Summer 7-22-2021

Reducing the Incidence of Compassion Fatigue in Obstetrical Nurses

Naveen Samuel

University of St. Augustine for Health Sciences, n.samuel@usa.edu

DOI: <https://doi.org/10.46409/sr.QMBM9010>

This work is licensed under a [Creative Commons Attribution 4.0 License](https://creativecommons.org/licenses/by/4.0/).

Follow this and additional works at: <https://soar.usa.edu/scholprojects>

Part of the [Psychiatric and Mental Health Nursing Commons](#)

Recommended Citation

Samuel, N. (2021). *Reducing the Incidence of Compassion Fatigue in Obstetrical Nurses*. [Doctoral project, University of St Augustine for Health Sciences]. SOAR @ USA: Student Scholarly Projects Collection. <https://doi.org/10.46409/sr.QMBM9010>

This Scholarly Project is brought to you for free and open access by the Student Research at SOAR @ USA. It has been accepted for inclusion in Student Scholarly Projects by an authorized administrator of SOAR @ USA. For more information, please contact soar@usa.edu, erobinson@usa.edu.

Reducing the Incidence of Compassion Fatigue in Obstetrical Nurses

Naveen Samuel, MS, ARNP, ANP-BC, FNP-BC

School of Nursing, University of St. Augustine for Health Sciences

This Manuscript Partially Fulfills the Requirements for the

Doctor of Nursing Practice Program and is Approved by:

Camille Payne, PhD, RN

Beverly B. McInnis, DNP, RNC, CNS

Approved: July 22, 2021

Abstract

Practice Problem

Compassion fatigue is a growing problem that can affect 21% to 39% of nurses who work in hospital settings (Berger et al., 2015). Compassion fatigue has been further exacerbated due to the COVID-19 pandemic. Compassion fatigue negatively impacts the nurses in profound physical and emotional ways.

PICOT

The PICOT question that guided this project was: For obstetrical nurses working in a nonprofit organization, what is the effect of a compassion fatigue program, compared with no program, on nurses in reducing compassion fatigue after two months?

Evidence

Current evidence shows that mindfulness decreases compassion fatigue and increases compassion satisfaction.

Intervention

This paper describes how a mindfulness program was implemented in obstetrical unit in a nonprofit hospital in central Virginia.

Outcome

The implementation of this mindfulness program has resulted in a 15.6% increase in compassion satisfaction, a 35.1% decrease in burnout, and a 39.5% decrease in secondary traumatic stress.

Conclusion

This EBP project demonstrated that the mindfulness program successfully decreased the incidence of compassion fatigue in obstetrical nurses at a statistically significant level.

Reducing the Incidence of Compassion Fatigue in Obstetrical Nurses

The term “compassion fatigue” (CF) was first coined in the 1950s in nursing and with other first line responders (Milligan & Almomani, 2020). CF was introduced by Joinson (1992), where she described CF as a unique form of burnout (BO) influencing individuals in care giving careers including pastors, advisors, and particularly nurses. Critical care nurses provide care to highly critical patients and are at higher risk to develop CF (Sacco et al., 2015).

This evidence-based practice (EBP) project examines the problem of CF in nurses who work in obstetrical units. The aim of this scholarly project is to reduce the incidence of CF through the implementation of a CF program which increases awareness and compassion satisfaction through practicing mindfulness. This paper discusses the significance of the practice problem; PICOT question; theoretical framework; evidence search strategy and results; themes with practice recommendations; setting, stakeholders, and system change; implementation plan with timeline and budget; evaluation plan; impact; dissemination plan; and conclusion.

Significance of the Practice Problem

Figley (1995) defined CF as “the natural consequent behaviors and emotions resulting from knowing about a traumatizing event experienced by a significant other, for example, the stress resulting from helping or wanting to help a traumatized or suffering person” (p. 253). CF in nurses is well documented in literature (Hooper et al., 2010; Hunsaker et al., 2015; Mooney et al., 2017; Nottle et al., 2017; Wu et al., 2016) and develops gradually from an undesired result of taking care of suffering individuals (Stamm, 1999). Moreover, CF is an emotional and physical fatigue that can be preventable when balanced by compassion satisfaction (Hunsaker et al., 2015).

CF can manifest itself through the following symptoms: sleep disturbance, trouble concentrating, anxiety, stress, negative attitudes, muscle tightness, feeling troubled, exhausted, overpowered with sadness, along with withdrawal that may have a negative impact on productivity (Milligan & Almomani, 2020; Nottle et al., 2017). Other outcomes of CF are a diminished feeling of satisfaction, powerlessness, disappointment, and an absence of inspiration (Harris & Quinn Griffin, 2015). CF is a topic that has grown in its popularity over the past 20 years due to the challenges that nurses face in their profession (Nottle et al., 2017). CF may lead to increased temper, irritability, and negative adapting practices including alcohol and illicit drug usage (Coker & Joss, 2016; Jarrad et al., 2018; Kelly et al., 2015; Substance Abuse and Mental Health Services Administration [SAMHSA], n.d.). CF may lead to decreased productivity, increased medical errors, and decreased patient satisfaction (Berger et al., 2015). CF in nurses leads to nearly 20% of nurses leaving their jobs within their first year (Kelly & Todd, 2017).

According to Berger et al. (2015), CF can affect 21% to 39% of nurses who work in hospital settings. According to Nursing Solutions Inc. (2020), the cost of a nurse turnover ranges from approximately \$33,000 to \$56,000, which adds to a total loss of three to six million dollars per year in the United States. A high level of CF is associated with a high rate of patient mortality (Welp et al., 2015) and acquired hospital infection (Cimiotti et al., 2012). In the nonprofit organization where this evidence-based practice project took place, the chief nursing officer expressed a concern that nurses are experiencing a higher level of compassion fatigue during the COVID-19 pandemic. Therefore, there was a need to address this issue.

Healthcare organizations offering support and a healthy environment for their nurses increases nurse satisfaction, improves patient outcomes, decreases nurse turnover, and reduces healthcare costs (Kelly & Todd, 2017; Wu et al., 2016). CF and compassion satisfaction (CS)

should be assessed on a regular basis, and nurses should be encouraged to promote self-care and engage in leisure time (Polat et al., 2020).

PICOT Question

The PICOT question for the evidence-based project is: for obstetrical nurses working in a nonprofit organization (P), what is the effect of a CF program (I), compared with no program (C), on nurses in reducing CF (O) after 2 months (T)?

Population

Obstetrical nurses serve as the target population of the study. Nurses who are 18 years and older are included in the EBP.

Intervention

The implementation of a CF policy and procedure was the intervention. The components of the CF program consist of the “Professional Quality of Life” (“ProQOL”) surveys and tools, a PowerPoint presentation on CS and CF, and sustainable daily mindfulness practices for staff. All obstetrical nurses will receive the intervention; the comparison will be the results of the ProQOL survey that will be taken before and after receiving the program.

Comparison

The intervention was compared to the current practice.

Outcome

The primary outcome measure in this EBP was to reduce the incidence of CF and increase CS.

Time

After receiving approval from the EBP Project Review Council (EPRC) at the University of Saint Augustine and from the Institutional Review Board (IRB) of the non-profit healthcare

organization, the implementation began with a pre-test. A post-test was conducted at the end of the 4-week project.

Evidence-Based Practice Framework and Change Theory

The Johns Hopkins Nursing Evidence Based Practice Model (JHNEBP) model was developed by nurse leaders from both Johns Hopkins Hospital and Johns Hopkins University School of Nursing (White et al., 2016). The JHNEBP model offers a critical thinking approach to develop a practical model to facilitate the ability of nurses to implement the most updated evidence and translate it into practice (Johns Hopkins Medicine, n.d.).

The JHNEBP model was planned explicitly to address the needs in the nursing profession by utilizing a three-step process: practice question, evidence, and translation (PET) (White et al., 2016). The objective of the model is to ensure that the most updated research and best practices are rapidly and suitably applied to patient clinical care (Johns Hopkins Medicine, n.d.).

The JHNEBP model, which provides the use of a scale for categorizing and rating the literature, ensures that the selection of articles regarding CF will reflect quality research to include in the EBP project (White et al., 2016). The EBP project took place in a magnet hospital that maintains the requirements of the American Nurses Credentialing Center. The fundamentals of the culture of a magnet hospital are to demonstrate strong nursing leadership, keep nurses engaged, and build a resilience in the workplace by reducing CF and increasing CS (Graystone, 2019). The strong organizational leadership and culture, which trusted the EBP and supported it to reach the common goal of achieving the best patient outcomes, contributed to the success of the project (Dearholt & Dang, 2012).

The JHNEBP model was utilized as guidance through its main three components, PET, and the 18 total steps within the practice question, evidence, and translation (Dearholt & Dang,

2012). The first component was the practice question which included five steps: recruit a multidisciplinary team, compose and refine the EBP PICOT question, identify stakeholders, assign responsibility for leadership, and arrange time for team meetings (Dearholt & Dang, 2012). The second component was the evidence which included five steps: perform a search for evidence, appraise the level of each part of the evidence, combine the evidence, synthesize the strength and quality of evidence, and create a proposal for change based on the levels of synthesis (Dearholt & Dang, 2012). The literature search helped identify the training material and module for CF. The third component was the translation which included eight steps: decide the practicality and achievability of recommendations, develop an action plan, acquire resources to implement the action plan, execute the action plan, assess results, report results to stakeholders, specify the future steps, and disseminate the results (Dearholt & Dang, 2012). The key stakeholders assisted the project manager in determining the timeline, the best time and method to present the protocol that would best fit the flow of the hospital unit. The educational department and stakeholders are instrumental in sustaining the project in the future.

In this EBP project, Lewin's Change Theory was utilized to support the planned change and provided a framework for motivating acceptance of the intervention to reduce CF among nurses. Lewin's theory focuses on changing behaviors through a three-step approach which includes unfreeze, change, and refreeze (Mulholland, 2017). In the unfreezing phase, Lewin suggested that the old behavior must be changed in order for new behavior to be established (McGarr et al., 2012). The second step in Lewin's Change Theory is change, during which nurses and the organization adopt a new status of increased CS and resilience while reducing CF (Burnes, 2004). The third step in this theory is refreeze, which solidifies the new status of the behavior change. Refreeze requires patience and perseverance. During this step of the change

model, the organization adopts the change to improve nurses' self-care and resilience and to sustain the reduction in CF (Burnes, 2004).

Evidence Search Strategy

An electronic search of digital databases utilizing the University of St. Augustine's library portal included: Cumulative Index to Nursing and Allied Health Literature Complete (CINAHL Complete), Public/Publisher MEDLINE (PubMed), Ovid Emcare, and PsycINFO. The key words used in the advanced search included: compassion fatigue, nurses, nursing staff, nurse, interventions, strategies, and best practices. The search limited the report-type to peer-reviewed academic journals, in the publication English language, and within the time frame January 1, 2015 to present date October, 2020. A title search using the above key words and the above general limiters resulted in 537 titles from the four databases.

The search in CINAHL resulted in a total of 141 articles. Boolean operators were used to capture the best search: compassion fatigue AND nurses OR nursing staff OR nurse AND interventions OR strategies OR best practices. The search in PubMed resulted in 20 articles. The terms compassion fatigue AND nurses OR nursing staff OR nurse AND interventions OR strategies OR best practices were utilized. The search in Ovid Emcare resulted in 307 articles. The terms utilized were: compassion fatigue AND nurses. The search in PsycINFO resulted in 69 articles. The terms compassion fatigue AND nurses OR nursing staff OR nurse AND interventions OR strategies OR best practices were utilized.

Evidence Search Results

A total of 537 articles were carefully inspected to determine whether they met the inclusion criteria. This review was conducted following the Preferred Reporting Items for Systematic Reviews and Meta-Analyzes (PRISMA). Articles were excluded if they were

published before 2015, if they were written in a language different than English, and if their target population was non healthcare professionals such as teachers, firefighters, or caregivers. Thirty duplicate articles were removed, and 300 articles were excluded as they focused solely on the prevalence of CF, CF risk factors, or non-healthcare professionals. The remaining 207 articles were evaluated, and 183 articles were excluded as they did not focus on CF, did not evaluate the effectiveness of a CF prevention or intervention program, or did not utilize a specific validated measure of CF. The application of these inclusion and exclusion criteria resulted in a total of 14 articles. See Figure 1 for the PRISMA diagram.

The 14 articles were evaluated for level and quality based on JHNEBP (Dang & Dearholt, 2017). One Level I, high quality Grade A article that was an experimental, randomized controlled trial (RCT) was found. No Level II articles were found. Seven articles were Level III, and two of those were high quality Grade A articles: a systematic review of a combination of RCTs and a non-experimental study with meta-analysis. The remaining five were good quality Grade B articles: exploratory pre-post interventional pilot study, explanatory quantitative study, mixed methods sequential design study, and two systematic reviews. The remaining four were Level V, with one being a high quality Grade A article: a training workshop for nurses. The remaining three were good quality Grade B articles: two pilot studies and one evidence-based program (Dang & Dearholt, 2017). A summary of primary research and systematic reviews can be found in Appendices A and B. A table describing the level of the articles is in Appendix C.

Themes from the Literature

While reviewing the literature, several themes emerged that address the components of the PICOT question. A thorough evaluation of the literature is provided in the evidence table that includes the level and quality of evidence-based support in Appendix A and systemic reviews in

Appendix B. A synthesis of 14 articles of high and good quality, which utilized ProQOL as a validated tool to measure CF, concluded that increased awareness increases CS and reduces CF. Eleven of the 14 good quality articles showed that increased awareness reduces CF and increases CS, while nine of the 14 showed that practicing mindfulness reduces CF and increases CS (see Appendix D).

Compassion Fatigue and Compassion Satisfaction

CF as a term represents the emotional, physical, and job-related impacts of spending one's energy over any period of time to provide compassionate, empathic care to others (Adimando, 2018; Craigie et al., 2016; Durkin et al., 2016; Klein et al., 2018; Sullivan et al., 2029; Yilmaz et al., 2018; Zajac et al., 2017). CF may lead to negative detrimental implications: physical, mental, and work-related consequences that affect healthcare quality and patient safety, and degree of commitment with one's workplace in a negative way (Adimando, 2019; Blackburn et al., 2020; Coetzee & Klopper, 2010, as cited in Blackburn et al., 2020; Jenkins & Warren, 2012, as cited in in Blackburn et al., 2020). CF is associated with a variety of adverse effects in the nursing profession, including psychological distress, decreased efficiency, increased absenteeism, and therefore the potential for increased risks to patient safety (Craigie et al, 2016; Yilmaz et al., 2018; Zajac et al., 2017). CF may lead to anxiety, depression, lack of ability to remain rational, mood lability, frustration, anger, and poor judgment. CF may lead to decreased retention of workers (i.e., increased turnover), decreased efficiency, increased work-related mistakes, and diminished employee satisfaction, all of which can contribute to substantial, but potentially preventable, costs for a company (Blackburn et al, 2020; Craigie et al, 2016; Sullivan et al, 2019; Yilmaz et al., 2018; Zajac et al., 2017).

Increased Awareness

The most frequently cited intervention for reducing CF is increasing awareness of risk factors, causes, and symptoms of CF to empower nurses to identify and prevent its onset (Adimando, 2018; Blackburn et al., 2020; Craigie et al., 2016; Klein et al., 2018; Ortega-Campos, et al., 2020; Rajeswari et al., 2020; Sinclair et al., 2017; Sullivan et al., 2019; Wentzel & Brysiewicz, 2017; Xu et al., 2020; Yilmaz et al., 2018). Several studies included workshops as a means of increasing staff awareness of CF and CS (Klein et al., 2018; Rajeswari et al., 2020; Sullivan et al., 2018; Zajac et al., 2017). Workshops ranged from 1 day to several weeks. Klein et al (2018) presented professional development programs to educate participants with a time range from 30 to 90 minutes. Sullivan et al. (2018) offered a one-time workshop to educate participants offsite on a retreat day.

Mindfulness

Mindfulness is described by Orellana-Rios (2017, as cited in Blackburn et al., 2020) as actively bringing consciousness with openness, receptivity, and interest to the here-and-now experience. The practice of mindfulness is opposite in purpose to the normal mentality of nurses and pride in multitasking. Intuition, concentration, and the induction of the calming response are combined through mindful practices (Caley et al., 2017, as cited in Blackburn et al., 2020). Mindfulness is defined as “awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally” (Kabat-Zinn 2003, p. 145).

Clinical studies demonstrated that mindfulness offers positive outcomes in minimizing depressive mood and stress, as well as avoiding depression while increasing self-compassion and positive behavior (Blackburn et al., 2020; Craigie et al., 2016; Khoury et al., 2003, as cited in Craigie et al., 2016; Klein et al., 2018; Rajeswari et al., 2020; Sullivan et al., 2019). Mindfulness

throughout the literature varies from 3 minutes to 10 minutes to 20 minutes per session (Craigie et al., 2016; Ortega-Campos et al., 2018; Rajeswari et al., 2020; Wentzel & Brysiewicz 2017).

ProQOL

The ProQOL tool was first developed by Stamm and Figley in 1995 (Figley & Stamm, 1996; Gentry, 2002; Stamm, 2010). ProQOL (version 5) is the most widely utilized validated tool as a pre/posttest to examine the effectiveness of the multidimensional intervention on reducing CF and increasing CS (Stamm, 2010). In general, high ratings of CS were associated with positive interaction with one's employer (Adimando, 2018; Blackburn et al., 2020; Craigie et al., 2016; Durkin et al., 2016; Michael et al., 2019; Rajeswari et al., 2020; Sullivan et al., 2019; Yilmaz et al., 2018; and Zajac et al., 2017).

Practice Recommendations

Based on the literature synthesis, the recommendation was to implement a nurse-centered CF reduction program. This includes presurvey using ProQOL-5, a CF program over 4 weeks, and a postsurvey using ProQOL-5. The program was made available to all nursing staff through their weekly newsletter. They were reminded by posters in the breakroom and flyers in the restrooms and locker rooms. There was an incentive of a drawing to select one participant to win a gift card. All participants, upon completion, received a self-care kit, including hand sanitizer, pen, and journal (Ortega-Campos et al., 2020; Wentzel & Brysiewics, 2017).

Project Setting

The project setting was the obstetrical unit located in a 391 bed, non-profit Catholic healthcare system, with 11 labor rooms, and an obstetrical emergency department that includes two triage rooms and two operative suites. The obstetrical unit is composed of a mother/infant unit, women's surgical unit, as well as ante-partum and post-partum units. The mother infant unit

has 21 private rooms, while the women's surgical unit is a 12 bed gynecology unit. This unit accommodates antepartum patients, as well as postpartum patients if needed. The non-profit organization delivers an average of 2000 births per year.

Organizational Structure

This hospital is a part of four campuses in the area. The hospital where the project took place is one of the oldest campuses in the area, serving approximately 1,230,852 residents from across 61 zip codes.

Organizational Culture and Mission

The hospital was built in 1966 by the community for the community. The hospital is a Center of Excellence for Minimally Invasive GYN surgeries as certified by the Surgical Review Corporation and was named by Style Weekly as the "best place in Richmond to have a baby." The hospital is the first community hospital in the area to achieve Magnet Recognition by the American Nurses Credentialing Center for nursing excellence. The mission of the hospital is to provide good help to those in need and to bring people throughout the region to health and wholeness.

Organizational Need

Organizational need for the project stemmed from the recommendation of the clinical nurse specialist of the Neonatal ICU and obstetrical unit, as well as the obstetrical unit director, to utilize the ProQOL validated tool to assess and recognize the early signs and symptoms of CF. The same tool measures compassion satisfaction, which are the pleasure and positive emotions derived from helping others, such as happiness, accomplishments, and satisfaction.

Organizational Support

The organizational support was initially provided by the Clinical Nurse Specialist of the NICU and Obstetrical Units who formed a multi-disciplinary team to address the need to recognize and reduce CF. The team included the unit director, chaplain, the clinical nurse specialist, and the social worker. The plan for sustainability for this project will be secured by the continued support and implementation of this project by the clinical nurse specialist of the unit. To sustain the EBP, a policy was created that requires an annual CF program. The start of this project created a micro system change, and the project will be adapted and utilized by other units, creating a meso system change.

Stakeholders

Brainstorming is the strategy and tool that was utilized to identify the stakeholders for this quality improvement evidence-based practice project. The following are the stakeholders: the nursing professional development coordinator, clinical care leaders, and the nurse director for the Obstetrical Unit. Project support was launched by inviting the stakeholders via a Zoom meeting to discuss the policy and procedure to reduce CF.

Strength, Weakness, Opportunity, and Threat Analysis

An organizational Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis was conducted to assess the organization. The SWOT analysis provided an evaluation to determine the organization's readiness to implement the teamwork initiative (Agency for Healthcare Research and Quality, 2012). The SWOT analysis is provided in Appendix E.

Implementation Plan with Timeline and Budget

Project Objectives

The EBP change reduces CF for obstetrical nurses by increasing CS. This aligns with the organization's mission to increase nurse awareness of CF and its early signs and symptoms and to create an intervention to mitigate its negative effect. The project's mission was to emphasize the nurses' wellbeing using mindfulness to increase resilience and therefore increase CS.

There are two main types of objectives: process objectives and outcome objectives. Process objectives focus on the activities to be finished in a particular time span (Centers for Disease Control and Prevention [CDC], n.d.). There are two process objectives. For details about the project's short-term and long-term objectives, see Appendix F.

Outcome objectives express the planned outcome or achievement of the program and the intervention (CDC, n.d.). They are regularly centered around changes in strategy, policy, system, knowledge, and behavior (CDC, n.d.). Outcome objectives can be short term, intermediate, or long-term objectives (see Appendix F).

Project Plan

The change model for this EBP project was Lewin's change model. Kurt Lewin was born in Poland in 1890. He was a pioneer in social, organizational, and applied psychology (Social Work Foot Prints, 2017). Lewin's change model is considered one of the cornerstone models for understanding organizational changes (Burnes, 2004). According to Bryant (2013), organizational culture is the product of beliefs, values, standards, and attitudes shared by individuals and groups that form the organization. Lewin's three stage model consists of the unfreezing, change, and refreezing states.

Unfreezing

The unfreezing consists of creating the perception that change is needed and moving toward the new desired level of behavior. The goal in the unfreezing state is to create an awareness of how the status quo is hindering the individual and organization to create a desire to change (Wojciechowski et al., 2016). Increased awareness of CF and the need to recognize the early signs and symptoms to avoid physical, emotional, or psychological consequences on the individual level, as well as avoiding institutional consequences on the organizational level, was the first step towards the change. The ProQOL tool results for each individual nurse offered the actual status of CF and CS. The training program increased nurses' awareness of CF and CS. To justify the significance of the EBP and the need to address CF, a presentation was included in the staff meeting and available electronically due to the COVID-19 pandemic to increase staff and management awareness. This presentation provided the nurses with the reasons for the change and offered a roadmap for the intervention. The ProQOL survey was offered to all participants to assess the baseline CF and CS. A demographic questionnaire was answered individually at the same time.

Change

Change is the process that has to be carefully planned and executed (Manchester et al., 2014). During this step, individuals learn new behaviors, processes, and ways of thinking. Therefore, training, communication, support, and time are critical for nurses as they are becoming familiar with the change to achieve the desired outcomes.

The more nurses that were prepared for this step, the easier it was to complete and achieve the change. During this state, offering interventions such as mindfulness and organizational resources assisted nurses in striving and applying the change in their daily

activities to resist CF and increase CS. During this phase, the result of the ProQOL survey was shared individually and as a unit. The unit champions placed flyers and reminders in the break room, restrooms and by the computers in the nursing station to remind and encourage nurses to participate in the weekly mindfulness intervention. This took place weekly for a total of 4 weeks. Reinforcement occurred in the daily huddles, staff meetings, and weekly newsletter. At the conclusion of the 4 weeks, another ProQOL survey was conducted to evaluate the effect of the intervention on CF and CS.

Refreezing

Refreezing is to symbolize the act of reinforcing, stabilizing, and solidifying the new change after the second phase (Burnes, 2004). According to Lewin's Change Model, this is the phase where the change takes place as the new normal to ensure that changes are permanent (Manchester et al., 2014). This phase will be sustained by the clinical nurse specialist and the nurse champions, who are passionate about improving nurses' wellbeing and CS, to ensure the continuity of the intervention after the implementation of the project. The CF program will be part of the new unit orientation and unit policy, and it will also be part of the annual competency.

A project timeline was important to stay on track and achieve the goals of the EBP project in a timely manner. The dates, tasks, and assigned team members are illustrated in the project timeline (see Appendix G). Although the cost of this project was minimal, it will save the organization more in the long run as replacing one nurse may cost 6 to 9 months' worth of the nurse's salary (Michael et al., 2019). See Table 1 for the project budget.

Results

The participants in this EBP project were the nurses who worked in the obstetrical unit who were 18 years of age and older. Since this DNP scholarly project poses a minimal risk to the

participants, the IRB approved it as exempt (Johns Hopkins Medicine, n.d.). The project manager obtained permission to utilize the ProQOL tool (see Appendix H). Participants filled out the ProQOL survey pre and post intervention (see Appendix I). Participants were prescribed the intervention in the weekly newsletter and daily huddles. The nurse champions were instrumental to ensuring maximum contribution of the participants. The project manager obtained weekly mindfulness videos from a certified health coach to be offered to the staff (see Appendices J and K). All data were kept and transferred to the same SharePoint drive that is secured and includes limited access between only the DNP student and the DNP preceptor (see Appendix L).

Statistical analysis was conducted using the IntellectusStatistics software. Participant demographics including age group categories, day or night shift, education degree, and years of nursing experience and were described using frequency distribution and represented as a percentage. Frequencies and percentages are presented in Table 2. The ProQOL is a 30-item self-report questionnaire with three subscales. The first subscale assesses CS, which is defined as the joy received from being able to execute one's job properly. Higher scores on this scale indicate more satisfaction with one's capacity to care for others effectively. BO, or emotions of hopelessness and difficulty dealing with work or doing one's job efficiently, is measured on the second subscale. The third subscale assesses secondary traumatic stress (STS), which is defined as work-related secondary exposure to people who have been exposed to severely or traumatically stressful events. BO and CF are associated with higher scores on these subscales. On a 5-item Likert scale (from 1 = "never" to 5 = "very often"), participants were asked to rate how frequently each item was experienced in the past 30 days. Summing the item responses for each 10-item subscale is required for scoring.

The total compassion satisfaction score was found by adding up the sum of the following questions: 3, 6, 12, 16, 18, 20, 22, 24, 27, and 30. For the BO calculation, ProQOL guidelines reversed the score of the following questions: 1, 4, 15, 17, and 29 as the measure works better when these questions are asked in a positive way although they can tell us more when in their negative form. The total BO score was formed by adding the individual scores of the following questions: 1, 4, 8, 10, 15, 17, 19, 21, 26, and 29. The total STS score was formed by adding the individual scores of the following questions: 2, 5, 7, 9, 11, 13, 14, 23, 25, and 28. If each of these 3 categories scored 22 or less it was classified as low, while between 23 and 41 was classified as moderate, and 42 or more was classified as high. Based on these classifications, the results displayed a mean shift from a pretest classification of moderate to a posttest classification of high in CS and a mean shift from a pretest classification of moderate to a posttest classification low for both BO and STS.

The cross-tabulation variable for the demographic variables was the testing period that split the demographics for pre and posttest. The next step was to determine whether there was a statistically significant difference in the CS, BO, and STS scores between the pre and post testing periods. A two-tailed independent samples *t*-test was conducted to examine whether the mean of CS was significantly different between the pretest and posttest categories of the testing period. This was done using three independent samples *t*-tests where each of the testing constructs was the dependent variable and the testing period was the independent variable. The results of each of these tests are shown in Tables 3, 4, and 5. The *t*-tests showed that there was a statistically significant difference in the CS, BO, STS scores between testing periods based on a *p*-value of less than or equal to 0.05; more specifically, the *p*-value for all three *t*-tests was less than 0.001.

The Pearson Correlation Coefficient Test was conducted to determine the correlation between CS, BO, and STS (see Table 6). Table 6 shows a strong negative relationship between CS and BO, a moderate negative relationship between CS and STS, and a fairly strong positive relationship between BO and STS.

Outcome measures included the percent of nurses who experienced CF and CS in the obstetrical unit before and after the implementation of this project. Additionally, secondary traumatic stress and burnout was assessed pre and post intervention based on the ProQOL survey. As a result of the mindfulness program, there was a 15.6% increase in the mean of the CS score from pretest to posttest, a 35.1% decrease in the mean of the BO score from pretest to posttest, and a 39.5% decrease in the mean of the STS score from pretest to posttest, as shown by the two-tailed independent samples t-tests.

Process measures included the percentage of nurses who completed the mindfulness program and the percentage of nurses who completed the ProQOL survey pre and post intervention. Balance measures for the 6-week EBP project did not cause any strain on the budget of the obstetrical unit because the intervention took place during the nurses' breaks and/or huddles. In the future, financial measures will include the total cost saved by the organization due to decreased nurse turnover rate as a result of an increased incidence of CS.

Impact

The project achieved both statistically and clinically significant results. Descriptive statistics indicated demographically that nurses between the ages of 26 and 54 were more likely to experience CF. The results indicate that most nurses, regardless of their age, nursing degree, and years of nursing experience benefit from mindfulness as an intervention to increase CS and

reduce BO and STS. A statistically significant improvement was noted in CS and a reduction in BO and STS.

The project addressed an important problem in nurses experiencing CF including BO and STS especially during the COVID 19 pandemic. Mindfulness as an intervention increased CS by 15.6% and reduced CF by 39.5%. The COVID 19 pandemic caused limitations, including a limited number of participants, a low response rate for the pretest, and making this project virtual instead of face to face. Another limitation was that a paired t-test could not be performed on the ProQOL survey data to keep anonymity of participants. The nurse champions and stakeholders, under the guidance of the unit manager, will continue to offer awareness and intervention in practicing mindfulness. The mindfulness program will also be available for new hires and as a part of the nurses' annual competencies.

The project needed to be extended over a period of three months with multiple ProQOL surveys to further assess the impact of the program on reducing CF. Despite the above limitations, the results of this EBP project showed a statistically significant reduction in CF and an increase in CS, which warrants this program to be a part of initial nursing orientation, annual assessments, and widespread participation throughout the organization. The mindfulness program and protocol should be frequently evaluated to ensure sustainability of the EBP project.

Dissemination Plan

The first step to ensuring the dissemination was to share the outcome with the stakeholders, the team members, and the institution (Agency for Healthcare Research and Quality (AHRQ), 2014). Beyond raising awareness of CF, the goal is to engage hospital staff in the main intervention, as well as to promote the application of the CF policy (see Appendix M) to reduce CF and increase CS. The next step was to place flyers and develop newsletters to create

the appropriate awareness about the project (AHRQ, 2014). Increased awareness will come through participants attending an introduction on the topic of CF and CS, which will be available virtually due to the COVID-19 pandemic (see Appendix N).

The DNP student shared the EBP project and outcomes with the nursing director, clinical nursing leaders, and unit staff. The distribution of the results of the DNP project will be included in the weekly newsletter email from the clinical nurse specialist and the DNP student. Another means for local and regional dissemination is to send emails and use websites and blogs to share the EBP project and increase awareness of the problem and the solution. The DNP student will share the EBP project goal and outcomes to the local and regional Virginia Council of Nurse Practitioner , the Virginia Nurses Association , and the Virginia Association of Doctors of Nursing Practice .

The DNP student is planning to publish the EBP project as an article in the *Journal of Holistic Nursing*. This journal is a peer-reviewed journal that promotes holism, wellness practice, and it is part of the Committee on Publication Ethics (2020) that is committed to transform and sustain the culture of publishing to ethical practice . On the journal's website, there is an author guide under the submission guidelines tab that offers great detail about specific guidelines in manuscript submission and time for review, decision, and production (Journal of Holistic Nursing, 2020).

Conclusion

The EBP project's aim was to implement a mindfulness program policy and protocol for the organization leaders to provide an intervention to the nursing staff to reduce CF and increase CS. The policy and protocol, data collection, data tracking, increased staff awareness, and pre and post ProQOL were developed and implemented. The intervention included an increased

awareness of CF and mindfulness. CF is a global, national, and regional problem that affects nurses and healthcare providers. CF has an impact on decreased staff retention, increased work-related mistakes, decreased employee satisfaction, and decreased patient safety (Adimando, 2018; Durkin et al., 2016; Klein et al., 2018; Michael et al., 2019). The JHNEBP and Lewin's Change Model guided the intervention and created the protocol and policy to improve the participants' quality of life by reducing CF and increasing CS. A thorough literature review was conducted. Based on the literature review, the intervention was implemented to create a policy that provides the nursing staff with a protocol to reduce CF and increase CS.

References

- Adimando A. (2018). Preventing and alleviating compassion fatigue through self-care: An educational workshop for nurses. *Journal of Holistic Nursing: Official Journal of the American Holistic Nurses' Association*, 36(4), 304–317. <https://doi-org.proxy.library.vcu.edu/10.1177/0898010117721581>
- Agency for Healthcare Research and Quality (2012). *Assessing organizational readiness: SWOT analysis*. <https://www.ahrq.gov/teamstepps/instructor/reference/swotanalysis.html>
- Agency for Healthcare Research and Quality (2014). Quick-start guide to dissemination for practice-based research networks. https://pbrn.ahrq.gov/sites/default/files/AHRQ%20PBRN%20Dissemination%20QuickStart%20Guide_0.pdf
- American Psychological Association (2015). *The road to resilience*. <http://www.apa.org/helpcenter/road-resilience.aspx>.
- Berger, J., Polivka, B., Smoot, E. A., & Owens, H. (2015). Compassion fatigue in pediatric nurses. *Journal of Pediatric Nursing*, 30(6), e11–e17. <https://doi.org/10.1016/j.pedn.2015.02.005>
- Blackburn, L. M., Thompson, K., Frankenfield, R., Harding, A., & Lindsey, A. (2020). The THRIVE© Program: Building oncology nurse resilience through self-care strategies. *Oncology Nursing Forum*, 47(1), E25–E34. <https://doi.org/10.1188/20.ONF.E25-E34>
- Burnes, B. (2004). Kurt Lewin and the planned approach to change: A re-appraisal. *Journal of*

Management Studies, 41 (6), 977-1002. <https://doi.org/10.1111/j.1467-6486.2004.00463.x>

Centers for disease Control and Prevention (n.d.). *Writing smart objectives*.

https://www.cdc.gov/dhdspevaluation_resources/guides/writing-smart-objectives.htm

Cimiotti, J. P., Aiken, L. H., Sloane, D. M., & Wu, E. S. (2012). Nurse staffing, burnout, and health care-associated infection. *American Journal of Infection Control*, 40(6), 486–490. <https://doi.org/10.1016/j.ajic.2012.02.029>

Cocker, F., & Joss, N. (2016). Compassion fatigue among healthcare, emergency and community service workers: A systematic review. *International Journal of Environmental Research and Public Health*, 13(6), 618-636. <https://doi.org/10.3390/ijerph13060618>

Committee on Publication Ethics (2020). *About COPE*. <https://publicationethics.org/about/our-organisation>

Craigie, M., Slatyer, S., Hegney, D., Osseiran-Moisson, R., Gentry, E., Davis, S., Dolan, T., Rees, C. (2016). A pilot evaluation of a mindful self-care and resiliency (MSCR) intervention for nurses. *Mindfulness*, 7, 764-774. <https://doi.org/10.1007/s12671-016-0516-x>

Dearholt, S. L. & Dang, D. (2012). *Johns Hopkins nursing evidence-based practice: Model and guidelines*, (2nd ed.) Sigma Theta Tau International, 1-264. https://books.google.com/books?hl=en&lr=&id=_W3OTUMuaAoC&oi=fnd&pg=PT24&dq=johns+hopkins+evidence+based+practice+model&ots=oTEQWeqezl&sig=ZQJ8RLGagejeEolLDR7wcJiy9P4#v=onepage&q=johns%20hopkins%20evidence%20based%20practice%20model&f=false

Dreher, M. M., Hughes, R. G., Handley, P. A., & Tavakoli, A. S. (2019). Improving retention

- among certified nursing assistants through compassion fatigue awareness and self-care skills education. *Journal of Holistic Nursing: Official Journal of the American Holistic Nurses' Association*, 37(3), 296–308. <https://doi.org/10.1177/0898010119834180>
- Duhoux, A., Menear, M., Charron, M., Lavoie-Tremblay, M., & Alderson, M. (2017). Interventions to promote or improve the mental health of primary care nurses: A systematic review. *Journal of Nursing Management*, 25(8), 597–607. <https://doi.org/10.1111/jonm.12511>
- Durkin, M., Beaumont, E., Martin, C. J. H., & Carson, J. (2016). A pilot study exploring the relationship between self-compassion, self-judgement, self-kindness, compassion, professional quality of life and wellbeing among UK community nurses. *Nurse Education Today*, 46, 109–114. <https://doi-org.proxy.library.vcu.edu/10.1016/j.nedt.2016.08.030>
- Figley, C.R. (1995). *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized*. Brunner/Mazel.
- Figley, C.R., & Stamm, B.H. (1996). *Psychometric review of compassion fatigue self-test*. The Sidran Press.
- Fowler, M.D.M. (2018). *Code of ethics for nurses with interpretive statements: Development, interpretation, and application*. American Nurses Association.
- Gentry, J.E. (2002). Compassion fatigue: A crucible of transformation. *Journal of Trauma Practice*, 1 (3), 37-61. https://doi.org/10.1300/J189v01n03_03
- Graystone, R. (2019). Prevent compassion fatigue and burnout with a magnet culture. *The Journal of Nursing Administration*, 49 (5), 231-233. <https://doi.org/10.1097/NNA.0000000000000743>

- Harris, C., & Quinn Griffin, M. T. (2015). Nursing on empty: Compassion fatigue, signs, symptoms, and system interventions. *Journal of Christian Nursing*, 32(2), 80–87. <https://doi.org/10.1097/CNJ.0000000000000155>
- Hart, P. L., Brannan, J. D., & De, C. M. (2014). Resilience in nurses: An integrative review. *Journal of Nursing Management*, 22(6), 720–734. <https://doi.org.proxy.library.vcu.edu/10.1111/j.1365-2834.2012.01485.x>
- Hegney, D. G., Rees, C. S., Eley, R., Osseiran-Moisson, R., & Francis, K. (2015). The contribution of individual psychological resilience in determining the professional quality of life of Australian nurses. *Frontiers of Psychology*, 21(6), 1-8. <https://doi.org/10.3389/fpsyg.2015.01613>
- Hooper, C., Craig, J., Janvrin, D. R., Wetsel, M. A., & Reimels, E. (2010). Compassion satisfaction, burnout, and compassion fatigue among emergency nurses compared with nurses in other selected inpatient specialties. *Journal of Emergency Nursing*, 36(5), 420–427. <https://doi.org/10.1016/j.jen.2009.11.027>
- Hunsaker, S., Chen, H. C., Maughan, D., & Heaston, S. (2015). Factors that influence the development of compassion fatigue, burnout, and compassion satisfaction in emergency department nurses. *Journal of Nursing Scholarship: An official publication of Sigma Theta Tau International Honor Society of Nursing*, 47(2), 186–194. <https://doi.org/10.1111/jnu.12122>
- Jakel, P., Kenney, J., Ludan, N., Miller, P. S., McNair, N., & Matesic, E. (2016). Effects of the use of the provider resilience mobile application in reducing compassion fatigue in oncology nursing. *Clinical Journal of Oncology Nursing*, 20(6), 611–616. <https://doi.org/10.1188/16.CJON.611-616>

- Jarrad, R., Hammad, S., Shawashi, & Mahmoud, N. (2018). Compassion fatigue and substance use among nurses. *Annal of General Psychiatry*, 17(13), 1-8.
<https://doi.org/10.1186/s12991-018-0183-5>
- Johns Hopkins Medicine (n.d.). *Center for evidence-based practice*.
https://www.hopkinsmedicine.org/evidence-based-practice/ijhn_2017_ebp.html
- Joinson C. (1992). Coping with compassion fatigue. *Nursing*, 22(4), 116–120.
- Journal of Holistic Nursing (2020). *Submission guidelines*. <https://us.sagepub.com/en-us/nam/journal/journal-holistic-nursing#submission-guidelines>
- Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice*, 10(2), 144–156.
<https://doi.org/10.1093/clipsy.bpg016>.
- Kelly, L., Runge, J., & Spencer, C. (2015). Predictors of compassion fatigue and compassion satisfaction in acute care nurses. *Journal of Nursing Scholarship: An Official Publication of Sigma Theta Tau International Honor Society of Nursing*, 47(6), 522–528.
<https://doi.org/10.1111/jnu.12162>
- Kelly, L., & Todd, M. (2017). Compassion fatigue and the healthy work environment. *AACN Advanced Critical Care*, 28(4), 351–358. <https://doi.org/10.4037/aacnacc2017283>
- Klein, C. J., Riggenbach-Hays, J. J., Sollenberger, L. M., Harney, D. M., & McGarvey, J. S. (2018). Quality of life and compassion satisfaction in clinicians: A pilot intervention study for reducing compassion fatigue. *The American Journal of Hospice & Palliative Care*, 35(6), 882–888. <https://doi-org.proxy.library.vcu.edu/10.1177/1049909117740848>
- Lehto, R. H., Heeter, C., Allbritton, M., & Wiseman, M. (2018). Hospice and palliative care

- provider experiences with meditation using mobile applications. *Oncology Nursing Forum*, 45(3), 380–388. <https://doi.org/10.1188/18.ONF.380-388>
- Manchester, J., Gray-Miceli, D. L., Metcalf, J. A., Paolini, C. A., Napier, A. H., Coogle, C. L., & Owens, M. G. (2014). Facilitating Lewin's change model with collaborative evaluation in promoting evidence-based practices of health professionals. *Evaluation and Program Planning*, 47, 82-90. <https://doi.org/10.1016/j.evalprogplan.2014.08.007>
- McGarr, D., Cashin, A., & Fowler, C. (2012). Child and adolescent psychiatric nursing and the “plastic man”: Reflections on the implementation of change drawing insights from Lewin's theory of planned change. *Contemporary Nurse: A Journal for the Australian Nursing Profession*, 41(2), 263-270. <https://doi.org/10.5172/conu.2012.41.2.263>
- Michael, S., Villarreal, P.M., Ferguson, M. F., Willer, J. L., Zane, R. D., Flarity, K. (2019). Virtual reality-based resilience program. *Clinical Journal of Oncology Nursing*, 23 (6). 664-667. <https://doi.org/10.1188/19.CJON.664-667>
- Milligan, F., & Almomani, E. (2020). Death anxiety and compassion fatigue in critical care nurses. *British Journal of Nursing*, 29(15), 874–879. <https://doi.org/10.12968/bjon.2020.29.15.874>
- Mooney, C., Fetter, K., Gross, B. W., Rinehart, C., Lynch, C., & Rogers, F. B. (2017). A preliminary analysis of compassion satisfaction and compassion fatigue with considerations for nursing unit specialization and demographic factors. *Journal of Trauma Nursing: The Official Journal of the Society of Trauma Nurses*, 24(3), 158–163. <https://doi.org/10.1097/JTN.0000000000000284>

Mulholand, B. (2017, July 24). *8 critical change management models to evolve and survive*.

Process Street. <https://www.process.st/change-management-models/#Lewin's-change-management-model>.

Nolte, A. G. W., Downing, C., Temane, A., & Hastings-Tolsma, M. (2017). Compassion fatigue in nurses: A metasynthesis. *Journal of Clinical Nursing*, 26, 4364– 4378.

<https://doi-org.proxy.library.vcu.edu/10.1111/jocn.13766>

NSI Nursing Solutions (2020). 2020 NSW national health care retention & RN staffing report.

https://www.nsinursingsolutions.com/Documents/Library/NSI_National_Health_Care_Retention_Report.pdf

Ortega-Campos, E., Vargas-Roman, K., Velando-Soriano, A., Suleiman-Martos, N., Canadas -de

la Fuente, G. A., Albendin-Garcia, L. & Gomez-Urquiza, J. L. (2020). Compassion fatigue, compassion satisfaction, and burnout in oncology nurses: A systematic review and metaanalysis. *Sustainability*, 12 (72). 1-12. <https://doi.org/10.3390/su12010072>

Perregrini, M. (2019). Combating compassion fatigue. *Nursing*, 49 (2), 50-54.

<https://doi.org/10.1097/01.NURSE.0000552704.58125.fa>

Polat, H., Turan, G. B., & Tan, M. (2020). Determination of the relationship of the spiritual orientation of nurses with compassion fatigue, burnout, and compassion satisfaction.

Perspectives in Psychiatric Care, 10.1111/ppc.12513, 1-6.

<https://doi.org/10.1111/ppc.12513>

PRISMA (n.d.). *Prisma 2009 flow diagram*. [http://www.prisma-](http://www.prisma-statement.org/documents/PRISMA%202009%20flow%20diagram.doc)

[statement.org/documents/PRISMA%202009%20flow%20diagram.doc](http://www.prisma-statement.org/documents/PRISMA%202009%20flow%20diagram.doc)

Rajeswari, H., Sreelekha, B. K., Nappinai, S., Subrahmanyam, U., & Rajeswari, V. (2020).

Impact of accelerated recovery program on compassion fatigue among nurses in South

- India. *Iranian Journal of Nursing and Midwifery Research*, 25(3), 249–253.
https://doi.org/10.4103/ijnmr.IJNMR_218_19
- Rushton, C. H., Batcheller, J., Schroeder, K., & Donohue, P. (2015). Burnout and resilience among nurses practicing in high-intensity settings. *American Journal of Critical-Care Nurses*, 24(5), 412-420. <https://doi.org/10.4037/ajcc2015291>
- Rutherford, M. (2018, April 17). *ICH E6 (R2) and data integrity: Four key principles*. Association of Clinical Research Professionals.
<https://acrpnnet.org/2018/04/17/ich-e6r2-data-integrity-four-key-principles/>
- Sacco, T. L., Ciurzynski, S. M., Harvey, M. E., & Ingersoll, G. L. (2015). Compassion satisfaction and compassion fatigue among critical care nurses. *Critical Care Nurse*, 35(4), 32–43. <https://doi-org.proxy.library.vcu.edu/10.4037/ccn2015392>
- Sinclair, S., Raffin-Bouchal, S., Venturato, L., Mijovic-Kondejewski, J., Smith-MaDonald, L. (2017). Compassion fatigue: A meta-narrative review of the healthcare literature. *International Journal of Nursing Studies*, 69, 9-24.
<https://doi.org/10.1016/j.ijnurstu.2017.01.003>
- Slatyer, S., Craigie, M., Heritage, B., Davis, S., & Rees, C. (2018). Evaluating the effectiveness of a brief mindful self-care and resiliency (MSCR) intervention for nurses: A controlled trial. *Mindfulness*, 9(2), 534–546. <https://doi.org/10.1007/s12671-017-0795-x>
- Social Work Foot Prints (2017, October 30). *Kurt Lewin - Father of modern social psychology*.
<https://www.socialworkfootprints.org/english-articles/kurt-lewin-father-of-modern-social-psychology?store-page=signIn&returnUrl=?store-page%3DCompetency-Mapping-p231259759>
- Stamm, B.H. (1999). *Secondary traumatic stress: Self-care issue for clinicians, researchers,*

and educators (2nd ed.). The Sidran Press.

Stamm, B.H. (2010). *Professional quality of life measure*. ProQOL.

https://www.proqol.org/ProQol_Test.html

Substance Abuse and Mental Health Services Administration (n.d.). *Tips for healthcare professionals: Coping with stress and compassion fatigue*.

https://store.samhsa.gov/sites/default/files/SAMHSA_Digital_Download/PEP20-01-01-016_508.pdf

Sullivan, C. E., King, A. R., Holdiness, J., Durrell, J., Roberts, K. K., Spencer, C., Roberts, J., Ogg, S. W., Moreland, M. W., Browne, E. K., Cartwright, C., Crabtree, V. M., Baker, J. N., Brown, M., Sykes, A., & Mandrell, B. N. (2019). Reducing compassion fatigue in inpatient pediatric oncology nurses. *Oncology Nursing Forum*, 46(3), 338–347.

<https://doi-org.proxy.library.vcu.edu/10.1188/19.ONF.338-347>

Welp, A., Meier, L. L., & Manser, T. (2015). Emotional exhaustion and workload predict clinician-rated and objective patient safety. *Frontiers in Psychology*, 5, 1573. 1-13.

<https://doi.org/10.3389/fpsyg.2014.01573>

Wentzel, D., & Brysiewicz, P. (2017). Integrative review of facility interventions to manage compassion fatigue in oncology nurses. *Oncology nursing forum*, 44(3), E124–E140.

<https://doi.org/10.1188/17.ONF.E124-E140>

White, K. M., Dudley-Brown, S. & Terhaar, M. F. (Eds.). (2016). *Translation of evidence into nursing and health care* (2nd ed.). Springer Publishing Company.

Wojciechowski, E., Pearsall, T., Murphy, P., & French, E. (2016). A case review: Integrating Lewin's theory with Lean's system approach for change. *Online Journal of Issues in Nursing*, 21(2), 4.

<https://doi-org.proxy.library.vcu.edu/10.3912/OJIN.Vol21No02Man04>

- Wu, S., Singh-Carlson, S., Odell, A., Reynolds, G., & Su, Y. (2016). Compassion fatigue, burnout, and compassion satisfaction among oncology nurses in the United States and Canada. *Oncology Nursing forum*, 43(4), E161–E169.
<https://doi.org/10.1188/16.ONF.E161-E169>
- Xu, H. , Kynoch, K., Tuckett, A., Eley, R. (2020). Effectiveness of interventions to reduce emergency department staff occupational stress and/or burnout: A systematic review. *JBIM Evidence Synthesis*, 18 (6), 1156-1188.
<https://doi: 10.11124/JBISRIR-D-19-00252>
- Yılmaz, G., Üstün, B., & Günüşen, N. P. (2018). Effect of a nurse-led intervention programme on professional quality of life and post-traumatic growth in oncology nurses. *International Journal of Nursing Practice*, 24(6), e12687.
<https://doi.org/10.1111/ijn.12687>
- Zajac, L. M., Moran, K. J., & Groh, C. J. (2017). Confronting compassion fatigue: Assessment and intervention in inpatient oncology. *Clinical Journal of Oncology Nursing*, 21(4), 446–453. <https://doi-org.proxy.library.vcu.edu/10.1188/17.CJON.446-453>

Table 1*Budget*

EXPENSES		REVENUE	
Direct		Billing	
Salary and benefits	None	Grants	
Supplies	\$200.00	Institutional budget support	
Services	None		
Statistician	\$99.00		
Indirect			
Overhead			
Total Expenses	\$299.00	Total Revenue	
Net Balance			

Table 2*Frequency Table for Demographic Variables*

Variable	Pretest	Posttest
Age		
18-25	1 (4%)	2 (8%)
26-34	8 (32%)	8 (32%)
35-44	8 (32%)	5 (20%)
45-54	5 (20%)	8 (32%)
55-64	3 (12%)	2 (8%)
Missing	0 (0%)	0 (0%)
Degree		
Associate degree	1 (4%)	3 (12%)
Bachelor's degree	20 (80%)	19 (76%)
Master's degree	1 (4%)	2 (8%)
Post-master's certificate	2 (8%)	1 (4%)
Missing	1 (4%)	0 (0%)
Years of Nursing Experience		
1-3	1 (4%)	5 (20%)
4-7	5 (20%)	3 (12%)
8-12	7 (28%)	8 (32%)
13-15	3 (12%)	2 (8%)
Above 15	9 (36%)	7 (28%)

Missing	0 (0%)	0 (0%)
Years of Experience in Current Position		
1-3	6 (24%)	6 (24%)
4-7	7 (28%)	5 (20%)
8-12	8 (32%)	8 (32%)
13-15	3 (12%)	3 (12%)
Above 15	1 (4%)	3 (12%)
Missing	0 (0%)	0 (0%)
Shift		
Day	16 (64%)	14 (56%)
Night	9 (36%)	11 (44%)
Missing	0 (0%)	0 (0%)
Part time/Full time		
Full-time	23 (92%)	21 (84%)
Part-time	2 (8%)	4 (16%)
Missing	0 (0%)	0 (0%)

Table 3*Two-Tailed Independent Samples t-Test for Compassion Satisfaction by Testing Period*

Variable	Pretest		Posttest		<i>t</i>	<i>p</i>	<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Compassion Satisfaction	39.42	5.57	45.57	4.02	-4.32	< .001	1.27

Note. N = 47. Degrees of Freedom for the *t*-statistic = 45. *d* represents Cohen's *d*.

Table 4*Two-Tailed Independent Samples t-Test for Burnout by Testing Period*

Variable	Pretest		Posttest		<i>t</i>	<i>p</i>	<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Burnout	24.20	5.12	15.70	5.30	5.65	< .001	1.63

Note. N = 48. Degrees of Freedom for the *t*-statistic = 46. *d* represents Cohen's *d*.

Table 5*Two-Tailed Independent Samples t-Test for Secondary Traumatic Stress by Testing Period*

Variable	Pretest		Posttest		<i>t</i>	<i>p</i>	<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Secondary Traumatic Stress	25.10	5.96	15.19	3.44	6.60	< .001	2.04

Note. N = 42. Degrees of Freedom for the *t*-statistic = 40. *d* represents Cohen's *d*.

Table 6

Pearson Correlation Results Among Compassion Satisfaction, Burnout, and Secondary Traumatic Stress

Combination	r_p	95% CI	p
Compassion Satisfaction-Burnout	-0.82	[-0.90, -0.68]	< .001
Compassion Satisfaction-Secondary Traumatic Stress	-0.61	[-0.78, -0.37]	< .001
Burnout-Secondary Traumatic Stress	0.76	[0.59, 0.87]	< .001

Note. $n = 39$.

Figure 1 *PRISMA 2009 Flow Diagram*

Note. Adapted from “Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement,” by Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group, 2009, PloS Med 6(7): e1000097 (<https://doi.org/10.1371/journal.pmed1000097>). Copyright 2009 by Creative Commons Attribution Non-Commercial License.

Appendix A

Evidence-Based Table

Citation	Design, Level Quality Grade	Sample Sample size	Intervention Comparison (Definitions should include any specific research tools used along with reliability & validity)	Theoretical Foundation	Outcome Definition	Usefulness Results Key Findings
Adimando A. (2018). Preventing and alleviating compassion fatigue through self-care: An educational workshop for nurses. <i>Journal of Holistic Nursing: Official Journal of the American Holistic Nurses' Association</i> , 36(4), 304–317. https://doi-org.proxy.library.vcu.edu/10.1177/0898010117721581	Training workshop for Nurses Level V Grade A Evidence based project	24 nurses participated in the training workshop	<ul style="list-style-type: none"> -Increase awareness of risk factors, causes of, and symptoms of compassion fatigue (CF) to empower nurses to identify and prevent its onset. -Provide nurses with demonstrations and recommendations of self-care activities to reduce and prevent CF. -The above objectives were accomplished through a training workshop for nurses. -Workshop was about one hour. -During the workshop, the nurses were provided with various self-care and stress management activities and techniques to reduce CF. <p>Activities included: breathing techniques, using or smelling essential oils, taking breaks outside of the unit for meals or walking meditations, and</p>	None	Demographic surveys collected: out of 24 nurses, only 22 answered the demographic survey. Quantitative data obtained from Professional Quality of Life Scale (Pro QOL): pre and post-intervention tests and compared via a paired t test model. Qualitative data obtained from compassion fatigue knowledge test	<p>Quantitative data: there was a significant difference between the pretest mean scores and the posttest mean score.</p> <p>Qualitative data: positive response to the intervention, 100% of the participants were either somewhat likely or likely to recommend attendance of this workshop.</p> <p>The majority of participants expressed satisfaction with the workshop especially the relaxation and/or stress-relieving exercises.</p> <p>Limitations:</p> <ul style="list-style-type: none"> -Physical space, preferably should be away from the unit - Financial limitations: budget to allow nurses to attend the workshop was not available, therefore this training workshop was originally planned to be four hours and was reduced to one hour due to budget cut. -Electronic limitations: due to organizational policy, it was prohibited to contact employees via e-mail for any research project. -Ideally, 2 weeks post intervention was preferably but due to the time limitation, it was not done.

			using certain herbs and teas to promote relaxation.			
Blackburn, L. M., Thompson, K., Frankenfield, R., Harding, A., & Lindsey, A. (2020). The THRIVE© Program: Building oncology nurse resilience through self-care strategies. <i>Oncology Nursing Forum</i> , 47(1), E25–E34. https://doi.org/10.1188/20.ONF.E25-E34	Evidence-based program Level V Grade B	164 oncology staff, 160 were nurses or advance practice RNs at the James (The James) Cancer Hospital and Richard J. Solove Research Institute in Columbus, Ohio	The THRIVE Program was developed by two clinical nurse specialists one with certification in psychiatry and mental health. The program consisted of an 8-hour retreat designed to teach self-care strategies, followed by a 6 week private group study on a social media platform, and a final 2-hour wrap-up session. The retreat included different sessions: mindfulness, art, journaling, guided imagery, and acupressure and self-facial massage.	Relationship-based care (RBC) is the theoretical framework that supports the professional practice model for nursing at The James. RBC is an evidence-based model that helps to create a healing environment. There are three main components for the RBC: relationships with patients and their families, relationships with colleagues, and relationship with self. Resilience is based on self-care. Effective self-care is based on the individual ability to possess the skills and knowledge to	The Compassion Fatigue Short Scale (CFSS) and the Connor-Davidson Resilience Scale (CD-RISC) were used to evaluate the effects of THRIVE program. All participants completed both tests at the beginning and at the completion of the program.	In self-assessment prior to THRIVE, nurse managers demonstrated the greatest degree of burnout, bedside nurses demonstrated the greatest degree of secondary trauma. The greatest improvement in average scores from pre-to post-program assessment was in increased resilience and decrease burnout. Increased resilience scores were sustained for a six-month period after THRIVE participation. Implications: Oncology healthcare providers must identify self-care strategies that build their resilience for long, successful careers. Resilience programs can be effective way for building staff resilience and decreasing staff burnout and secondary trauma. Oncology nurses can be leaders in this area if given the opportunity to learn new skills, the support to apply them over time, and the self-knowledge to realize what a difference they make in long term career while treating patients with cancer.

				manage his or her own stress, express personal needs and values, and balance the job demands with physical and emotional wellbeing.		
Craigie, M., Slatyer, S., Hegney, D., Osseiran-Moisson, R., Gentry, E., Davis, S., Dolan, T., Rees, C. (2016). A pilot evaluation of a mindful self-care and resiliency (MSCR) intervention for nurses. <i>Mindfulness</i> , 7, 764-774. https://doi.org/10.1007/s12671-016-0516-x	Pilot study Level V Grade B	21 nurses recruited from a large teaching hospital in Western Australia who participated in a training program called mindful self-care and resiliency (MSCR). Exclusion criteria: nurses whose screening indicated clinical level of depression, PTSD, substance abuse, or on prescription for mental health conditions.	MSCR consists of one day CF prevention training workshop, followed by weekly mindfulness training sessions for four weeks and total of 12 hours intervention. Nurses completed standardized tests at pre, post and one month follow up. Patient Health Questionnaire-9 (PHQ-9) is a valid clinical depression screening tool, Short Screening Scale for DSM-IV Post Traumatic Stress Disorder SSSP for DSM-IV PTSD is a reliable and valid tool for screening of Post-Traumatic Stress Disorder (PTSD) symptoms, CAGE questionnaire is a valid tool to screen for alcohol and substance misuse. All the above three tools were used to assess exclusion criteria. The ProQoL5 is a validated tool for psychometric evaluation of nurses, it has three subscales that measure levels of	None	Scores of pre-test, post-test and one month follow-up assessment points. Wilcoxon signed-rank paired sample test reflected significant reductions for depression, burnout, and TNA scores at post-test. One month after the intervention, significant reductions were maintained for burnout and TNA, but not depression scores. There was significant improvement in compassion satisfaction from pre-test to 1 month follow-up. There were no significant improvements for both general resilience and harmonious passion from pre-test to post-test or at one-month follow-up.	Total of 20 nurses completed the study. The results showed that increased awareness of CF including MSCR improve resilience and well-being among nurses. Further research utilizing a control group and larger samples are required to strengthen the conclusion. Significant improvements were concluded following the intervention for CF, burnout, trait-negative affect, obsessive passion, and stress scores at preintervention, 45% of sample had high burnout scores, this reduced to 15% post-intervention. No significant changes were observed for general resilience, anxiety, or secondary traumatic stress post-intervention.

			<p>compassion satisfaction and CF. CF is composed of burnout and Secondary Traumatic Stress (STS) subscales. The reliabilities at pre-intervention for each subscale in this study were compassion satisfaction $\alpha=.89$, burnout $\alpha=.75$, and STS $\alpha=.60$. Passion for Work Scale (PWS) measures harmonious and obsessive passion. Statistical analyses were performed with IBM Statistical Package for the Social Sciences (IBM-SPSS) window version 21. Shapiro-Wilk tests were used to examine study variable distributions. Wilcoxon Signed-rank non parametric tests were used to assess within group changes for study variables from pre to post intervention and pre to follow-up.</p>			
<p>Durkin, M., Beaumont, E., Martin, C. J. H., & Carson, J. (2016). A pilot study exploring the relationship between self-compassion, self-judgement, self-kindness, compassion, professional</p>	<p>Pilot Study Cross sectional questionnaire survey Level V Grade B</p>	<p>Quantitative data were collected from 37 nurses who had clinical experience and were studying for post-graduate diploma in UK. 34 females and 3 males.</p>	<p>By utilizing the following standardized scales to measure the relationships between self-compassion, compassion fatigue, wellbeing, and burnout.</p> <ul style="list-style-type: none"> -Compassion for Others Scale (CFO) scale measures how individuals act toward others. Scale validity was established from data collected with 	None	<p>To measure the associations between self-compassion, compassion fatigue, wellbeing, and burnout in community nurses in the UK. The following were the research instruments: CFO scale ProQOL</p>	<p>Data were analyzed using SPSS version 20. Descriptive statistics were calculated before inferential analyses using a Spearman's Rho correlation and Mann Whitney Independent U test from divided scores of high versus low. Nurses who are more self-compassionate are less likely to suffer from burnout., which is a statistically significant negative relationship between self-compassion and burnout. Nurses who feel a greater sense of satisfaction from their work show greater compassion, more positive well-being, and are less prone to burnout.</p>

quality of life and wellbeing among UK community nurses. <i>Nurse Education Today</i> , 46, 109–114. https://doi-org.proxy.library.vcu.edu/10.1016/j.nedt.2016.08.030			<p>student populations in the USA.</p> <p>-ProQOL scale 30-item scale measured positive and negative aspects of working with trauma. which consists of the three subscales of Compassion Satisfaction (CS), Burnout (BO), and Secondary Traumatic Stress (STS). Scale validity was calculated from data from over 200,000 participants across the world.</p> <p>-SCS-long version measures how individuals act towards themselves during times of great difficulty. It includes six subscales: self-kindness, self-judgment, mindfulness, common humanity, isolation, and over identification. The scale has been validated in the UK and globally.</p> <p>-sWEMWBS: consists of seven positive worded sentences and participants pick from 1 (none of the time) to 5 (all the time). Internal reliability is high. Scale validity is established in the UK and worldwide.</p>		<p>SCS long version Shoart Warwick Edindurgh Mental Well-being Scale: sWEMWBS</p>	<p>Compassion satisfaction was found to be positively associated with compassion and inversely related to burnout.</p> <p>Self-Kindness was significant and inversely related to burnout.</p> <p>Self-judgment leads to compassion fatigue and burnout. Nurses who judges themselves harshly may feel consumed with critical self-talk, shame, and guilt, all these have negative impact on nurses' wellbeing.</p> <p>High compassion satisfaction and self-compassion are associated with better quality of life, increased wellbeing, and greater resilience. Nurses who are self-critical tend to experience greater stress.</p> <p>Teaching self-compassion skills will increase sense of enjoyment from providing care to the patients and will decrease compassion fatigue and burnout.</p> <p>Limitations:</p> <ul style="list-style-type: none"> -Small number of participants -Lack of comparison to pre and post training data as these questionnaires were given only at the beginning of their post graduate diploma. -Further research needed to promote self-care in nurses.
Klein, C. J., Rigenbach-Hays, J. J., Sollenberger, L. M., Harney, D. M., & McGarvey, J. S. (2018). Quality	Exploratory, pre-post, interventional pilot study Level III Grade B	Fifteen healthcare professionals (physicians, advanced practice nurses, and counselors)	They participated in a formalized intervention program consisting of three 90-minute training sessions held two weeks apart.	None	The main key components of the resiliency program are self-awareness and continual self-care. Educating healthcare professionals about	At the end of the program, participants noted an increase in CS and a small reduction in BO. STS remained unchanged. Feedback about the program was positive, and participants reported the impact on their clinical practice and life to be moderately high. At 6 months, over half of the participants continued to report positive impact on their personal/professional lives.

of life and compassion satisfaction in clinicians: A pilot intervention study for reducing compassion fatigue. <i>The American Journal of Hospice & Palliative Care</i> , 35(6), 882–888. https://doi-org.proxy.library.vcu.edu/10.1177/1049909117740848		caring for chronic, acutely ill, or patients who might be moving toward comfort care.			CF and by identifying lifestyle strategies to minimize BO. This will assist healthcare providers to maintain the qualities associated with compassion satisfaction. The ProQOL5 was used to measure 3 separate concepts: CS, BO, and STS (CF).	Limitations: No control group Small number of participants
Michael, S., Villarreal, P.M., Ferguson, M. F., Willer, J. L., Zane, R. D., Flarity, K. (2019). Virtual reality-based resilience program. <i>Clinical Journal of Oncology Nursing</i> , 23 (6). 664-667. https://doi.org/10.1188/19.CJO.N.664-667	Explanatory quantitative study Level III Grade B	24 nurses from Oncology unit and eight nurses from a substance abuse treatment unit. From the 32 nurses, only 27 nurses completed 56 virtual reality (VR) based relaxation sessions.	A 6 week study where participants attended VR sessions. At the end of each session participants were asked to perform a 3 minute guided breathing exercises to improve relaxation. At the conclusion of each session, participants were asked if they felt: better, worse, or the same compared to prior starting the session.	None	VR is an engaging simulation to nurses used in this study to reduce CF and burnout. Resilience such as self-care activities may mitigate the negative effect of CF. Training hospital nurses to practice mindfulness, positive self-talk, communication skills, and breathing exercises are associated with improve performance and decrease	The majority of participants at the end of each VR session reported improvement in mood (n=30, 53%). Post intervention survey of 11 participants (41%) n=6 which is 55% believed that VR sessions were beneficial. 10 out of 11 participants (91%) reported struggling to integrate VR sessions into their breaks, or feeling guilty about spending time away from their patients. Many nurses reported difficulty using restroom or hydration.

<p>Rajeswari, H., Sreelekha, B. K., Nappinai, S., Subrahmanyam, U., & Rajeswari, V. (2020). Impact of accelerated recovery program on compassion fatigue among nurses in South India. <i>Iranian Journal of Nursing and Midwifery Research</i>, 25(3), 249–253. https://doi.org/10.4103/ijnmr.IJNMR_218_19</p>	<p>Experimental Level I High Quality Grade A</p>	<p>120 nurses working in Narayana Medical College Hospital, India. They were divided randomly to 60 nurses in the control and 60 nurses in the intervention group. The intervention called Accelerated Recovery Program (ARP). It is an experimental study</p>	<p>Data were collected using the Professional Quality of Life Scale: Compassion Satisfaction and Fatigue Version 5 (ProQOL) (Stamm, 2010) which consists of the three subscales of CS, BO, and STS. The pretest was conducted at day 1, and posttests I, II, III, IV, and V were conducted at 5th week, 3rd month, 6th month, 9th month, and 12th month, respectively using ProQOL ARP is a consecutive 5-week program based on an individualized standard treatment protocol in 5 sessions, each lasting 90–120 minutes. The sample size was calculated using power analysis ($Z1\alpha/2 = 1.96$; $Z\beta1 = 0.85$; $S = 1.82$; $d = 1.60$), Content validity was obtained with the help of experts in the field of psychology and psychiatric nursing Spearman-Brown prophecy formula was used to check the reliability of the tool; the reliability of the CS, BO, and STS subscales were 0.88, 0.75, and 0.81, respectively. Pretest data were collected at day 1, and posttest I, II, III, IV, V data were collected at 5th week, 3rd month,</p>		<p>Regular practice of ARP can enhance CS and thus, reduce CF. A professional obligation exists for nurses to strengthen their CS and to prevent, recognize, and combat CF so that they can continue their work with the presence it deserves.</p>	<p>There was a statistically significant difference in the ProQOL score between the intervention and control groups, which demonstrated a significant difference between the groups in terms of: CS ($F_{1,118}=120.10, p < 0.001$). BO ($F_{1,118}=123.11, p < 0.001$). STS ($F_{1,118}=205.18, p < 0.001$). The mean score of BO and STS significantly decrease and CS increased in the intervention group compared to the control group. ARP increased CS and reduced CF among nurses. This study offered a follow-up until one year that proved to help nurses to combat CF. A program consisting of self-regulation, intentionality, and CF interventions proved to be efficient for the prevention and management of CF in the post test at 3 and 6 months. Limitations: -This study offered an intervention package but the effect of each intervention was not assessed. -There was no way to put in consideration other supports received from family, friends, colleagues or superiors in the control or intervention group. Additional studies needed on larger populations</p>
---	--	--	---	--	--	--

			<p>6th month, 9th month, and 12th month using the ProQOL Scale</p> <p>Wilcoxon signed-rank test showed a statistically significant difference in mean CS, BO, and STS scores after the intervention in the intervention group compared to the control group [CS: (intervention group: $p < 0.001$), (control group: $p < 0.01$)], [BO: (intervention group: $p < 0.001$), (control group: $p < 0.01$)], [(STS: (intervention group: $p < 0.001$), (control group: $p < 0.01$)). Mann-Whitney U test showed a statistically significant difference between the two groups after the intervention in terms of the CS, BO, and STS scores [(CS: $p < 0.001$), (BO: $p < 0.001$), (STS: $p < 0.001$)]. The effect of the intervention up to a period of 1 year was analyzed using repeated-measures ANOVA, which revealed a statistically significant difference within the intervention ($p < 0.001$) and control ($p < 0.01$) groups (CS: $F_{1,59} = 125.96, 3.138$), (BO: $F_{1,59} = 178.37, 30.749$), (STS: $F_{1,59} = 389.09, 10.413$) (and between the intervention and control groups (CS: $F_{1,118} = 120.10, p < 0.001$)).</p>			
--	--	--	---	--	--	--

			(BO: $F_{1,118}=123.11, p < 0.001$) (STS: $F_{1,118}=205.18, p < 0.001$)			
<p>Sullivan, C. E., King, A. R., Holdiness, J., Durrell, J., Roberts, K. K., Spencer, C., Roberts, J., Ogg, S. W., Moreland, M. W., Browne, E. K., Cartwright, C., Crabtree, V. M., Baker, J. N., Brown, M., Sykes, A., & Mandrell, B. N. (2019). Reducing compassion fatigue in inpatient pediatric oncology nurses. <i>Oncology Nursing Forum</i>, 46(3), 338–347. https://doi.org.proxy.librar.y.vcu.edu/10.1188/19.ONF.338-347</p>	<p>Quality improvement pilot study . Level III Grade B</p>	<p>Despite 59 pediatric oncology nurses were originally enrolled, only 37 participants completed all outcome measures.</p>	<p>Validated measures of: -CF and CS through ProQOL V -Coping through brief COPE -Resilience through Connor-Davidson Resilience Scale-2 Were evaluated pre-training program, at 2, 4 and 6 months post program. -Demographic variables were collected. ProQOL: 30-item self-report scale that is commonly used to assess the impact of helping in caring professionals. Scores are reported as raw score (allow for better analysis of continuous data) or t scores (provide standardized scoring). Connor-Davidson Resilience Scale-2: composed of 2-item, 4 point Likert-type assessment of personal resilience characteristics and symptom status. Brief COPE Scale: composed of 28-item questionnaire to assess adult coping strategies that measures coping reactions through 12 two-item</p>	<p>The Neuman Systems Model was utilized as the theoretical framework. This model describes the individual as a whole client who interacts with actual or perceived stressors. According to this model, individuals use protective mechanism to cope and achieve wellbeing. In this model, CF can be the result of the depletion of one's core energy due to ineffective coping and resilience against stressors. On the other hand, CS reflects wellbeing and resilience as a</p>	<p>Unit-Based Self-Care Program Intervention: -Training -Health and wellness: nutrition, exercise, sleep -Grief and bereavement: end of life debriefing and remembrance activities. -Respite room. The Wilcoxon signed-rank test was used to compare the change in ProQOLV scores from baseline, to the following: 2 months, 4 months, and 6 months. The Spearman rank correlation coefficient was used to assess the relationship between quality of life scores and resilience and coping style scores at baseline and at 6 months.</p>	<p>The organizational support and the intervention can reduce CF and increase CS. Adaptive coping styles should be fostered to facilitate CS and protect against CF. Staff may require additional support in combating CF during the holidays due to patient acuity, staffing schedules, and less experienced nurses working holiday hours. Additional work is recommended to explore the role of coping, resilience, and organizational support to reduce CF. Pediatric oncology nurses are susceptible to CF. Through the six month pilot program, nurses's CF levels were reduced, reflecting the benefit of CF program In ProQOLV scores: 81% of nurses had comparative outcomes from baseline to 2 months, 83% had comparative outcomes from baseline to 4 months, and 69% had comparative outcomes from baseline to 6 months. A statistically significant $p=0.029$ reduction in in secondary traumatic stress from baseline to 4 months.</p>

			subscales. Coping reaction is ranked through a four-point Likert scale from 1 to 4, with higher score indicates endorsing of coping trait.	result of adaptive coping. This framework is focused on nurses' wellness, resilience and depletion of core energy.		
Yılmaz, G., Üstün, B., & Günüşen, N. P. (2018). Effect of a nurse-led intervention programme on professional quality of life and post-traumatic growth in oncology nurses. <i>International Journal of Nursing Practice</i> , 24(6), e12687. https://doi.org/10.1111/ijn.12687	Non-experimental single group study with pre-test and post-test comparisons. Level III Grade B	43 hospital nurses who care for oncology patients, and work in oncology, chemotherapy, pediatric oncology, chest disease clinics, internal medicine clinic and ear nose and throat clinic in the University Hospital in Izmir, Turkey There are three main hypotheses in this study: -Nurses' compassion fatigue and burnout score will be lower than before the intervention -Nurses' compassion	A nurse-led intervention program consisted of two face-to-face sessions (lecture, reading and video about CF and coping, exercise, baksi dance, mandala painting) and two counseling follow-up sessions by phone (motivational messages via smart phone). Instruments: -Information form for nurses: age, gender, marital status, number of children, education level, oncology training, years as a nurse, years working with cancer patients, occupation status and number of hours working per week, willingness to choose nursing, and willingness to work with oncology patients. -ProQOL-IV: This scale was developed to measure compassion satisfaction, compassion fatigue, and burnout symptoms. The scale is composed of 10-item scales.	None	To determine the effectiveness of a nurse-led intervention program on ProQOL and Post Traumatic Growth Inventory (PTGI). The sample size was predetermined by using a power calculation with the G-POWER 3.1 software analysis program. The power calculation was based on a medium effect size (0.5), an alpha of 0.05 and a power of 0.80. The sample size desired was 50 participants and only 43 nurses agreed to participate. The power of 0.99 was determined at 0.8 effect size (large), an alpha of 0.05 for the difference from the constant in a one sample case using t tests (n=43).	The nurse-led intervention program concluded that there was a decrease in post-intervention in nurses' scores for compassion fatigue and burnout, and an increase in compassion satisfaction. The ProQOL-IV reflected a p value <0.01 from pre to post-intervention in the three subscales of compassion fatigue, burnout, and compassion satisfaction. The PTGI reflected a p value of <0.01 from pre to post-intervention in the three listed dimensions. P value is significant as <0.05. Limitations of the study: The research sample consisted mostly of female nurses. It could be some biased as the participant nurses knew the purpose of the study and the nurse led the intervention was the researcher herself. Conclusion: Nurse-led intervention was effective in decreasing CF and burnout of oncology nurses and increasing compassion satisfaction and for transforming traumatic experiences into PTGI.

		<p>satisfaction score will be higher than before the intervention</p> <p>-Nurses will have a higher score on all subscales and total scores of the post-traumatic growth inventory than before the intervention.</p>	<p>Compassion satisfaction ($\alpha=0.87$) is defined as the pleasure derived from being able to do your work well.</p> <p>Burnout ($\alpha=0.72$) is defined as feelings of hopelessness and difficulties in dealing with work or doing a job effectively.</p> <p>Secondary traumatic stress or compassion fatigue ($\alpha=0.80$) is defined as work-related secondary exposure to extremely stressful events.</p> <p>-PTGI:</p> <p>This inventory was developed to evaluate the positive effects in individuals after their exposure to traumatic experiences. High scores for PTGI are signs of growth. The inventory was adapted into three dimensions: changed interpersonal relationships ($\alpha=0.70$), changed philosophy of life ($\alpha=0.78$), and changed perception of self ($\alpha=0.82$).</p>			
<p>Zajac, L. M., Moran, K. J., & Groh, C. J. (2017). Confronting compassion fatigue: Assessment and intervention in inpatient</p>	<p>Mixed methods sequential design study Level III Grade B</p>	<p>107 of 183 (58%) participants returned preintervention survey (nurses and assistive personnel) from medical (hematology/bl</p>	<p>Preintervention survey including demographic questions and ProQOL scale.</p> <p>Debriefing session after each patient's death was performed composed of three questions related to patient care, based on</p>	<p>Morse's praxis theory of suffering was used to understand the staff grief process of patient's death. According to Morse' theory</p>	<p>This quality improvement project has 2 goals: support the staff during the time they are experiencing grief after the patient's death, and to decrease staff CF and increase patient</p>	<p>The quantitative part of the study reflected improvement near ideal with lower burnout, secondary traumatic stress, and CF.</p> <p>Staff members who participated in the debriefings were 25 and reported that it was helpful. About 30% of the staff who participated in the debriefings selected neutral option, therefore, future studies.</p> <p>ProQOL scores were average at baseline, which left a narrow margin for improvement; therefore,</p>

<p>oncology. <i>Clinical Journal of Oncology Nursing</i>, 21(4), 446–453. https://doi-org.proxy.library.vcu.edu/10.1188/17.CJON.446-453</p>		<p>ood and marrow transplantation), med-surgical (surgical and gynecological oncology), and NCI-designated cancer center in a the midwestern United States. 136 of 183 (74%) returned post intervention survey. Of those who took the post survey, 42 had participated in the intervention and 89 had not. Seventy percent (n=91) of those who completed a postintervention also completed a preintervention survey).</p>	<p>Koloroutis's relationship-based care model. The following are the three questions: 1.How did you help the patient/family through this transition? 2.What example of colleague collaboration was most noteworthy in this patient experience? 3. What impact will this patient's death have on you? 3.What impact will this patient's death have on you?</p> <p>After 3 months a post intervention survey consist of ProQOL and qualitative question regarding the intervention was offered to participants.</p>	<p>of suffering, individuals experience two phases of suffering: enduring and emotional suffering. The enduring phase is where the suppression of emotions take place. When this phase left unrecognized, it leads to the development of CF. Individuals recognized the meaning of the loss during the emotional phase. Assisting staff during in resolving grief by encouraging staff to speak to others who understand the loss, stabilize staff feelings, and letting go of self-blame and guilt.</p>	<p>satisfaction with nursing care.</p>	<p>near ideal ProQOL scores postintervention were considered a success. Limitations: Participants were not matched at data collection points, therefore, determining a specific differences in scoring was not possible. Another variability was the patient's death which limited staff participation in the qualitative part of the study. Although this study had a fair participant numbers, the author mentioned the participant numbers among the limitation.</p>
--	--	---	---	--	--	---

Appendix B

Summary of Systematic Reviews

Citation	Quality Grade	Question	Search Strategy	Inclusion/ Exclusion Criteria	Data Extraction and Analysis	Key Findings	Usefulness/Recommendation/ Implications
Ortega-Campos, E., Vargas-Roman, K., Velando-Soriano, A., Suleiman-Martos, N., Canadas-de la Fuente, G. A., Albendin-Garcia, L. & Gomez-Urquiza, J. L. (2020). Compassion fatigue, compassion satisfaction, and burnout in oncology nurses: A systematic review and metaanalysis. <i>Sustainability</i> , 12 (72). 1-12. https://doi.org/10.3390/su12010072	Level III Grade A	The aim of this study is to analyze the levels and prevalence of CF, compassion satisfaction, and burnout in oncology nurses, and interventions for its treatment	-This systematic review was conducting following PRISMA recommendations -Searching the following databases: CINAHL, Lilacs, ProQuest, PsycInfo, Medline, Scielo, and Scopus. -The following are the key words: burnout, nurs*, oncology, compassion fatigue. -Two members of the research team independently performed the search and selection of the studies. -In the case of disagreement, a third researcher was consulted.	The following are the inclusion criteria: empirical studies, publication language: English or Spanish, oncology nurse sample, indicated a compassion fatigue measure in the study, and included prevalence rate of compassion fatigue, compassion satisfaction, and burnout. The exclusion criteria were: review articles, systematic reviews, and/or meta-analysis studies using the same sample, articles with nursing students, and final studies (degree, master and thesis).	-The search from seven databases was performed in September 2019. -The studies were reviewed in each phase of the PRISMA -A total of 328 articles were identified. -After reviewing the title and abstract, 217 articles were excluded because they did not meet the inclusion criteria. -After evaluating 81 full texts, the sample was composed of 15 studies for the systematic review and five for the meta-analysis. -Data Analysis: the meta-analysis was done with the software StatsDirect. -Three random effects proportion meta-analysis were done to calculate an estimation of the prevalence rate of low compassion satisfaction, medium	-Characteristics of the selected studies: nine cross-sectional design, four had a quasi-experimental design, and one study had a cohort design. -All studies used the ProQOL instrument, which measures compassion fatigue, compassion satisfaction, and burnout. -Prevalence of burnout and CF: three studies revealed a prevalence of CF and burnout between 25% and 35%. One cross-sectional study revealed a high average scores of burnout 49.2% and secondary traumatic stress of 51.4%. The rest of the studies indicated medium average scores between 20 and 29 for burnout, secondary traumatic stress, or compassion fatigue. -Interventions for reducing CF: Five studies did an intervention to improve	Mindfulness program reduce nurses' perceived stress and emotional tension and improve nurses' personal well-being. Daily meditation can reduce the effects of Compassion Fatigue (CF) and secondary traumatic stress and increase compassion satisfaction. Group support sessions offer great benefit to educate, help and exchange experiences. Technology such as mobile app is a novel proposal. Utilization of ProQOL tool to assess compassion satisfaction and burnout has a great benefit to detect and treat possible physical and psychological disorders in oncology nurses.

Citation	Quality Grade	Question	Search Strategy	Inclusion/ Exclusion Criteria	Data Extraction and Analysis	Key Findings	Usefulness/Recommendation/ Implications
					and high burnout, and medium and high compassion fatigue. -Publication bias was evaluated with Egger test and heterogenicity with I2.	CF. Four studies applied an intervention with pre-test and posttest measures, one study had a follow-up at 3 and 6 months. The following is the summary of the types of the intervention: Six weeks with a duration of two hour per week for each session on mindfulness with 15 minutes meditation per day. Results showed lower scores in CF and burnout, and higher levels of satisfaction in life, mindfulness, and self-compassion Another intervention was individual session, CD with short term meditation which led to decrease CF and burnout scores and increase compassion satisfaction. Another intervention was a mobile app called PRMA to promote resilience for 6 weeks. Resilience program consisted of four sessions of 90 minutes each held during working hours that led to improving score in compassion satisfaction, burnout and secondary traumatic stress.	

Citation	Quality Grade	Question	Search Strategy	Inclusion/ Exclusion Criteria	Data Extraction and Analysis	Key Findings	Usefulness/Recommendation/ Implications
						<p>Conducting support session after the death of a patient showed no statistically significant differences between pre- and post-intervention scores.</p> <p>Nurse -led intervention program including two sessions about CF, coping methods, breathing exercise, baksi dance, mandala painting, relaxation, and two counselling follow-ups with motivational messages via smartphone was effective in reducing CF and burnout and increase compassion satisfaction</p>	
<p>Sinclair, S., Raffin-Bouchal, S., Venturato, L., Mijovic-Kondejewski, J., Smith-MaDonald, L. (2017). Compassion fatigue: A meta-narrative review of the healthcare literature. <i>International Journal of</i></p>	<p>Level III Grade B</p>	<p>The purpose of this review was the following:</p> <ul style="list-style-type: none"> -To critically examine the construct of compassion fatigue. -To determine if it is an accurate descriptor of work-related stress in healthcare providers. -To find a valid target variable for intervention. 	<p>A search was performed using the following databases: PubMed, Medline, CINAHL, PsycINFO, Web of Science databases, Google Scholar, the grey literature, and manual searches of bibliographies. The articles and studies on CF were identified and appraised for their validity.</p>	<p>Inclusion criteria were</p> <ol style="list-style-type: none"> 1) empirical or theoretical studies and documents that focused on compassion fatigue as a concept and 2) studies/ documents within the healthcare setting. <p>Exclusion criteria were:</p> <ol style="list-style-type: none"> 1) documents that focused on related concepts such as burnout, secondary traumatic stress, and vicarious trauma; 2) documents that used the term 'compassion fatigue' interchangeably with other 	<p>A total of 90 documents on CF were included in this meta-narrative review. Of these, 31 were observational studies, 11 were experimental studies, 3 were qualitative studies, 4 were concept analyses, and the remainder were theoretical documents. Empirical studies from many countries around the world. Total numbers</p>	<p>-CF has been globally accepted in North America, Canada, Australia, New Zealand, Asia, and Africa.</p> <p>-Concept Analysis of CF: according to Figley is based on empathy. Figley identified the model as a causal model. The causal model identifies empathetic ability as an ability to notice pain in others and to be vulnerable to the cost of caring.</p>	<p>Measurement of CF: Can be very challenging as they are not diagnostic tests but they based on screening tools:</p> <ul style="list-style-type: none"> -CFT: CF test -CFS: CF scale -ProQOL

Citation	Quality Grade	Question	Search Strategy	Inclusion/ Exclusion Criteria	Data Extraction and Analysis	Key Findings	Usefulness/Recommendation/ Implications
<p><i>Nursing Studies</i>, 69, 9-24. https://doi.org/10.1016/j.ijnurstu.2017.01.003</p>			<p>Sources were mapped according to the following criteria:</p> <ol style="list-style-type: none"> 1) definitions; 2) conceptual analyses; 3) signs and symptoms; 4) measures; 5) prevalence and associated risk factors; and 6) interventions. A narrative account of included studies that critically examines the concept of compassion fatigue in healthcare was employed, and recommendations for practice, policy and further research were made. 	<p>descriptors of work-related stress in healthcare providers;</p> <ol style="list-style-type: none"> 3) documents in social workers, first responders, educators, and family caregivers; and 4) letters, commentaries, editorials, and conference abstracts. 	<p>of nurses from all studies were 2444, from all different specialties.</p> <p>The following concepts were extracted:</p> <ol style="list-style-type: none"> 1) Defining CF 2) Conceptual analysis of CF 3) Symptoms of CF 4) Measurement of CF 5) Prevalence of CF and associated risk factors 6) Intervention programs 	<p>CF originates from disruption in empathy. identified factors that contribute to compassion fatigue, including caregiver exposure to suffering; continuous and intense contact with patients; high-stress environments; and high therapeutic use of the self in providing care—interjecting caregiver’s personhood into clinical encounters.</p> <p>CF can be “the final result of a progressive and cumulative process that evolves from compassion stress after a period of unrelieved compassion discomfort, which is caused by prolonged, continuous, and intense contact with patients, the use of self, and exposure to stress” (Coetzee and Kloppe, 2010, p. 239).</p> <p>-CF can manifest as physical, behavioral, psychological, and spiritual.</p> <p>Physical symptoms of CF include: exhaustion, insomnia, compromised immunity, somatization, headaches, stomach aches, sleep disturbance, fatigue, emotional</p>	

Citation	Quality Grade	Question	Search Strategy	Inclusion/ Exclusion Criteria	Data Extraction and Analysis	Key Findings	Usefulness/Recommendation/ Implications
						<p>exhaustion, and hypochondria</p> <p>Behavioral symptoms of CF include: increased alcohol intake (and other drugs), anger and irritability, strained personal relationships, absenteeism, attrition, avoidance of patients, impaired clinical decision making, compromised patient care.</p> <p>Psychological symptoms of CF include: emotional exhaustion, relational distancing, negative self-image, depression, reduced ability to feel sympathy and empathy, cynicism, resentment, dread of working with certain patients, professional helplessness, diminished enjoyment/career satisfaction, depersonalization, fear, fractured world view, heightened anxiety, irrational fears, increased personal vulnerability, problems with intimacy, intrusive imagery, avoidance, insensitivity or hypersensitivity to emotionally charged stimuli, loss of hope,</p>	

Citation	Quality Grade	Question	Search Strategy	Inclusion/Exclusion Criteria	Data Extraction and Analysis	Key Findings	Usefulness/Recommendation/Implications
						difficulty separating personal and professional life, and failure to nurture and develop non-work related aspects of life.	
Wentzel, D., & Brysiewicz, P. (2017). Integrative review of facility interventions to manage compassion fatigue in oncology nurses. <i>Oncology Nursing Forum</i> , 44(3), E124–E140. https://doi.org/10.1188/17.ONF.E124-E140	Level III Grade B	<p>To evaluate the effectiveness, feasibility, and nurses' experience of interventions to manage compassion fatigue.</p> <p>1. What is the effectiveness of an in-facility intervention to manage compassion fatigue in oncology nurses?</p> <p>2. What is the feasibility of an in-facility intervention to manage compassion fatigue in oncology nurses?</p> <p>3. What are nurses' experiences of an in-facility intervention to manage</p>	<p>A systematic search of Cochrane Library, JBI Library, DARE, CINAHL, PubMed, EBSCO Host, SABINET, and PsycINFO was conducted.</p> <p>A total of 164 publications were identified for potential inclusion in this review.</p> <p>Publications were found in Google Scholar (n = 43), PubMed (n = 36), CINAHL (n = 49), PsycINFO (n = 19), and Web of Science (n = 17). Of the 164 publications, 139 were excluded because they did not meet inclusion criteria, leading to 25 articles.</p> <p>Additional search was done in June 2105 added another six articles for a total of 31 articles.</p>	<p>Inclusion criteria: English language Literature published from 1993 to July 2015.</p> <p>In-facility psychosocial interventions</p> <p>Strategy for oncology nurses to manage burnout, secondary stress syndrome, secondary victimization, secondary survivor, vicarious traumatization, and CF.</p> <p>Quantitative and Qualitative studies conducted in in-facility settings (hospitals, clinics, and hospices).</p> <p>Systematic, integrative, and thematic reviews.</p> <p>Intervention was defined as a plan of action, program, or strategy aimed to manage CF and burnout.</p> <p>Exclusion criteria according to the authors are mainly the articles that they do not meet the above inclusion criteria.</p>	<p>Data were extracted using the tool developed by Sparbel and Anderson, including the following: authors, journal, year, study design, methodology, participants, instruments, data collection, reliability, validity, analyses, interventions, outcomes, and quality or level of evidence.</p> <p>Effectiveness of in-facility interventions: Of the 31 articles: four had not conducted an evaluation of the intervention, 18 studies showed satisfaction of the participants from the intervention, four studies noted that participants reported less stress postintervention, two studies noted that participants felt better</p>	<p>-The studies were predominantly from the Western countries: U.S, Europe, and Canada.</p> <p>-Only four studies were published on interventions of CF from 1992-2005.</p> <p>-Twenty seven studies were published on CF interventions from 2006 to 2015.</p> <p>Thirteen quantitative studies were of weak quality because they are pilot studies, small sample sizes, or no randomization, no control groups, or no blinding. All this limiting the potential for inferences and generalizability.</p> <p>About half of the interventions had a pre-/post-test design.</p>	<p>-The majority of the studies reported on a single intervention</p> <p>-All the articles emphasized the importance of recognizing and managing CF.</p> <p>-The majority of the studies used the standardized MBI or ProQOL tools to assess CF.</p> <p>-Participants reported satisfaction with the interventions, they learned effective coping skills and were more equipped to deal with stressful situations.</p> <p>-Several studies recommended organizational support to ensure that all participants were able to attend the interventions.</p> <p>Implications: Additional research needed including randomized control, larger number and longer duration.</p> <p>CF is a known and recognized issue in oncology therefore there is a big need for stronger and better quality studies.</p> <p>Most studies cited the need for management to promote or encourage group meetings or support groups to enhance personal resources for coping or</p>

Citation	Quality Grade	Question	Search Strategy	Inclusion/ Exclusion Criteria	Data Extraction and Analysis	Key Findings	Usefulness/Recommendation/ Implications
		compassion fatigue?	Two reviewers independently appraised the studies. Any conflict would have passed to a third reviewed, authors said that a third reviewer was not needed.		and were able to offer support to patients and their caregivers. Thirteen studies described that participants' experiences of rejuvenation, feelings of being appreciated, coping with job difficulties, and the value of peer support groups. Feasibility of in-facility interventions: There was a big variation in the timing and number of interventions: One-off sessions (n=5) Retreats from 4 hours to 1 day (n=5). Multiple sessions (2-10) varying from 3 weeks to 6 months (n=18). Wide variety of interventions: Relaxation (yoga, massage) (n=10) Self-care and self-reflection (n=6) Emotional and experiential exchanges in small groups (n=5). Other interventions include:		to create a balance between professional and personal life that would prevent or reduce compassion fatigue in oncology nurses

Citation	Quality Grade	Question	Search Strategy	Inclusion/ Exclusion Criteria	Data Extraction and Analysis	Key Findings	Usefulness/Recommendation/ Implications
					<p>coping skills and stress management, role playing, debriefing, problem solving, bereavement care, journals, music therapy, sleep hygiene, mobile phone to cope with stress, play therapy, spiritual care, mindfulness, storytelling, short essays, humor, work-life balance, meaning of life, wellness plans, short films, psychodrama techniques, and cognitive behavioral therapy.</p>		
<p>Xu, H. , Kynoch, K., Tuckett, A., Eley, R. (2020). Effectiveness of interventions to reduce emergency department staff occupational stress and/or burnout: A systematic</p>	<p>Level IV High Quality A</p>	<p>What is the effectiveness of interventions to reduce occupational stress and/or burnout among ED staff?</p>	<p>A three-step search strategy was utilized to search seven databases (PubMed, CINAHL, Cochrane Central Register of Controlled Trials, Embase, Scopus, PsycINFO, Web of Science) and five gray literature resources (MedNar, Google Scholar, ProQuest Dissertations and</p>	<p>All health personnel working in EDs, such as physicians, nurses, and allied health and administrative staff. Any hospital setting providing emergency care, irrespective of size, was considered for inclusion, such as large tertiary hospitals or small rural remote hospitals. There was no restriction regarding participants' educational levels or years of clinical experience.</p>	<p>Two reviewers independently extracted data from the included studies using the standardized JBI data extraction tool in JBI SUMARI.⁷⁴ The extracted data included specific details about the populations, methods, interventions, and outcomes of significance to the</p>	<p>Interventions and MBIs have potential to reduce occupational stress and burnout in staff working in the ED. However, the certainty of evidence was considered as low per the grading of recommendations, assessment, development, and evaluation (GRADE) criteria due to limitations in study designs, indirectness of evidence, and publication bias.</p>	<p>Occupational stress and BO have a negative impact on the well-being of ED staff; it is crucial that ED staff have access to evidence-based interventions to reduce stress and BO. There is a need for future RCT with large sample size in assessing compassion fatigue and effect of different interventions.</p>

Citation	Quality Grade	Question	Search Strategy	Inclusion/ Exclusion Criteria	Data Extraction and Analysis	Key Findings	Usefulness/Recommendation/ Implications
review. <i>JBIR Evidence Synthesis</i> , 18 (6), 1156-1188. https://doi:10.11124/JBIR-D-19-00252			Theses, Conference Proceedings) The search was limited to English language and to articles published from January 2008 to February 2018		review question and objective.	-Meta-Analysis: 5 studies with total oncology nursing sample of n=900. The studies used ProQOL for the evaluation of compassion satisfaction, burnout, and compassion fatigue. These studies showed medium and high levels of burnout with a prevalence rate of 56% (38-74%), and compassion fatigue prevalence rate of 60% (37-81%).	

Appendix C

Levels and Quality of Evidence Synthesis Table

Key: A: High quality B: Good quality	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Level I: Randomized controlled trials (RCT) or Systematic review of RCT								A						
Level II: Quasi- experimental														
Level III: Non- experimental					B	B	A		B	B	B		B	B
Level IV: Opinion of respected authorities or national expert												A		
Level V: Quality improvement	A	B	B	B										

Legend:

1. Adimando, 2018
 2. Blackburn et al., 2020
 3. Craigie et al., 2016
 4. Durkin et al., 2018
 5. Klein et al., 2018

6. Michael et al., 2019
 7. Ortega-Campos et al., 2020
 8. Rajeswari et al., 2020
 9. Sinclair et al., 2017
 10. Sullivan et al., 2019

11. Wentzel & Brysiewicz, 2017
 12. Xu et al., 2020
 13. Yilmaz et al., 2018
 14. Zajac et al., 2017

Appendix D**Synthesis Table: Common Themes Related to Intervention**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
CF and CS	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Increased Awareness	yes	yes	yes	--	yes	--	yes	yes	yes	yes	yes	yes	yes	--
Mindfulness	--	yes	yes	--	yes	--	yes	yes	--	yes	yes	--	yes	yes
ProQOL	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes

Legend:

1. Adimando, 2018
2. Blackburn et al., 2020
3. Craigie et al., 2016
4. Durkin et al., 2018
5. Klein et al., 2018

6. Michael et al., 2019
7. Ortega-Campos et al., 2020
8. Rajeswari et al., 2020
9. Sinclair et al., 2017
10. Sullivan et al., 2019

11. Wentzel & Brysiewicz, 2017
12. Xu et al., 2020
13. Yilmaz et al., 2018
14. Zajac et al., 2017

Appendix E**SWOT ANALYSIS**

SWOT Analysis	
Strengths	Weaknesses
<ul style="list-style-type: none">- Leadership Support- Staff Support	<ul style="list-style-type: none">- Staff Workload- Lack of time for the staff to take breaks- Leadership Workload
Opportunities	Threats
<ul style="list-style-type: none">- Establishing a procedure for self-care during COVID pandemic- Staff training for CF and CS- Increase staff awareness	<ul style="list-style-type: none">- Increased cost of intervention- Placing the reputation of the unit and organization at risk- COVID 19 pandemic

Appendix F**Project Short-Term and Long-Term Objectives**

Objectives	Goals
Short term	Creating a policy and procedure for nurses and staff to increase awareness and prevent CF.
Long term	<ul style="list-style-type: none"> - Reduction in medication errors - Increase in patient satisfaction - Decrease in nurse turnover <p>The CF program will be available to other units in the hospital. It will also be available for new hires and as a part of the nurses' annual competencies.</p>
Process	<ul style="list-style-type: none"> - At the end of 6 weeks of implementation, a 4 week program will be offered weekly for participants to reduce CF and increase CS. - In the first 2 weeks after IRB approval, there will be a recruitment of nurses who are going to participate in the ProQOL survey.
Outcome	<ul style="list-style-type: none"> - Short term: increase compassion satisfaction by 10% at the end of the intervention. - Intermediate: implement a CF program and policy to all hospital units by the end of 6 months - Long term: increase CS in the organization by 20% at the end of one year.

Project Schedule

[illegible]

Appendix H

Permission to Use the ProQOL

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

Please provide your contact information:

Email Address

n.samuel@usa.edu

Name

Naveen Samuel

Organization Name, if applicable

University of St. Augustine for Health Sciences

Country

United States

Please tell us briefly about your project:

I am currently enrolled in the DNP (Doctor of Nursing Practice) program at the University of St. Augustine for Health Sciences and I am in my clinical practicum to implement an evidence-based practice (EBP) for compassion fatigue and compassion satisfaction. I need the ProQOL tool and resources to utilize it in my project.

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

Nurses in a community hospital

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

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

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

English

Arabic

French

Spanish

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

You credit The Center for Victims of Torture and provide a link to www.ProQOL.org;

It is not sold; and

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

Note that the following situations are acceptable:

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

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

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

Yes

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

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

Appendix I

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.

Note. From © B. Hudnall Stamm, 2009. Professional Quality of Life: Compassion Satisfaction and Fatigue Version 5 (ProQOL).

[/www.isu.edu/~bhstamm](http://www.isu.edu/~bhstamm) or www.proqol.org. This test may be freely copied as long as (a) author is credited, (b) no changes are made, and (c) it is not sold.

Appendix J

Mindfulness Video Links by Name

Session 1: direct link:

Breath Awareness

<https://youtu.be/NLw3LwopliQ>

Description: This mindful practice is session 1 and works with cultivating breath awareness for those who are experiencing compassion fatigue. Run time: 9 minutes 45 seconds.

Session 2: direct link:

Body Scan

https://youtu.be/h_RC6RSdm-o

Description: This mindful practice is session 2 and works with cultivating physical awareness for those who are used to losing themselves while caring for others & experiencing compassion fatigue. Run time: 8 minutes 31 seconds.

Session 3: direct link:

Loving Kindness

<https://youtu.be/Vullipkmzr8>

Description: This mindful practice is session 3 and works with cultivating loving kindness for yourself while simultaneously sharing loving kindness with others. Run time: 8 minutes 01 seconds

Session 4: direct link

Uncovering Your Own Needs

<https://youtu.be/LvaBSLN1HJI>

Description: This mindful practice is session 4 and works with uncovering your own needs that can get buried while caring for everyone else. Run time: 10 minutes 36 seconds.

Caveat: Do not listen to these mindfulness sessions while driving or operating hazardous machinery.

Appendix K

Certified Health Coach License

Data Collection Tool for Evaluation

[illegible]

Appendix M

Policy

Purpose

Nurses who care for patients with acute and/or chronic illnesses are identified to be at risk to develop compassion fatigue. Compassion fatigue can lead to physical, psychological, and work-related consequences that may affect patient safety, patient care, and employee-employer engagement and relationship. Caregivers and helpers of all forms are at risk of harmful consequences; they may develop positive and negative feelings, such as compassion satisfaction and compassion fatigue, respectively. Compassion fatigue has two elements: burnout (BO) and secondary traumatic stress(STS). BO is accompanied by feeling exhausted, angry, and frustrated, while secondary traumatic stress is related to work trauma.

Bon Secours Mercy Healthcare recognizes the importance of the health and well-being of their employees. Reducing compassion fatigue and increasing compassion satisfaction will benefit the employer and their community because associates and dependents will be reaching peak performance both in and outside of the workplace. A policy to assess nurses' compassion fatigue and compassion satisfaction is well needed to offer nurses self-care and support.

Policy

Nurses and other healthcare workers will be given the opportunity to answer ProQOL to determine their compassion fatigue and compassion satisfaction levels as part of annual staff competency. Having a clear protocol will assist nurses and caregivers to minimize their risk of developing compassion fatigue and secondary traumatic stress. Early identification of compassion fatigue is the key to the early management and prevention of compassion fatigue.

Nurses will be encouraged to practice mindfulness and self-care daily. Reminders will be sent in the weekly newsletter, staff meetings, and daily huddles.

Appendix N

PowerPoint: Compassion Satisfaction (CS) and Compassion Fatigue (CF)

Compassion Satisfaction and Compassion Fatigue

NAVEEN SAMUEL, MS, ARNP, ANP-BC, FNP-BC
POST-PROFESSIONAL STUDENT
DOCTOR OF NURSING PRACTICE STUDENT
SCHOOL OF NURSING
UNIVERSITY OF SAINT AUGUSTINE FOR HEALTH SCIENCE

For more information see www.proqol.org
© Beth Hudnal Stamm, 2009 www.ProQol.org

vocabulary

- ▶ Compassion Satisfaction
 - Positive aspects for working as a helper
- ▶ Compassion Fatigue
 - Negative aspects of working as a helper
- ▶ Burnout
 - Inefficacy and feeling overwhelmed
- ▶ Work-related traumatic stress
 - Primary traumatic stress direct target of event
 - Secondary traumatic exposure to event due to relationship with the primary person

Professional Quality of Life

- ▶ Compassion Satisfaction
- ▶ The positive aspects of helping
- ▶ "The good stuff"
- ▶ Compassion Fatigue
- ▶ The negative aspects of helping
- ▶ "The bad stuff"

Compassion Satisfaction and Compassion Fatigue Model

Figure 1: Bifurcated Model of Compassion Satisfaction and Compassion Fatigue

Compassion Satisfaction

- ▶ The positive aspects of helping
 - Pleasure and satisfaction derived from working in helping, care giving systems
- ▶ May be related to
 - Providing care
 - To the system
 - Work with colleagues
 - Beliefs about self
 - Altruism

© Beth Hudnal Stamm, 2009 www.ProQol.org

Compassion Fatigue

- ▶ The negative aspects of helping
- ▶ The negative aspects of working in helping systems may be related to
 - Providing care
 - To the system
 - Work with colleagues
 - Beliefs about self
- ▶ Burnout
- ▶ Work-related trauma

© Beth Hudnal Stamm, 2009 www.ProQol.org

Burnout and STS: Co Travelers

- ▶ Burnout

- Work-related hopelessness and feelings of inefficacy

- ▶ STS

- Work-related secondary exposure to extremely or traumatically stressful events

- ▶ Both share negative affect

- Burnout is about being worn out

- STS is about being afraid

© Beth Hudnal Stamm, 2009 www.ProQol.org

Relationships are complex

- ▶ Multiple spheres
 - Work environment
 - “People helped” environment
 - Personal environment
- ▶ Positive (CS) & negative (CF)
- ▶ Altruism CS can override CF
- ▶ Compassion Fatigue two parts
 - Worn out (BO) common
 - Frightened, traumatized (STS) rarer but powerful

© Beth Hudnal Stamm, 2009 www.ProQol.org

Measuring CS & CF: The professional Quality of Life Scale (ProQOL)

- ▶ The ProQOL is free
- ▶ A 30 item self report measure of the positive and negative aspects of caring
- ▶ The ProQOL measures Compassion Satisfaction and Comapssion Fatigue
- ▶ Compassion Fatigue has two subscales:
 - Burnout
 - Secondary Trauma
- © Beth Hudnal Stamm, 2009 www.ProQol.org

Well Established

- ▶ The ProQOL is the most widely used measure of the positive and negative aspects of helping in the world
- ▶ The ProQOL has proven to be a valid measure of compassion satisfaction and fatigue
- ▶ It has been used for over 15 years
- ▶ The measure was developed with data from over 3000 people

© Beth Hudnal Stamm, 2009 www.ProQol.org

Easy to Use

- ▶ The ProQOL is easy to use
- ▶ It can be given individually or in groups
- ▶ It can be given online or at an individual computer

© Beth Hudnal Stamm, 2009 www.ProQol.org

Easy to Score

- ▶ Full scoring
 - More detailed and specific information but takes longer
- ▶ The simplified scoring
 - Less specific but can be completed quickly and can be intuitively understood
 - Good for training situations

Resiliency Planning

- ▶ Individual, personally
 - The ProQOL can help you plan where to put your energy to increase our resilience
- ▶ Organizational planning
 - Can help organizations find ways to maximize the positive aspects and reduce the negative aspects of helping
- ▶ Supportive supervision
 - The ProQOL can be used as information for discussions

© Beth Hudnal Stamm, 2009 www.ProQol.org

For More information:

WWW.PROQOL.ORG

Questions:

n.Samuel@usa.edu

Thank you

Note. From © Beth Hudnal Stamm, 2009 www.ProQol.org

Below are the things we want to let you know about using the slides.

You can

1. Change the format.
2. Add your name and organizational information.
3. Add, rearrange, or remove slides to fit your presentation.
4. Print them for handouts.
5. Copy them for sharing with others who are working with Compassion Satisfaction and Compassion Fatigue and related things.

You cannot

1. Sell the slides. We recognize that courses are for profit or the presenter takes a honorarium. This is not in violation of the use agreement on the slides. What is in violation is specifically selling the slides themselves.
2. Use them without proper credit. The copy right information is on the slides.
3. Use them without including the ProQOL.org website.
4. Use them in any way that is illegal or otherwise prohibited by an ethics or other oversight board that is associated with your activities.
5. Include them in any print or electronic media publication that involves a copyright. Examples would be including them in a text book, a news article, a taped book, or a website. If you would like to use them in this way, we are usually happy to provide permission to reprint.

Note. Permission to use PowerPoint from https://proqol.org/Customize_a_Presentation.html.