.

Frequency of participation in meditation was roughly 1.5 hours a week for the entire sample ($\bar{x}$ = 1.43; σ = 2.13). Nonreligious but spiritual psychologists practiced significantly more meditation than nonreligious psychologists ($\bar{x}$ difference = .98; p<.01). However, there was no significant differences in frequency of participation in meditation between nonreligious but spiritual psychologists and religious psychologists ($\bar{x}$ difference = .71; p = .068). Frequency of participation in prayer and reading spiritual scriptures was about an hour per week for the overall sample (prayer: $\bar{x}$ = 1.27; σ = 5.19; scriptures: $\bar{x}$ = .61; σ = 1.74). However, nonreligious psychologists denied participating in prayer and reading spiritual scriptures, and nonreligious but spiritual psychologists reported considerably lower frequencies of participation in these practices (prayer: $\bar{x}$ = .70, σ = 3.75; scriptures: $\bar{x}$ = .23, σ = .66).

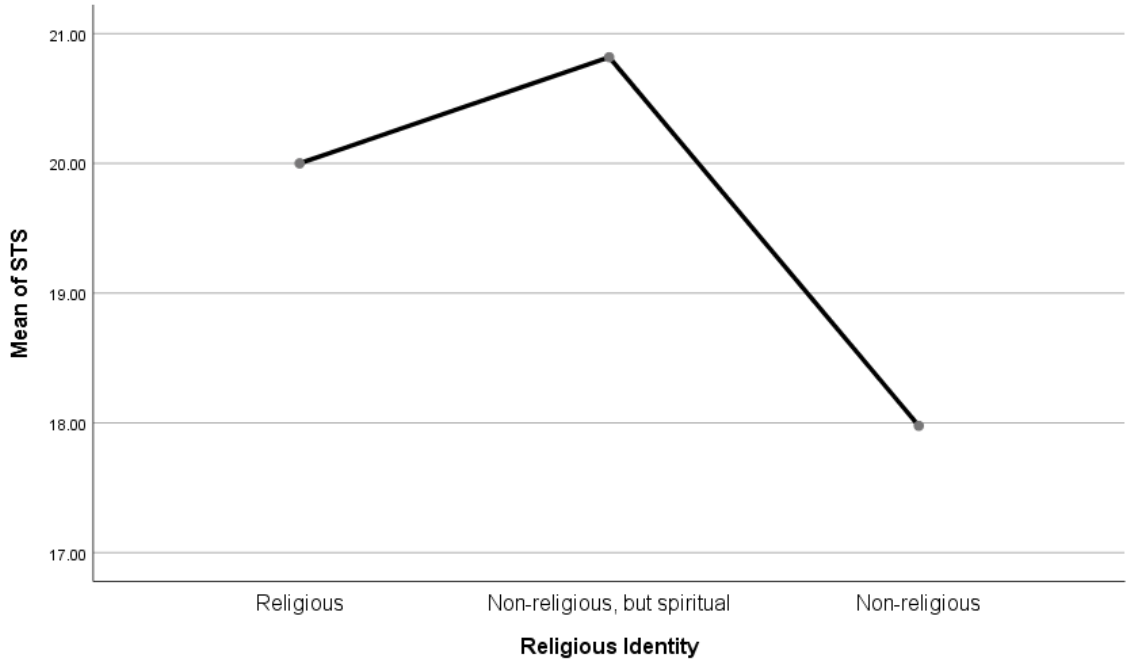

Figure 7. Distribution of mean scores for STS between religious identity groups

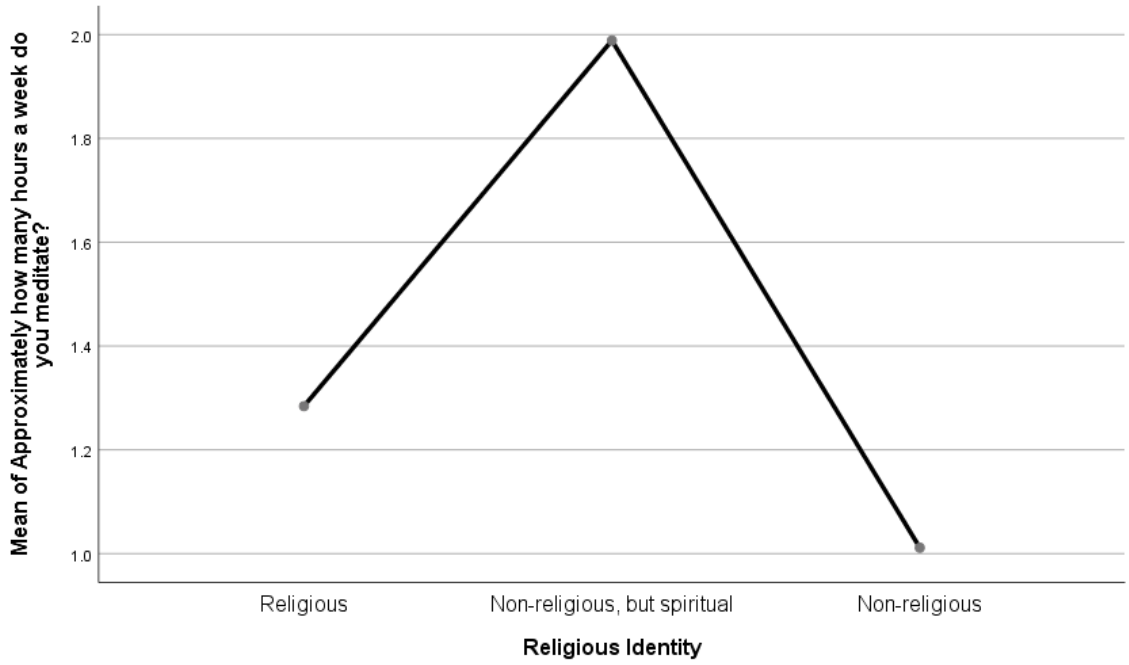

Figure 8. Distribution of mean scores for meditation between religious identity groups

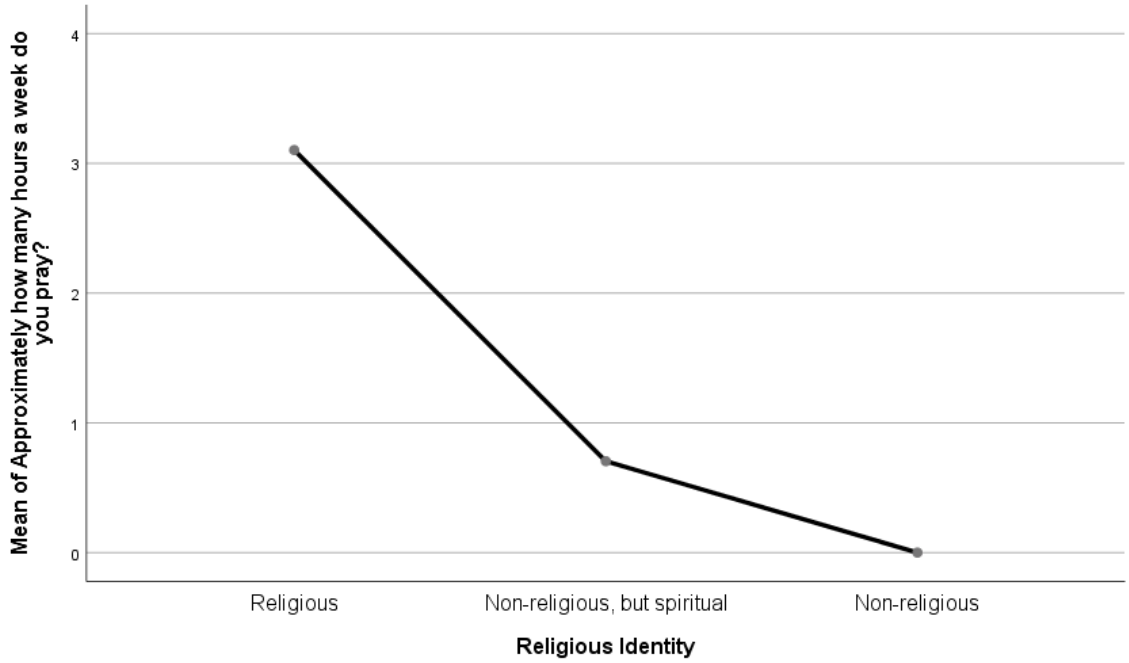

Figure 9. Distribution of mean scores for prayer between religious identity groups

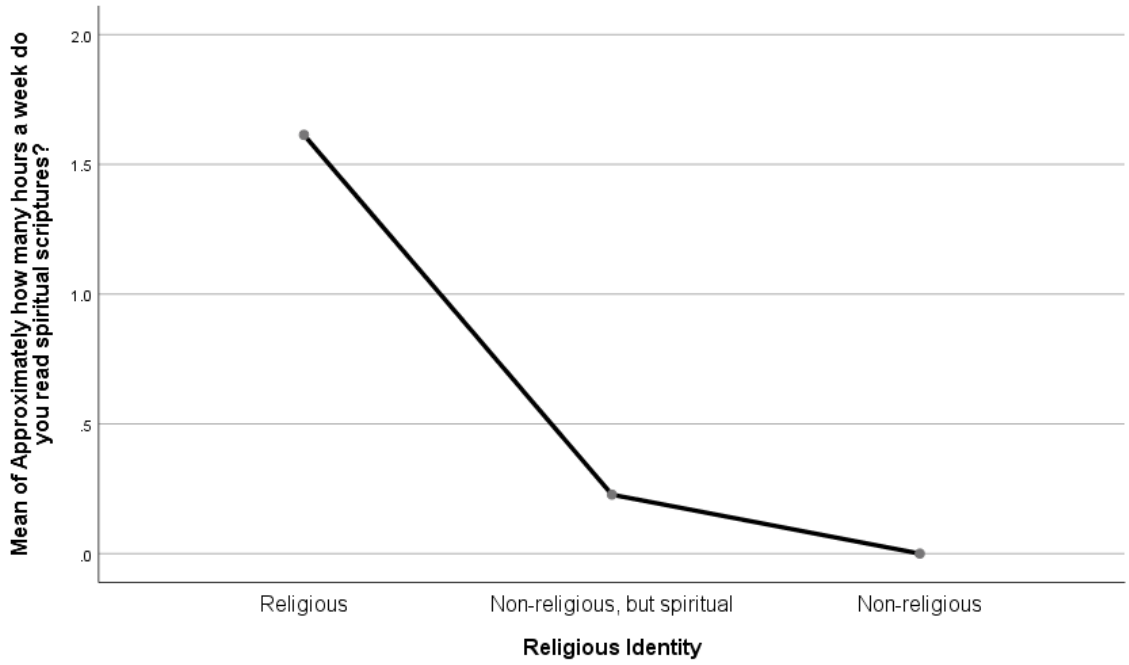

Figure 10. Distribution of mean scores for reading spiritual scriptures between religious identity groups

Due to the lack of participation in prayer and reading spiritual scriptures between nonreligious and nonreligious but spiritual psychologists, participation in these practices was consequently significantly higher among the religious group. The mean difference in prayer and reading spiritual scriptures between religious and nonreligious psychologists was 3.10 and 1.61 ($p<.001$), respectively. Similarly, the mean difference in prayer and reading spiritual scriptures between religious and nonreligious but spiritual psychologists was 2.40 ($p<.01$) and 1.39 ($p<.001$), respectively.

These results support the alternative hypotheses for both research questions 1 and 2, which assumed that significant differences in U.S. psychologists' STS and frequency of participation in spiritual-based self-care practices existed between different religious identities. However, the effect and significance of the variance between the groups were highly influenced by participants' endorsement of extremely low STS, as well as extreme opposite frequencies of participation in spiritual-based self-care practices between the different groups.

Research Question 3

Regardless of U.S. psychologists' religious identity, is there a significant relationship between frequency of participation in spiritual-based self-care practices and U.S. psychologists' STS level?

H_0: Regardless of U.S. psychologists' religious identity, there is no significant relationship between frequency of participation in spiritual-based self-care practices and U.S. psychologists' STS level.

H_1: Regardless of U.S. psychologists' religious identity, there is a significant relationship between frequency of participation in spiritual-based self-care practices and U.S. psychologists' STS level.

Table 8

Bivariate Correlation Results

		Approximately how many hours a week do you meditate?	Approximately how many hours a week do you pray?	Approximately how many hours a week do you read spiritual scriptures?	STS
Approximately how many hours a week do you meditate?	Pearson *r*	1	**.128***	.074	.106
	Sig. (2-tailed)		.038	.232	.085
	N	264	264	264	264
Approximately how many hours a week do you pray?	Pearson *r*	**.128***	1	**.287****	.010
	Sig. (2-tailed)	.038		.000	.873
	N	264	264	264	264
Approximately how many hours a week do you read spiritual scriptures?	Pearson *r*	.074	**.287****	1	-.096
	Sig. (2-tailed)	.232	.000		.121
	N	264	264	264	264
STS	Pearson *r*	.106	.010	-.096	1
	Sig. (2-tailed)	.085	.873	.121	
	N	264	264	264	264

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Pearson correlations were performed to examine the relationship between frequency of participation in spiritual-based self-care practices and STS. Previous examination of histograms indicated that the distribution shapes of the frequency of participation in spiritual-based self-care practices were not normal. Instead, they were

negatively skewed. Most scores were close to the low end of the scale, indicating the existence of a floor effect. However, Pearson correlation results indicated that prayer was significantly correlated with meditation ($r = .128$, $p<.05$) and reading spiritual scriptures ($r = .287$, $p<.01$). Correlation results indicated that none of the independent variables was significantly correlated with STS.

When evaluating whether frequency of participation in spiritual-based self-care practices predicted U.S. psychologists' STS, overall multiple regression analyses (see Table 9) also indicated that meditation, prayer, and reading spiritual scriptures had no significant influence on the outcome variable. Therefore, the null hypothesis for research question 3, which assumed that there was no significant relationship between spiritual-based self-care practices and STS, could not be rejected.

Table 9

Multiple Regression Results

	Sum of Squares	df	Mean Square	F	Sig.
Regression	150.201	3	50.067	2.020	.112[b]
Residual	6445.238	260	24.789		
Total	6595.439	263			

a. Dependent Variable: STS

b. Predictors: (Constant), Frequency of participation in meditation, prayer, and reading spiritual scriptures.

Although it was out of the scope of this study, it is worth noting that most of the participants in the sample endorsed high levels of compassion satisfaction (N = 264; $\bar{x}$ = 41.84; σ = 5.19). These findings could set the stage for future research to study the phenomenon of compassion satisfaction among U.S. psychologists.

Summary

This chapter described data collection and screening procedures, descriptive statistics of the sample, and statistical tests used to answer the research questions and to test the hypotheses. One-way between-subject ANOVA results revealed a significant but small variance in STS between the three groups, and significant but variable differences in the frequency of participation in spiritual-based self-care practices among U.S. psychologists in different religious identity groups. However, results were highly influenced by extremely low STS scores and frequency of participation in spiritual-based self-care practices. Although participation in prayer was significantly correlated with meditation and reading spiritual scriptures, frequency of participation in these spiritual-based self-care practices had no significant influence on U.S. psychologists' STS. The implications and interpretation of these findings in relation to the current literature are discussed in Chapter 5.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The aim of this study was to analyze the variations in STS levels and frequency of participation in spiritual-based self-care practices between religious, nonreligious but spiritual, and nonreligious U.S. psychologists. The objective was also to explore the effect of frequency of participation in meditation, prayer, and reading spiritual scriptures on U.S. psychologists' level of STS. This study arose from lack of literature on STS among practicing psychologists, as well as from recommendations that future studies investigate the palliative role of spiritual-based self-care practices (Günüsen et al., 2018; Johansen et al., 2019; Rzeszutek et al., 2015; Shannonhouse et al, 2016).

Results in Chapter 4 indicated that there were significant differences in terms of STS levels between the three religious groups. Nonreligious but spiritual psychologists reported more symptoms of STS than religious and nonreligious psychologists. However, the significance of variation was small, and most individuals reported low levels of STS.

Results from the study also confirmed significant differences in terms of frequency of participation in spiritual-based self-care practices. Nonreligious but spiritual psychologists reported significantly more participation in meditation than religious and nonreligious psychologists, and religious psychologists reported significantly more participation in prayer and reading spiritual scriptures than their

nonreligious and nonreligious but spiritual counterparts. However, significance levels varied between the groups.

Results showed no statistically significant relationship between frequency of participation in spiritual-based self-care practices and STS. In other words, participation in meditation, prayer, and reading spiritual scriptures had no significant effect on respondents' STS. Although this study did not involve compassion satisfaction, most participants in this study reported high levels of satisfaction with the work they do as psychologists. This chapter provides an interpretation of the findings from this study, as well as a description of the limitations and recommendations for future research.

Interpretation of Findings

The ProQOL theory hypothesizes that STS arises from work-related, secondary exposure to traumatic material (Stamm, 2010). Research has repeatedly confirmed this assertation by finding significant relationships between providing intervention to traumatized clients and the emergence of post-traumatic-like symptoms among helping professionals (Günüsen, Wilson & Aksoy, 2018; Johansen, Kristiansen, Bjelland & Tavakoli, 2019; Rzeszutek, Partyka & Gołąb, 2015; Shannonhouse, Barden, Jones, Gonzalez & Murphy, 2016). However, the ProQOL theory also assumes that satisfaction also comes from helping traumatized individuals.

Although it was not the purpose of this study, results confirmed Stamm's (2010) assumptions that satisfaction can be found in the work psychologists do as mental healers and that the person environment can either increase or decrease the risk for STS. Nonreligious but spiritual psychologists reported the most STS symptoms, despite being

the group with most participation in meditation. Conversely, nonreligious psychologists reported the least number of STS symptoms, regardless of being the group with the least amount of participation in spiritual-based self-care practices. This contradicts most of the literature in favor of the ameliorating role of meditation, prayer, and reading spiritual scriptures among mental health providers (Aberilla, 2016; Bonamer & Aquino-Russell, 2019; Chirico, 2017; Harris, 2013; Heeter et al., 2017; Hinderer et al., 2014; Jacobson & Stallwood, 2018; LaBarbera & Hetzel, 2016).

Results from this study confirmed the conclusions made by Sharp Donahoo et al. (2018) and Visker et al. 2017) who found no significant correlations between meditation, prayer, and reading spiritual scriptures and STS. Moreover, findings from this study reveal that U.S. psychologists experience little STS and that participation in spiritual practices has no effect on their reported STS symptoms. However, consideration must be given to several limitations.

Limitations of the Study

The primary limitation of this study was related to the convenient nature of sampling procedures. Since this study focused primarily on STS levels and frequency of participation in spiritual-based self-care practices among U.S. psychologists, results cannot be generalized to psychologists from other countries, nor to other professions. Also, due to the cross-sectional design of this study, results only captured experiences involving STS and spiritual-based practices at one moment in time. Therefore, current levels of STS and frequency of participation in spiritual-based practices can change over time.

A second limitation of this study related to the self-reporting nature of the ProQOL-5 and survey questions. There is no way to know from this study if psychologists under or overreported their level of STS. Also, because participants were asked to report the approximate number of hours a week they participated in spiritual-based practices, it is unknown whether the reported frequency of participation was accurate. Measuring these variables through direct observation or experimental studies should be considered.

Recommendations

Considering the limitations of this study, several recommendations for future studies have been identified. Future researchers may consider conducting longitudinal studies to evaluate changes in U.S. psychologists' STS and frequency of participation in spiritual-based self-care practices over time. Performing an experimental design where participants are randomly assigned to experimental and control groups can also be beneficial. Establishing a controlled environment where participants in the experimental group are exposed to the same amount or frequency of treatment as well as administering pre- and post-tests can help in terms of evaluating effects of spiritual-based self-care practices on STS.

Also, future researchers may consider understanding why U.S. psychologists experience low levels of STS and the role the person, work, or client environment plays in promoting low STS. Future studies can also consider researching the phenomenon of compassion satisfaction among psychologists and the factors that promote it. Lastly, consideration should be given to the effects of psychologists' attitudes about spiritual

practices and personal distress on their participation in meditation, prayer, and reading spiritual scriptures and self-reported level of STS.

Implications

Contrary to Sherba et al. (2019), who suggested that 15% to 34% of mental health providers (psychologists included) consider early retirement or changing careers due to work-related traumatic experiences, this study found that U.S. psychologists in general experience low levels of STS from the work they do. Instead, they reported feeling content with their work. Therefore, social change implications involve maintaining U.S. psychologists' continued satisfaction in their work.

Rather than concentrating on intervention, the field of psychology could focus on prevention. Considering the low levels of STS endorsed by participants, identifying ways to maintain this level of emotional functioning could help psychologists abide to their ethical standards, which requires they ensure personal problems do not interfere with their work (APA, 2010). Also, preventing the emergence of STS among psychologists could promote quality services to patients through psychologists' full attention on and investment in their care. Lastly, considering that there was no significant relationship between participation in spiritual-based self-care practices and STS, the field of psychology can consider identifying other, more successful forms of prevention (e.g., increased self-awareness of personal problems).

Conclusion

Results from this study suggest that U.S. psychologists are currently experiencing minimal STS, and that the frequency of their participation in spiritual-based self-care

practices was not associated with this level of emotional functioning. Although it was out of the scope of this study, participants endorsed high levels of satisfaction with the work they do. Therefore, attention should be given to prevention instead of intervention. It should be noted, however, that U.S. psychologists' experiences change as their professional roles, clientele, and personal history evolve. Consequently, monitoring of U.S. psychologists' performance and emotional functioning over time, as well as promoting preventive measures as appropriate, is advised.

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Appendix A: List of Key Terms and Key Term Combinations Used for Literature Search

Key Terms	Key Term Combinations
• Secondary traumatic stress • Symptoms • Turnover intention • Quality of care • Patient care • Quality of service • Mental health providers • Counselors • Psychologists • Spirituality • Meditation • Prayer • Spiritual scriptures • Professional quality of life • ProQOL-5	• Secondary traumatic stress <AND> symptoms <AND> counselors <OR> therapists <OR> psychologists <OR> psychotherapists. • Secondary traumatic stress <AND> quality of care <OR> patient care <OR> quality of service <AND> counselors <OR> therapists <OR> psychologists <OR> psychotherapists. • Secondary traumatic stress <AND> turnover intention <AND> counselors <OR> therapists <OR> psychologists <OR> psychotherapists. • Prayer <AND> secondary traumatic stress <AND> counselors <OR> therapists <OR> psychologists <OR> psychotherapists. • Meditation <AND> secondary traumatic stress <AND> counselors <OR> therapists <OR> psychologists <OR> psychotherapists. • Spiritual scriptures <AND> secondary traumatic stress <AND> counselors <OR> therapists <OR> psychologists <OR> psychotherapists. • Professional quality of life <AND> meditation <OR> prayer <OR> spiritual scriptures • ProQOL-5 <AND> validity <AND> reliability

Appendix B: Initial Participation Inquiry Email Sent to All 50 State Psychological Associations

January 2020

To whom it may concern,

I am a doctoral student in Clinical Psychology through Walden University, and I am in my dissertation phase. I will be studying the effects of spiritual-based self-care practices on U.S. psychologists' level of secondary traumatic stress. I expect to begin collecting data around Fall 2020, and I was wondering if the [State] Psychological Association helps distribute requests for participation in doctoral research to your members through your member listserv. If so, what would that process be?

Regards,

Luis R. Sanchez, MS
Doctoral Student in Clinical Psychology
Walden University

Appendix C: State Psychological Associations' Responses to Initial Participation Inquiry Email

Arizona Psychological Association

Hi Luis,

I apologize for the late response, as I missed your email earlier. The association doesn't post requests, but allows members to do so using the ListServ. You may create an email with details regarding participation in the research with an email address provided for replies, and send to azpalists@lists.apa.org.

Please let me know if you need any further assistance.

Kansas Psychological Association

Good Evening,

Certainly, we would be happy to post your research information. If you can send me the following when you're ready, we can post:

Title: Title of research study
Link: Link to study
Announcement: 3-6 sentences regarding research

Minnesota Psychological Association

Hi Luis,

Thank you for reaching out. MPA's policies and procedures state that anybody who wishes to conduct research with MPA members must have approval by an Institutional Review Board and must be able to document and provide that approval to the MPA Executive Committee.
When you're ready to request that we send your research study to our members, we ask that you send us the following:

- Copy of your IRB approval
- List of your survey questions for the committee to review
- Instructions/message to send out in an email to survey participants
- Abstract/description of your study

We will then pass these documents along to the MPA Executive Committee to review for potentially helping with your research.

Please let me know if you have any questions.

Oregon Psychological Association

Hi Luis,

Thank you for reaching out to OPA! We would love to have the opportunity to help with your research - our listserv guidelines call for IRB-approved research. Here is the specific information to help you:

OPA members may post IRB-approved research participation requests if the member is on the research team. The announcement should include both a disclosure of the member's role (e.g., "principal investigator") and a statement that IRB approval has been obtained. **Nonmembers or members assisting nonmembers (such as their colleagues, students, or members of other listservs) must send research participation requests to OPA. Generally speaking, only IRB-approved research participation requests will be considered for posting. Review of nonmember requests will be performed by the association's executive director, president, or other board members as needed to evaluate the request.**

Tennessee Psychological Association

Hi Luis,

Once you are ready, I'll be happy to get your study posted. All you need to do is email me with the information participants will need; this usually includes an information letter (including a statement of IRB approval) and a link to the online survey. If you could include the dates/how long you would like it posted, that would also be helpful.

I will look forward to hearing from you later this year.

Wyoming Psychological Association

Send me your proposal and data-collection link. I'll look it over and distribute it, if appropriate.

Appendix D: Recruitment Email Sent to Participating State Psychological Associations

[Date]

Dear [Recipient name],

A few months ago, I reached out to your organization asking about the possibility for me to share a request for research participation in your association's listserv. Once again, thank you for your cooperation and willingness to share my request for research participation. I have received IRB approval, and it is now time to begin collecting data for my study. Below is a summary of my study and an invitation for members of your association to participate in it. Also, attached is a copy of the IRB approval notice, the abstract of my study, and a PDF document of the online survey your members would be answering. Feel free to let me know if you have any questions.

Forever grateful,

Luis R. Sanchez, M.S.
PhD Student in Clinical Psychology
Walden University

*** Searching for Research Participants ***

Study title: Secondary Traumatic Stress and Spiritual Practices Among U.S. Psychologists: A Quantitative Study

IRB Approval #: 06-05-20-0676648

The purpose of this study is to explore the mitigating role of spiritual-based self-care practices on U.S. psychologists' secondary traumatic stress. **All licensed, practicing psychologists, regardless of their religious identity, are strongly encouraged to participate in this study.** Through this brief, 10-minute survey, you will provide basic demographic information (age, gender, race/ethnicity, and religious identity) and evaluate your professional quality of life. Participation is completely voluntary and confidential. You will not be asked to provide any identifiable information.

Thank you, honestly, for your interest and participation in my study! To complete the survey, click here.

Appendix E: Recruitment Message Posted on Social Media

*** Searching for Research Participants ***

Hello fellow community members!

I have recently received IRB approval to begin collecting data for my dissertation study. The purpose of my research is to explore the mitigating role of spiritual-based self-care practices on U.S. psychologists' secondary traumatic stress. **Each of you, regardless of your religious identity, is strongly encouraged to participate in this study.**

It should take you no more than 10 minutes to complete the survey. You will be asked to provide basic demographic information (age, gender, race/ethnicity, and religious identity) and evaluate your professional quality of life. Of course, participation is completely voluntary and confidential. You will not be asked to provide any identifiable information, so your identity will remain unknown even to me.

Thanks in advance for your help! To complete the survey, click here.

IRB Approval #: 06-05-20-0676648

Appendix F: Permission to Use ProQOL Copy Righted Material

February 1, 2020

I am conducting a doctoral capstone research on the effects of self-care on U.S. psychologists' level of secondary traumatic stress (STS). The professional quality of life model will inform my study, and I was requesting permission to publish the diagram of the model in my dissertation to help readers understand how STS is an element of compassion fatigue. I have already requested permission to use the ProQOL for my study, but I am needing permission to publish the ProQOL diagram in my dissertation as well.

Any guidance on how to obtain this permission is greatly appreciated.

Regards,

Luis R. Sanchez, MS
PhD Student in Clinical Psychology
Walden University

March 29, 2020

Hello,

Yes, please consider this email your permission as long as you cite the diagram.

Best wishes in your work,

ProQOL Office
The Center for Victims of Torture

Appendix G: Permission to Use ProQOL-5

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

Name

Luis R. Sanchez

Organization Name, if applicable

Country

United States

Please tell us briefly about your project:

I am conducting a doctoral capstone project on the effects of self-care on U.S. psychologists' level of secondary traumatic stress.

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

U.S. psychologists

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 to www.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

Appendix H: Consent Form for Participating in Study

What the study is about
The purpose of this study is to explore the mitigating role of spiritual-based self-care practices on U.S. psychologists' secondary traumatic stress.

Inclusion criteria
Since secondary traumatic stress arises from work-related, secondary exposure to traumatic material, participation in this study requires that you be a practicing psychologist within the United States. "Practicing psychologist" encompasses every professional who is actively *working* in the field, regardless of whether you work in an academic, clinical, business, or other setting.

What you will be asked to do
You will be asked to provide demographic information (age, gender, and race), identify your religious identity, report how often you engage in spiritual-based self-care (if applicable), and answer a 30-item, multiple-choice questionnaire about your professional quality of life. The survey should take about 10 minutes to complete. You cannot progress through or submit your survey unless all questions have been answered. Once you have answered all the questions, you can submit your survey by clicking the "Submit" button at the end.

Voluntary participation
Your participation in this study is greatly appreciated; but, please know that your participation is voluntary, and you have the right to decline or discontinue your participation at any time. To do so, simply close your Internet browser at any time during the survey. If you personally know the researcher, be assured that declining or discontinuing your participation will not negatively impact your relationship with him.

Risks and discomforts
Your participation in this survey presents no greater risk than everyday use of the Internet. However, individuals who are struggling with STS or burnout may be emotionally triggered by the contents in the 30-item questionnaire. If you are triggered by this survey and believe you may need support, please contact the SAMHSA National Helpline (toll-free) at 1-800-662-4357.

Benefits
There are no direct benefits or remuneration for participating in this study. However, your responses could help evaluate the prevalence of STS among the U.S. psychology workforce and inform the efficacy of spiritual-based practices in mitigating its effects. Your participation could also help identify coping mechanisms that are empirically validated to help psychologists fight against STS.

Confidentiality and privacy

Please note that the survey being conducted with the help of Survey Monkey, a company not affiliated with Walden University, has its own privacy and security policies that you can find at its website. However, as an extra precaution, you will not be asked to provide any personal identifiable information and all data will be used for research purposes only. Electronic files will be stored on a password-protected computer accessible only by the researcher.

If you have any questions

The main researcher conducting this study is *Luis R. Sanchez, M.S.*, a doctoral student at Walden University. If you have questions about the study or this survey, you can contact him at luis.sanchez3@waldenu.edu. If you want to talk privately about your rights as a participant, you can call Walden University's Research Participant Advocate at 612-312-1210.

Note: Please print a copy of this consent form for your records.

☐ By checking this box, you consent to continue with the survey. (Remember, you can opt-out at any time.)

Appendix I: Online Survey and the ProQOL-5

Demographic Information

This information will be used for descriptive purposes

Gender:
- Male
- Female

Race and Ethnicity:
- Asian
- Black/African American
- Hispanic
- White
- Other

Age: ##

Specialization:
- Clinical specialization
- Non-clinical specialization

Work setting:
- Clinical setting
- Non-clinical setting

Religious identity:
- Religious
- Nonreligious, but spiritual
- Nonreligious

Frequency of Participation in Spiritual-based Self-care Practices

Report your frequency of weekly participation (in hours) in meditation, prayer, and reading spiritual scriptures. Indicate with a "0" if you do not engage in these practices.

Note: "Meditation" includes yoga, breathing techniques, mindfulness techniques, etc. "Spiritual scriptures" include the Bible, the Torah, the Quran, etc.

Approximately how many hours a week do you meditate?

Approximately how many hours a week do you pray?

Approximately how many hours a week do you read spiritual scriptures?

Professional Quality of Life (ProQOL-5 Scale)

When you *[help]* people you have direct contact with their lives. As you may have found, your compassion for those you *[help]* can affect you in positive and negative ways. Below are some questions about your experiences, both positive and negative, as a *[helper]*. Consider each of the following questions about you and your current work situation. Select the number that honestly reflects how frequently you experienced these things in the **last 30 days** by selecting the radio button that corresponds to your answer (Never, Rarely, Occasionally, Often, or Very Often).

Note: The terms "help" and "helper" are used loosely to account for the variety of specializations within the field of psychology. You may substitute another noun that better represents yours work, such as: counsel/counselor, assess/psychologist, etc.

Important: if any of the questions on this page are triggering for you, and if you wish to discontinue your participation, simply close your web browser. If you are struggling with secondary traumatic stress and would like support, contact the SAMHSA National Helpline (toll-free) at 1-800-662-4357.

ProQOL-5 Scale (Please respond truthfully. Your identity will remain unknown to the researcher.)

1=Never	2=Rarely	3=Sometimes	4=Often	5=Very Often

___ 1. I am happy.
___ 2. I am preoccupied with more than one person I *[help]*.
___ 3. I get satisfaction from being able to *[help]* people.
___ 4. I feel connected to others.
___ 5. I jump or am startled by unexpected sounds.
___ 6. I feel invigorated after working with those I *[help]*.
___ 7. I find it difficult to separate my personal life from my life as a *[helper]*.
___ 8. I am not as productive at work because I am losing sleep over traumatic experiences of a person I *[help]*.
___ 9. I think that I might have been affected by the traumatic stress of those I *[help]*.
___ 10. I feel trapped by my job as a *[helper]*.
___ 11. Because of my *[helping]*, I have felt "on edge" about various things.
___ 12. I like my work as a *[helper]*.
___ 13. I feel depressed because of the traumatic experiences of the people I *[help]*.
___ 14. I feel as though I am experiencing the trauma of someone I have *[helped]*.
___ 15. I have beliefs that sustain me.
___ 16. I am pleased with how I am able to keep up with *[helping]* techniques and protocols.

___ 17. I am the person I always wanted to be.
___ 18. My work makes me feel satisfied.
___ 19. I feel worn out because of my work as a *[helper]*.
___ 20. I have happy thoughts and feelings about those I *[help]* and how I could help them.
___ 21. I feel overwhelmed because my case [work] load seems endless.
___ 22. I believe I can make a difference through my work.
___ 23. I avoid certain activities or situations because they remind me of frightening experiences of the people I *[help]*.
___ 24. I am proud of what I can do to *[help]*.
___ 25. As a result of my *[helping]*, I have intrusive, frightening thoughts.
___ 26. I feel "bogged down" by the system.
___ 27. I have thoughts that I am a "success" as a *[helper]*.
___ 28. I can't recall important parts of my work with trauma victims.
___ 29. I am a very caring person.
___ 30. I am happy that I chose to do this work.