Compassion Fatigue in Critical Care Nurses: Putting the Passion Back in Compassion

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Dedication

This DNP scholarly project is dedicated in the loving memory of my grandfather, James Monroe Tyner, who went to be with his maker, our Lord, in 2005. My grandfather was more like a father to me and he never let me think that something was impossible. It is with his courage and conviction that I submit this project with hopes that it can lead to better things. For my grandfather always told me that if I find the problem, I also need to find the solution. He was the model of compassion and care and it is with his strength and love that I move forward having found my compassion and blueprint for happiness.

Abstract

Background: Critical care nurses**,** within the nature of their jobs, are exposed to extreme and traumatic situations nearly every day at work. With this exposure comes increased stress, driven by fear, work-related trauma, and vulnerability to burnout, which can lead to emotional and physical exhaustion affecting compassion for others, known as compassion fatigue (CF). One can develop resiliency to compassion fatigue by recognizing its early signs and symptoms and learning effective self-care strategies. **Aim:** The purpose of this Doctor of Nursing Practice (DNP) project is to bring awareness to critical care nurses about compassion fatigue and educate them on ways to combat it in order to foster nursing resiliency and compassion satisfaction. **Design:** Critical care nurses completed Professional Quality of Life surveys (ProQOL 5) (Stamm, 2010) at before and two months after educational intervention that was designed to teach about CF and its self-care strategies. Comparisons of ProQOL scores which measured compassion satisfaction and CF (as burnout and secondary trauma scores) were made to determine if education interventions effectively improve compassion satisfaction and reduce CF (significance level at $p<0.05$). **Results:** A total of 19 CC nurse participants completed all required activities for this project. There was a significance increase in compassion satisfaction ($p=0.03$) and significant decrease in burnout post-intervention ($p=0.01$). The results suggest that a well-designed educational intervention may be an effective way to reduce CF and improve compassion satisfaction in critical care nurses. Support by organizational leaders is necessary to establish regularly scheduled education that will help promote critical care nurses' compassion, work satisfaction, and resiliency to combat CF.

Keywords: compassion fatigue, critical care, nurse, burnout, ProQOL 5

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CHAPTER I

Introduction

Compassion Fatigue in Critical Care Nurses: Putting the Passion Back in Compassion

Critical Care (CC) nursing is an extraordinary career path with a multitude of positive attributes and intrinsic benefits. There are, however, some perilous negative implications that can be associated with the profession. CC nurses are placed in highly stressful situations and with task saturated responsibilities to ensure positive patient outcomes. One of the negative connotations that can plague CC nurses is compassion fatigue. Compassion fatigue (CF) is a phenomenon that can plague good nurses and end fruitful careers. CF can cause negative patient outcomes and can decrease nurse retention. CF is "The emotional residue or strain of exposure to working with those suffering from the consequences of traumatic events...Compassion Fatigue can occur due to exposure on one case or can be due to a 'cumulative' level of trauma" (The American Institute of Stress, 2019, p. 1). CC nurses are a specific group of nurses that can have an increased association with compassion fatigue due to the mere nature of work and the acuity of the patient population that these nurses manage. "As caregivers in high-pressure environments, critical care nurses are at risk for burnout and secondary trauma – components of compassion fatigue" (Kelly et al., 2019).

CF is a phenomenon that gained much visibility in nursing research and in the media. It is imperative that leaders in healthcare not only recognize compassion fatigue as a real problem in CC nursing, but also need to develop resiliency training in order for CC nurses to learn to recognize, combat, and overcome CF. By doing so, healthcare organizations will increase CC nursing resiliency, generate more positive patient outcomes, and retain this highly specialized group of nurses. The purpose of this project was to educate CC nurses about CF so that they can

recognize the symptoms of CF, learn ways to combat CF, and to build CC nursing resiliency. This paper addresses the needs assessment for CF in CC nurses and presents evidence to support CF training, recognition, and resiliency strategies to overcome the negative implications of CF.

Background and Significance

Kelly et al., (2015) report that CF is the terminology used to label an amalgamation of burnout and secondary traumatic stress. Gaille (2017) provides statistics that 48% of the work force in the United States encounters high levels of workplace distress that is linear to expected working duties. CF can arise in any career field and circumstance; however, in CC nursing CF is an even bigger problem. CF can negatively affect patient outcomes, workplace satisfaction, individual stress levels, and nursing retention. Beaumont et al., (2016) introduce that CF symptoms can include: a decrease in empathy, petulance or antagonism, hyper-stimulation, disturbing feelings, nervousness, apprehension, an increase in alcohol drinking, and apprehension of working with a certain patient population. The recognition of CF as a phenomenon encouraged an array of studies and interventions that can minimize CF. "The highest percentage of workers that reported experiencing some form of compassion fatigue are nurses at over 40%" (Gaille, 2017, para. 6).

Currently, leaders of many healthcare organizations do not recognize CF as a real problem and thus do not have programs in place to develop CF recognition, combatting techniques, and resiliency strategies. Early recognition of CF and its subthemes can enable CC nurses to intervene in the process that is causing CF and ensure positive patient outcomes and positive self-care. There are many studies on CC nurses and the care provided to patients, but there is much to be learned about CC nurses' ability to provide self-care and how CC nurses deal with and respond to the everyday stressful environment in which they practice. Sorenson et al.

(2017) explain that CF is a noteworthy interest in recent healthcare research. Sorenson et al. also report that CF is recognized as a reason that respected healthcare providers (HCPs) withdraw, have visible alterations in their clinical practice, and ultimately leave the nursing career field. CC nursing, which includes intensive care, step down and emergency department settings, can give rise to CF at any time due to the high acuity patients and traumatic patient events that occur on a daily basis to this population of nurses.

CC nurses experience highly stressful patient situations and family encounters in their daily activities and can become overwhelmed with these situations. CC nurses may not know how to handle the strong emotions that may follow such high intensity situations. It is important that leaders of healthcare organizations understand the extent of CF and how best to teach resiliency and self-care to CC nurses to which they employ. Sorenson et al. (2017) indicate that CF can be the emotional price of taking care of trauma patients or witnessing others' trauma. Emergency department (ED) nurses reported feeling an inability to continue shifts after pediatric cardiac arrests (D. Samuelson, personal communication, November 12, 2019). Medical surgical intensive care nurses (MSICU) and progressive care unit/cardiovascular and thoracic care unit nurses (PCU/CVTCU) reported taking their frustrations from one patient encounter out on all of their subsequent patients in a single shift (C. Olff, personal communication, October 29, 2019). It is significant reports such as these that warrant continued in depth studies on the effects of CF on CC nurses, the effects CF has on patient outcomes, and CF impact on nursing resiliency.

Leaders of healthcare organizations need to understand the complexity and detrimental effects of CF and provide resiliency training to CC nurses in order to prevent adverse events from occurring. The result of poor CF training and resiliency can be catastrophic to both the profession of CC nurses as well as patient populations. CF also has a serious monetary

consequence as well. "The cost of replacing a health care provider is staggering: for example, the average cost for turnover for a single RN is $36,900 to $57,300, resulting in an estimated cost of $729 million per year in the United States" (Sorenson et al., 2017, p. 561). CC nursing retention is a problem in healthcare and will only get worse unless leaders of healthcare organizations take a stand against CF and institute resiliency programs for CC nurses. Pfaff et al., (2017) indicate that the price of caring strongly effects both the patient and organizational outcomes. Left uncorrected, under researched, and under estimated, CF will plague CC nurses, healthcare organizations, and patient populations. Healthcare leaders will pay the cost of caring both financially and culturally. West et al. (2017) disclose that early identification of CF joined with constructive interventions must be present to improve CC nursing fulfillment, patient care, and CC nurse retention.

Needs Assessment

Observation, personal experiences as an ED nurse, discussion with nursing leaders and clinical experiences as a charge nurse provided valuable insight to the need for compassion fatigue understanding, intervention, and resiliency. Ten years of ED experience and seeing the effects of increasing trauma, intensive traumatic situations with patients and their families, and conversations with other critical care nurses have demonstrated a strong need for CF assessment and education on CF strategies in the workplace. "As healthcare systems are being forced to do more with less, clinicians are experiencing increased stress and burnout (BO) in the workplace" (Klein et al., 2018, p. 882). The need for CF resiliency training has never been more necessary than it is in today's critical care nursing environment.

Discussions with multiple nurse leaders at Northern California Hospital (NCH) illuminated CF as a phenomenon and agreement that CF needs to be addressed in relation to CC

nursing. A personal interview with R. Forbes (personal communication, November 13, 2019), NCH ED director, reveals that she recognizes CF as a distinct variable in job satisfaction, patient satisfaction, and employee retention. C. Olff (personal communication, October 29, 2019), NCH Integrated Director of CC Services, reflects on caring for patients in the CC setting and discloses that nurses must be able to deliver care with compassion in order to support patients and their families at such a vulnerable time in their lives. C. Olff addressed the issue of nursing curriculums and how they revolve around knowledge and skill development without adequate focus on needed tools to address CF (personal communication, October 29, 2019). In order to maintain a healthy work environment where nurses' needs are addressed as caregivers, it is important that skills to counter CF are included in initial and on-going training at both the organizational level as well as education curricula (C. Olff, personal communication, October 29, 2019).

D. Samuelson (personal communication, November 12, 2019), NCH ED manager, indicates that CF is a palpable phenomenon that cannot be understated nor ignored. He continues to report that CF in CC nursing is only going to get worse if leaders of healthcare organizations do not come to terms with its existence, examine the risk factors, learn ways to recognize symptoms of CF, and develop resiliency strategies that will aid CC nurses in overcoming CF (D. Samuelson, personal communication, November 12, 2019). D. Samuelson explains that CC nurses can experience both tragedy and joy in the same 12-hour shift. He adds that leaders supporting resiliency means providing CC nurses with a CF toolkit to better adapt to the rapid change that often occurs in the CC environment (D. Samuelson, personal communication, November 12, 2019).

By creating compassion fatigue education for CC nurses, leaders of healthcare organizations can aid this population of nurses in better understanding how CF impacts their lives, their profession, and their patients. Nolte et al. (2017) introduce that as the necessity for healthcare continues to intensify, employing more stresses on nurses, CF intervention and information can assist nurses in developing a better clinical practice which can lead to a reduction in nursing burnout, safeguard quality of care, and retain nurses in health care facilities.

SWOT stands for strengths, weaknesses, opportunities, and threats. Van Wijngaarden et al. (2012) conclude that a SWOT-analysis is an instrument that can be employed for strategic analysis and consists of a combination of external developments and internal abilities. A SWOT analysis was also performed to investigate a needs assessment for CF in CC nurses (Figure 1). The SWOT analysis of CF at NCH internal strengths included: strong stakeholder buy-in, planned educational intervention is evidence based, and facility/leadership support that is mission and vision driven to promote high quality health care while promoting high quality self-care of nurses. Strong stakeholder buy-in includes both the CC nurses and nursing leaders at NCH. The planned educational intervention consists of a one-hour webinar that will provide evidence-based information regarding CF signs and symptoms, evidence-based ways to combat CF, and evidence-based resiliency strategies. The mission at NCH (2019) is dedication to improving the health of the communities served with quality and compassion. The support from the NCH nursing leaders for a CF intervention is built upon that mission and a vision to "exceed our patients' expectations for seamless, consistently positive experiences with all aspects of Northern California Hospital" (Northern California Hospital, 2019).

The SWOT analysis of CF at NCH external opportunities included: improving nursing self-care management, reducing mental health and sick days taken by nurses, increasing patient

satisfaction, increasing positive patient outcomes, and increasing nurse retention. Improving nursing self-care management will enable the CC nurses at NCH to learn the best strategies for self-care in order to provide the best care for the patient populations in CC nursing. By providing resiliency strategies and self-care in CC nurses, the efforts to reduce mental health and sick days will align with the goals of the CF intervention. Finally, the external opportunity to reduce nursing turnover and increase CC nursing retention can be realized.

Table 1

Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis

SWOT Analysis

Objective:
Reduce Compassion Fatigue in Critical Care nurses as well as increase awareness on how to recognize early compassion fatigue signs and symptoms and ways to combat compassion fatigue.

Internal Factors	
Strengths (+)	Weaknesses (-)
• Strong stakeholder buy-in • Planned educational intervention is evidence based • Facility/Leadership support that is mission/vision driven to promote high quality health care while promoting high quality self-care of nurses	• Finding time for all or most critical care nurses to attend a 1-2-hour class • Financial concerns to pay nurses to come to a class would cause leadership to question need for excess funding • Poor buy-in from nurses who do not see compassion fatigue as an issue

External Factors	
Opportunities (+)	Threats (-)
• Improved nursing self-care management • Reduced mental health days taken by nurses • Increased patient satisfaction • Increased positive patient outcomes • Increased critical care nurse retention	• Funding for staff education hours • Inefficient follow-up with nurses and leadership • Reports of Compassion Fatigue are extremely subjective

Evaluation of Objective:
Strong stakeholder support, evidence-based research to support intervention, and a facility that focuses not only on positive patient outcomes but also on positive staff resiliency outcomes and empowerment.

(Hewett, 2020)

Problem Statement

The depth of the CF problem in CC nurses is astounding in today's healthcare systems. Upton (2018) indicates that within the CC setting, caring for the sick and dying is physically palpable and emotionally challenging, making CC nurses more vulnerable to CF. It is this vulnerability of CC nurses that put them at risk for developing CF. CC nurses, from MSICU, PCU, CVTCU, and ED, routinely see the worst of the worst illnesses and trauma in all populations of society. The reactions to seeing and being exposed to this type of patient population routinely can ultimately grow into CF. Upton reports that if signs and symptoms of CF are not addressed early on in CC nursing, CF can adversely affect the nurses' ability to provide an expected level of compassionate care. The catastrophic damage CF can cause, if left unchecked, is astounding. According to Upton, CF not only manifests in physical and emotional symptoms, but CC nurses can be affected in different ways to include: using more sick

days, higher turnover rates, decrease in nurse productivity, bad changes in work performance, poor patient satisfaction, poor judgment, and an increase in nursing errors.

Purpose of the Project

The purpose of this project was to educate CC nurses about CF so that they can recognize the symptoms of CF, learn ways to combat CF, and to build CC nursing resiliency. No matter the reason why CF occurs, the resulting inability to compassionately care for patients can have disastrous effects in CC nursing. "Those with compassion fatigue give extensively of themselves to help their clients, until they reach the point of dysfunction" (Kawar et al., 2019, p. 359). According to Sorenson et al. (2017), consequences of CF may include behavioral changes such as substance abuse; calling in sick frequently and eating disturbances; emotional changes such as low self-esteem, apathy, and depression; and physical changes such as chronic fatigue, exhaustion, insomnia, and hypertension. By strengthening the CC nurse in understanding CF and how to recognize it in themselves and their peers, Jarden et al. (2018) report that nursing leaders in healthcare organizations can create a positive change for CC nurses.

Objectives

The objectives for this doctor of nursing practice (DNP) project will be to develop an educational offering that will provide CC nurses with CF education to recognize CF symptoms and interventions to help combat CF. The effectiveness of this education will be measured with ProQOL 5 (Stamm, 2009) surveys pre and post educational offering. The ProQOL 5 is an established quality of life survey that has been shown to accurately measure professional quality of life. This CF educational offering will be a one-hour webinar that will aid in CF awareness, resiliency, and retention of CC nurses. The post evaluation survey will be completed two

months after the educational offering. A CC nursing educational offering will provide the necessary tools that CC nurses need to combat CF. The objectives for the DNP project are:

1. Develop and implement a CF educational intervention.
2. Evaluate the effectiveness of the educational intervention on CF scores of participants two months after its implementation.
3. Describe the demographic characteristics of CC nurses and their perceived levels of compassion satisfaction and compassion fatigue pre-intervention.

Clinical Question/PICOT

In critical care nurses with increased risk for compassion fatigue (CF), will a CF educational offering be effective in increasing awareness of CF and decreasing CF two months following the CF offering?

Congruence with Organizational Strategic Plan

The organization mission statement at NCH states, "We are dedicated to improving the health of the communities we serve with quality and compassion" (Northern California Hospital, 2019, para. 1). This project aligns with the mission of NCH and will inherently strengthen the mission for both leadership and CC nurses. By diminishing CF in CC nurses, compassion will be revitalized in CC nurses at NCH. Providing an educational intervention for CC nurses regarding CF will reinvigorate the passion in compassion and restore resiliency.

The mission at NCH is to improve the health of the communities it serves with a quality and compassion dedication like no other health care facility. By implementing a CF for CC nurses project within the NCH system, the organizational mission is not only represented, but the project also demonstrates a dedication to caring for the employees at NCH. An expansion of the

organizational culture to employ self-care in order to maintain awareness of CF is an instrumental aspect of this project and aligns with the organizational strategic plan at NCH.

Developing resiliency to CF for CC nurses will aid in nursing retention and decrease turnover in this area of specialized nursing. This decrease in turnover will ultimately parallel the organizational vision of exceeding every patients' expectations for seamless, consistently positive experiences within all aspects of the healthcare facility (Northern California Hospital, 2019). Retaining this specialized group of CC nurses will aid in a seamless transition of care by having adequate staff not to just maintain, but elevate, the permanence of positive patient experiences.

Search Strategy

Several academic resources were utilized in the search strategy for this project. Bradley University online library academic resources for nursing was used. The article databases searched were google scholar, CINAHL (Cumulative Index to Nursing and Allied Health), PubMed at Bradley, and the Cochrane Library. Search criteria included scholarly articles from 2015-2019, full text only. Search phrases included: compassion fatigue, critical care nursing, resiliency strategies, compassion fatigue statistics, strategies for compassion fatigue, compassion satisfaction, burnout, secondary stress syndrome, compassion fatigue evidence-based interventions, interventions for compassion fatigue, qualitative studies on compassion fatigue, Watsons caring theory, qualitative studies on compassion fatigue, and coping strategies for compassion fatigue. The search strategy yielded 247 articles. After exclusions due to age of article, quality of evidence, and specificity for critical care nursing was introduced in the discovery phase of the literature review for this project, 21 articles remained. The search strategy yielded 21 articles that contributed to this project.

Synthesis of Evidence

There is much evidence to conclude the need for CF education and intervention. Healthcare organizational leaders who show support for employees such as CC nurses will be able to support the nurses both professionally and personally. The evidence on causes, symptoms, tools, and interventions for CF is overwhelming. Nolte et al. (2017) report that CF is a complex phenomenon of recognized significance to those in nursing and epitomizes a basic failure to care for others and engenders a progressive element in patient care. A synthesis of research offers evidence of the veracity of CF for application to clinical practice and research associated to CC nursing (Nolte et al., 2017).

Causes

The mounting number of research studies available expressing how CF impacts CC nurses is limited to exploration on the effects of CF on CC nurses and definitive intervention programs on how to combat CF in CC nurses. According to Hunsaker et al. (2015), it is imperative now, more than any other time in history, to understand the prevalence and predictors of CF in CC nurses. Introducing intervention strategies to CC nurses that incorporate early recognition, techniques to combat, and how to overcome CF in healthcare organizations will aid in eliminating the CF phenomenon. Healthcare organizations who employ CC nurses must develop intervention strategies to aid CC nurses in recognizing CF in themselves and others, ways to combat CF, and ways to build resiliency in the CC working environment. Wijdenes et al. (2019) found more than 55% of CC nurses reported moderate symptoms of CF and 25% concluded to have high CF symptoms. This study highlights the necessity for continued research on CF in relation to CC nurses as well as the cumulative effects that long-term CF has on CC retention and resiliency.

Hunsaker et al. (2015) attest that the intricacy of patient care is mounting, resources are diminishing, and insurance compensation is being connected to patient satisfaction. This incidence of patient satisfaction is especially true for CC nurses and the increasing acuity of this group of nurses' patient assignments. Hunsaker et al. report that increased awareness of CF may lend to improved job satisfaction, and therefore, an increase in quality patient care outcomes as well as CC nurse retention. A study by Mooney et al. (2017) found that CC nurses had higher CF symptoms than did other specialty nurses such as oncology nurses. The significance in the repeated exposure to critically injured and ill patients experiencing pain and suffering can induce the debilitating state of CF in CC nurses (Mooney et al., 2017). Mohammadi et al. (2017) refer to CC nurses as having more exposure to occupational stress than nurses working in other nursing departments/care areas.

A multitude of the causes of CF have been reported in research studies across the globe. It is important to note the nature of CC nursing and the higher intensity and acuity that is often times associated with it. CF is not a phenomenon caused by a singular event. According to the research of Nolte et al. (2017), CF is the culmination of a cascade in events that nurses are exposed to with intensifying and continued exposure. The repeated daily activities and expectations of CC nurses indicate a higher than normal prevalence of CF. CF is the "result of a progressive and cumulative process, caused by prolonged, continuous, and intense contact with patients, the use of self, and exposure to self" (Cragun et al., 2016, p. 730). Alharbi et al. (2019) agree that the work environment of CC nurses, including exposure to traumatic events, workload, and organizational variables, contribute to the increase incidence of CF among CC nurses.

With the emergence of the COVID-19 pandemic, the demand and workload for CC nurses has more than doubled. Roughly one third of the patients presenting for treatment are

infected with severe acute respiratory syndrome coronavirus and require critical care treatment and ICU admission (Liew et al., 2020). Front line ED nurses are seeing less use of BiPAP and earlier intubation due to risk of aerosol contamination with the use of BiPAP. The increase in patient acuity coupled with the intense working environment and completing all patient care fully robed in personal protective equipment, has caused a surge and an increase in CF for CC nurses.

Symptoms

Compassion Fatigue can manifest in a number of psychological and physical symptoms in CC nurses. From their research, Nolte et al. (2017) deciphered four central themes that revolve around CF to include: physical symptoms, emotional symptoms, triggers of CF, and measures to overcome or prevent CF. Cragun et al. (2016) report that CF can be noticeable physically, socially, emotionally, spiritually, and intellectually and may rise in strength. Cragun et al. also provide that higher levels of CF, such as those experienced by CC nurses, are associated with poor work-life satisfaction, substance abuse, work and home relationship issues, an increase in medical errors, and a reduced throughput. Often times CC nurses may forget about self-care in attempts to dutifully care for others. A CC nurse experiencing CF can feel loss of meaning and hope and can have a range of reactions from mild to severe to include: anxiety, difficulty concentrating, being fidgety, easily startled, irritable, insomnia, emotional numbness, and frequent images of another's traumatic events (Portnoy, 2011). CC nurses can experience a highly volatile environment and situations with many moving parts. These situations may require life and death emergency actions or decisions to be made. Those are the elements that empower CF and dictate a need for recognizing the symptoms.

If CF goes unrecognized and/or untreated, nurses will use more energy than they replenish, which can lead to emotional, physical, logical, and spiritual worry which further establishes more stress on the individual (Wijdenes et al., 2019). Wijdenes et al. go on to report that CF can not only affect a CC nurse's work performance, but also have strong negative impacts on the organization or employer. "It is estimated that 40% of job turnover is stress related, with the average cost of replacing an employee equaling approximately 120% to 200% of the salary of the affected position" (Wijdenes et al., 2019, p. 20). The early recognition of signs and symptoms of CF by CC nurses and their colleagues is an important aspect of recovery and resiliency (Borges et al., 2019).

Measurement Tools

De La Rose et al. (2018) discuss the Professional Quality of Life (ProQOL) Scale and the value the ProQOL 5 scale has in research as one of the few validated measures of the construct of CF. Adimando (2018) reports that the ProQOL scale is the most commonly used assessment to quantify the effects of working with people in distress, and that more than 200 published studies cite the use of the ProQOL. "Developed initially by Charles Figley in 1980, the ProQOL—called the Compassion Fatigue Self-Test—at the time—encountered a variety of revisions, coauthoring (by Stamm as of 1988), modifications, and title changes until the late 1990s when it was renamed to the ProQOL" (Adimando, 2018, p. 311). The ProQOL survey tool was used to analyze the incidence of CF in different demographics of nurses such as unit specificity, employment status, and age (Mooney et al., 2017). The ProQOL 5 is available in 27 different languages (Professional Quality of Life Measure, 2019).

The ProQOL has a scoring system that puts a point value on the questions to place them in one of three categories: Compassion satisfaction, burnout, and secondary traumatic stress scale

(Appendix A). Burnout and secondary traumatic stress scales are both components of CF. The scores used for this CF project were derived from 10 nonsequential questions in the burnout and 10 nonsequential questions in the secondary traumatic stress scale sections of the survey; the summation of the 10 questions from each of the two sections are placed into three categories: low, medium, and high. The scores reflect whether the nurse taking the survey has a low, moderate, or high level of components of CF (burnout and secondary traumatic stress scale). If the result is low then the nurse has a low incident of CF and at less risk of succumbing to CF. As the score gets higher, the risk for CF is greater.

The best way to understand CF in CC nurses is to measure the impact it has on CC nursing staff. According to Sabery et al. (2017) there is no one specific, precise, and comprehensive tool to measure CF due to the subjective nature of the subject. Their goal was to create, employ, and appraise a new tool called the Nurses' Compassion Fatigue Inventory (NCFI) to gain a better perspective at measuring CF in nurses (Sabery et al., 2017). According to the findings of Sabery et al., the NCFI has high reliability and validity as it had both deductive and inductive elements that aided in CF measurement. The resulting 35 question NCFI was found to have high internal reliability and indicated the survey was a standardized scale and that all 35 questions measured the same paradigm (Sabery et al., 2017). Sabery et al. also found that the 35-item NCFI had acceptable consistency and face, content, and construct validity.

CF instruments that can provide multifaceted insight vis-à-vis the CF effects on CC nurses are valuable tools for leaders in healthcare organizations. CC nurses are consistently the frontrunners for higher occurrences of CF and succumbing to the detrimental symptoms, leading to inadequate self-care, poor patient care, and poor retention. Adimando (2018) discusses how identifying CF is helpful in not only promoting caregiver awareness, but also in alleviating the

symptoms of CF and the negative effects the symptoms have on CC nurses work performance, emotional well-being, and physical health.

Interventions/Strategies

An important factor to CF resiliency with regards to CC nurses is the process of early intervention. Klein et al. (2018) introduce a valuable pilot intervention process for reducing CF in healthcare professionals. According to the findings of Klein et al., the pilot study observed the value of a resiliency program that intended to improve quality of life in healthcare providers as measured using the ProQOL 5. The study illuminated the utilization of specific educational interventions designed to reduce CF (Klein et al., 2018).

Based on their findings, Klein et al. (2018) conclude that self-awareness of CF and the accompanying hazards was determined as valuable by the participants in the study. Providing a steadfast intervention that highlights the signs and symptoms of CF will guide CC nurses in better understanding the methods necessary to combat it. Klein et al. go on to report that to minimize the effects of CF, CC nurses can be provided education and given the essential tools to recognize stressors, become self-aware, and participate in self-care activities. The strategies developed must incorporate methods that improve the therapeutic and caring environment as well as support for nurses (Nolte et al., 2017). In the ProQOL manual, Stamm (2010) indicates that organizational prevention programs are believed to help maximize compassion satisfaction and reduce the risks for developing CF.

According to West et al., introducing employee led evidence-based projects can improve and restore compassion. Nurses that participate in creating change ultimately improve resilience and decrease CF (West et al., 2017). Having nurses be a part of the process for change and the solution can generate buy-in as well as generate resiliency. According to West et al.

(2017), instruction about developing CF, recognizing signs and symptoms, and employing activities to improve self-care by decreasing CF related stress and fatigue should be introduced in nursing education. The evidence is mounting that research continues to demonstrate that there are multiple long-term benefits CC nurses can gain from CF interventions (West et al., 2017).

Understanding that sometimes separation or stepping away for a brief time to recollect oneself, an EBP team developed the Code Compassion to assist with CF in their facility. Kelly et al. (2017) developed a Code Compassion Cart that was mobile and could be transported to the unit in lieu of a permanent quiet room or safe space that could be set up in a break room or office. The Code Compassion Cart had a generous variety of offerings that included healthy snacks, hot beverages, cold beverages, stress relieving balls, aromatherapy vaporizers, relaxation CDs, a CD player, removeable chair massagers, yoga pamphlets, inspirational cards, and magazines that could be used when CF was recognized in self or co-workers (Kelly et al., 2017).

Another intervention for CF in CC nurses is mindfulness. Ruiz-Fernandez et al. (2019) discuss mindfulness as a notion modified from the Buddhist tradition and can be cultivated through an assortment of meditation applications. The objective of a mindfulness program is to teach people to respond to conditions, such as CF, in a reflective means rather than responding automatically or in a state of frustration (Ruiz-Fernandez et al., 2019). Ruiz-Fernandez et al. go on to report that through training and cultivating the mind, people, such as CC nurses, who employ mindfulness learn to be more aware of their thoughts, feelings, and body sensations as they occur in the moment (Ruiz-Fernandez et al., 2019).

Several strategies to combat CF in CC nurses have been found by the literature. Self-care being the most frequently suggested strategy. According to Bonamer and Aquino-Russell (2019), a deficiency in self-care strategies may result in CF due to the demand placed on nurses.

Nurses learn for a minimum of two years how to care compassionately for others, but often times those lessons do not include self-care and other coping mechanisms that combat CF. Suggested self-care attributes include time outs and meditation. Transcendental meditation (TM) is shown to improve stress, anxiety, depression, and coping (Bonamer & Aquino-Russell, 2019). This study found that teaching TM by certified teachers had positive effects on compassion fatigue in the nurse participants (Bonamer & Aquino-Russel, 2019). Introducing strategies such as TM can strengthen the CF intervention process and provide an outlet for CC nurses when symptoms of CF are surfacing.

Upton (2018) offers that self-compassion can not only benefit the caregiver but also those in that caregivers' care. Self-compassion is a paradigm that is an integral aspect of how individuals deal with life's complications (Upton, 2018). Different ways to develop self-compassion may include: a helpful thinking style, helpful behaviors, and helpful managerial behaviors (Upton, 2018). Helpful thinking styles may include: self-reflection, realistic thinking and expectations, self-forgiveness, and perspective. Helpful behaviors may include: utilizing peer support systems, talking it out with an experienced/trusted peer, understanding work-life balance, understanding importance of rest and regular sleep, and understanding the importance of exercise. Upton (2018) incorporates helpful managerial behaviors in her study to include: recognizing the importance of routine feedback, clinical debriefings, protected breaks, active listening, and the importance of recognition. Incorporating any combination or all of these tactics will better serve CC nurses in recognizing, combatting, and being resilient to CF in the critical care setting.

Other strategies to combat CF and instill resiliency in CC nurses include: formal debriefings and social support (Morrison & Joy, 2018). Schmidt and Haglund (2017) report that

debriefing after difficult situations using a structured model has been used as a nonthreatening and low-cost way to discuss unforeseen outcomes, identify opportunities for improvement, and heal as both individuals and groups.

Many CC nursing units across the country and across healthcare modalities are instituting critical incident stress debriefings after traumatic events to include CC nursing and pre-hospital care emergency medical systems. Morrison and Joy (2018) account that debriefing was recognized as a valuable process after caring for trauma patients or experiencing a traumatic event; however, it is not routinely practiced. The study also concluded that not only was a debriefing process not regularly implemented, but that when it was, the staff was inadequately trained to deliver an appropriate debriefing (Morrison & Joy, 2018). This study provides evidence that not only initial, but annual CF intervention training, is necessary to help CC nurses maintain CF resiliency. Another strategy or element of CF management identified by Morrison and Joy was that of support and understanding by colleagues. Allowing CC nurses that are exhibiting symptoms of CF to walk away and take a time out, as well as supporting them through the incident, is paramount in CF resiliency. Caring for patients is not the only responsibility of CC nurses. Morrison and Joy identify a duty to care for colleagues, especially after a significant event, is of importance. CC nurses need to be able to recognize the symptoms of CF in themselves but also in their peers.

Conceptual Framework

Sabery et al. (2017) illuminate the idea that compassion is fundamental to nursing and the heart of quality health care delivery. In 1975, pioneer and nurse Jean Watson developed her caring theory for nursing practice. West et al. (2017) report that Jean Watson's Caring Theory establishes the background for the practice of nursing and emphasizes the nurse-patient rapport

and human interaction that occurs with each encounter.

Caring is a key component to compassion and being able to restore the passion in compassion is essential in CC nurses that are experiencing CF. Dr. Watson's caring science is based upon two principles: (a) caregiver must be able to care for him/herself in order to care for patients and their families and (b) caring can be delivered at a point in time when two people make that connection that impacts both parties in a way that each party is changed because of the caring interaction (Foss-Durant, 2014). These principles are the fundamental core of compassion.

According to West et al. (2017), Watson's Human Caring Theory offers the groundwork for execution of compassionate care to develop patient healing as well as foster nurse well-being and progression. Watson's Human Caring Theory established a global foundation for nursing as a caring profession and enabled nurses to connect on a personal level with one another and with patients. CC nurses who are exhibiting, experiencing, or observing compassion fatigue need to know how to recognize, intervene, and overcome CF to ensure that self-care is preserved, and to maintain high quality patient-centered care and positive patient outcomes.

CHAPTER II

Methodology

Project Design

The initial planning for this DNP project involved a literature review to ascertain superlative practice interventions for discussion of the topic of CF. Post critical appraisal of relevant evidence, a decision for the development of a CF educational intervention was best practice for this NCH group of CC nurses. CC nurses and the rate at which they are exposed to traumatic and critical patient events on a daily basis was the deciding factor on choosing this subgroup of nursing.

This quality improvement (QI) project included the development of an educational intervention that will provide an annual educational initiative for CF in CC nurses. The DNP project proposed to identify whether the implementation of an educational intervention can impact the CF of CC nurses. The ProQOL 5 (Stamm, 2009) (Appendix A), a tool used to measure CF, was distributed before and two months following an educational intervention. CF scores for nurses from the different CC areas and the different demographic characteristics of participants were compared. This QI project also compared the CC nurses ProQOL 5 scores prior to the educational intervention to ProQOL 5 scores two months after the intervention.

The goal was for CC nurses to improve their recognition of the signs and symptoms of CF and develop resiliency strategies to combat CF. The educational intervention included information on recognizing the emotional and physical signs and symptoms of CF as a result of providing nursing care for patients in the CC environment. The intervention also presented information on developing self-care activities that can aid in becoming resilient to CF. By

implementing this project, the NCH can better prepare CC nurses to recognize and become resilient to CF by providing this educational intervention.

Project Setting

This project took place at a 224-bed hospital in the Bay area of Northern California. The NCH is a certified STEMI and Stroke receiving facility in the Bay area as well as a Magnet Facility. The setting for this project were CC areas to include the MSICU, PCU, CVTCU, and ED of the NCH healthcare organization. The NCH has a total of 56 MSICU, PCU, CVTCU beds and 32 ED beds with the ability to accommodate an extra 6 gurney beds if necessary. This setting was chosen due to the increasing acuity of patient population coming through the ED and into the MSICU/Stepdown units. Since November 2019, there has been an increase in staffing issues and in scheduling with an inability, at times, to fully staff each of the CC units (D. Samuelson, personal communication, November 12, 2019). Leadership has attempted to staff with travel nurses and offered incentive pay accepting extra shifts, but the increase in fatigue observed by the staff was a deciding factor in development of this CF QI project.

Project Participants

The patient population in the CC care areas are high acuity and task heavy nursing interventions, creating a correlation with the literature that CC nurses have an increased risk for compassion fatigue. Mooney et al. (2017) indicate in a study to compare demographic areas of nursing that ICU nurses, when compared to oncology nurses, were found to exhibit significantly higher levels of burnout, a component of CF. Wijdenes et al. (2019) further identified the CC nurse population being at risk, indicating that CF components of burnout and secondary traumatic stress scale (both components of CF) was greatest among the ICU/ED/Rapid Response, Desert Vista/Psych Annex, and Labor and Delivery (L&D) units.

The participants were a voluntary group of CC nurses from MSICU, PCU, CVTCU, and ED. An email explaining the project and invitation to participate was sent to all CC nurses, approximately 231 nurses, as well as the three department managers. The participants are employed as either MSICU/Stepdown or ED nurses at the Northern California Hospital campus with multiple levels of education and experience as nurses. The purpose of sending the invitation to participate to all 231 CC nurses and the three managers was to acquire a large subject/participation sampling. The project manager also provided information in each of the CC care area huddles to gain recruitment and make the CC nurses aware of the intent and purpose of this QI project. All CC nurses that responded to the email, completed all three surveys, and participated in the educational offering were included in this project. Exclusion criteria included any CC nurse who did not complete one of the three surveys or did not attend the educational offering.

Data Collection Tools

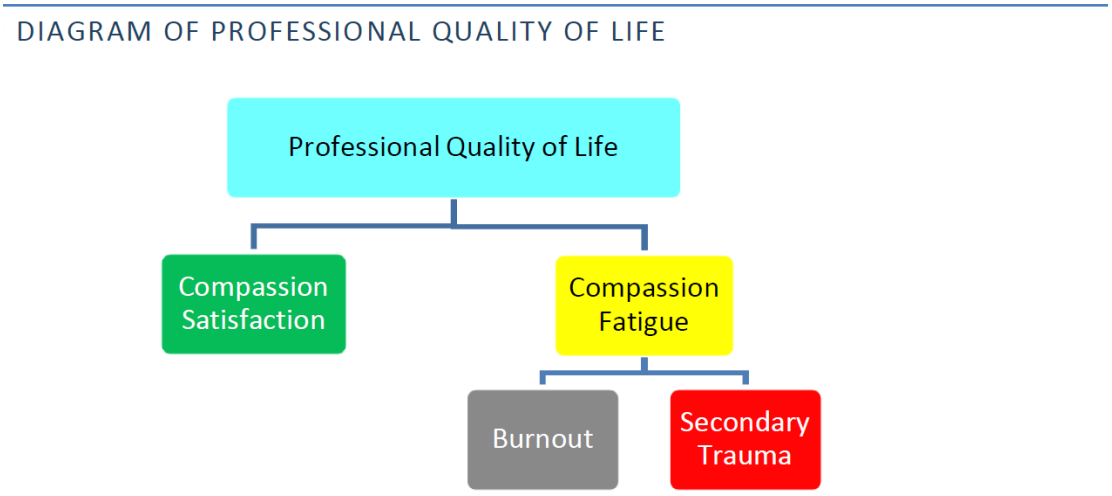
The data collection tool for this project was the ProQOL 5 survey (Stamm, 2009; Stamm, 2010) (Appendix A) survey. The ProQOL 5 survey is a free tool (www.ProQOL.org) that is frequently copied and utilized as long as the creator is credited, no changes are made, and no profit is made by its use (Stamm, 2009). "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."" (*ProQOL Permission*, 2020).

The ProQOL 5 measures the negative and positive effects of helping others exposed to suffering and trauma (Professional Quality of Life Measure, 2019). It contains sub-scales for

compassion satisfaction, burnout, and secondary traumatic stress scale (components of CF) (Professional Quality of Life Measure, 2019) (See Figure 3). According to Stamm (2010), there is good validity with the ProQOL 5 with over 200 published papers and more than 100,000 articles on the internet. Stamm also reports that of the papers published on CF, nearly half have utilized the ProQOL or one of its earlier versions, but also reports that the ProQOL 5 is non-diagnostic for CF.

Figure 1

Diagram of Professional Quality of Life



(Stamm, 2010, p. 8)

A short demographic survey was also linked into the initial email to be completed along with the ProQOL 5 survey. The demographic questions included: length of time working as a CC nurse, area of CC nursing (MSICU, PCU, CVTCU, or ED), age, education, and employment status (Appendix C). There werer no question answers that provide any indication as to the identity of the responding participant. The demographic tool was used to determine demographic characteristics of CF in CC nurses. Typeform™ software electronic software

(Munoz & Okuniev, 2019) is a survey service and may be used as long as the brand name is credited. The Typeform™ software will be used to deliver survey questions from the ProQOL5 and the demographic survey. The demographic survey and ProQOL 5 survey questions were transcribed to the Typeform™ software to create an easy access for CC nurses to answer the questions and easily submit to the project manager.

Project Plan

The first step of this DNP project was to develop a one-hour educational class with CC nurses as the target audience. The class was delivered as a PowerPoint presentation with interactive, simulation techniques of relaxation, debriefing, and mindfulness. The class was delivered in a synchronous, webinar format (Appendix D). Multiple sessions of the class were offered due to the large number (231) of surveys sent with anticipation of at least 50% CC nurses participation.

This project was advertised via open discussions at Unit huddle meetings on all CC units as well as emails that had a flyer attached describing the project, goals, and participation guidelines (Appendix E). The flyer and follow up email indicated to CC nurses that participation included participating in one of the webinars (live and recorded) for a one-hour educational offering and that approval had been given for use of annual education leave. The email invitation was sent to all 231 CC nurses one month prior to the scheduled educational offerings. There were six offerings to choose from, with varying shifts and days to accommodate shift workers. An explanation that the voluntary pre-intervention survey availability ended one week prior to the first educational offering was provided via the invitation email (Appendix F).

The educational offering to aid CC nurses in recognizing, combatting, and becoming resilient to CF was chosen due to the simplicity of an educational offering for such a complex

subject as well as an increased need for CF training due to lack of awareness of CF by CC nurses. Factors that contributed to the choice of an educational offering was the access to CF education for CC nurses and the ability to enhance individual CC nurse's ability to overcome CF. Kelly et al. (2017) discuss how healthcare organizations are implementing programs to increase awareness of CF in nurses and note that by acknowledging the CC environment for burnout and the chance for developing CF creates the opportunity for CC nurses to engage in strategies for protection of CF.

Next, approval from the ethics committee/Institutional Review Board (IRB) of the NCH and the Committee on the Use of Human Subjects in Research (CUHSR) at Bradley University to implement this DNP QI project was necessary prior to implementation of any part of the project. Once the IRB and CUHSR approvals were received, information about the DNP QI project was provided during the CC area huddles. Email was used to send the cover letter, consent, pre-ProQOL 5 survey, and demographic survey to CC nurses. Once this information was disseminated to CC nurses, they were given a deadline of June 30, 2020 to have the pre-ProQOL 5 and demographic surveys completed and submitted with their five-digit code. The webinar education offerings were offered on the following dates: July 2, 2020 1700-1800, July 6, 2020 1700-1800, July 7, 2020 1000-1100, July 8, 2020 0900-1000, July 16, 2020 1200-1300, and July 17, 2020 1500-1600.

After data collection, the educational intervention was delivered to the participants. To align the surveys from the ProQOL 5 and demographic data to individual participants without asking for identifiable information, each participant that responded to the initial email were asked to create a five-digit alphanumerical code specific to them and use it as answers to the last question in each of the three surveys. This technique aided in data collection and aligning survey

responses with the appropriate participant.

Two months following the educational offerings, a second email with a link to the follow-up ProQOL 5 survey was sent to all CC nurses so that the participants that attended the educational intervention sessions can maintain their anonymity. The final step was to analyze the data collected from the pre and post ProQOL 5 surveys and the demographic survey. The measure of success of this DNP project was a reflection of increased compassion satisfaction and a decrease in the components of CF (burnout and secondary traumatic stress) as indicated by an improvement score from the post-ProQOL 5 survey. Demographic data was used to evaluate whether different demographic characteristics were reflected in CF scores.

The post-ProQOL 5 survey remained available for three weeks after the last educational offering. After the three weeks, analysis began. Data was collected and sorted by the project manager. The data was stored on the project managers laptop that is biometrically secured with a mandated fingerprint access. The project manager was the only individual with access to the data. The data was not shared except for project submission purposes as a data set. No secure five-digit passcodes were shared. The timeline of this DNP project is presented in Appendix H.

Sustainability

The sustainability plan was to maintain awareness of CF by continuing to support CC nurses and provide the educational offering annually. It will not be enough to have a one-time offering of the CF QI educational offering. To maintain the prowess of CF awareness and resiliency, it is prudent to provide the educational offering routinely so as to aid CC nurses in maintaining their personal strategies to combat CF. By providing an annual educational offering of the CF intervention to CC nurses, the healthcare organization will solidify a foundation of trust with their CC nurses and aid in CF awareness and resiliency.

The sustainability of this CF DNP QI project aligns with the eight DNP Essentials on many levels. The project aligns with DNP Essential I, scientific underpinning for practice (American Association of Colleges of Nursing [AACN], 2016), by expanding the discipline of nursing and expanding nursing theory using Watson's caring theory. The project aligns with DNP Essential II, organizational and systems leadership for QI(AACN, 2016), by disseminating this evidence-based QI project to CC nurses to better equip them with CF resiliency. The project aligns with DNP Essential III, clinical scholarship and analytical methods for evidence-based practice (AACN, 2016), by exhibiting leadership skills in facilitating an organizational change in CC nurse healthcare delivery and understanding of CF.

The project aligns with DNP Essential IV, systems/technology and patient care technology for the improvement and transformation of health care (AACN, 2016), by designing a QI educational offering that can be deployed virtually to engage CC nurses in the development of CF resiliency strategies. The project aligns with DNP Essentials V, health care policy for advocacy in health care (AACN, 2016), by advocating for CC nurses in healthcare as they are exposed to CF as part of their daily work activities. The project aligns with DNP Essential VI, interprofessional collaboration with clergy and the availability they would have if a participant referral was necessary, as well as with the leadership team for improving patient and population health outcomes (AACN, 2016), by engaging in effective communication skills needed to work with leadership and all areas of CC nursing in order to collaborate on a CF QI project for CC nurses.

The project aligns with DNP Essential VII, clinical prevention and population health for improving the nation's health (AACN, 2016), by collecting and analyzing data regarding the occupational health of CC nurses as it relates to CF. The project aligns with DNP Essential VIII,

advanced nursing practice (AACN, 2016), by designing, implementing, and evaluating a QI therapeutic intervention based on CC nursing science and supporting CC nurses in their CF resiliency. Utilizing all eight DNP Essentials will guide this DNP project and aid in maintaining the sustainability necessary to establish an annual education venue for CC nurses.

Data Analysis

The statistical analysis plan was developed with the assistance of a PhD-prepared nursing consultant. The Statistical Package of Social Sciences (SPSS®) (version 26.0, IBM®) was used to manage and analyze data. Demographic characteristics such as age, education, and employment in years were collected as continuous variables. These data were analyzed using descriptive statistics and reported as means and standard deviation (SD). For categorical variables, such as gender and type of clinical specialty, they were calculated as frequency and percent (%). The ProQOL 5 survey with the three sub-categories (i.e., Compassion Satisfaction [CS], Burnout [BO], Secondary Trauma Stress [STS]) were numerically scored, analyzed using descriptive statistics, and reported as means and SD for each category. Additionally, paired t-test was performed to compare the effect of change in each category (CS, BO, and STS scores) between pre- and post-intervention, and these results were reported as mean difference and probability for statistical significance (i.e., p-value). For ProQOL category that was found to have a statistically significant change between pre- and post-interventions. One-way repeated measure analyzes of variance (ANOVA) was performed to explore if demographic characteristics explains the changes. The calculated probability for statistical significance is set as $p < .05$.

The paired t-test was used because the data behavior intended to compare two means which came from the same individual participants, of which, the two means represent survey results from two different points in time, the pre-educational intervention ProQOL 5 (Stamm,

2010) and the post-educational intervention ProQOL 5 (Stamm) given two months after the educational intervention. Additionally, the paired t-test is appropriate when two groups under comparison are dependent upon one another (Kim, 2015). All data was handled with strict pre-established study protocol. (Returned surveys via Typeform™ software and anonymous). All data was entered by the DNP student into a laptop that was dedicated for this project and protected with password and fingerprint. The project manager (DNP Student) was also responsible for transcribing the narrative.

IRB/Ethical Issues

The ethical aspects of this DNP project included: protection of participants' rights and welfare, privacy, confidentiality, and informed consent. Ethical concerns were addressed by maintaining anonymity at all levels of the project. Each participant was asked to create their own five-digit code that they used to answer the last question of each of the three surveys. This was a way to match surveys without obtaining identifiable responses. The demographic survey had no discernable identification questions, and the ProQOL 5 survey has no identification questions. Each participant consented to participate in the project by completing the surveys and attending the webinar. Prior to implementing this DNP QI project, approval was obtained from the IRB at NCH and CUHSR from Bradley University (Appendix G).

Additional approval to conduct this DNP project at the nursing units was given by the unit directors and managers. Detailed information about the project was provided to these nurse leaders prior to starting the project.

The educational offering was held in a ZOOM webinar. The webinar is equipped to work with any internet provider and PowerPoint. The ZOOM webinar can hold up to 100 participants at a single offering. There was no personal identifiable information on the surveys thus

maintaining anonymity with survey results. Due to the lack of personal identifiable information, there are no conceivable threats, hazards, or distresses associated with this project. During the educational offering, if nurses become symptomatic due to recognizing CF in their practice, they had the option of leaving and removing themselves from participation in the project. A phone number for hospital Chaplains support was available to support anyone that may have needed assistance.

In the email letter cover letter and consent, participants were informed that they are under no requirement to take part in this project. Participants were also advised that they are free to withdraw their consent at any point during this project for any reason with no anticipation of penalization. There were no financial or other forms of compensation for the project team or participants for participation in this project (Appendix F).

CHAPTER III

Organizational Assessment and Cost Effectiveness Analysis

Organizational Assessment

The mission at this NCH is to not only improve the health of those in the community, but also to provide quality and compassionate care (Northern California Hospital, 2019). To support a CF project that aids the CC nurses at this NCH with understanding, combating, and becoming resilient to CF shows that leadership at NCH do not just care about patient satisfaction, but that they care about their nurses. There is a readiness for change. Discussions between the project manager and CC nurses indicate that there is a desire for increased compassion, but CC nurses are not sure how or where to begin.

Not only does the CF educational offering build upon the foundation of the mission at NCH, but also with the core values at NCH. The core values of excellence, mutual respect and teamwork, listening, explaining and working together as a team, caring and compassion, continuous improvement, and stewardship of resources (Northern California Hospital, 2019) all guide the principles and fundamental foundation of this DNP project.

A barrier to implementation of this DNP project was the availability of nurses willing to participate in the surveys and educational offering. Technical issues could include a problem with the survey aspect of the project. Another barrier to implementation was the COVID 19 pandemic that had currently plagued California. Restrictions on group meetings and student clinical/practicums had been halted. The California Department of Public Health had issued restrictions for group gatherings that states, “smaller gatherings held in venues that do not allow social distancing of six feet per person should be postponed or canceled” (California Department of Public Health, 2020, p. 1).

Risks or unintended consequences of this DNP project could cause an increase in stress in nurses attending the educational offering by bringing critical or traumatic events to the surface during the process. Should this happen, the participants were advised that, at any time, they have the ability to withdraw from participation and that clergy were available via phone call to assist with participants if requested. The role of interprofessional collaboration for this project was the different areas of CC nurses as well as the project team and clergy. The CC nurses from different areas discussed the different areas of CF that each experienced giving different perspectives that may collide with other CC departments. The project team was available to answer questions and provide guidance during debates/disagreements. Clergy were available to provide any support that CC nurses may need when traumatic or sensitive experiences are that cause participants to need support.

Cost Effectiveness

Every participant was paid to attend the CF educational offering by utilizing one of the allotted 36 hours of educational leave provided to all full and part-time nurses at NCH. Cost of the ZOOM webinar software was $90.00 per month. Supplies included a laptop, which was owned by the project manager. The project team time included educational offering preparation of approximately 15 hours and educational offering of six hours (one hour each for six offerings).

There was no overtime and all the funding came from an already allotted educational leave funding. The resources necessary for this DNP project to be held was ZOOM webinar software, a laptop owned by the DNP project manager, and participants to attend the educational offering. This project was financially feasible and responsible for both NCH and the DNP project team. The ProQOL 5 survey tool (The Center for Victims of Torture, 2019) was free to

use (Appendix B) and distribute and the Typeform™ (Munoz & Okuniev, 2019) survey software to collect and analyze the data from the surveys.

The budget (Table 2) shows a breakdown of the total costs of this DNP project. The participant costs are not in addition to each participant pay but drawn from funding already included in each nurse's annual income allowance. By providing this educational offering, NCH CC nurses will have a better understanding of CF, recognizing symptoms of CF, developing combatting techniques to CF, and becoming resilient to CF.

Table 2

Total Costs of DNP Educational Offering

Item	Cost
Participants (100 Nurses for one hour)	$8,500.00
ZOOM software (4 months)	$360.00
Laptop	$0.00
ProQOL 5 Tool	$0.00
Typeform™ software	$420.00
Project Manager Time	$2225.00
Project Team Time	$480.00
Total	$11,985.00

The cost to hire and train a nurse can have a drastic impact on a healthcare organization's profit margin (The University of New Mexico, 2016). The average cost to train a licensed nurse is $37,700 to $58,400. The cost to hire and train a CC nurse, a specialty nurse, will be much higher. CC nurses have more acute care training and have more certifications in critical care that aid in sustainment of CC nursing jobs. "Hospitals can lose $5.2 million to $8.1 million annually" (The University of New Mexico, 2016, para. 2). Providing CC nurses with CF awareness and resiliency training aid this NCH in retaining this specialized group of nurses by preventing burnout and turnover.

CHAPTER IV

Results

This chapter presents the data collected and coalesced to answer the project objectives.

Analysis of the Implementation Process

Prior to implementation of this DNP project, the DNP student secured formal approval to implement the DNP project from both the NCH IRB and Bradley University CUHSR committees (Appendix G). After formal approval, the DNP student, with guidance from the project team, generated an educational intervention for the CC nurses at the NCH incorporating the topics stated in the proposal. The project team verbalized their approval of the educational intervention.

While the educational intervention was being developed, the DNP student (project team manager) sent the invitation to participate to 231 CC nurses at the NCH. It was discovered by the DNP student that there was another compassion fatigue evidence-based practice project starting in the cardiac intensive care unit and therefore this group of nurses could not participate due to the risk of cross contamination. Participation in this DNP project included three parts: (a) respond to the first two surveys (ProQOL 5 and demographic), (b) log on to one of the six (60 minutes) ZOOM educational interventions, and (c) take a second ProQOL 5 survey two months after the intervention. Initially, a total of 25 nurses participated in parts a and b of this DNP project, by completing the initial surveys and attending the educational intervention. However, only 19 responded to the second ProQOL 5 survey. Thus, there was a total of 19 participants who attended the educational offering and completed the pre- and post-surveys.

In total, there were 19 staff members who participated in the ZOOM educational intervention. The first offering was on July 2, 2020 (3 participants), the second offering was on

July 6, 2020 (2 participants), the third offering was on July 7, 2020 (7 participants), the fourth offering was on July 8, 2020 (2 participants), the fifth offering was on July 16, 2020 (5 participants), and the final offering was on July 17, 2020 (6 participants). All the participants were asked to turn off their microphone and if they had questions to use the chat aspect of the ZOOM platform.

The initial aim was to have an in-person educational intervention, as that is typically the best venue for this type of educational intervention. Educators must be able to provide a dynamic, educational environment that affords participants the chance to practice concepts that they are learning (Bulger et al., 2002). Additionally, an online educational offering would not give the participants an opportunity to participate in the mindfulness exercise and mock critical incident stress debriefing exercise, which was one of the interventions for CF discussed in the offering. As COIVD-19 created alterations to classroom style education, the ZOOM webinar was the next best option, offering participation through chat and end of offering discussion. After the training, the end comments by the DNP student, participants were encouraged to employ strategies they learned to recognize signs and symptoms in themselves and their peers and engage in interventions to reduce CF such as mindfulness to build their resiliency to CF.

Part of appraising the precision of the data collected from the surveys was to transcribe and review it. The DNP student transcribed all survey results categorically by pre-ProQOL5 survey, demographic survey, and post-ProQOL 5 survey. There were no errors found in the transcription of the survey results after they had been triple checked by the DNP student. The DNP student postulates that the error-less encoding was due to the small number of participation and thus the data transcription was accurately performed and with deliberateness.

Analysis of Project Outcome Data

The DNP project achieved three outcomes. The first outcome was based on the objective to develop an effective educational intervention on CF for CC nurses. The second outcome was reporting nurse participants' demographic characteristics and their perceived degree of CS and CF. And, the third outcome is demonstrated positive changes in nurse participants' perceived compassion satisfaction and CF after interventional education.

Educational Intervention

The educational intervention itself was reported as effective by way of comments in the chat portion of the ZOOM webinar during the PowerPoint presentation (Appendix D). Participants made note that the slide presentation was effective and appropriate for the topic. Participants also indicated that they liked the ZOOM platform because it enabled them to participate on their phones with ear phones when they were at home or at work. However, some participants stated that they would have preferred a classroom setting in order to have a role play exercise for a critical incident stress debriefing and some meditation mindfulness exercises. There were six different ZOOM sessions to provide flexible days and times for varying nursing schedules.

Analysis of Demographic Outcome

The demographic data was derived from the demographic survey (Appendix C). Overall, the sample of 19 nurse participants included nurses who were 18 to 85 years old (Mean 1.89 ± 0.32). Most of them were worked full time (n=15, 79%) in the ED (n=15, 78.9%), and have BSN and/or higher degree (n=17, 89.4%). Nursing experience varied from <5 years (n=7, 37%), 5 to 10 years (n=8, 42%) or $\geq$ 11 years (n=4, 21%). These demographic characteristics were further analyzed based on participants' pre-intervention CS and CF (BO and STS) scores, which

was classified as low (score <22), medium (score 23-41), or high (>42) (Total possible score 10 to 50/ category) (Stamm, 2010) (Table 3).

Most of the participants reported moderate CS (n=17, 90%) and moderate BO (n=14, 73%), while nine (47.4%) participants and ten (52.6%) reported low and moderate STS scores respectively. Specifically, high CS was reported by only two (10%) participants who were age >36 years old, full time, ED nurses with >10 years experiences. Similar demographic characteristics were shared by 17 (89.5%) of participants who reported moderate CS scores, with one exception that their work experience falls under <5 years or >10 years subcategories.

Likewise, moderate BO was observed in the majority of nurses (n=14, 73.7%) who were age > 36 years (n=12, 63%), ED (n=10, 52.6%), <5 years of experience (n=6, 31.6%) or >10 years (n=5, 26.3%), full time (n=12, 31.6%), and had BSN degree or higher (n=13, 68.4%). For STS scores, there was suggestion that two demographic characteristics were seemingly different in nurses with moderate and low STS. Of the seven nurses with <5 years of experience, six (85%) reported moderate STS vs. one (5%). Nurses with ADN degrees (2) reported low-moderate STS compared to nurses with BSN/MSN degrees.

Table 3

Demographic Survey Results for CS, BO, and STS

N=19		**COMPASSION SATISFACTION***			**COMPASSION FATIGUE***					
					Burnout			**Secondary Trauma Stress**		
DEMOGRAPHIC CHARACTERISTICS **n (%)**		Low (≤22)	Moderate (23-41)	High (≥42)	Low (≤22)	Moderate (23-41)	High (≥42)	Low (≤22)	Moderate (23-41)	High (≥42)
		0	**17 (89.5)**	**2 (10.5)**	**5 (26.3)**	**14 (73.7)**	**0**	**9 (47.4)**	**10 (52.6)**	**0**
Age	18-35 years 2 (10.5)	-	2 (10.5)	-	-	2 (10.5)	-	-	2 (10.5)	-

	36-85 years 17 (89.5)	-	15 (79)	2 (10.5)	5 (26.3)	12 (63.2)	-	9 (47.4)	8 (42.1)	-
Unit	MSICU/PCU 4 (21.1)	-	4 (21.1)	-	-	4 (21.1)	-	3 (15.7)	1 (5.3)	-
	ED 15 (78.9)	-	13 (68.4)	2 (10.5)	5 (26.3)	10 (52.6)	-	6 (31.6)	9 (47.4)	-
Time as Nurse	<5 yrs 7 (36.8)	-	7 (36.8)	-	1 (5.3)	6 (31.6)	-	1 (5.3)	6 (31.6)	-
	5-10 yrs 3 (15.7)	-	3 (15.7)	-	-	3 (15.7)	-	2 (10.6)	1 (5.3)	-
	>10 yrs 9 (47.4)	-	7 (36.9)	2 (10.5)	4 (21.1)	5 (26.3)	-	6 (31.6)	3 (15.7)	-
Employed Status[#]	Full time 17 (89.4)	-	15 (79)	2 (10.5)	5 (26.3)	12 (63.2)	-	9 (47.4)	8 (42.1)	-
	Part time 2 (10.5)	-	2 (10.5)	-	-	2 (10.5)	-	-	2 (10.5)	-
Education level	ADN 2 (10.5)	-	1 (5.3)	1 (5.3)	1 (5.3)	1 (5.3)	-	1 (5.3)	1(5.3)	-
	BSN/MSN 17 (89.4)	-	16 (84.1)	1 (5.3)	4 (21)	13 (68.4)	-	6 (31.6)	11 (52.8)	-

*ProQOL 5 Manual (Stamm, 2010)
[#]Emplyed Status: Full time=>36 hours/week; Part time=< 36 hours/week

Analysis of Pre and Post Intervention Outcome

The paired sample t-test was performed to determine changes in CS, BO, and STS scores before intervention ($T_{b)}$ and after intervention (T_p). For CS, a positive (+) score change denotes higher satisfaction after intervention. As with BO and STS, a lower score or negative (-) change reflects lower CF after education intervention. Both of these directional changes are desirable as they indicate education effectiveness on improving CS and reducing CF. Since the ProQOL5 (Stamm, 2010) is a subjective tool that can be influenced by a variety of factors at the time of assessment, directional correlation or cause-effect relationship between CS or CF and education intervention cannot be discerned by this project's design. See paired sample t-test results in Table 4.

Table 4

Changes in ProQOL 5 Scores After Education Intervention

ProQOL Scores		TIME	MEAN± SD (RANGE)#	PAIRED DIFFERENCES (T_P : T_B)			
				Difference of Means ±SD	% Change T_P : T_B	*t* (df=18)	Sig. (2-tailed)*
COMPASSION SATISFACTION		T_B	35.3± 5.7 (24 - 45)				
		T_P	38.9± 5.6 (28 - 46)	+3.5 ±6.7	+12.5	2.3	0.03*
COMPASSION FATIGUE	Burnout	T_B	26.1± 6.3 (10 – 34)				
		T_P	22.5± 5.7 (11 – 34)	-3.5 ±5.6	-12.8	-2.7	0.01*
	Secondary Trauma Stress	T_B	23.5± 4.8 (12 - 30)				
		T_P	20.9±54.8 (14 - 29)	-2.5 ± 5.8	-7.4	-1.8	0.07

δ Time: T_B= Before intervention; T_P= Post-intervention
Total possible score range 10-50/Category
*Reported values with statistical significance (p<.05)

For CS, there was a significant difference between scores at before intervention (35.3± 5.7) and after intervention (38.9± 5.6), t (18) = +2.3, p=.03. While the data showed an improvement in CS score by 3.5±6.7 (+12.5%) after intervention, a direct causal-effect of the intervention cannot be established.

With regards to CF, the BO scores had a mean difference of -3.5 ±5.6 between the two times. This change reflected a 12.8% improvement in BO scores after education intervention, which was statistically significant (t (18) =-2.7, p=.01). As for STS scores, the computed mean difference in scores between pre-intervention (23.5± 4.8) and after intention (20.9±54.8) was -2.5 ± 5.8. This change reflected a modest 7.4% improvement in STS after intervention, which was not statistically significant (p=.07).

Given that CS and BO showed statistical significance score changes between pre and post education interventions in the paired sample t-test, a one-way analysis of variance (ANOVA)

was performed to determine the effect of demographic characteristics on participants' CS/BO pre-intervention scores. The result of ANOVA did not find statistically significant effect of any demographic characteristic on pre-CS and pre-BO scores or pre-STS scores ($p>.05$).

CHAPTER V

Discussion

Results Linked to Project Objectives

This QI DNP scholarly project intended to meet three objectives: (a) develop and implement an educational intervention, (b) evaluate the effectiveness of that educational intervention, and (c) describe the demographic characteristics of CC nurses participating and their compassion satisfaction and compassion fatigue scores. Through an evidence based educational intervention, participating CC nurses were encouraged to employ the lessons learned such as recognizing signs and symptoms of CF, practicing ways to reduce CF in their own practice, and ultimately, building resiliency to CF. Participants in this project experienced a reduction in BO (a component of CF) and increase in CS (incidental finding) following the employment of an educational intervention.

The findings show that the three objectives of this QI DNP project were achieved. Of the 19 CC nurses that participated in this project, an overall reduction in BO was 12.8% and an overall increase in CS of 12.5% (incidental finding). Evaluation of this QI DNP project revealed that a virtual in-house educational program successfully reduced CF in CC nurses whilst incidentally cultivating CS. The educational intervention was succinct and took only 60 minutes of the CC nurses' time. The CC nurses were encouraged to actively integrate the techniques learned into their daily work and home lives and to guide others in recognizing and overcoming CF.

Limitations

There were several limitations to this DNP QI project. The first limitation is that there were specific challenges experienced by the DNP student in the execution of this project. One of

the challenges experienced by the DNP student was the delay in the initial timeline due to COVID-19. All classes, student internships, and internal review boards at the NCH stopped for Approximately four weeks. These issues caused significant delays in approval and ultimately delays in beginning the QI DNP project. The original desired time from educational intervention to the post-ProQOL5 survey was three months. However, due to the delays in IRB approval from the NCH, the post-survey time had to be decreased to two-months. The second limitation of the project implementation was the COVID-19 restrictions regarding social distancing. Rather than conducting the educational intervention in a classroom setting, the intervention was Held via a ZOOM platform.

The third limitation was that the original plan to incorporate all CC nurses at the NCH hospital was dismantled when another in-house evidence-based project with a similar theme to this DNP project was being implemented. To eliminate cross-contamination of the data, this DNP project had to alter the inclusion category to incorporate all CC nurses excluding the cardiovascular intensive care unit (CVICU), which reduced the number of potential participants for this project.

Overall, using the objectives to guide the project forward and make alterations when necessary, all three project objectives were achieved. The results of this QI DNP project were auspicious, associating that an education intervention can improve the prevalence of CF and CS. These results are a stepping stone and there remains a considerable amount of work to be done when it comes to understanding all the dimensions of CF and CC nurses.

Impact of Outcomes

Predicated upon the findings of this QI DNP project, it has been determined that an educational intervention demonstrates the positive benefits to CC nurses concerning CF. The

next step is to provide and sustain the positive effects of this educational intervention for CC nurses. While there is a cost at offering this education to all CC nurses at the NCH, the cost-effectiveness of the educational intervention may carry more weight when considering the cost of sick calls, short staffing, and staffing turnover.

Since, the project's ultimate goal is improving CC nurse's ability to recognize, mediate, and develop resiliency to CF, an argument could be made that absorbing a cost now will end up being revenue in the future. However, since CF cannot deduce or be measured in a financial value, the precise return of investment of an educational intervention cannot be predicted. That said, as CF is and can be preventable and correctable condition, healthcare organizations who implement effective interventions may see improvements in nursing retention and morale (Wijdenes et al., 2019). The cost of training a new nurse and developing a long and prosperous employee/employer relationship could be a consideration worth evaluating. "Health, safety, and well-being of health professionals are the focus of worldwide attention, due to emotional demands of their work and the importance they have on the productivity, competitiveness, and sustainability of organizations" (Borges et al., 2019).

An evaluation of the leadership at this NCH reveals that Magnet culture is a priority and maintaining the principles of a Magnet designation, awarded by the American Nursing Credentialing Center (ANCC), would amalgamate with every other aspect of aiding their staff in health and wholeness. At a recent Magnet site visit for redesignation, this project was discussed with Magnet designee observers and supported by both leadership and staff. It was further addressed that the catastrophic implications of COIVD-19 have overwhelmed many of the nurses and that such an educational intervention might be the catalyst to health and healing. However,

at this juncture there is no firm determination of when or how a continuance of this educational intervention will continue.

Regarding implications for practice improvement, it would be remiss of the DNP student to omit that an observed improvement of compassion satisfaction and a reduction in burnout, suggesting that CC nurses in the organization are employing the education they gained by participating in this QI DNP project. That said, these positive results do not promise that CF resiliency will be maintained and resort back to lower levels of CS and higher levels of CF over time. According to Borges et al. (2019), prevention strategies for CF in nurses should focus on education/training of signs/symptoms, regular monitoring, and peer-peer support on a regular basis.

Future Implications to Practice

This QI DNP project could potentially be an impetus to future nursing practice calling for additional research and/or QI projects on the value of education and CF in nurses**.** The project conceptualized the precedence of incorporating education to intercede CF in CC nurses. It has cemented that education on CF and resiliency can be pragmatic and beneficial to CC nurses, which in turn, could benefit the healthcare organization in terms of retention and turnover. More research is required to study the financial significances of CF on healthcare organizations. There are consequences to CF that include: petulance, hyper-stimulation, disturbing feelings, alcoholism, and apprehension of working with patients (Beaumont et al., 2015). Education on how to recognize, combat, and become resilient to CF could be the foundation for CF eradication. There is a plethora of research that establishes how educational interventions can successfully reduce the incidence of CF. Alharbi et al. (2019) indicate that through education, nurses can begin to develop coping strategies to avoid CF. Longitudinal research with

a double-blind study to see if education would be beneficial, as it would allow participants to be followed to ascertain if education in a single session is beneficial or if routine education (monthly, quarterly, or yearly) would be more valuable. This project suggests that a reproduction of longitudinal research that should include a larger participant population, more demographic questions, and the financial aspects of organizations.

CHAPTER VI

Conclusion

This QI DNP project is dedicated to the investigation of the prevalence of CF among CC nurses. This project pursued the value of adding to the existing body of knowledge concerning the incidence of CF in CC nurses and by exploring the effects of an educational intervention for CF. This CF intervention provides supplementary understanding into best practices for CC nurses who participated in the educational intervention and their ability translate those skills to the bedside and into the CC care environment. The purpose of this project was to educate CC nurses about CF so that they can recognize the symptoms of CF, learn ways to combat CF, and to build CC nursing resiliency.

This QI DNP project recognized approaches to educate CC nurses, resulting in a healthier understanding of CF and to provide a comprehensive awareness for mitigating the detrimental effects of CF on their own practice, on their peers, and on their patients. Developing a strategy to combat CF and its effects on the human body and mind is critical for the safe and quality driven practices of CC nurses. This project aligns with all eight DNP Essentials through discovery of phenomenon through implementation offered at this NCH, and finally, through fruition and data analysis as summarized in Chapter II Methodology.

The DNP student explored CC nurse perceptions of CF within the framework of a pre-educational intervention ProQOL 5 (Stamm, 2010) survey followed by the on-line educational intervention. Two months later, a second ProQOL 5 (Stamm, 2010) survey was provided to determine if the educational intervention had any effect on self-reported CF perceptions.

An analysis of the data revealed that the educational intervention was successful in significantly decreasing BO (a component of CF) and significantly increasing the level of CS (a

measure of the ProQOL 5 survey) (Stamm, 2010). STS also decreased post intervention, although it was not significantly decreased. Considering the impact the 19 participants reported by participating in a CF educational intervention, regular CF education is recommended to all CC nurses annually at this NCH.

This quality improvement project supports the argument in the model of ProQOL 5 (Stamm, 2010) and Watson's theory of caring model (West et al., 2017) that strengthen the dire position of reducing stress in the workplace, which can lead to negative patient outcomes, staff engagement, and home/work life behaviors. This DNP student's personal/professional goal was to illuminate the importance and impact an educational intervention on CF can have on CC nurses. CC nurses participated in an educational intervention that highlighted the core concepts of CF and ways recognize, combat, and develop resiliency to it. Further research and QI projects are needed to develop and refine interventions to help CC nurses cope with and overcome CF. This QI DNP project had a significant effect upon the 19 participants that participated. If one project can make a significant difference, increased research and more QI projects could exponentially challenge the paradigm of CF as being part of a nurse's job. "To make a difference, one must first be willing to be the difference" (C. Hewett, 2020).

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Appendix A

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.

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YOUR SCORES ON THE PROQOL: PROFESSIONAL QUALITY OF LIFE SCREENING

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

Compassion Satisfaction _____

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

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

Burnout_____

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

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

Secondary Traumatic Stress_____

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

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

© B. Hudnall Stamm, 2009-2012. Professional Quality of Life: Compassion Satisfaction and Fatigue Version 5 (ProQOL). 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. Those interested in using the test should visit www.proqol.org to verify that the copy they are using is the most current version of the test.

WHAT IS MY SCORE AND WHAT DOES IT MEAN?

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

Compassion Satisfaction Scale

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

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

Total: ____

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

Burnout Scale

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

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

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

Total: ____

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

Secondary Traumatic Stress Scale

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

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

Total: ____

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

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Appendix B

Permission to Use ProQOL

PO **ProQOL Office <noreply@surveygizmo.com>**
2/26/2020 8:26 PM

To: christinahewettrn@yahoo.com

PermissionToUseProQOL.pdf
23.79 KB

Thank you for your interest in the ProQOL.

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

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

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

Thank you!

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

Appendix C

Demographic Survey

Please fill out this survey for the Compassion Fatigue Project

1. Age
   - 20 – 29
   - 30 – 39
   - 40 – 49
   - 50 – 59
   - 60 – 69

2. Area of CC currently working
   - MSICU
   - CVTCU
   - PCU
   - Emergency Department

3. How long have you been a CC nurse?
   - 0 – 5 years
   - 6 – 10 years
   - 11 – 15 years
   - 16 – 20 years
   - > 20 years

4. What is your highest education level?
   - Associate Degree
   - Bachelor's Degree
   - Master's or Doctoral

5. What is your employment status?
   - Full-time employee (0.9 FTE)
   - Part-Time employee (0.6 FTE)
   - Per-Diem employee

6. Please Type in your personal 5 digit alphanumeric code that you will use on all three surveys. (This will be a non-identifiable code that only you will know) *Be sure to record it for future use on the other surveys.

   — — — — —

Appendix D


PUTTING THE PASSION BACK INTO COMPASSION
Christina Hewett
NUR 725
Faculty Advisor: Dr. Debra Erickson
BRADLEY University

Appendix E

Putting the Passion back in Compassion

Coming soon to a Webinar near you:

Compassion Fatigue Education for Critical Care nurses

Project: DNP scholarly quality improvement project on Compassion Fatigue in Critical Care nurses.

Goals: To help CC nurses understand what Compassion Fatigue is, how to recognize signs and symptoms of compassion fatigue, how to combat compassion fatigue, and how to become resilient!

Participation Guidelines: Must be a Critical Care nurse at Concord Campus working in: MSICU, CVPCU, CVTCU, or Emergency Department. Completion of surveys and participation of webinars will be your implied consent.

Educational Offering Dates: Thursday July 2, 2020 17-1800

Monday July 6, 2020 09-1000

Tuesday July 7, 2020 10-1100

Wednesday July 8, 2020 13-1400

Thursday July 16, 2020 12-1300

Friday July 17, 2020 15-1600

All participation is voluntary and anonymity will be maintained. No personal identifiable information will be presented in the DNP project

Appendix F

BRADLEY University

Department of Nursing – DNP-Leadership phone number 309-677-2534

Web link: budistanceeducation@fsmail.bradley.edu

Physical address: 1501 West Bradley Avenue Peoria IL 61625

Email Consent/Cover Letter

Hello my fellow Critical Care nurses! My name is Christina Hewett and I am presently a doctoral student in the Doctorate in Nursing Practice – Leadership program at Bradley University in Peoria, IL. I have been a Critical Care nurse, specifically the Emergency Department, for more than 10 years and am a certified emergency nurse (CEN). I have dedicated my last four years working as an Emergency Room charge nurse. Because each of you are currently working in critical care, whether it be intensive care unit or emergency department, you are cordially invited to participate in this DNP quality improvement project to explore the impact of compassion fatigue on critical care nurses and how a compassion fatigue educational offering will impact your ability to recognize, combat and become resilient to compassion fatigue. Your opinion is crucial to the successful collection of meaningful data and your participation is greatly appreciated. The following information is provided to support you in making an informed decision whether or not to participate in this Quality Improvement (QI) project.

There are three parts to your participation in this QI project. First, you will be asked to complete two surveys. The first survey is a demographic survey. The second survey is the ProQOL 5, which measures compassion satisfaction and components of compassion fatigue. Both surveys should take no longer than 15 minutes to complete. The second part is participation in a one-hour educational Zoom webinar to learn ab out awareness of compassion fatigue signs and symptoms, how to combat compassion fatigue, and how to develop resiliency to compassion fatigue. The third part is completing the ProQOL 5 survey two months following your educational offering.

Your participation in this project is voluntary. To maintain privacy/confidentiality, copies of all original data forms from Typeform® surveys will be kept in an encrypted file on the project manager's laptop stored in a locked file in the project manager's office and will be viewed only by the project manager and persons assisting the project manager in the data collection and analysis process. All responses to the surveys are anonymous. The last question of each survey will have a fill in the blank for a 5-digit passcode that you will create and put on all the surveys. This passcode should not be shared with anyone but please remember it as each of the three surveys and sign in roster for the educational offering will need that passcode. You will also be asked to put the 5-digit code in the comments of the webinars for attendance purposes. You are free to decide to not participate in this project by simply not submitting a survey or attending the webinar. Your responses will be considered only in amalgamation with those from other participants. The information obtained in this project may be published in academic journals or presented at academic conferences, but confidentiality and privacy will be maintained.

Your consent to participate in this project is confirmed by completion of the electronic surveys via the email link through Typeform®. Please print a copy of this email for your own record keeping. If you are willing to participate in this project please submit both of the following surveys:

Demographic survey: https://chewett.typeform.com/to/UD1WDA

Pre-Intervention ProQOL 5 Survey: https://chewett.typeform.com/to/iSBCQy

There will be four scheduled educational offerings to accommodate shift work and ability to log into the webinar for the project. Please join one of the four webinars.

Thursday July 2, 2020 17-1800 Please click this link for zoom webinar PW- 596646

https://us02web.zoom.us/j/81827206706?pwd=eWY3Qmh1Ynlscndram1JaUVEa2pYQT09

Monday July 6, 2020 09-1000 Please click this link for zoom webinar PW- 355873

https://us02web.zoom.us/j/86007069903?pwd=cUQ3ZWxXMDlXN2F1djJyN1JEMkVQZz09

Tuesday July 7, 2020 10-1100 Please click this link for zoom webinar PW- 697221

https://us02web.zoom.us/j/86990046501?pwd=NGlKdG1QVUxUdTNKZmxEZ0tXQ0tKUT09

Friday July 8, 2020 13-1400 Please click this link for zoom webinar PW – 665554

https://us02web.zoom.us/j/87617967016?pwd=QkdKb0lFWlR2NWVlbEtrZ0JTWGhZZz09

The survey links will be available until July 11, 2020.

Your professional opinions and wealth of experiences are profoundly respected and will expressively contribute to a superior body of knowledge in our ability to understand compassion fatigue within the context of critical care nursing. Your time and attention are extremely valued. The project team nor participants will receive any form of financial compensation for participation in this project.

Principal Project Manager:

Christina L. Hewett, MSN, RN
(chewett@mail.bradley.edu)

(christina.hewett@johnmuirhealth.com)

2540 East Street

Concord. CA 94520

803-840-4817

Faculty Advisor:

Dr. Deborah Erickson
(erickson@fsmail.bradley.edu)

Bradley University

1501 West Bradley Ave

Peoria, IL 61625

309-677-4974

This project has been approved by the Bradley University Committee on the Use of Human Subjects in Research Bradley University 1501 W Bradley Avenue Peoria, IL 61625

Appendix G

JOHN MUIR HEALTH

June 8, 2020

To: Bradley University CUHSR Committee

From: Beth Browder, Executive Director

RE: Christina Hewett DNP project

To the CUHSR Committee at Bradley University,

Christina Hewett has been granted permission to perform her quality improvement DNP project at John Muir Health in Concord, CA. She has submitted the appropriate documentation of the project to our IRB Committee and it has been granted approval to perform her QI DNP project at our Concord, CA facility.

Sincerely,

Beth A Browder

Beth A. Browder, MHSA, BSN, RN-BC, NE-BC
Executive Director Professional Nursing Practice, Quality and Education
Magnet Program Director

BRADLEY University

DATE: 25 JUN 2020

TO: Deb Erikson, Christina Hewett
FROM: Bradley University Committee on the Use of Human Subjects in Research

STUDY TITLE: Compassion Fatigue for Critical Care Nurses
CUHSR #: 20-039-Q
SUBMISSION TYPE: Initial Review

ACTION: Approved
APPROVAL DATE: 25 JUN 2020
REVIEW TYPE: Quality Assurance

Thank you for the opportunity to review the above referenced proposal. The Bradley University Committee on the Use of Human Subject in Research has determined the proposal to be NOT HUMAN SUBJECTS RESEACH thus exempt from IRB review according to federal regulations.

The study has been found to be not human subject research pursuant to 45 CFR 46.102(i), not meeting the federal definition of research (not contributing to generalizable knowledge). Please note that it is unlawful to refer to your study as research. A waiver of documentation of consent is granted.

Your study does meet general ethical requirements for human subject studies as follows:

1. Ethics training of project personal is documented.
2. The project involves no more than minimal risk and does not involve vulnerable population.
3. There is a consent process that:
    - Discloses the procedures
    - Discloses that participation is voluntary
    - Allows participants to withdraw
    - Discloses the name and contact information of the investigator
    - Provides a statement of agreement
4. Adequate provisions are made for the maintenance of privacy and protection of data.

Please submit a final status report when the study is completed. A form can be found on our website at https://www.bradley.edu/academic/cio/osp/studies/cuhsr/forms/. Please retain study records for three years from the conclusion of your study. Be aware that some professional standards may require the retention of records for longer than three years. If this study is regulated by the HIPAA privacy rule, retain the research records for at least 6 years.

Be aware that any future changes to the protocol must first be approved by the Committee on the Use of Human Subjects in Research (CUHSR) prior to implementation and that substantial changes may result in the need for further review. These changes include the addition of study personnel. Please submit a Request for Minor Modification of a Current Protocol form found at the CUHSR website at https://www.bradley.edu/academic/cio/osp/studies/cuhsr/forms/ should a need for a change arise. A list of the types of modifications can be found on this form.

While no untoward effects are anticipated, should they arise, please report any untoward effects to CUHSR immediately.

This email will serve as your written notice that the study is approved unless a more formal letter is needed. You can request a formal letter from the CUHSR secretary in the Office of Sponsored Programs.

Appendix H

Compassion Fatigue Project Timeline

1. Month of June send out Flyer advertising DNP Compassion fatigue project educational offering
    a. Send flyer via email
    b. Post flyer in CC area breakrooms
2. Send email to all 231 CC nurses at Northern California Hospital with explanation and invitation to participate in DNP project.
    a. Link provided for pre-educational offering survey as well as demographic survey
    b. Email will contain dates and times for the four educational offerings
    c. Explanation that the last chance to participate is 1 week prior to first educational offering
    d. Data will be collected comparing the demographic survey to the pre-offering ProQOL 5 survey results to see if there are nay demographic anomalies or increased incidences of CF in CC nurse's dependent upon different demographics (Table 1).
3. Four different educational offerings will be provided
    a. 1st offering is Thursday July 2, 2020 from 1700-1800 Zoom webinar
    b. 2nd offering is Monday July 6, 2020 from 0900-1000 Zoom webinar
    c. 3rd offering is Tuesday July 7, 2020 from 1000-1100 Zoom webinar
    d. 4th offering is Friday July, 8, 2020 from 1300-1400 Zoom webinar
    e. 5th offering Thursday July 16, 2020 from 1200-1300 Zoom webinar
    f. 6th offering Friday July 17, 2020 from 1500-1600 Zoom webinar (Final offering)
4. 2 months after the last class on July 8, 2020 (September 8, 2020) the post-offering ProQOL 5 survey will be sent to all participating CC nurses with an explanation that the survey will be available for 3 weeks ending on September 31, 2020.
5. Data will be collected comparing the pre-offering ProQOL 5 survey along with the post-offering ProQOL 5 survey to see if the hypothesis of having an educational offering will positively impact CF amongst CC nurses (Table 2).