The Effect of Team Resilient Actions on Compassion Satisfaction Scores in a Primary Care Practice

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May, 2022

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Abstract

Compassion satisfaction has an inverse relationship to compassion fatigue, which includes burnout and secondary trauma. Higher compassion satisfaction levels are associated with positive patient outcomes and lower patient care costs. The purpose of this study was to improve the compassion satisfaction scores of team members at a primary care office in Southeast Virginia. Team members include providers, medical assistants, managers, administrative support, and lab technicians. The attempt to improve compassion satisfaction involved addressing the *sense of community* by actively recognizing and appreciating staff, fostering social connectedness, team membership, collegiality, and team building activities over a 12-week span. The Professional Quality of Life (ProQOL version 5 ©, 2009) survey evaluates compassion satisfaction and compassion fatigue, including burnout and secondary trauma. The team members completed the ProQOL survey prior to and at the completion of the study. The Paired T-test indicated that there was not a significant increase in compassion satisfaction scores from pre-intervention (M = 40.36, SD = 1.80) to the post-intervention (M = 40.29, SD = 1.80); t (13) = .11, p = .457, one-tailed score. However, a statistically significant difference was noted on the burnout category of the ProQOL survey from pre-intervention (M = 25.14, SD = 2.01) to post-intervention (M = 23.36, SD = 1.78); t (13) = 2.08, p = .029, one-tailed. The Cohen's d (d = .56) and the eta squared statistic (η^2 = .25) indicate a medium to large effect size on burnout score. These findings suggest the need to study further and evaluate the group's compassion fatigue and interventions to foster improved professional quality of life.

Keywords: compassion satisfaction, compassion fatigue, burnout, secondary trauma, interventions

Table of Contents

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Healthcare is inherently stressful. The stress of providing healthcare falls under the realm of occupational stress. Occupational stress is defined by the American Psychological Association (2020) as “a physiological and psychological response to events or conditions in the workplace that is detrimental to health and well-being." Healthcare workers suffering from occupational stress can experience deterioration of their quality of life, work performance, and burnout.

Background

Stress is a normal body response to changes or challenges (*Stress*, 2021). Stress response includes physical and psychological reactions. The physical response affects all bodily systems. The body tailors the stress response to the perceived threat. Based on the threat, reactions may be transient or long-term. Transient reactions may include increased heart rate, feeling tense, sweating, or increased respiration. Response to an acute stressor will activate the sympathetic nervous system and the hypothalamic-pituitary-adrenal system, affecting blood flow, oxygen use, and metabolism throughout the body (Chu et al., 2021). The psychological reaction to low-level stress response may be mental clarity, irritability, or worry. Long-term psychological reactions can result in mental health disruptions such as anxiety or depression. (Quick & Henderson, 2016). Ultimately, stress is required for survival, but too much stress or chronic stress can have detrimental results.

Healthcare workers suffering from occupational stress can negatively impact every level of healthcare. Care provided by workers suffering from occupational stress is associated with increased medication errors, decreased patient satisfaction, increased costs of healthcare, increased absenteeism, increased presenteeism, increased turnover, decreased individual

production, increased patient safety incidents, increased malpractice, decreased communication, increased depression, and increased providers leaving the healthcare arena (Bodenheimer & Sinsky, 2014; National Academies of Sciences, Engineering, and Medicine, 2019; Tawfik et al., 2019; Willard-Grace et al., 2019). Work completed by stressed providers carries direct and indirect costs to the organization. Medical errors, which can be a consequence of overly stressed providers, are a leading cause of death and cost approximately $20 billion per year (Rodziewicz et al., 2020). Another consequence of occupational stress is turnover. Provider turnover also carries direct and indirect costs to the health care system. The direct cost of recruiting and replacing a physician ranges from $500,000 to $1,000,000 (Shanafelt et al., 2017). Turnover also negatively impacts other care team members, thus increasing their risk of burnout. In addition to leaving a practice, burnout negatively impacts the provider's productivity. Shanafelt et al. (2017) found that the most significant financial impact results from decreased productivity of the stressed provider.

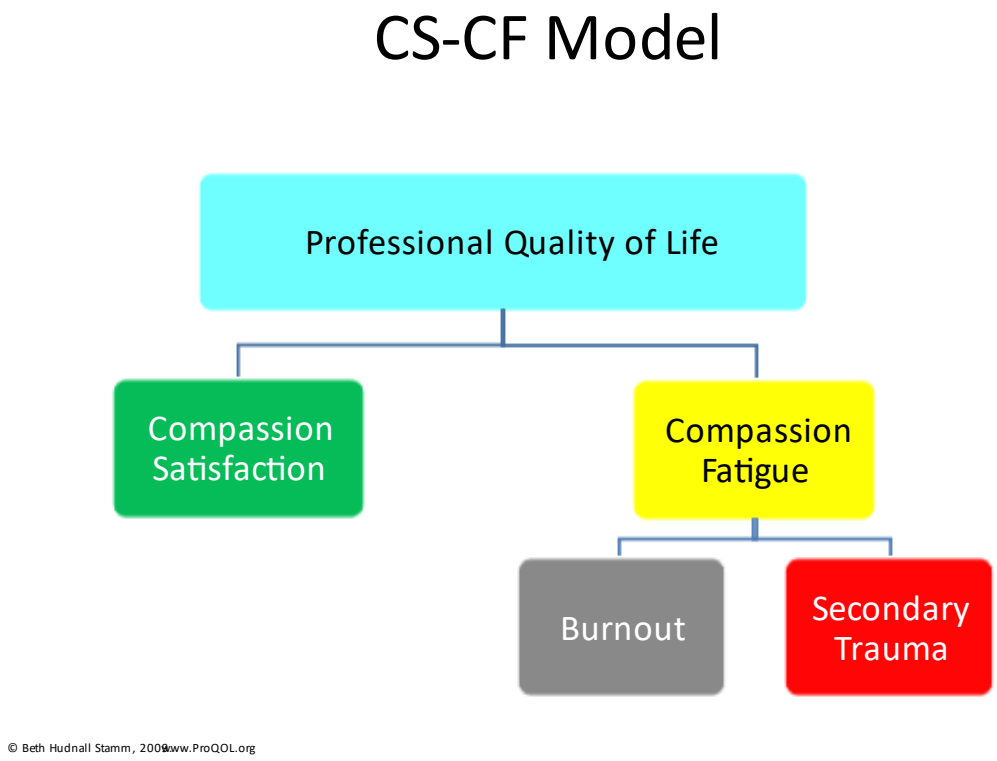
The number of physicians, nurse practitioners, and physicians assistants in primary care in the United States is approximately 470,000 (Agency for Healthcare Research and Quality, 2018; American Association of Nurse Practitioners, 2020; National Commission on Certification of Physician Assistants, 2020). The prevalence of occupation stress among primary care practices is 40% - 50% (Cheney, 2020). According to the Agency for Healthcare Research and Quality (2018), 50% of primary care physicians suffer burnout, a product of occupational stress. Bridgeman et al. (2018) found that 30-50% of primary care nurse practitioners and physician assistants felt or exhibited burnout over the previous year. Based on these statistics, approximately 200,000 (42.5%) primary care providers in the United States suffer occupational

stress annually. Additionally, each of those providers' patients and staff may suffer consequences.

A model that conceptualizes occupational stress is the Professional Quality of Life (ProQOL) Compassion Satisfaction–Compassion Fatigue (CS-CF) model (Stamm, 2010). The ProQOL CS-CF model incorporates the quality of life one feels with their work as a helper. Professional quality of life incorporates the positive and negative aspects of being a helper. The positive aspect of being a helper is identified as compassion satisfaction. Compassion satisfaction is the pleasure derived from doing your work well; it may involve how one feels about the work setting, colleagues, and contribution to the work or society. The negative aspect of being a helper is identified as compassion fatigue. Compassion fatigue can result in burnout or secondary trauma. Figure 1 offers a model of the ProQOLversion 5 © (2009) concept.

Figure 1

Diagram of Professional Quality of Life



Note. This model depicts the positive and negative components of the professional quality of life. CS = Compassion satisfaction. CF = Compassion fatigue.

As one considers how to improve occupational stress, the ProQOL CS-CF model provides a template. Improving or supporting compassion satisfaction should improve the professional quality of life and decrease occupational stress feelings and compassion fatigue. Potter et al.'s (2013) study demonstrated that improved compassion satisfaction resulted in decreased compassion fatigue.

To determine how to support compassion satisfaction, one must identify the sources of stress. Workplace stress is generated at the institution level, the individual level, and the team level. Institutional level generated stressors include productivity demands, administrative demands, use of the electronic health record, work schedules, and inadequate staffing (National Academies of Sciences, Engineering, and Medicine, 2019). Individual stressors include long work hours, dealing with different personnel, balancing home life, and the use of electronic health records (Watson & Westphal, 2020). Team-level stressors contributing to occupational stress include poor communication, resentment, and lack of support (Alexander, 2020).

Mundt and Zakletskaia (2019) found that job satisfaction, which is correlated to compassion satisfaction, in primary care clinics is associated with team-level communication and management practices. Wei et al. (2019) investigated strategies to foster nurse resilience and identified seven successful strategies: facilitating social connections, promoting positivity, capitalizing on nurses' strengths, nurturing nurses' growth, encouraging self-care, fostering mindfulness practices, and conveying altruism.

Considering the prevalence of job dissatisfaction and how the negative aspects of the ProQOL, compassion fatigue, impact healthcare systems, patients, and providers, steps must be taken to improve and support the primary care team members' compassion satisfaction. The purpose of this project is to answer the study question: In healthcare workers who work in a

primary care setting, what is the best evidence for team-based interventions that influence perceived job stress that can be evaluated in 12 weeks?

Methods

A systematic literature review was conducted to examine the best evidence for team-based interventions that influence perceived job stress. Four databases were searched: Web of Science (WoS), PubMed, Cumulative Index to Nursing and Allied Health Literature (CINAHL), and PsycInfo. The words primary care, ambulatory care, burnout, compassion satisfaction, and nurse practitioner were employed. Search limiters were publication date within the last five years (2016-present) and English language.

A basic WoS search of the words using the limiters of publication from 2016 to present and English language produced: primary care (113,321), ambulatory care (6,942), burnout (16,218), compassion satisfaction (1,141), nurse practitioner (7,693). A search using the string *((“primary care”) OR (“ambulatory care”)) AND ((“burnout”) OR (“compassion satisfaction”)) AND nurse practitioner* identified 35 articles. The WoS full search strategy was: TOPIC**:** ((("primary care") OR ("ambulatory care")) AND (("burnout") OR ("compassion satisfaction")) AND Nurse practitioner) Refined by: LANGUAGES**:** (ENGLISH) AND PUBLICATION YEARS**:** (2021 OR 2018 OR 2020 OR 2017 OR 2019 OR 2016) Timespan**:** All years. Indexes: SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC.

The PubMed search of the words using the limiters of publication within the last 5 years and English language produced: primary care (171,726), ambulatory care (17,267), burnout (8,182), compassion satisfaction (1,110) and nurse practitioner (6,233). An advanced search using the string *((“primary care”) OR (“ambulatory care”)) AND ((“burnout”) OR*

(“compassion satisfaction”)) AND nurse practitioner identified 28 articles. The complete search as the database lists it as: (("primary care"[All Fields] OR "ambulatory care"[All Fields]) AND ("burnout"[All Fields] OR "compassion satisfaction"[All Fields]) AND ("nurse practitioners"[MeSH Terms] OR ("nurse"[All Fields] AND "practitioners"[All Fields]) OR "nurse practitioners"[All Fields] OR ("nurse"[All Fields] AND "practitioner"[All Fields]) OR "nurse practitioner"[All Fields])) AND ((y_5[Filter]) AND (english[Filter]))

The CINAHL basic search of the words using the limiters of publication from January 2016–December 2021 and English language produced: primary care (65,739), ambulatory care (8,649), burnout (8,698), compassion satisfaction (579), and nurse practitioner (9,010). A search using the string *((“primary care”) OR (“ambulatory care”)) AND ((“burnout”) OR (“compassion satisfaction”)) AND nurse practitioner* identified 27 articles. The expander “apply equivalent subjects” and search mode “find all my search terms” were used.

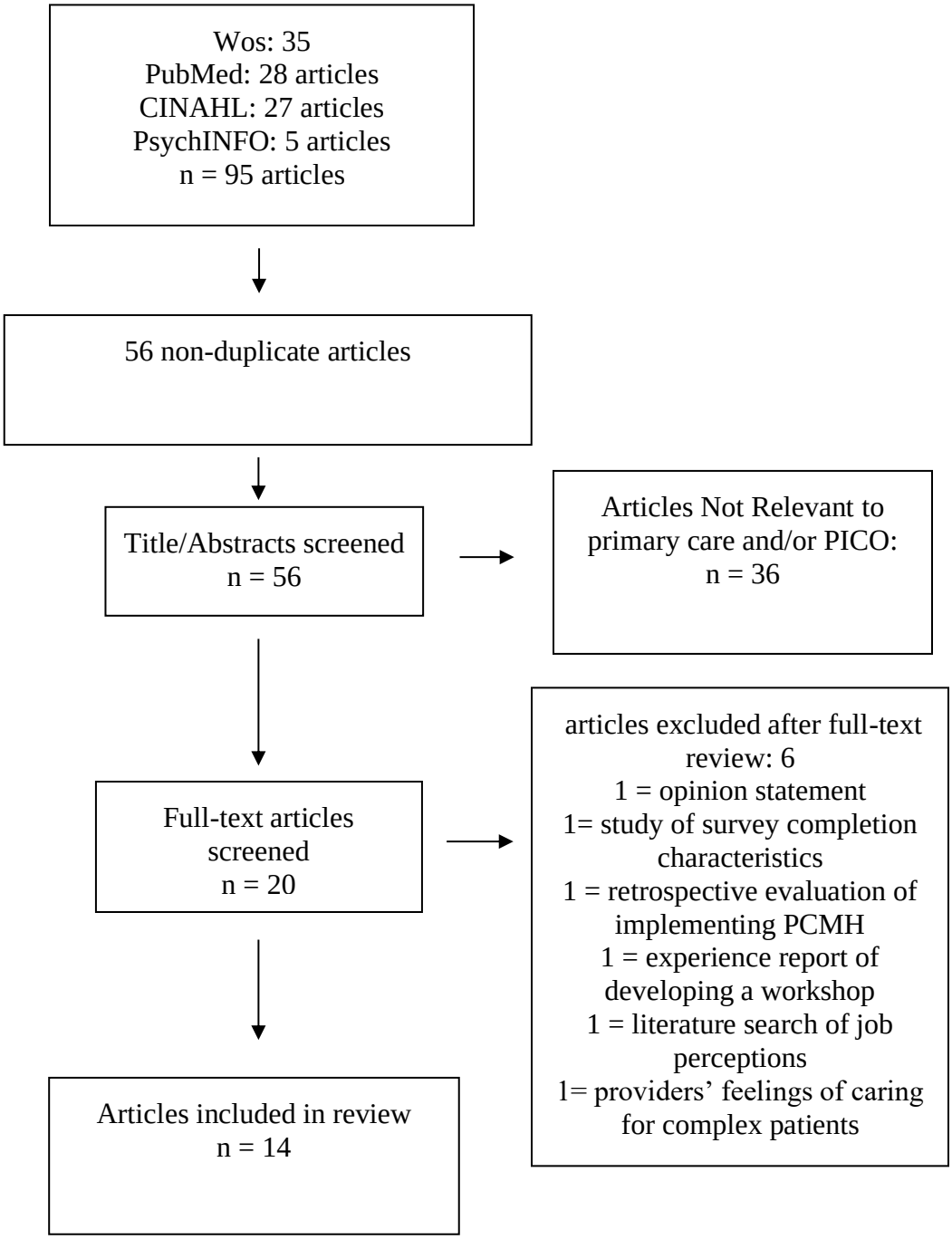
The PsychInfo advanced search of the words using the limiters of publication from January 2016 – December 2021 and English language produced: primary care (21,900), ambulatory care (1,968), burnout (6,320), compassion satisfaction (996), and nurse practitioner (1,553). A search using the string *((“primary care”) OR (“ambulatory care”)) AND ((“burnout”) OR (“compassion satisfaction”)) AND nurse practitioner* identified 5 articles. The PsychInfo search used the expanders: apply related words; also search within the full text of the articles; apply equivalent subjects and search modes- find all my search terms.

The search of the four databases yielded 95 articles. Removal of duplicate articles reduced the number to 56 articles. Title and abstract review resulted in the removal of 36 articles as they were not relevant to primary care or the study question. The majority of removed articles were due to practice locations other than primary care. The other location sites included the

emergency department, pediatrics, urology, mental health, and stroke unit. Several of the removed articles addressed nursing and medical education curricula and gaps in training. Another reason for removal was the subject matter involved using nurse practitioners or physician assistants to reduce physician workloads. Other articles were not retained as they addressed patient satisfaction scores, non-medical worksites, patient access, and survey development. Twenty articles remained for full-text review. After full-text reading, six articles were not research or not relevant to the study question. One article was an editorial; another addressed participation in a survey-based study; another offered the experiences of a team implementing the patient-centered medical home model in the Veterans Administration (VA) system; another article was an experience report on the development of a workshop program; one article was a review of the empirical literature regarding nurse practitioners' and physician assistants' feelings toward their jobs; and finally, the sixth article removed evaluated clinician's feelings caring for complex patients. The number of articles retained for analysis is 14. Figure 2 depicts the search results and process using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram (Moher et al., 2009). Appendix A provides a chart of the retained articles with pertinent information.

Figure 2

Prisma flow diagram



Analysis and Synthesis of Evidence

The Johns Hopkins Nursing Evidence-Based (JHNEB) (Dang & Dearholt, 2017) evidence rating scales were used with permission (see Appendix B) to evaluate the remaining 14 studies (Figure 3). The highest evidence level was III, with almost 86% of the studies falling into this category. Two studies were level V. Bruhl et al. (2020), a level V, was retained as it offered an insight into characteristics of the primary care teams and their feelings of burnout. The Duhoux et al. (2017), an integrative review, and therefore a level V, was retained because it addressed primary care workers and specific interventions directly related to the study question of interest. The quality of the evidence was A or B for the quantitative studies and A/B for the qualitative studies. Aside from the Bruhl et al. (2020) and Duhoux et al. (2017) studies, the studies were quantitative or qualitative studies. Linzer et al. (2016) offered a mixed-method study. All studies attained at least a B quality rating.

The nature of the area of interest, workers' perceptions of work environments and stressors, limits the ability to conduct experimental studies and serves as a barrier to level I or II strength studies. The area of interest is an emerging field, and the studies provide insight into the current body of knowledge and support the design of future intervention studies to contribute to the body of knowledge.

The strength of the evidence is limited by the descriptive level of the studies and the lack of specific intervention outcome studies. The Duhoux et al. (2017) and the Magallón-Botaya et al. (2021) studies were the only studies that measured intervention outcomes. Another limitation is the study populations of the Duhoux et al. (2017) and the Magallón-Botaya et al. (2021) studies. Douhoux et al. (2017) studied registered nurses; Magallón-Botaya et al. (2021) studied physicians and nurses. Of the seven studies, Duhoux et al. (2017) reviewed, only two were

conducted in the United States; the other studies were conducted in the United Kingdom, Australia, the Netherlands, and Norway. Magallón-Botaya et al. (2021) conducted their study in Spain. None of the studies addressed interventions with teams.

Figure 3

Johns Hopkins Nursing Evidenced Based rating system

JHNEBP EVIDENCE RATING SCALES

STRENGTH of the Evidence	
Level I	Experimental study/randomized controlled trial (RCT) or meta analysis of RCT
Level II	Quasi-experimental study
Level III	Non-experimental study, qualitative study, or meta-synthesis.
Level IV	Opinion of nationally recognized experts based on research evidence or expert consensus panel (systematic review, clinical practice guidelines)
Level V	Opinion of individual expert based on non-research evidence. (Includes case studies; literature review; organizational experience e.g., quality improvement and financial data; clinical expertise, or personal experience)

QUALITY of the Evidence			
A	High	Research	consistent results with sufficient sample size, adequate control, and definitive conclusions; consistent recommendations based on extensive literature review that includes thoughtful reference to scientific evidence.
		Summative reviews	well-defined, reproducible search strategies; consistent results with sufficient numbers of well defined studies; criteria-based evaluation of overall scientific strength and quality of included studies; definitive conclusions.
		Organizational	well-defined methods using a rigorous approach; consistent results with sufficient sample size; use of reliable **and** valid measures
		Expert Opinion	expertise is clearly evident
B	Good	Research	reasonably consistent results, sufficient sample size, some control, with fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence
		Summative reviews	reasonably thorough and appropriate search; reasonably consistent results with sufficient numbers of well defined studies; evaluation of strengths and limitations of included studies; fairly definitive conclusions.
		Organizational	Well-defined methods; reasonably consistent results with sufficient numbers; use of **reliable and valid** measures; reasonably consistent recommendations
		Expert Opinion	expertise appears to be credible.
C	Low quality or major flaws	Research	little evidence with inconsistent results, insufficient sample size, conclusions cannot be drawn
		Summative reviews	undefined, poorly defined, or limited search strategies; insufficient evidence with inconsistent results; conclusions cannot be drawn
		Organizational	Undefined, **or** poorly defined methods; insufficient sample size; inconsistent results; undefined, poorly defined or measures that lack adequate reliability or validity
		Expert Opinion	expertise is not discernable or is dubious.

**A study rated an A would be of high quality, whereas, a study rated a C would have major flaws that raise serious questions about the believability of the findings and should be automatically eliminated from consideration.*

Newhouse R, Dearholt S, Poe S, Pugh LC, White K. The Johns Hopkins Nursing Evidence-based Practice Rating Scale. 2005. Baltimore, MD, The Johns Hopkins Hospital; Johns Hopkins University School of Nursing.

Upon appraisal of the evidence, the following themes emerged: (a) external contributors to burnout and low professional fulfillment, (b) internal contributors to burnout and low professional fulfillment, and (c) interventions. Burnout was a theme and measure in the literature. Clinician burnout is a syndrome of emotional exhaustion, depersonalization, and a sense of low personal efficacy (Maslach & Jackson, 1981). Applying the ProQOL CS-CF model, burnout is a result of compassion fatigue. A thematic analysis provided a foundation for answering the study question: In healthcare workers who work in a primary care setting, what is the best evidence for team-based interventions that influence perceived job stress that can be evaluated at 12 weeks? Identifying the contributors to burnout and professional fulfillment provides the foundation for identifying interventions to support or improve compassion satisfaction among primary care team members.

External Contributors to Burnout and Low Professional Fulfillment

External contributors are those things perceived as outside the providers' and team members' control. These contributors can be generated at the institutional or team level. Agarwal et al. (2020) categorized the external contributors as the quantity of work, the content of work, and responsibility-authority mismatch. Quantity of work includes such characteristics as the number of patients, inbasket management, unrealistic expectations, schedule control, and panel size (Agarwal et al., 2020; Linzer et al., 2016; Linzer et al., 2019). Content of work included clerical work, non-doctor work, billing, phone call management, electronic record management, and staff support (Agarwal et al., 2020; Anderson et al., 2020; Apaydin et al., 2020; Linzer et al., 2019). Responsibility-authority mismatch involves relationships with specialists, leaving many primary care providers (PCP) feeling a lack of boundaries and that they are the default to all care,

including medication refills and interpretation of results ordered by specialists (Agarwal et al., 2020; Anderson et al., 2020; Apaydin et al., 2020).

Addressing the external contributors offers opportunities for developing interventions to improve compassion satisfaction. As these issues are external, they will require organizational change and the implementation of new policies. The organization would have to address care models, patient expectations, provider reimbursement, team management, electronic record and documentation expectations, and metrics to change the external contributors. The level of change demanded to address the external contributors would require extensive evaluation of options and financial impact evaluation; however, surveying the primary care workforce could inform such initiatives.

Internal Contributors to Burnout and Low Professional Fulfillment

Internal contributors are how providers and team members perceive their work and work environment. Agarwal et al. (2020) categorized the internal contributors as demoralization, undervaluation, and internal conflict. Demoralization involves the feeling of never feeling the "work" is done (Agarwal et al., 2020). Electronic health records and feelings of loss of control of daily workload contribute to demoralization (Agarwal et al., 2020; Apaydin et al., 2020; Linzer et al., 2016). Undervaluation is feeling pressured to create relative value units (RVU), being paid by RVUs, not feeling able to take time off, and lack of support by administration (Abraham et al., 2021; Agarwal et al., 2020; Apaydin et al., 2020; Edwards et al., 2018; Linzer et al., 2016; Linzer et al., 2019; Poghosyan et al., 2020). Internal conflict is feeling a disconnect between work and patient experience. Examples of this feeling of disconnect are typing in the room with the patient rather than giving the patient full attention, skipping lunch, not staying abreast of medical literature, feeling moral distress with care coordination, lack of collegiality or sense of

team, and lack of trust with the organization (Abraham et al., 2021; Agarwal et al., 2020; Anderson et al., 2020; Grumbach et al., 2019; Linzer et al., 2019).

While the external contributors impact the internal contributors, they are feelings or perceptions and are modifiable by actions and interventions. The actions and interventions can be at the individual, team, and organizational levels. An example of individual-level intervention is resilience training activities. Resilience training can take many forms, including formal classes, mindfulness acts, and the use of apps on one's phone. Implementation of team and organizational interventions to address members' feelings and perceptions can be planned, implemented, and evaluated.

Interventions

Several studies presented suggestions to reduce resistance and the risk of burnout. The suggested interventions are primarily at the organizational and the individual level. Abraham et al. (2021) suggested supporting a healthy primary care practice environment with open communication, collegial relationships, visibility and professional growth opportunities, and a sense of community. Agarwal et al. (2020) listed "solutions to burnout (p. 399)" as: (a) help PCPs manage the workload, (b) care for PCPs as multidimensional human beings, (c) encourage off-duty PCPs to disconnect from work, (d) recalibrate expectations and reimbursement, (e) promote the PCPs' voice, (f) support professionalism, (g) foster community, and (h) advocate reforms beyond the institution. The multifaceted solution proposed by Agarwal et al. (2020) is accomplished by hiring additional staff, off-loading tasks from PCPs, supporting staff, promoting retention, examining PCP workflows, instituting family-friendly policies, promoting workplace safety, providing answering services after hours, compensating for work done apart from office hours, revaluating targets (numbers of patients seen per day, patient panels, and RVUs), opening

lines of communication, aligning the medical system with professional values, eliminating or redesigning pay-for-performance initiatives, providing time and opportunities to get to know colleagues, reducing documentation requirements, and increasing reimbursement from payers. Offering similar suggestions, Linzer et al. (2016) recommend reduced reliance on RVU, accounting for indirect work, values alignment, support of part-time status, and explicitly supporting balance. While Agarwal et al. (2020) and Linzer et al. (2016) offered multifactorial and multi-level interventions to improve the primary care workplace, Bruhl et al. (2020) looked at one element of the environment, team composition, finding that primary care teams consisting of both physicians and nurse practitioners or physician assistants had lower levels of emotional exhaustion than those without nurse practitioners or physician assistants. Dai et al. (2020) also looked at team configurations and the relationship to burnout, finding a strong association between a multidisciplinary team's perceived teamwork optimal efficiency and reduced burnout in team members. Dai et al. (2020) submit that perceived optimal teamwork efficiency is protective against burnout. Yuguero et al. (2017) observed a significant association between high empathy and low burnout, finding that depersonalization and accomplishment were two domains that significantly impacted burnout and empathy scores; addressing personal accomplishments and making the work environment personal may increase team members' empathy, lower burnout, and improve compassion satisfaction scores. Trust is a variable of effective teams (Kouzes & Posner, 2017). Linzer et al. (2019) found that trust is associated with job satisfaction and less stress and can be supported and gained with modifiable work conditions. The modifiable work conditions included values alignment, work control, emphasis on quality versus production, and communication. Magallón-Botaya et al. (2021) looked at a single intervention to address stress at work: mindfulness. Magallón-Botaya et al. (2021) observed an inverse relationship

between the level of practicing mindfulness exercises and the level of work-related stress. Edwards et al. (2018) examined primary care practice size and relation to burnout; primary care team members of small primary care team offices that are health system owned were found to have higher burnout scores than workers in solo practices and larger practices. Edwards et al. (2018) suggest strategies to minimize burnout risk to include "promoting agency, enhancing intrinsic motivation, and creating work environments that ensure team members feel valued, engaged, and perform personalized work (p. 2144)." Grumbach et al. (2019) found that burnout trends among staff moved in the opposite direction of the clinicians during practice transformation, and caution that practice transformation interventions must include all team members.

While many authors offered suggestions for interventions, Duhoux et al. (2017) conducted an integrative review of interventions that improve burnout and stress. The review identified only seven studies that evaluated interventions and found that burnout and stress can be improved with multiple interventions at the individual, environment, and organization levels. The intervention studies Duhoux et al. (2017) reported were a 5-day course for nurses that taught mindfulness and other relaxation exercises, counseling sessions, and social gatherings; two studies were "train the trainer" models to teach professionals restorative actions at the personal level; two studies assessed the effects of 8-week mindfulness continuing education course for individual nurses; another study was an 8-hour interactive workshop for individuals to resolve stressors; and the last study reviewed offered interventions at multiple levels that involved increased funding for education, social skills training, employee benefit modifications, additional personnel, and safety at work initiatives. Duhoux et al. (2017) reported that all seven studies positively impacted some outcomes; the authors cautioned as they found the studies had

moderate–weak methodological quality. Despite the support of interventions to improve mental health, Duhoux et al. (2017) found no randomized control trials.

A gray literature search was conducted to assess for potential publication bias. The same search terms of the systematic review were utilized for the gray literature search: primary care, ambulatory care, compassion satisfaction, burnout, and nurse practitioner; the exact string: *((“ambulatory care”) OR (“primary care”)) AND ((“burnout”) OR (“compassion satisfaction”)) AND nurse practitioner* was used. The search included non-governmental and governmental agencies, clinical trials.gov, and the dissertations and theses database from the University of Virginia Claude Moore Health Sciences Library. The gray literature search was consistent with the findings of the systematic review. The gray literature search uncovered studies by several of the retained studies' authors; these studies were iterations of the retained studies. Ultimately, the gray literature search did not show evidence of publication bias and was consistent with the systematic review literature search.

The purpose of this review was to answer the question: In healthcare workers who work in a primary care setting, what is the best evidence for team-based interventions that influence perceived job stress? While this review does not offer a straightforward answer, it does provide a foundation to design a project that could contribute to the growing body of knowledge. The evidence reveals a focus for intervention: *a sense of community*. The *sense of community* includes feeling a sense of team, trust, feeling valued, and feeling one’s goals and accomplishments are valuable. As the *sense of community* is modifiable, an evidence-based practice change could address components of the *sense of community* and may improve and support primary care team members’ compassion satisfaction.

Intervention

The evidence supports that improving the '*sense of community'* can improve team members' feelings of compassion satisfaction. The '*sense of community'* is a broad concept based on feelings of team membership, trust, feeling recognized and appreciated, and social connectedness. Addressing the building blocks of the '*sense of community* serves as an evidence-based project to improve team members' compassion satisfaction. It must be acknowledged that organizational-level actions contribute to members' '*sense of community'*; for example, the organization pays the employees and provides the staffing and resources. The workplace provides occasions throughout the day to address components of the '*sense of community*.'

The Model for Evidence-Based Practice Change (Rosswurm & Larrabee, 1999) provides a framework for identifying, studying, designing, implementing, and integrating a practice change, such as addressing '*sense of community'* to improve team members' compassion satisfaction. The proposed evidence-based practice change addresses the foundations of the *'sense of community'*, specifically *appreciation*, *recognition*, and *social connectedness*. The goal of the practice change is to increase the compassion satisfaction scores of the team members of a family practice office that can be evaluated after 12 weeks. The Model for Evidence-Based Practice Change (Rosswurm & Larrabee, 1999) was chosen as it provides a straightforward framework for the process of evidence-based practice change. The six-step model (see Appendix C) guides the process from assessing the need for a change to integrating evidence-based protocol (Rosswurm & Larrabee, 1999). The model has been revised to incorporate principles of QI, teamwork tools, and evidence-based translation strategies to promote new practice (Melnyk & Fineout-Overholt, 2019). Rosswurm & Larrabee (1999) stated that the model could be used across all patient arenas, from acute inpatient units to primary care settings. As the proposed project will be in primary care and the intervention to address the *sense of community* is a new

practice and involves an entire team, the **Model for Evidence-Based Practice Change** provides an architecture and the best fit framework for the project. Progression through the steps does not have to be linear. Based on the results of steps or evidence, one can revisit a previous step and refine or redesign the project.

Implementation and Evaluation Plan

Step 1: Assess the Need for Change in Practice

The practice site was a hospital-owned family practice office in Southeast Virginia. The office team members include two physicians, two family nurse practitioners, two physician assistants, medical assistants, an office manager, and administrative support staff. At the start of the project, a fully staffed office would comprise 31 employees; there were 24 employees. The office practices as teams. Each team is comprised of a primary care provider, an administrative support member, and a medical assistant. The office is divided into four pods. Pods are made up of one to two teams. The teams share clerical and lab staff. A problem with job satisfaction, burnout, and compassion satisfaction was identified as several employees resigned or transferred. Additionally, team members voiced displeasure with their jobs/positions and expressed feelings of being undervalued. Over the past 12 months, 12 (39%) team members left the practice; 2 members retired, one moved out of the area, and the other 9 (29%) transferred within the institution. The institution's turnover goal for 2021 (April 2020 – April 2021) was 12.7%. When a team member transfers within the organization, it does not count toward institutional turnover. Therefore on paper, the practice group’s turnover rate is 0%, despite 29% of the staff transferring out of the office over the last 12 months. During a provider meeting, it was noted that the staff seemed divided into ‘us’ or ‘them’ mentality between the pods and that the office practice had lost a sense of overall ‘team’ and ‘teamwork.' The question of how to improve members’

feelings about their work and work environment was raised. The question was refined to what is the best evidence for team-based interventions that influence perceived job stress? The identified issue has been discussed with the office manager, division director, and Vice-President of the Ambulatory Services Division; each member was supportive of a project to address the question.

Step 2: Locate the Best Evidence

A systematic electronic review of the literature was conducted to answer the question: What is the best evidence for team-based interventions that influence perceived job stress? Four bibliographic databases, WoS, CINAHL, PubMed, and PsychINFO, were queried. Fourteen articles were found to answer the question (see Appendix A).

Step 3: Critically Analyze the Evidence

The 14 retained studies were critically appraised using the JHNEBP Evidence Rating Scales. The evidence supports that addressing team members' sense of community will improve their perception of job stress. *Sense of community* is a concept that incorporates feeling valued, feeling appreciated and recognized, trust, team membership, and social connectedness. The evidence findings were shared with the stakeholders (office manager, division director).

Step 4: Design Practice Change

The project aimed to conduct activities to address the social connectedness and feelings of being valued, appreciated, recognized, trusted, and a member of the team (membership). Prior to implementing the project, review and academical documented approval was required and received from the academic institution. Review and documented approval were also required and obtained from the institution’s Ambulatory Services Division’s Nursing Research Forum and IRB affiliate (see Appendix D). The project activities stemmed from interventions suggested in the literature review, the work of Watson & Westphal (2020), and the research of Kouzes &

Posner (2017). However, the impact of COVID-19 restrictions prevented or restricted some proposed activities. The four areas of focus and their associated activities were:

- Addressing recognition, feeling appreciated, and valued
    - Maintained a posterboard of accomplishment and appreciation
        - recognition cards from patients and other staff were posted on the board,
        - team members' accomplishments were posted on the board,
        - team members' announcements (engagements, graduations, births) were posted on the board.
    - Maintained a "goody" box- staff members chose a "goody" when they have been observed doing good deeds, going "above and beyond," or complimented by other staff or patients.
        - 129 Appreciation "goodies' were awarded.
- Social Connectedness and Team membership
    - Three monthly community drives were done
        - School supplies for local title 1 elementary school,
        - Help and Emergency Response, Inc (H.E.R. Shelter),
        - Toys for Tots.
- Connectedness and collegiality
    - Four team parties and theme parties were held
        - Ice-Cream Social,
        - Subs for Lunch,
        - Halloween Celebration,

        - Pizza Party.
- Build teamwork
    - Three team-building games were done at the monthly staff meeting
        - Magic Pole
        - Blind Drawing
        - Connected Story,
    - encouraged sharing team members' accomplishments at the staff meeting,
    - encouraged narrative appreciation practice.

The evaluation of the project was team members' compassion satisfaction scores using the ProQOL Compassion Satisfaction and Compassion Fatigue tool, used with permission (see Appendix E). An explanation of the tool, its elements, and scoring was provided to the team members during an all-staff meeting. Members were provided a copy of the ProQOL instrument. Each team member was requested to complete the ProQOL instrument, using a random identifier, prior to the project (pretest) and at the conclusion of the project (post-test). Completion of the instrument inferred consent. The instrument was in paper form. In addition, each staff member was asked to complete a demographic sheet and place it in a sealed envelope. Applying unique identifiers aided in protecting anonymity. The demographic information was only used in aggregate form, maintained in a locked drawer in a locked office, and will be destroyed (shredded) after the data has been compiled for an aggregate profile of the practice. A study file will be maintained and uploaded into the secure server and maintained for five years in compliance with the university's research data security policy. The project's proposed data methodology was validated with an academical statistician prior to data collection.

Resources required to accomplish this project were a recognition board, cards to write recognitions, and goodies for the reward box. Personnel resources were office management and community drive directors.

Step 5: Implement and Evaluate Change in Practice

The project implementation began following academic approval and institutional review in September 2021 and continued through mid-December 2021. The team members introduced the project during a monthly office meeting in September 2021. Implementation required weekly updating of the posterboard of accomplishment and appreciation. The goody box distribution required daily attention. Social celebrations and theme parties occurred monthly. The team-building activities were conducted during the monthly office meetings. The community drives were introduced at the monthly office meetings.

The instrument was administered before the launch of the activities and at the project's end date. ProQOL Compassion Satisfaction and Compassion Fatigue instrument was utilized to measure team members' feelings (see Appendix E). The ProQOL survey asks 30 questions about one's positive and negative experiences as a helper. Each question can be answered on a scale of 1 to 5. This numerical information can be used as a Likert scale that aids data analysis. The Compassion Satisfaction Score is obtained using questions 3, 6, 12, 16, 18, 20, 22, 24, 27, and 30. The Compassion Satisfaction Scale is an aggregate score of those elements. Studies done by Geoffrion et al. (2019) and Heritage et al. (2018) demonstrate the validity and reliability of the ProQOL survey for Compassion Satisfaction and determined the Cronbach's α to be 0.89 – 0.92. The ProQOL survey also provides scores of burnout and secondary trauma.

Once the data was captured, data analysis was conducted using IBM SPSS, version 26, and validated by academic statistical support at the university. G* Power software was used to

determine the Power for the paired samples t-test. IBM SPSS was used to analyze the data using Paired-T-test for Compassion Satisfaction and other scores provided by the ProQOL survey.

Step 6: Integrate and Maintain

The results were shared internally with staff, office manager, division director, and Vice President of Ambulatory Services at an all-member staff meeting as part of the dissemination plan. The information will also be shared with the institution's Patient Experience Team. If the Vice President, Division Director, or Patient Experience Team determines the project is beneficial, it will be shared at other office staff meetings or monthly division meetings. A manuscript will also be submitted for publication to the Journal of Nursing Management (Impact Factor 3.325). A copy of the DNP project will be submitted to the University's academic repository, LIBRA.

Maintaining the project could be done by an internal team of champions. A team approach is suggested to support connectedness and ownership of the program. Additionally, a team could develop more ideas and keep the program fresh. The idea of keeping the program fresh leads the project back to step 1, assessing the need for change.

Strengths and Limitations

The evidence-based design was a strength of the project. Additional strengths of the project were the support of the office and upper management, the low cost ($500), and the positive nature of the project. Ultimately, the success of continuing the project could result in decreased staff turnover, increased team trust, improved collegiality, improved patient care, and improved patient experience.

Limitations of the study included the time intensity of the project. The daily demands of a busy family practice in conjunction with COVID-19 surges were barriers to the project. The

COVID-19 pandemic restricted team luncheons and parties and was an unprecedented stressor to the healthcare system and individuals. Lastly, another barrier to the project was staff turnover, which included two manager turnovers.

Data Analysis

Ultimately, the sample size was 14 administrative and clinical staff. IBM SPSS version 26 was used to analyze the data. Analysis was performed on the three components of the ProQOL tool: compassion satisfaction, burnout, and secondary traumatic stress. Additionally, each element of the three components was analyzed (see Appendices F, G, & H). Both the Shapiro-Wilk and Kolmogorov-Smirnov tests of normality supported that the variable (compassion satisfaction) was normally distributed. As the variable was normally distributed, the data were analyzed using Paired T-test. The Paired T-test indicates that there was not a significant increase in compassion satisfaction scores from pre-intervention (M = 40.36, SD = 1.80) to the post-intervention (M = 40.29, SD = 1.80); t (13) = .11, p = .457, one-tailed. The Cohen's d (d = .029) and eta squared statistic (η^2 = .0009) indicate a nil to minimum effect size. The G-Power software calculated the Power (1 – β probability error) equal to 0.5507. The post-hoc achieved Power is below the minimum threshold value of 0.80; thus, the achieved Power for this particular statistical test with the parameters of 1-tailed, mid-effect size, alpha = 0.05, sample size of 14 is not sufficient. The statistical test findings identify threats to the study's internal validity, specifically the sample size and lack of normal distribution of the variable measurements. Another limitation of the project was the lack of random sampling.

One consideration of why the intervention failed to improve the compassion satisfaction score of the sample is that the sample started with a high moderate compassion satisfaction score (M = 40.36); the ProQOL scale for compassion satisfaction is 0-22 low, 23-41 moderate, and 42

or more high. While the project failed to improve compassion satisfaction scores with statistical significance, analysis of the individual elements of the compassion satisfaction score reveals that mean values increased slightly for several areas. The means increased for (a) my work makes me feel satisfied, (b) I have happy thoughts and feelings about those I [help] and how I could help them, (c) I believe that I can make a difference through my work, (d) I am proud of what I can do to [help], (e) I have thoughts that I am a "success" as a [helper], and (f) I am happy that I chose to do this work. While no elements demonstrated statistically significant changes, a positive trend in how the staff feels about their roles as helpers developed.

In addition to compassion satisfaction, the ProQOL tool evaluates burnout and secondary trauma. The statistical analysis of burnout and secondary trauma offers insight into the interventions' effect on the staff.

Statistical analysis of the burnout scores found that Shapiro-Wilk and Kolmogorov-Smirnov tests of normality supported normally distributed variable (burnout). The Paired-T test indicated that there was a statistically significant decrease in burnout from the pre-intervention (M = 25.14, SD = 2.01) to the post-intervention (M = 23.36, SD = 1.78); t (13) = 2.08, p = .029, one-tailed. The Cohen's d (d = .56) and the eta squared statistic (η^2 = .25) indicate a medium to large effect size. Analysis of the individual elements of burnout showed improvement in the means of the following: (a) I feel connected to others, (b) I am not as productive at work because I am losing sleep over traumatic experiences of a person I [help], (c) I feel worn out because of my work as a [helper], and (d) I feel overwhelmed because my case [work] load seems endless.

Statistical analysis of the secondary trauma scores found that the Shapiro-Wilk test of normality did not support that the variable (secondary trauma) was normally distributed. The non-parametric statistical test Wilcoxon Signed Ranked test did not reveal a statistically

significant reduction in secondary trauma scores following the intervention, $z = -1.447$, $p = .07$. with a medium effect size ($r = .27$). While the intervention did not show a statistically significant change in secondary trauma scores, the mean scores were reduced by 2, indicating trending improvement. Evaluation of the individual elements of secondary trauma found improvement in the means of the following: (a) I jump or am startled by unexpected sounds, (b) I think that I might have been affected by the traumatic stress of those I [help], (c) Because of my [helping], I have felt “on edge” about various things, (d) I avoid certain activities or situations because they remind me of frightening experiences of people I [help], and (e) As a result of my [helping], I have intrusive, frightening thoughts.

Implications for Practice

Implementing compassion satisfaction team-based interventions and evaluating compassion satisfaction scores in a practice setting has both short-term and long-term implications. In the short term, raising compassion satisfaction scores can improve the individual's professional quality of practice experience and improve the teams' sense of engagement and communication, hopefully breaking the competitive nature between practice pods ('us' and 'them'). Over time, and beyond the scope of the immediate project, long-term effects of improving compassion satisfaction scores can reduce internal office turnover, increase patient satisfaction with the delivery of care, improve patient experience scores, reduce errors, and decrease both direct and indirect costs of the office practice.

While this project failed to impact compassion satisfaction scores, it did reveal that this primary care team has a high moderate compassion satisfaction score and a moderate burnout score. Utilizing the Model for Evidence-Based Practice Change suggests redesigning the project to address the identified moderate burnout score experienced by the team. Rather than search for

evidence to improve the compassion satisfaction score arm of the ProQOL tool, one should locate the best evidence to improve the compassion fatigue arm of the ProQOL tool and its elements of burnout and secondary trauma. Once the best evidence is located and analyzed, one could redesign the project to effect compassion fatigue. Ultimately, the goal is to improve the Professional Quality of Life. If the Professional Quality of Life (ProQOL) can improve by improving compassion satisfaction or decreasing compassion fatigue and its associated components of burnout and secondary trauma, the result should be a decrease in perceived occupational stress. Improvements in occupational stress should decrease medication errors, increase patient satisfaction, decrease health care costs, decrease absenteeism, decrease staff turnover, increase individual production, decrease patient safety incidents, decrease malpractice, increase communication, decrease staff depression, and decrease providers leaving the office or healthcare arena.

Conclusion

This scholarly project employed interventions to improve the *sense of community* to improve compassion satisfaction scores using the ProQOL tool. While this project failed to improve the compassion satisfaction scores, it did illuminate that the team members had moderately high compassion satisfaction and burnout scores. Incidentally, the project showed trending improvement in burnout scores. The project's foundation was to improve primary care team members' feelings of occupational stress. Showing trending improvements in burnout scores, improving trends in secondary trauma scores, and maintaining high moderate compassion satisfaction scores support that interventions to improve the *sense of community* will improve members' feelings of occupational stress. Reduced occupational stress will improve healthcare at all levels, from the individual, to the team and within the institution.

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Appendix A

Retained Articles for Analysis

Reference	Design and Sample	Main findings	Level and Quality of the Evidence	Themes: Identified External Contributors (External) Identified Internal Contributors (Internal) Interventions (Interventions)
Abraham et al., 2021	Secondary analysis of cross-sectional survey data n = 396	Nurse practitioner burnout decreases when practice environment has strong collaboration, communication, resources, and administrative support	III, B	Internal Interventions
Agarwal et al., 2020	Qualitative study of focus group discussions n = 26	Identified and categorized contributors to feelings of burnout and low professional fulfillment as external or internal. External contributors are quantity of work, content of work, and responsibility-authority mismatch. Internal contributors are demoralizations, undervaluation, and internal conflicts	III, A/B	External Internal Interventions
Anderson et al., 2020	Qualitative survey analysis n = 1865	Primary care providers in integrated health system voice the same concerns as other practice environments: prohibitive administration burden, “dumping” by specialists, moral distress related	III, A/B	External Internal

Reference	Design and Sample	Main findings	Level and Quality of the Evidence	Themes: Identified External Contributors (External) Identified Internal Contributors (Internal) Interventions (Interventions)
		to concern for patients, excessive workload, heavy clerical burdens, and lack of collaborative working relationships		
Apaydin et al., 2020	Quantitative survey analysis n = 103	Components of the PCMH that increased the odds of suffering emotional exhaustion are: managing patients, lack of support from specialists, EHR alerts, answering electronic messages	III, B	External Internal
Bruhl et al., 2020	Retrospective survey analysis n = 217	Study did not find an independent association of emotional exhaustion with time spent in clinic, panel size, or type of clinician	V, B	Interventions
Dai et al., 2020	Quantitative survey analysis n = 2575	Study showed an inverse relationship between perceived teamwork efficiency and physician burnout.	III, B	Interventions
Duhoux et al., 2017	Integrative review; Reviewed 7 studies	Studies suggest that an improved environment leads to improved mental health (thus less burnout)	V, A	Interventions
Edwards et al., 2018	Survey analysis n = 1380	Creating a work environment that supports autonomy, relatedness, and competence could improve	III, B	Internal Interventions

Reference	Design and Sample	Main findings	Level and Quality of the Evidence	Themes: Identified External Contributors (External) Identified Internal Contributors (Internal) Interventions (Interventions)
		compassion satisfaction/job satisfaction and reduce burnout		
Grumbach et al., 2019	Descriptive longitudinal study n = 464	Individuals with a strong sense of team culture and working in tighter teams had lower emotional exhaustion, but it did not extend to other staff. Interventions to promote joy in practice must consider the well-being of all team members.	III, B	Internal Interventions
Linzer, Poplau, Babbott et al., 2016	Survey analysis, mixed-method convergent n = 579	Multiple stressors emerged as contributors to burnout and occupational stress, including workload, workday structure, staff support, EHRstress/documentation burden, leadership, and work-home balance. Provided suggestions to improve the work environment at the institution level, practice level, and individual level.	III, A/B	External Internal Interventions
Linzer, Paplau, Prasad, et al., 2019.	Quantitative, Prospective Cohort Study N = 165	Job satisfaction is higher in clinicians with higher levels of trust in organizations.	III, B	External Internal Interventions

Reference	Design and Sample	Main findings	Level and Quality of the Evidence	Themes: Identified External Contributors (External) Identified Internal Contributors (Internal) Interventions (Interventions)
Magallón-Botaya et al., 2021	Cross-sectional study; survey analysis N = 475	Providers practicing mindfulness reported lower levels of work stress.	III, B	Interventions
Poghosyan et al., 2020	Cross-sectional survey N = 398	Nurse practitioners practicing in sites with high levels of organizational support are more likely to report higher job satisfaction and less intent to leave their job.	III, A	Internal
Yuguero et al., 2017	Cross-sectional descriptive study; survey analysis N = 267	Study observed a significant association between high empathy and low burnout.	III, B	Interventions

Appendix B

Permission to use Johns Hopkins Nursing Evidence Based Tools

JHNEBP MODEL AND TOOLS- PERMISSION

Johns Hopkins Nursing
Center for Evidence-Based Practice

Thank you for your submission. We are happy to give you permission to use the JHNEBP model and tools in adherence of our legal terms noted below:

- **You may not modify the model or the tools without written approval from Johns Hopkins.**
- **All reference to source forms should include "©The Johns Hopkins Hospital/The Johns Hopkins University."**
- **The tools may not be used for commercial purposes without special permission. If interested in commercial use or discussing changes to the tool, please email ijhn@jhmi.edu.**

Appendix C

Summary of the Model for Evidence-Based Practice Change

Step 1: Assess the Need for Change in Practice

Assessing the need for change in practice, identifies a problem, measures the extent of the problem, involves those to assist with the project, develops ideas for interventions, and identifies desired outcomes. Once an opportunity or problem is recognized, the process of collecting information and including stakeholders begins. Collecting data about the issue includes measuring against benchmarks, expectations, or metrics to determine the extent of the problem and define desired outcomes. Involving stakeholders garners support for the project and provides avenues for suggestions to develop interventions. The components of step 1 lead to the development of the study question, which drives the process to step 2.

Step 2: Locate the Best Evidence

Locating the best evidence involves planning and searching for the best evidence. The process can include a review of practice guidelines, systematic reviews, and expert or committee recommendations. Once the fundamental concepts of the project are identified, the keywords to conduct a systematic search for evidence are determined. Then, using the keywords, a systematic search for evidence is conducted. Sources of evidence include electronic bibliographic databases, websites, and government databases. Obtaining the evidence allows one to progress to step 3 or return to step 1.

Step 3: Critically Analyze the Evidence

Critically analyzing the evidence involves appraising the strength of the evidence. Critical appraisal of the information obtained must be completed to ensure the quality of the information obtained. Evaluation of articles can be done with tools such as the JHNEBP

evidence rating scale. Evaluation of website information can be accomplished by viewing the site's The Health on the Net Foundation Code of Conduct (HONcode) review. Once the most robust evidence is identified, the evidence must be synthesized. Synthesizing the evidence allows one to judge whether the body of evidence is strong enough to support a practice change. The last phase of step 3 is to assess the new suggested practice's feasibility, benefits, and risks. If the evidence does not seem sufficient, one can return to step 2 and re-conduct an evidence search. A revisit to step 1 can occur if the evidence does not support the question developed earlier in the process, allowing for revision of the problem or opportunity. If step 3 completion supports an intervention, one proceeds to step 4.

Step 4: Design Practice Change

Design practice change involves defining the proposed change, identifying resources needed to conduct and evaluate the intervention, and developing an implementation plan. Defining the proposed change requires a statement of what the intervention is and how it will be accomplished. The statement may be in the form of a protocol, guideline, or sequence map. The steps of the intervention are derived from the evidence obtained and analyzed in the previous steps. The design plan will identify needed resources. Resources may be in the form of personnel, materials, and forms required to conduct the project. The model suggests gathering input from stakeholders to increase support for the project. Approval from hospital or practice administration will need to be obtained. Once the project design is complete and resources are obtained, one is ready to advance to step 5.

Step 5: Implement and Evaluate Change in Practice

Implementing and evaluating change in practice involves conducting the project and measuring the results. Based on the type of project, data collection may occur multiple times

during the pilot project and before the implementation (baseline data) and completion (outcome data). Depending upon the size of the project, it may require several team members to conduct and implement the project and data collection. As the project is being conducted, feedback should be garnered to allow for improvement of the project for future designs and implementations. Upon completion of the project, data is collected, evaluated, and compared to baseline data. The data analysis will develop conclusions and provide recommendations to allow for adaption, adoption, or rejection of the new practice. The conclusions and recommendations are then shared. If the implementation is not progressing or needs to be redesigned, the model allows a return to step 4 to redesign the project.

Step 6: Integrate and Maintain Change in Practice

Integrating and maintaining change in practice is the next step of the model. The step involves sharing the findings, conclusions, and recommendations with the stakeholders. Incorporating the change, monitoring the process, and measuring the outcomes must be explained. Celebrating and disseminating the project results should be done to improve practice and highlight and support the process of evidence-based practice change. Maintaining the change can be challenging. The model suggests appealing to stakeholders to support maintaining the change through each step. Appealing to the administrators and the team members encourages all to participate and support the practice change. Plans for ongoing monitoring of the practice and outcome indicators reinforce the change. Dissemination of findings can and should be done at several levels to include the unit, the administration, like practices, and outside the organization. While it is the last phase of the model, the sixth step is not the last; the model directs the project to return to step 1. The model links the steps and provides an iterative process to improve each practice, problem, and opportunity, supporting cycles of continuous improvement.

Appendix D

Institution and Academic Approvals

SENTARA

Letter to Nurse Executive

July 27, 2021

Wendy Old
309 Tarpon Lane
Virginia Beach, VA 23456
wrorzel@sentara.com
(757) 663-9032

Dear Nurse Executive Cheryl Weimer,

I am Wendy Old and work at Sentara Family Medicine Physicians–Nimmo. I am attending the University of Virginia and this project will fulfill the requirements of GNUR 9600 and the Doctor of Nursing scholarly project. I am writing to obtain your approval for my proposed research project.

The title of the project is "The Effect of Team Resilient Actions on Compassion Satisfaction Scores in a Primary Care Office.I plan to invite each team member at Sentara Family Medicine Physicians—Nimmo to participate by completing the Professional Quality of Life (ProQOL) survery prior to and after the intervention of activities to address sense of community which will be done from September 9, 2021 to December 9, 2021.

I have attached the Research Project Plan. This research project is funded by my own resources.

Thank you for assisting me in this nursing research project.

Respectfully,

Wendy Old

NE Approved*: Cheryl Weimer Date: 6-11-21

*By signing this letter, the Nurse Executive has stated the PI may proceed with obtaining IRB approval. The PI must inform the NE upon receiving approval from the IRB.

Original 02/23/2015, rev. 09/05/2017 Quality Research Institute

To Whom it May Concern,

The Sentara Ambulatory Services Division Nursing Research Forum as a subcommittee of the Sentara Ambulatory Services Professional Practice Council and Sentara Healthcare Nurse Research Council has reviewed Wendy Old's proposed Evidence Based Project as a part of her DNP Capstone. After a vote by the committee, the EBP project received approval by the committee and the SASD Nursing Executive, Cheryl Weimer. It is understood the UVA IRB is not overseeing this project.

Sincerely,

Britt Gnilka, DNP, RN-BC

Director Clinical Operations, Complex Care Solutions

Nursing Research Forum Chair

Sentara Ambulatory Services Division

EVMS
Eastern Virginia Medical School

September 28, 2021

Wendy Cle
Sentara Family Medicine Physicians – Nimmo
1380 Tuscany Dr.
Virginia Beach, VA 23456

RE: IRB # 21-09-NH-0227

The Effect of Team Resilient Actions on Compassion Satisfaction Scores in a Primary Care Office

Dear Wendy Cle

Thank you for sending the above request to the Human Subjects' Protection Program (HSPP) for review.

The Federal definition of research is "A systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge."

The Federal definition of human subject is "a living individual about whom an investigator conducting research obtains: (1) data through intervention or interaction with the individual, or (2) identifiable private information" 45CFR46.102 (f).

The IRB's charge is to review Human Subjects Research, including some situations where studies may be exempt.

☒ The HSPP has reviewed your request and has determined that this project, as currently described, does not meet the definition of research as defined in 45 CFR 46.102(d).

When submitting a publication or presentation the IRB review of this project can be verified by providing this letter if necessary.

Should there be any changes to the methodology or procedures to this important project, please submit those changes to the IRB for review prior to implementation.

Thank you for your continued cooperation with the Institutional Review Board.

Sincerely,

Daniel Sullivan, PhD, CIP
IRB Assistant Director
EVMS

HUMAN SUBJECTS' PROTECTIONS PROGRAM

P.O. BOX 1980
NORFOLK, VA 23501-1980
tel 757.446.8423
fax 757.624.2275
www.evms.edu

UNIVERSITY of VIRGINIA IRB-HSR **Institutional Review Board for Health Sciences Research**

DETERMINATION OF UVA AGENT FORM

INFORMATION ABOUT THIS FORM

- This form is to determine if UVA personnel are or are not considered to be working as an Agent* for UVA on this project.
- If it is determined that UVA personnel are considered to be working as an Agent* for UVA the study, then your team will be required to provide an additional submission to the IRB-HSR, unless the project is determined to not involve human subject research. See Determination of Human Subject Research Form

****Agent*- all individuals (including students) performing institutionally designated activities or exercising institutionally delegated authority or responsibility.*

Enter responses electronically. Email the completed form to IRBHSR@virginia.edu for pre-review.

An IRB staff member will reply with any changes to be made.

Name of Individual to be Working on Project:	Wendy Old
UVA Email:	wro3u@virginia.edu
Phone:	757-663-9032
UVA Messenger Mail Box #	
Project/Protocol Title if Known:	☐ Unknown or Title: The Effect of Team Resilient Actions on Compassion Satisfaction Scores in a Primary Care Office
List your UVA School or Department affiliation *(e.g. Nursing, Medicine, etc.)*	UVA School of Nursing--Graduate School, Doctor or Nursing Practice
Name of the Division *(if applicable)* *(e.g. Anesthesia, Graduate Studies etc.)*	
Explain your role in the project: (200 words or less)	Project development, implementation, evaluation, and presentation of project results
Explain the reason for traveling to the outside institution.	Study location is place of my employment in Virginia Beach

INSTRUCTIONS: Complete the applicable option below:

Option A: Typically used by UVA personnel who are asked to assist with a research study after arriving at the non- UVA institution. (e.g., resident doing rotation at another institution)

Answer the following questions:

☐Yes ☐No I was involved in the design of this research project.
☐Yes ☐No A UVA IRB has approved this research. IRB-HSR/UVA Study Tracking #
☐Yes ☐No Funding to conduct this research will come from or through UVA.
☐Yes ☐No Working on this research is required for my degree program.

I confirm that:

☐Yes ☐No I am a student, employee or faculty member of the University of Virginia.
☐Yes ☐No My work on this project will be overseen by the Principal Investigator and the IRB at the outside institution. This includes completing any training in human subject research protection or other training as required by the outside IRB.
☐Yes ☐No I will communicate with the UVA IRB and UVA Contracts Office for my school, to determine what approvals may be needed, prior to receiving any data from the outside institution

Option B: Typically used by graduate students conducting their research outside of UVA.

I confirm that:

☒Yes ☐No I designed this research.
☒Yes ☐No I am a student, employee or faculty member of UVA but am employed by another institution.
☒Yes ☐No All subjects will be enrolled at this outside institution.
☒Yes ☐No Only de-identified data may be brought to UVA. If data is brought to UVA it will be protected according to UVA Data Security Policies.
☒Yes ☐No The research will be overseen by their IRB and, if applicable, their HIPAA Privacy Board. This includes completing any training in human subject research protections or other training as required by the outside IRB.
☒Yes ☐No There is no funding for this study or if there is funding, it will be handled by the non-UVA institution at which I am employed.
☒Yes ☐No I have notified the outside IRB that a UVA IRB will not be overseeing my work. ATTACH COPY OF THE OUTSIDE IRB APPROVAL/DETERMINATION.

Option C: Typically used by a person who will continue working on their research at their previous institution after transferring to UVA. No research protocol will be opened to enroll additional subjects at UVA.

I confirm that:

☐Yes ☐No I am a student, employee or faculty member of UVA but I was employed by another institution when the research was begun.

☐Yes ☐No All subjects were or will be enrolled at the outside institution & all data will remain there.

☐Yes ☐No The research will be overseen by a non-UVA IRB and, if applicable, the HIPAA Privacy Board of my previous institution. This includes completing training in human subject research protections or other training as required by the outside institution.

☐Yes ☐No There is no funding for this study or if there is funding, it will be handled by my previous institution.

☐Yes ☐No I have notified the IRB of Record that I have transferred to UVA and that a UVA IRB will not be overseeing my work on this research protocol.
ATTACH COPY OF THE OUTSIDE IRB APPROVAL/DETERMINATION.

Option D: Typically used by a UVA Faculty member who has an appointment or clinical privileges at another institution. Research to be conducted at outside institution. Research protocol will not be opened to enroll subjects at UVA facilities.

I confirm that:

☐Yes ☐No I am a faculty member of UVA and I have an appointment or clinical privileges at another institution.

☐Yes ☐No All subjects will be enrolled at the other institution and all data will remain there.

☐Yes ☐No The research will be overseen by a non-UVA IRB and, if applicable, the HIPAA Privacy Board of the other institution. This includes completing any training in human subject research protections or other training as required by the other institution.

☐Yes ☐No There is no funding for this study or if there is funding, it will be handled by the other institution.

☐Yes ☐No I have notified the IRB of Record that a UVA IRB will not be overseeing my work on this research protocol.
ATTACH COPY OF THE OUTSIDE IRB APPROVAL/DETERMINATION for this protocol.

FOR IRB-HSR OFFICE USE ONLY

☒ UVA personnel are not considered to be conducting research as an Agent for UVA on this project.
No approvals from the UVA IRB-HSR are required.
No data may be brought back to UVA for any purpose except as described above.
If you wish to collect and use data from the original study for an additional research project you must obtain IRB approval/determination from the IRB-HSR before taking data outside of the non-UVA institution.

UVA Study Tracking # 23452

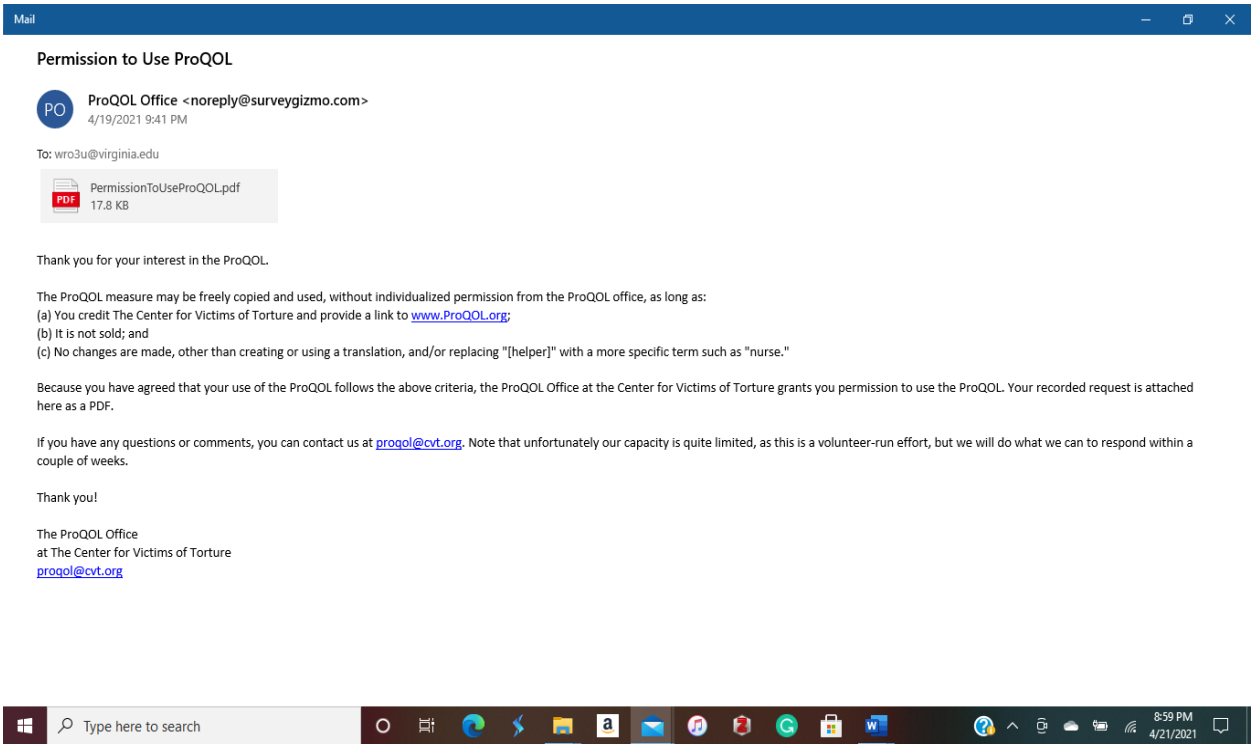
☐ UVA personnel are considered to be conducting research as an Agent for UVA on this project.
Submit a research application to the UVA IRB-HSR.

KristinShelby — Name of IRB Chair, Director or Designee

09-28-21 — Date

Appendix E

Permission to use ProQOL Tools/ Professional Quality of Life Scale



Mail

Permission to Use ProQOL

PO **ProQOL Office <noreply@surveygizmo.com>**
4/19/2021 9:41 PM

To: wro3u@virginia.edu

PermissionToUseProQOL.pdf
17.8 KB

Thank you for your interest in the ProQOL.

The ProQOL measure may be freely copied and used, without individualized permission from the ProQOL office, as long as:
(a) You credit The Center for Victims of Torture and provide a link to www.ProQOL.org;
(b) It is not sold; and
(c) No changes are made, other than creating or using a translation, and/or replacing "[helper]" with a more specific term such as "nurse."

Because you have agreed that your use of the ProQOL follows the above criteria, the ProQOL Office at the Center for Victims of Torture grants you permission to use the ProQOL. Your recorded request is attached here as a PDF.

If you have any questions or comments, you can contact us at proqol@cvt.org. Note that unfortunately our capacity is quite limited, as this is a volunteer-run effort, but we will do what we can to respond within a couple of weeks.

Thank you!

The ProQOL Office
at The Center for Victims of Torture
proqol@cvt.org

Type here to search

8:59 PM
4/21/2021

PROFESSIONAL QUALITY OF LIFE SCALE (PROQOL)

COMPASSION SATISFACTION AND COMPASSION FATIGUE
(PROQOL) VERSION 5 (2009)

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

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

_____ 1. I am happy.
_____ 2. I am preoccupied with more than one person I *[help]*.
_____ 3. I get satisfaction from being able to *[help]* people.
_____ 4. I feel connected to others.
_____ 5. I jump or am startled by unexpected sounds.
_____ 6. I feel invigorated after working with those I *[help]*.
_____ 7. I find it difficult to separate my personal life from my life as a *[helper]*.
_____ 8. I am not as productive at work because I am losing sleep over traumatic experiences of a person I *[help]*.
_____ 9. I think that I might have been affected by the traumatic stress of those I *[help]*.
_____ 10. I feel trapped by my job as a *[helper]*.
_____ 11. Because of my *[helping]*, I have felt "on edge" about various things.
_____ 12. I like my work as a *[helper]*.
_____ 13. I feel depressed because of the traumatic experiences of the people I *[help]*.
_____ 14. I feel as though I am experiencing the trauma of someone I have *[helped]*.
_____ 15. I have beliefs that sustain me.
_____ 16. I am pleased with how I am able to keep up with *[helping]* techniques and protocols.
_____ 17. I am the person I always wanted to be.
_____ 18. My work makes me feel satisfied.
_____ 19. I feel worn out because of my work as a *[helper]*.
_____ 20. I have happy thoughts and feelings about those I *[help]* and how I could help them.
_____ 21. I feel overwhelmed because my case [work] load seems endless.
_____ 22. I believe I can make a difference through my work.
_____ 23. I avoid certain activities or situations because they remind me of frightening experiences of the people I *[help]*.
_____ 24. I am proud of what I can do to *[help]*.
_____ 25. As a result of my *[helping]*, I have intrusive, frightening thoughts.
_____ 26. I feel "bogged down" by the system.
_____ 27. I have thoughts that I am a "success" as a *[helper]*.
_____ 28. I can't recall important parts of my work with trauma victims.
_____ 29. I am a very caring person.
_____ 30. I am happy that I chose to do this work.

YOUR SCORES ON THE PROQOL: PROFESSIONAL QUALITY OF LIFE SCREENING

Based on your responses, place your personal scores below. If you have any concerns, you should discuss them with a physical or mental health care professional.

Compassion Satisfaction _____

Compassion satisfaction is about the pleasure you derive from being able to do your work well. For example, you may feel like it is a pleasure to help others through your work. You may feel positively about your colleagues or your ability to contribute to the work setting or even the greater good of society. Higher scores on this scale represent a greater satisfaction related to your ability to be an effective caregiver in your job.

If you are in the higher range, you probably derive a good deal of professional satisfaction from your position. If your scores are below 23, you may either find problems with your job, or there may be some other reason—for example, you might derive your satisfaction from activities other than your job. (Alpha scale reliability 0.88)

Burnout_____

Most people have an intuitive idea of what burnout is. From the research perspective, burnout is one of the elements of Compassion Fatigue (CF). It is associated with feelings of hopelessness and difficulties in dealing with work or in doing your job effectively. These negative feelings usually have a gradual onset. They can reflect the feeling that your efforts make no difference, or they can be associated with a very high workload or a non-supportive work environment. Higher scores on this scale mean that you are at higher risk for burnout.

If your score is below 23, this probably reflects positive feelings about your ability to be effective in your work. If you score above 41, you may wish to think about what at work makes you feel like you are not effective in your position. Your score may reflect your mood; perhaps you were having a "bad day" or are in need of some time off. If the high score persists or if it is reflective of other worries, it may be a cause for concern. (Alpha scale reliability 0.75)

Secondary Traumatic Stress_____

The second component of Compassion Fatigue (CF) is secondary traumatic stress (STS). It is about your work related, secondary exposure to extremely or traumatically stressful events. Developing problems due to exposure to other's trauma is somewhat rare but does happen to many people who care for those who have experienced extremely or traumatically stressful events. For example, you may repeatedly hear stories about the traumatic things that happen to other people, commonly called Vicarious Traumatization. If your work puts you directly in the path of danger, for example, field work in a war or area of civil violence, this is not secondary exposure; your exposure is primary. However, if you are exposed to others' traumatic events as a result of your work, for example, as a therapist or an emergency worker, this is secondary exposure. The symptoms of STS are usually rapid in onset and associated with a particular event. They may include being afraid, having difficulty sleeping, having images of the upsetting event pop into your mind, or avoiding things that remind you of the event.

If your score is above 41, you may want to take some time to think about what at work may be frightening to you or if there is some other reason for the elevated score. While higher scores do not mean that you do have a problem, they are an indication that you may want to examine how you feel about your work and your work environment. You may wish to discuss this with your supervisor, a colleague, or a health care professional. (Alpha scale reliability 0.81)

WHAT IS MY SCORE AND WHAT DOES IT MEAN?

In this section, you will score your test so you understand the interpretation for you. To find your score on **each section,** total the questions listed on the left and then find your score in the table on the right of the section.

Compassion Satisfaction Scale

Copy your rating on each of these questions on to this table and add them up. When you have added then up you can find your score on the table to the right.

3. ____
6. ____
12. ____
16. ____
18. ____
20. ____
22. ____
24. ____
27. ____
30. ____

Total: ____

The sum of my Compassion Satisfaction questions is	And my Compassion Satisfaction level is
22 or less	Low
Between 23 and 41	Moderate
42 or more	High

Burnout Scale

On the burnout scale you will need to take an extra step. Starred items are "reverse scored." If you scored the item 1, write a 5 beside it. The reason we ask you to reverse the scores is because scientifically the measure works better when these questions are asked in a positive way though they can tell us more about their negative form. For example, question 1. "I am happy" tells us more about the effects of helping when you are *not* happy so you reverse the score

You Wrote	Change to
	5
2	4
3	3
4	2
5	1

*1. ____ = ____
*4. ____ = ____
8. ____
10. ____
*15. ____ = ____
*17. ____ = ____
19. ____
21. ____
26. ____
*29. ____ = ____

Total: ____

The sum of my Burnout Questions is	And my Burnout level is
22 or less	Low
Between 23 and 41	Moderate
42 or more	High

Secondary Traumatic Stress Scale

Just like you did on Compassion Satisfaction, copy your rating on each of these questions on to this table and add them up. When you have added then up you can find your score on the table to the right.

2. ____
5. ____
7. ____
9. ____
11. ____
13. ____
14. ____
23. ____
25. ____
28. ____

Total: ____

The sum of my Secondary Trauma questions is	And my Secondary Traumatic Stress level is
22 or less	Low
Between 23 and 41	Moderate
42 or more	High

Appendix F

Statistical Analysis of Compassion Satisfaction and Individual Elements

Table F1

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PreCompassionSatisfactionScore	40.3571	14	6.72089	1.79623
	PostCompassionSatisfactionScore	40.2857	14	6.71884	1.79569

Table F2

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PreCompassionSatisfactionScore	.184	14	.200*	.923	14	.242
PostCompassionSatisfactionScore	.172	14	.200*	.935	14	.358

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Table F3

Paired Samples Test

		Paired Differences					t	df	Significance	
					95% Confidence Interval of the Difference					
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			One-Sided p	Two-Sided p
Pair 1	PreCompassionSatisfactionScore - PostCompassionSatisfactionScore	.07143	2.43261	.65014	-1.33312	1.47597	.110	13	.457	.914

Table F4

Paired Samples Effect Sizes

					95% Confidence Interval	
			Standardizer[a]	Point Estimate	Lower	Upper
Pair 1	PreCompassionSatisfactionScore - PostCompassionSatisfactionScore	Cohen's d	2.43261	.029	-.495	.553
		Hedges' correction	2.50571	.029	-.481	.537

a. The denominator used in estimating the effect sizes.
Cohen's d uses the sample standard deviation of the mean difference.
Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

$\eta^2 = .0009$

Table F5

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I get satisfaction from being able to help people	14	3.00	5.00	4.5714	.64621
I get satisfaction from being able to help people	14	3.00	5.00	4.4286	.64621
Valid N (listwise)	14				

Table F6

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I get satisfaction from being able to help people	.389	14	<.001	.688	14	<.001
I get satisfaction from being able to help people	.312	14	<.001	.758	14	.002

a. Lilliefors Significance Correction

Table F7

Ranks

		N	Mean Rank	Sum of Ranks
I get satisfaction from being able to help people - I get satisfaction from being able to help people	Negative Ranks	3[a]	2.50	7.50
	Positive Ranks	1[b]	2.50	2.50
	Ties	10[c]		
	Total	14		

a. I get satisfaction from being able to help people < I get satisfaction from being able to help people

b. I get satisfaction from being able to help people > I get satisfaction from being able to help people

c. I get satisfaction from being able to help people = I get satisfaction from being able to help people

Table F8

Test Statistics[a]

	My work makes me feel satisfied - My work makes me feel satisfied
Z	-.447[b]
Asymp. Sig. (2-tailed)	.655

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

r = .189

Table F9

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	I feel invigorated after working with those I help	3.7692	13	.92681	.25705
	I feel invigorated after working with those I help	3.7692	13	1.09193	.30285

Table F10

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I feel invigorated after working with those I help	.214	13	.107	.894	13	.110
I feel invigorated after working with those I help	.199	13	.166	.875	13	.062

a. Lilliefors Significance Correction

Table F11

Paired Samples Test

		Paired Differences					t	df	Significance	
					95% Confidence Interval of the Difference					
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			One-Sided p	Two-Sided p
Pair 1	I feel invigorated after working with those I help - I feel invigorated after working with those I help	.00000	1.08012	.29957	-.65271	.65271	.000	12	.500	1.000

Table F12

Paired Samples Effect Sizes

					95% Confidence Interval	
			Standardizer[a]	Point Estimate	Lower	Upper
Pair 1	I feel invigorated after working with those I help - I feel invigorated after working with those I help	Cohen's d	1.08012	.000	-.544	.544
		Hedges' correction	1.11541	.000	-.526	.526

a. The denominator used in estimating the effect sizes.
Cohen's d uses the sample standard deviation of the mean difference.
Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

$\eta^2 = .000$

Table F13

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I like my work as a helper	14	3.00	5.00	4.1429	.86444
I like my work as a helper	14	3.00	5.00	4.1429	.77033
Valid N (listwise)	14				

Table F14

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I like my work as a helper	.268	14	.007	.786	14	.003
I like my work as a helper	.224	14	.055	.816	14	.008

a. Lilliefors Significance Correction

Table F15

Ranks

		N	Mean Rank	Sum of Ranks
I like my work as a helper - I like my work as a helper	Negative Ranks	3[a]	3.50	10.50
	Positive Ranks	3[b]	3.50	10.50
	Ties	8[c]		
	Total	14		

a. I like my work as a helper < I like my work as a helper

b. I like my work as a helper > I like my work as a helper

c. I like my work as a helper = I like my work as a helper

Table F16

Test Statistics[a]

	I like my work as a helper - I like my work as a helper
Z	.000[b]
Asymp. Sig. (2-tailed)	1.000

a. Wilcoxon Signed Ranks Test

b. The sum of negative ranks equals the sum of positive ranks.

r = .09

Table F17

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I am pleased with how I am able to keep up with helping techniques and protocols	14	2.00	5.00	4.0000	.96077
I am pleased with how I am able to keep up with helping techniques and protocols	14	3.00	5.00	4.1429	.77033
Valid N (listwise)	14				

Table F18

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I am pleased with how I am able to keep up with helping techniques and protocols	.214	14	.081	.861	14	.032
I am pleased with how I am able to keep up with helping techniques and protocols	.224	14	.055	.816	14	.008

a. Lilliefors Significance Correction

Table F19

Ranks

		N	Mean Rank	Sum of Ranks
I am pleased with how I am able to keep up with helping techniques and protocols - I am pleased with how I am able to keep up with helping techniques and protocols	Negative Ranks	4[a]	4.50	18.00
	Positive Ranks	5[b]	5.40	27.00
	Ties	5[c]		
	Total	14		

a. I am pleased with how I am able to keep up with helping techniques and protocols < I am pleased with how I am able to keep up with helping techniques and protocols

b. I am pleased with how I am able to keep up with helping techniques and protocols > I am pleased with how I am able to keep up with helping techniques and protocols

c. I am pleased with how I am able to keep up with helping techniques and protocols = I am pleased with how I am able to keep up with helping techniques and protocols

Table F20

Test Statistics[a]

	I am pleased with how I am able to keep up with helping techniques and protocols - I am pleased with how I am able to keep up with helping techniques and protocols
Z	-.577[b]
Asymp. Sig. (2-tailed)	.564

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

r = .11

Table F21

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
My work makes me feel satisfied	14	3.00	5.00	3.7857	.80178
My work makes me feel satisfied	14	3.00	5.00	3.8571	.77033
Valid N (listwise)	14				

Table F22

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
My work makes me feel satisfied	.265	14	.009	.798	14	.005
My work makes me feel satisfied	.224	14	.055	.816	14	.008

a. Lilliefors Significance Correction

Table F23

Ranks

		N	Mean Rank	Sum of Ranks
My work makes me feel satisfied - My work makes me feel satisfied	Negative Ranks	1[a]	1.00	1.00
	Positive Ranks	1[b]	2.00	2.00
	Ties	12[c]		
	Total	14		

a. My work makes me feel satisfied < My work makes me feel satisfied

b. My work makes me feel satisfied > My work makes me feel satisfied

c. My work makes me feel satisfied = My work makes me feel satisfied

Table F24

Test Statistics[a]

	My work makes me feel satisfied - My work makes me feel satisfied
Z	-.447[b]
Asymp. Sig. (2-tailed)	.655

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

r = .06

Table F25

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I have happy thoughts and feelings about those I help and how I could help them	14	3.00	5.00	3.9286	.82874
I have happy thoughts and feelings about those I help and how I could help them	14	3.00	5.00	4.0000	.78446
Valid N (listwise)	14				

Table F26

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I have happy thoughts and feelings about those I help and how I could help them	.226	14	.051	.810	14	.007
I have happy thoughts and feelings about those I help and how I could help them	.214	14	.081	.823	14	.010

a. Lilliefors Significance Correction

Table F27

Ranks

		N	Mean Rank	Sum of Ranks
I have happy thoughts and feelings about those I help and how I could help them - I have happy thoughts and feelings about those I help and how I could help them	Negative Ranks	3[a]	4.00	12.00
	Positive Ranks	4[b]	4.00	16.00
	Ties	7[c]		
	Total	14		

a. I have happy thoughts and feelings about those I help and how I could help them < I have happy thoughts and feelings about those I help and how I could help them

b. I have happy thoughts and feelings about those I help and how I could help them > I have happy thoughts and feelings about those I help and how I could help them

c. I have happy thoughts and feelings about those I help and how I could help them = I have happy thoughts and feelings about those I help and how I could help them

Table F28

Test Statistics[a]

	I have happy thoughts and feelings about those I help and how I could help them - I have happy thoughts and feelings about those I help and how I could help them
Z	-.378[b]
Asymp. Sig. (2-tailed)	.705

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

r = .07

Table F29

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I believe I can make a difference through my work.	14	2.00	5.00	4.0000	.96077
I believe I can make a difference through my work.	14	2.00	5.00	4.0714	.99725
Valid N (listwise)	14				

Table F30

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I believe I can make a difference through my work	.214	14	.081	.861	14	.032
I believe I can make a difference through my work	.253	14	.016	.836	14	.014

a. Lilliefors Significance Correction

Table F31

Ranks

		N	Mean Rank	Sum of Ranks
I believe I can make a difference through my work - I believe I can make a difference through my work	Negative Ranks	2[a]	4.50	9.00
	Positive Ranks	4[b]	3.00	12.00
	Ties	8[c]		
	Total	14		

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

b. I believe I can make a difference through my work > I believe I can make a difference through my work

c. I believe I can make a difference through my work = I believe I can make a difference through my work

Table F32

Test Statistics[a]

	I believe I can make a difference through my work - I believe I can make a difference through my work
Z	-.333[b]
Asymp. Sig. (2-tailed)	.739

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

r = .07

Table F33

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I am proud of what I can do to help	14	3.00	5.00	4.2143	.80178
I am proud of what I can do to help	14	2.00	5.00	4.2857	.91387
Valid N (listwise)	14				

Table F34

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I am proud of what I can do to help	.265	14	.009	.798	14	.005
I am proud of what I can do to help	.283	14	.003	.767	14	.002

a. Lilliefors Significance Correction

Table F35

Ranks

		N	Mean Rank	Sum of Ranks
I am proud of what I can do to help - I am proud of what I can do to help	Negative Ranks	2[a]	3.00	6.00
	Positive Ranks	3[b]	3.00	9.00
	Ties	9[c]		
	Total	14		

a. I am proud of what I can do to help < I am proud of what I can do to help

b. I am proud of what I can do to help > I am proud of what I can do to help

c. I am proud of what I can do to help = I am proud of what I can do to help

Table F36

Test Statistics[a]

	I am proud of what I can do to help - I am proud of what I can do to help
Z	-.447[b]
Asymp. Sig. (2-tailed)	.655

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

.

r = .08

Table F37

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I have thoughts that I am a "success" as a helper	14	2.00	5.00	3.7143	1.13873
I have thoughts that I am a "success" as a helper	14	2.00	5.00	3.7857	1.05090
Valid N (listwise)	14				

Table F38

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I have thoughts that I am a "success" as a helper	.242	14	.026	.853	14	.025
I have thoughts that I am a "success" as a helper	.224	14	.056	.876	14	.052

a. Lilliefors Significance Correction

Table F39

Ranks

		N	Mean Rank	Sum of Ranks
I have thoughts that I am a "success" as a helper - I have thoughts that I am a "success" as a helper	Negative Ranks	3[a]	4.00	12.00
	Positive Ranks	4[b]	4.00	16.00
	Ties	7[c]		
	Total	14		

a. I have thoughts that I am a "success" as a helper < I have thoughts that I am a "success" as a helper

b. I have thoughts that I am a "success" as a helper > I have thoughts that I am a "success" as a helper

c. I have thoughts that I am a "success" as a helper = I have thoughts that I am a "success" as a helper

Table F40

Test Statistics[a]

	I have thoughts that I am a "success" as a helper - I have thoughts that I am a "success" as a helper
Z	-.378[b]
Asymp. Sig. (2-tailed)	.705

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

r = .07

Table F41

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I am happy that I chose to do this work.	14	3.00	5.00	4.1429	.86444
I am happy that I chose to do this work.	14	3.00	5.00	4.2143	.80178
Valid N (listwise)	14				

Table F42

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I am happy that I chose to do this work.	.268	14	.007	.786	14	.003
I am happy that I chose to do this work.	.265	14	.009	.798	14	.005

a. Lilliefors Significance Correction

Table F43

Ranks

		N	Mean Rank	Sum of Ranks
I am happy that I chose to do this work - I am happy that I chose to do this work	Negative Ranks	2[a]	3.00	6.00
	Positive Ranks	3[b]	3.00	9.00
	Ties	9[c]		
	Total	14		

a. I am happy that I chose to do this work < I am happy that I chose to do this work

b. I am happy that I chose to do this work > I am happy that I chose to do this work

c. I am happy that I chose to do this work = I am happy that I chose to do this work

Table F44

Test Statistics[a]

	I am happy that I chose to do this work - I am happy that I chose to do this work
Z	-.447[b]
Asymp. Sig. (2-tailed)	.655

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

r = .08

Appendix G

Statistical Analysis of Burnout and Individual Elements

Table G1

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PreBurnoutScore	25.1429	14	7.50238	2.00510
	PostBurnoutScore	23.3571	14	6.65186	1.77778

Table G2

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PreBurnoutScore	.162	14	.200*	.940	14	.424
PostBurnoutScore	.093	14	.200*	.975	14	.931

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Table G3

Paired Samples Test

		Paired Differences					t	df	Significance	
					95% Confidence Interval of the Difference					
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			One-Sided p	Two-Sided p
Pair 1	PreBurnoutScore - PostBurnoutScore	1.78571	3.21484	.85920	-.07048	3.64190	2.078	13	.029	.058

Table G4

Paired Samples Effect Sizes

					95% Confidence Interval	
			Standardizer[a]	Point Estimate	Lower	Upper
Pair 1	PreBurnoutScore - PostBurnoutScore	Cohen's d	3.21484	.555	-.018	1.111
		Hedges' correction	3.31144	.539	-.018	1.079

a. The denominator used in estimating the effect sizes.
Cohen's d uses the sample standard deviation of the mean difference.
Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

$\eta^2 = .25$

Table G5

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I am happy	14	1.00	3.00	2.1429	.77033
I am happy	14	1.00	4.00	2.0714	.91687
Valid N (listwise)	14				

Table G6

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I am happy	.224	14	.055	.816	14	.008
I am happy	.245	14	.022	.874	14	.048

a. Lilliefors Significance Correction

Table G7

Ranks

		N	Mean Rank	Sum of Ranks
I am happy - I am happy	Negative Ranks	3[a]	3.00	9.00
	Positive Ranks	2[b]	3.00	6.00
	Ties	9[c]		
	Total	14		

a. I am happy < I am happy

b. I am happy > I am happy

c. I am happy = I am happy

Table G8

Test Statistics[a]

	I am happy - I am happy
Z	-.447[b]
Asymp. Sig. (2-tailed)	.655

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

r = .08

Table G9

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I feel connected to others	14	1.00	3.00	2.2143	.89258
I feel connected to others	14	1.00	4.00	2.5000	.85485
Valid N (listwise)	14				

Table G10

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I feel connected to others	.311	14	<.001	.750	14	.001
I feel connected to others	.292	14	.002	.862	14	.033

a. Lilliefors Significance Correction

Table G11

Ranks

		N	Mean Rank	Sum of Ranks
I feel connected to others - I feel connected to others	Negative Ranks	1[a]	1.50	1.50
	Positive Ranks	3[b]	2.83	8.50
	Ties	10[c]		
	Total	14		

a. I feel connected to others < I feel connected to others

b. I feel connected to others > I feel connected to others

c. I feel connected to others = I feel connected to others

Table G12

Test Statistics[a]

	I feel connected to others - I feel connected to others
Z	-1.300[b]
Asymp. Sig. (2-tailed)	.194

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

r = .24

Table G13

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I am not as productive at work because I am losing sleep over traumatic experiences of a person I help	14	1.00	5.00	2.0714	1.26881
I am not as productive at work because I am losing sleep over traumatic experiences of a person I help	14	1.00	3.00	1.7143	.72627
Valid N (listwise)	14				

Table G14

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I am not as productive at work because I am losing sleep over traumatic experiences of a person I help	.237	14	.032	.821	14	.009
I am not as productive at work because I am losing sleep over traumatic experiences of a person I help	.266	14	.008	.796	14	.005

a. Lilliefors Significance Correction

Table G15

Ranks

		N	Mean Rank	Sum of Ranks
I am not as productive at work because I am losing sleep over traumatic experiences of a person I help - I am not as productive at work because I am losing sleep over traumatic experiences of a person I help	Negative Ranks	4[a]	4.00	16.00
	Positive Ranks	2[b]	2.50	5.00
	Ties	8[c]		
	Total	14		

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

b. I am not as productive at work because I am losing sleep over traumatic experiences of a person I help > I am not as productive at work because I am losing sleep over traumatic experiences of a person I help

c. I am not as productive at work because I am losing sleep over traumatic experiences of a person I help = I am not as productive at work because I am losing sleep over traumatic experiences of a person I help

Table G16

Test Statistics[a]

	I am not as productive at work because I am losing sleep over traumatic experiences of a person I help - I am not as productive at work because I am losing sleep over traumatic experiences of a person I help
Z	-1.186[b]
Asymp. Sig. (2-tailed)	.236

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

r = .022

Table G17

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I feel trapped by my job as a helper	14	1.00	5.00	2.2143	1.36880
I feel trapped by my job as a helper	14	1.00	5.00	2.3571	1.21574
Valid N (listwise)	14				

Table G18

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I feel trapped by my job as a helper	.241	14	.027	.837	14	.015
I feel trapped by my job as a helper	.187	14	.200*	.894	14	.093

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Table G19

Ranks

		N	Mean Rank	Sum of Ranks
I feel trapped by my job as a helper - I feel trapped by my job as a helper	Negative Ranks	1[a]	3.50	3.50
	Positive Ranks	3[b]	2.17	6.50
	Ties	10[c]		
	Total	14		

a. I feel trapped by my job as a helper < I feel trapped by my job as a helper

b. I feel trapped by my job as a helper > I feel trapped by my job as a helper

c. I feel trapped by my job as a helper = I feel trapped by my job as a helper

Table G20

Test Statistics[a]

	I feel trapped by my job as a helper - I feel trapped by my job as a helper
Z	-.557[b]
Asymp. Sig. (2-tailed)	.577

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

r = .105

Table G21

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I have beliefs that sustain me	14	1.00	5.00	2.7857	1.67233
I have beliefs that sustain me	14	1.00	5.00	2.0000	1.17670
Valid N (listwise)	14				

Table G22

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I have beliefs that sustain me	.214	14	.081	.818	14	.008
I have beliefs that sustain me	.231	14	.042	.808	14	.006

a. Lilliefors Significance Correction

Table G23

Ranks

		N	Mean Rank	Sum of Ranks
I have beliefs that sustain me - I have beliefs that sustain me	Negative Ranks	6[a]	3.50	21.00
	Positive Ranks	0[b]	.00	.00
	Ties	8[c]		
	Total	14		

a. I have beliefs that sustain me < I have beliefs that sustain me

b. I have beliefs that sustain me > I have beliefs that sustain me

c. I have beliefs that sustain me = I have beliefs that sustain me

Table G24

Test Statistics[a]

	I have beliefs that sustain me - I have beliefs that sustain me
Z	-2.232[b]
Asymp. Sig. (2-tailed)	.026

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

r = .42

Table G25

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I am the person I always wanted to be	14	1.00	5.00	2.8571	1.02711
I am the person I always wanted to be	14	1.00	5.00	2.6429	.92878
Valid N (listwise)	14				

Table G26

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I am the person I always wanted to be	.230	14	.042	.924	14	.251
I am the person I always wanted to be	.279	14	.004	.832	14	.013

a. Lilliefors Significance Correction

Table G27

Ranks

		N	Mean Rank	Sum of Ranks
I am the person I always wanted to be - I am the person I always wanted to be	Negative Ranks	4[a]	3.00	12.00
	Positive Ranks	1[b]	3.00	3.00
	Ties	9[c]		
	Total	14		

a. I am the person I always wanted to be < I am the person I always wanted to be

b. I am the person I always wanted to be > I am the person I always wanted to be

c. I am the person I always wanted to be = I am the person I always wanted to be

Table G28

Test Statistics[a]

	I am the person I always wanted to be - I am the person I always wanted to be
Z	-1.342[b]
Asymp. Sig. (2-tailed)	.180

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

r= .06

Table G29

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I feel worn out because of my work as a helper	14	2.00	5.00	3.2143	1.05090
I feel worn out because of my work as a helper	14	1.00	5.00	2.8571	1.02711
Valid N (listwise)	14				

Table G30

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I feel worn out because of my work as a helper	.224	14	.056	.876	14	.052
I feel worn out because of my work as a helper	.230	14	.042	.924	14	.251

a. Lilliefors Significance Correction

Table G31

Ranks

		N	Mean Rank	Sum of Ranks
I feel worn out because of my work as a helper - I feel worn out because of my work as a helper	Negative Ranks	5[a]	4.10	20.50
	Positive Ranks	2[b]	3.75	7.50
	Ties	7[c]		
	Total	14		

a. I feel worn out because of my work as a helper < I feel worn out because of my work as a helper

b. I feel worn out because of my work as a helper > I feel worn out because of my work as a helper

c. I feel worn out because of my work as a helper = I feel worn out because of my work as a helper

Table G32

Test Statistics[a]

	I feel worn out because of my work as a helper - I feel worn out because of my work as a helper
Z	-1.127[b]
Asymp. Sig. (2-tailed)	.260

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

r = .21

Table G33

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I feel overwhelmed because my work load seems endless	14	2.00	5.00	3.5000	1.16024
I feel overwhelmed because my work load seems endless	14	1.00	5.00	3.0714	1.49174
Valid N (listwise)	14				

Table G34

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I feel overwhelmed because my work load seems endless	.238	14	.030	.854	14	.025
I feel overwhelmed because my work load seems endless	.192	14	.171	.874	14	.047

a. Lilliefors Significance Correction

Table G35

Ranks

		N	Mean Rank	Sum of Ranks
I feel overwhelmed because my work load seems endless - I feel overwhelmed because my work load seems endless	Negative Ranks	9[a]	5.11	46.00
	Positive Ranks	2[b]	10.00	20.00
	Ties	3[c]		
	Total	14		

a. I feel overwhelmed because my work load seems endless < I feel overwhelmed because my work load seems endless

b. I feel overwhelmed because my work load seems endless > I feel overwhelmed because my work load seems endless

c. I feel overwhelmed because my work load seems endless = I feel overwhelmed because my work load seems endless

Table G36

Test Statistics[a]

	I feel overwhelmed because my work load seems endless - I feel overwhelmed because my work load seems endless
Z	-1.210[b]
Asymp. Sig. (2-tailed)	.226

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

r = .23

Table G37

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I feel "bogged down" by the system	14	1.00	5.00	2.8571	1.40642
I feel "bogged down" by the system	14	1.00	5.00	2.9286	1.07161
Valid N (listwise)	14				

Table G38

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I feel "bogged down" by the system	.157	14	.200*	.914	14	.177
I feel "bogged down" by the system	.312	14	<.001	.862	14	.032

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Table G39

Ranks

		N	Mean Rank	Sum of Ranks
I feel "bogged down" by the system - I feel "bogged down" by the system	Negative Ranks	3[a]	4.33	13.00
	Positive Ranks	4[b]	3.75	15.00
	Ties	7[c]		
	Total	14		

a. I feel "bogged down" by the system < I feel "bogged down" by the system

b. I feel "bogged down" by the system > I feel "bogged down" by the system

c. I feel "bogged down" by the system = I feel "bogged down" by the system

Table G40

Test Statistics[a]

	I feel "bogged down" by the system - I feel "bogged down" by the system
Z	-.173[b]
Asymp. Sig. (2-tailed)	.862

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

r = .03

Table G41

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I am a very caring person	14	1.00	3.00	1.2857	.61125
I am a very caring person	14	1.00	3.00	1.4286	.64621
Valid N (listwise)	14				

Table G42

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I am a very caring person	.466	14	<.001	.545	14	<.001
I am a very caring person	.389	14	<.001	.688	14	<.001

a. Lilliefors Significance Correction

Table G43

Ranks

		N	Mean Rank	Sum of Ranks
I am a very caring person - I am a very caring person	Negative Ranks	0[a]	.00	.00
	Positive Ranks	2[b]	1.50	3.00
	Ties	12[c]		
	Total	14		

a. I am a very caring person < I am a very caring person

b. I am a very caring person > I am a very caring person

c. I am a very caring person = I am a very caring person

Table G44

Test Statistics[a]

	I am a very caring person - I am a very caring person
Z	-1.414[b]
Asymp. Sig. (2-tailed)	.157

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

r = .27

Appendix H

Statistical Analysis of Secondary Trauma Stress and Individual Elements

Table H1

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PreSecondaryTraumaScore	14	11.00	35.00	22.6429	7.82115
PostSecondaryTraumaScore	14	14.00	36.00	20.2143	6.17910
Valid N (listwise)	14				

Table H2

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PreSecondaryTraumaScore	.112	14	.200*	.958	14	.698
PostSecondaryTraumaScore	.221	14	.063	.849	14	.021

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Table H3

Ranks

		N	Mean Rank	Sum of Ranks
PostSecondaryTraumaScore - PreSecondaryTraumaScore	Negative Ranks	9[a]	8.39	75.50
	Positive Ranks	5[b]	5.90	29.50
	Ties	0[c]		
	Total	14		

a. PostSecondaryTraumaScore < PreSecondaryTraumaScore

b. PostSecondaryTraumaScore > PreSecondaryTraumaScore

c. PostSecondaryTraumaScore = PreSecondaryTraumaScore

Table H4

Test Statistics[a]

	PostSecondaryTraumaScore - PreSecondaryTraumaScore
Z	-1.447[b]
Asymp. Sig. (2-tailed)	.148

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

r = .27

Table H5

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I am preoccupied wtih more than one person	14	1.00	5.00	3.6429	1.27745
I am preoccupied wtih more than one person	14	2.00	5.00	3.6429	.84190
Valid N (listwise)	14				

Table H6

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I am preoccupied wtih more than one person	.324	14	<.001	.792	14	.004
I am preoccupied wtih more than one person	.236	14	.034	.889	14	.078

a. Lilliefors Significance Correction

Table H7

Ranks

		N	Mean Rank	Sum of Ranks
I am preoccupied wtih more than one person - I am preoccupied wtih more than one person	Negative Ranks	5[a]	3.50	17.50
	Positive Ranks	3[b]	6.17	18.50
	Ties	6[c]		
	Total	14		

a. I am preoccupied wtih more than one person < I am preoccupied wtih more than one person

b. I am preoccupied wtih more than one person > I am preoccupied wtih more than one person

c. I am preoccupied wtih more than one person = I am preoccupied wtih more than one person

Table H8

Test Statistics[a]

	I am preoccupied wtih more than one person - I am preoccupied wtih more than one person
Z	-.073[b]
Asymp. Sig. (2-tailed)	.942

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

r = .02

Table H9

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I jump or am startled by unexpected sounds	14	1.00	5.00	3.0000	1.41421
I jump or am startled by unexpected sounds	14	1.00	5.00	2.7143	1.20439
Valid N (listwise)	14				

Table H10

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I jump or am startled by unexpected sounds	.214	14	.081	.875	14	.050
I jump or am startled by unexpected sounds	.223	14	.056	.922	14	.233

a. Lilliefors Significance Correction

Table H11

Paired Samples Test

		Paired Differences					t	df	Significance	
					95% Confidence Interval of the Difference					
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			One-Sided p	Two-Sided p
Pair 1	I jump or am startled by unexpected sounds - I jump or am startled by unexpected sounds	.28571	1.13873	.30434	-.37177	.94320	.939	13	.182	.365

Table H12

Paired Samples Effect Sizes

					95% Confidence Interval	
			Standardizer[a]	Point Estimate	Lower	Upper
Pair 1	I jump or am startled by unexpected sounds - I jump or am startled by unexpected sounds	Cohen's d	1.13873	.251	-.286	.779
		Hedges' correction	1.17295	.244	-.278	.756

a. The denominator used in estimating the effect sizes.
Cohen's d uses the sample standard deviation of the mean difference.
Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

$\eta^2 = .25$

Table H13

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I find it difficult to separate my personal life from my life as a helper	14	1.00	5.00	2.6429	1.21574
I find it difficult to separate my personal life from my life as a helper	14	1.00	5.00	2.6429	1.27745
Valid N (listwise)	14				

Table H14

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I find it difficult to separate my personal life from my life as a helper	.273	14	.006	.894	14	.093
I find it difficult to separate my personal life from my life as a helper	.264	14	.009	.870	14	.042

a. Lilliefors Significance Correction

Table H15

Ranks

		N	Mean Rank	Sum of Ranks
I find it difficult to separate my personal life from my life as a helper - I find it difficult to separate my personal life from my life as a helper	Negative Ranks	3[a]	2.50	7.50
	Positive Ranks	2[b]	3.75	7.50
	Ties	9[c]		
	Total	14		

a. I find it difficult to separate my personal life from my life as a helper < I find it difficult to separate my personal life from my life as a helper

b. I find it difficult to separate my personal life from my life as a helper > I find it difficult to separate my personal life from my life as a helper

c. I find it difficult to separate my personal life from my life as a helper = I find it difficult to separate my personal life from my life as a helper

Table H16

Test Statistics[a]

	I find it difficult to separate my personal life from my life as a helper - I find it difficult to separate my personal life from my life as a helper
Z	.000[b]
Asymp. Sig. (2-tailed)	1.000

a. Wilcoxon Signed Ranks Test

b. The sum of negative ranks equals the sum of positive ranks.

r = .000

Table H17

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I think that I might have been affected by the traumatic stress of those I help	14	1.00	4.00	2.2143	1.12171
I think that I might have been affected by the traumatic stress of those I help	14	1.00	3.00	1.7857	.80178
Valid N (listwise)	14				

Table H18

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I think that I might have been affected by the traumatic stress of those I help	.218	14	.071	.857	14	.028
I think that I might have been affected by the traumatic stress of those I help	.265	14	.009	.798	14	.005

a. Lilliefors Significance Correction

Table H19

Ranks

		N	Mean Rank	Sum of Ranks
I think that I might have been affected by the traumatic stress of those I help - I think that I might have been affected by the traumatic stress of those I help	Negative Ranks	6[a]	4.83	29.00
	Positive Ranks	2[b]	3.50	7.00
	Ties	6[c]		
	Total	14		

a. I think that I might have been affected by the traumatic stress of those I help < I think that I might have been affected by the traumatic stress of those I help

b. I think that I might have been affected by the traumatic stress of those I help > I think that I might have been affected by the traumatic stress of those I help

c. I think that I might have been affected by the traumatic stress of those I help = I think that I might have been affected by the traumatic stress of those I help

Table H20

Test Statistics[a]

	I think that I might have been affected by the traumatic stress of those I help - I think that I might have been affected by the traumatic stress of those I help
Z	-1.613[b]
Asymp. Sig. (2-tailed)	.107

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

$r = .3$

Table H21

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Because of my helping, I have felt "on edge" about various things	14	1.00	5.00	2.4286	1.22250
Because of my helping, I have felt "on edge" about various things	14	1.00	4.00	2.0000	.96077
Valid N (listwise)	14				

Table H22

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Because of my helping, I have felt "on edge" about various things	.180	14	.200*	.895	14	.094
Because of my helping, I have felt "on edge" about various things	.214	14	.081	.861	14	.032

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Table H23

Ranks

		N	Mean Rank	Sum of Ranks
Because of my helping, I have felt "on edge" about various things - Because of my helping, I have felt "on edge" about various things	Negative Ranks	8[a]	5.88	47.00
	Positive Ranks	3[b]	6.33	19.00
	Ties	3[c]		
	Total	14		

a. Because of my helping, I have felt "on edge" about various things < Because of my helping, I have felt "on edge" about various things

b. Because of my helping, I have felt "on edge" about various things > Because of my helping, I have felt "on edge" about various things

c. Because of my helping, I have felt "on edge" about various things = Because of my helping, I have felt "on edge" about various things

Table H24

Test Statistics[a]

	Because of my helping, I have felt "on edge" about various things - Because of my helping, I have felt "on edge" about various things
Z	-1.303[b]
Asymp. Sig. (2-tailed)	.193

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

r = .25

Table H25

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I feel depressed because of the traumatic experiences of the people I help	14	1.00	3.00	1.7857	.69929
I feel depressed because of the traumatic experiences of the people I help	14	1.00	3.00	1.7143	.91387
Valid N (listwise)	14				

Table H26

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I feel depressed because of the traumatic experiences of the people I help	.263	14	.009	.806	14	.006
I feel depressed because of the traumatic experiences of the people I help	.354	14	<.001	.703	14	<.001

a. Lilliefors Significance Correction

Table H27

Ranks

		N	Mean Rank	Sum of Ranks
I feel depressed because of the traumatic experiences of the people I help - I feel depressed because of the traumatic experiences of the people I help	Negative Ranks	5[a]	4.00	20.00
	Positive Ranks	3[b]	5.33	16.00
	Ties	6[c]		
	Total	14		

a. I feel depressed because of the traumatic experiences of the people I help < I feel depressed because of the traumatic experiences of the people I help

b. I feel depressed because of the traumatic experiences of the people I help > I feel depressed because of the traumatic experiences of the people I help

c. I feel depressed because of the traumatic experiences of the people I help = I feel depressed because of the traumatic experiences of the people I help

Table H28

Test Statistics[a]

	I feel depressed because of the traumatic experiences of the people I help - I feel depressed because of the traumatic experiences of the people I help
Z	-.302[b]
Asymp. Sig. (2-tailed)	.763

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

r = .06

Table H29

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I feel as though I am experiencing the trauma of someone I have helped	14	1.00	3.00	1.6429	.74495
I feel as though I am experiencing the trauma of someone I have helped	14	1.00	3.00	1.5714	.75593
Valid N (listwise)	14				

Table H30

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I feel as though I am experiencing the trauma of someone I have helped	.306	14	<.001	.773	14	.002
I feel as though I am experiencing the trauma of someone I have helped	.347	14	<.001	.735	14	<.001

a. Lilliefors Significance Correction

Table H31

Ranks

		N	Mean Rank	Sum of Ranks
I feel as though I am experiencing the trauma of someone I have helped - I feel as though I am experiencing the trauma of someone I have helped	Negative Ranks	2[a]	3.00	6.00
	Positive Ranks	2[b]	2.00	4.00
	Ties	10[c]		
	Total	14		

a. I feel as though I am experiencing the trauma of someone I have helped < I feel as though I am experiencing the trauma of someone I have helped

b. I feel as though I am experiencing the trauma of someone I have helped > I feel as though I am experiencing the trauma of someone I have helped

c. I feel as though I am experiencing the trauma of someone I have helped = I feel as though I am experiencing the trauma of someone I have helped

Table H32

Test Statistics[a]

	I feel as though I am experiencing the trauma of someone I have helped - I feel as though I am experiencing the trauma of someone I have helped
Z	-.378[b]
Asymp. Sig. (2-tailed)	.705

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

r = .10

Table H33

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I avoid certain activities or situations because they remind me of frightening experiences of the people I help	14	1.00	4.00	1.8571	1.02711
I avoid certain activities or situations because they remind me of frightening experiences of the people I help	14	1.00	3.00	1.2143	.57893
Valid N (listwise)	14				

Table H34

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I avoid certain activities or situations because they remind me of frightening experiences of the people I help	.298	14	.001	.800	14	.005
I avoid certain activities or situations because they remind me of frightening experiences of the people I help	.502	14	<.001	.438	14	<.001

a. Lilliefors Significance Correction

Table H35

Ranks

		N	Mean Rank	Sum of Ranks
I avoid certain activities or situations because they remind me of frightening experiences of the people I help - I avoid certain activities or situations because they remind me of frightening experiences of the people I help	Negative Ranks	6[a]	4.25	25.50
	Positive Ranks	1[b]	2.50	2.50
	Ties	7[c]		
	Total	14		

a. I avoid certain activities or situations because they remind me of frightening experiences of the people I help < I avoid certain activities or situations because they remind me of frightening experiences of the people I help

b. I avoid certain activities or situations because they remind me of frightening experiences of the people I help > I avoid certain activities or situations because they remind me of frightening experiences of the people I help

c. I avoid certain activities or situations because they remind me of frightening experiences of the people I help = I avoid certain activities or situations because they remind me of frightening experiences of the people I help

Table H36

Test Statistics[a]

	I avoid certain activities or situations because they remind me of frightening experiences of the people I help - I avoid certain activities or situations because they remind me of frightening experiences of the people I help
Z	-1.983[b]
Asymp. Sig. (2-tailed)	.047

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

r = .375

Table H37

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
As a result of my helping, I have intrusive, frightening thoughts	14	1.00	4.00	1.5000	.85485
As a result of my helping, I have intrusive, frightening thoughts	14	1.00	3.00	1.1429	.53452
Valid N (listwise)	14				

Table H38

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
As a result of my helping, I have intrusive, frightening thoughts	.364	14	<.001	.636	14	<.001
As a result of my helping, I have intrusive, frightening thoughts	.534	14	<.001	.297	14	<.001

a. Lilliefors Significance Correction

Table H39

Ranks

		N	Mean Rank	Sum of Ranks
As a result of my helping, I have intrusive, frightening thoughts - As a result of my helping, I have intrusive, frightening thoughts	Negative Ranks	5[a]	3.00	15.00
	Positive Ranks	0[b]	.00	.00
	Ties	9[c]		
	Total	14		

a. As a result of my helping, I have intrusive, frightening thoughts < As a result of my helping, I have intrusive, frightening thoughts

b. As a result of my helping, I have intrusive, frightening thoughts > As a result of my helping, I have intrusive, frightening thoughts

c. As a result of my helping, I have intrusive, frightening thoughts = As a result of my helping, I have intrusive, frightening thoughts

Table H40

Test Statistics[a]

	As a result of my helping, I have intrusive, frightening thoughts - As a result of my helping, I have intrusive, frightening thoughts
Z	-2.236[b]
Asymp. Sig. (2-tailed)	.025

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

r= .42

Table H41

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
I can't recall important parts of my work with trauma victims	14	1.00	5.00	1.9286	1.32806
I can't recall important parts of my work with trauma victims	14	1.00	4.00	1.8571	1.02711
Valid N (listwise)	14				

Table H42

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
I can't recall important parts of my work with trauma victims	.329	14	<.001	.749	14	.001
I can't recall important parts of my work with trauma victims	.298	14	.001	.800	14	.005

a. Lilliefors Significance Correction

Table H43

Ranks

		N	Mean Rank	Sum of Ranks
I can't recall important parts of my work with trauma victims - I can't recall important parts of my work with trauma victims	Negative Ranks	4[a]	4.75	19.00
	Positive Ranks	4[b]	4.25	17.00
	Ties	6[c]		
	Total	14		

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

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

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

Table H44

Test Statistics[a]

	I can't recall important parts of my work with trauma victims - I can't recall important parts of my work with trauma victims
Z	-.142[b]
Asymp. Sig. (2-tailed)	.887

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

r= .026