

Compassion Fatigue among Nurse Leaders

DNP Project Proposal

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Table of Contents

Abstract	4
Problem Identification	6
Conceptual Model	13
Significance	13
Purpose of the Study	14
Specific Aims	14
Methods	15
Design	15
Study Population	15
Data Collection	17
Data Analysis	20
Protection of Human Subjects	21
Results	23
Study Population	23
Aim 1: Nurse Leaders' Level of Compassion Satisfaction	23
Aim 2: Nurse Leaders' Level of Compassion Fatigue	24
Aim 3: Relationship among the Demographic Variables and the Subscales	24
Aim 4: Modifiable Factors for CF Prevention Programs	25
Discussion	29
Level of Compassion Satisfaction	29
Level of Compassion Fatigue	30
Demographic Predictors	31

COMPASSION FATIGUE	3
Compassion Fatigue Prevention	31
Limitations	32
Clinical Implications	33
Recommendations	35
Conclusion	35
References	36
Figure 1. CS-CF Model	43
Figure 2. Professional Quality of Life Complex Relationships	44
Appendix A. Survey Introduction Letter/Consent	45
Appendix B. Demographic Questions	46
Appendix C. ProQOL Survey	47
Appendix D. Recruitment Card	49
Appendix E. Participant Demographics	50
Appendix F. Classification of Roles	51
Appendix G. Participant's ProQOL Mean T Score	52
Appendix H. Regression Analysis	53

Abstract

The current state of healthcare with its multifaceted demands related to patient care outcomes and the challenges of managing personnel creates a complex work environment for the nurse leader. Striving to meet the competing needs of the organization, employees, patients and families on a daily basis can result in work related traumatic stress and cause burnout. This places an individual at risk for compassion fatigue (CF). The concept of CF has primarily been studied among direct patient care providers and has not been explored among individuals at the leadership level. The goal of this DNP project was to determine if nurses in leadership positions are at risk for or are experiencing CF. For this study, CF was defined as a state in which a nurse leader experiences an inability to maintain a desired level of compassionate energy, due to frequent and regular exposure to prolonged, emotionally and psychologically challenging managerial circumstances in the workplace (adapted from Andreotta, 2013).

A mixed methods approach was utilized to gather demographic data and describe the nurse leader's level of compassion satisfaction (CS), risk for burnout, and secondary traumatic stress as measured by the Professional Quality of Life (ProQOL) Version 5. The use of open ended questions allowed for the identification of factors in the workplace that are modifiable and can be used to develop a CF prevention program for nurse leaders. Thirty-three nurse leaders from two academic medical centers responded to the research survey which revealed an average to high level of CS, coupled with low to average level of burnout and work related traumatic stress (WRTS) among the nurse leaders as measured by the ProQOL V5. CS mean score was 54.55 ($SD = 3.94$), burnout mean score was 43.11 ($SD = 4.04$), and WRTS mean score was 41.73 ($SD = 3.81$). The qualitative data provided insight on the source of CF in the work environment

which included employee, patient, and organizational stressors. Potential solutions for mitigation and prevention identified by the nurse leaders included personal and organizational solutions such as enhancing coping skills, developing resiliency skills and increasing organizational support.

This study identified the presence of risk factors for the development of CF fatigue among nurse leaders and elements in the work environment that can be modified to prevent this condition. These findings may be used to create a satisfactory Professional Quality of Life for the nurse leader which impacts their role effectiveness and supports the delivery of quality patient care.

Problem Identification

The concept of compassion fatigue (CF), as applied to healthcare, was first identified in direct patient care givers, specifically emergency department nurses (Joinson, 1992). She observed that this condition varied from the traditional workplace burnout and effected individuals in helping professions. The research on the subject of CF continued to expand to include other specialties and disciplines such as oncology and intensive care nurses, social workers, disaster relief workers, and employee assistance personnel. Sabo (2006) believed that CF occurred as a result of caring for people who are in pain, suffering, or traumatized. It is my hypothesis that this condition which is prevalent among direct care providers, also exists among nurse leaders.

The report “The future of nursing: Leading change and advancing health,” (Institute of Medicine Report [IOM], 2010), illustrated the roles that nurses have in producing and providing safe, patient centered, high quality care and for all patients in our health care system. Among the recommendations from this report is the expectation that nurses assume leadership roles and partner with physicians and other health professionals in redesigning health care in the United States. The Joint Commission discussed the importance of the role of leadership in healthcare in a white paper issued in 2009. It is the leaders who “establish the organization’s culture through their words, expectations for action, and behavior – a culture that values high quality, safe patient care, responsible use of resources, community service, and ethical behavior; or a culture in which these goals are not valued” (Schyve, 2009, p. 3). These expectations make the role of the nurse leader critical to the day to day operations of a health care facility. They exemplify the mission, vision and values of the organization, are responsible for financial health of the unit and must motivate staff to strive for professional excellence. A nursing leader achieves these objectives

by utilizing the four E's – engage, educate, execute, and evaluate (Pronovost, Berenholtz, & Needham, 2008). Key outcomes measures include employee engagement, patient satisfaction and meeting quality metrics. A leader who is fatigued, “running on empty”, may become ineffective in their role, unable to meet the expectations of the position. This can affect patient care and the health of an organization may suffer as well.

Nursing leadership positions in an organization include: chief nursing officer, assistant chief nursing officer, senior director, director, nurse manager, clinical nurse manager and nursing supervisor. For this project, the term “nurse leader” was used to define individuals in any of these roles who has accountability for nursing staff and delivery of patient care. In the current work environment, a nurse is required to manage competing demands while striving for quality outcomes which may generate stress among nurse leaders. This balancing act may create emotional fatigue and job burnout which places them at risk for CF. Stamm (2010) wrote that CF is the negative aspect of our work as helpers. It consisted of two parts. The first part included feelings that are typical of burnout_ exhaustion, frustration, anger, and depression. The second part was secondary traumatic stress which is a negative feeling driven by fear and work-related trauma. An individual's professional quality of life as defined by Stamm, was derived from the positive aspects of helping (i.e., CS) and the negative aspects of helping (i.e., CF). This is depicted in the CS-CF Model (refer to Figure 1). The complex relationship among the variables of what creates satisfaction for an individual; work environment, professional and personal relationships, and the sense of accomplishment (helping), and what causes fatigue in the same environment; burnout and stress are what places an individual at risk for CF. This is illustrated in Figure 2.

When exploring this condition among nurse leaders the following vocabulary was utilized: compassion satisfaction, burnout, work-related traumatic stress, and compassion fatigue. The definitions of these concepts as defined by Stamm (2010) are as follows and discussed further below.

Compassion Satisfaction (CS)

CS is the pleasure an individual derives from being able to do their work well. This is the positive feeling that one experiences from working in a care giving position. This may be the result of an individual's sense of confidence and competence, collegial relationships, and the system in which they work. It also stems from a sense of belonging and purpose. When an individual derives satisfaction from the positive aspect of caring for others this helps to balance out the negative aspects of the work environment. An example of this is the ability to provide education, guidance, motivation and resources to the staff nurse that enables the delivery of quality care. Individuals with CS feel as though they make a difference in the lives of the people they come in contact with (Stamm, 2010). The elements that result in a sense of satisfaction and achievement is known to be a protective factor for CF (Hooper, Craig, Janvrin, Wetsel, & Reimels, 2010).

Burnout

Burnout is defined as the feeling of hopelessness and the difficulties experienced related to work or in doing your job effectively. The concept of burnout among management (i.e., leadership) is well defined in the literature and occurs over time as a result of high levels of occupational stress (Potter et al., 2010). A definition germane to the nurse leader role is that burnout is the result of repetitive emotional and interpersonal stress in the work environment and the individual suffers from exhaustion, cynicism, and inefficacy (Maslach, Schaufeli, & Leiter,

2001, p. 397). This condition develops over time and may be the result of work related stressors including increased workload, organizational constraints and role conflict. Characteristics include emotional fatigue, lack of enthusiasm and motivation as a result of the demanding environment. Burnout may also have a dimension of frustration and/or negative emotions. Studies involving nurse leaders identified the link between the individual's role, relationships, and work life balance with the development of burnout (Kath, Stichler, Ehrhart, & Sievers, 2013; Van Bogaert et al., 2014). In exploring these different but related concepts Yoder (2008) explained the difference between the two conditions in the following way: Burnout is the result of a sense of failure related to goal achievement and CF stems from a sense of failure as a caretaker/rescuer.

Secondary Traumatic Stress/Work Related Traumatic Stress (WRTS)

A component of CF is secondary traumatic stress (STS). For this project the term work-related traumatic stress was utilized.

WRTS is defined as work-related trauma secondary to exposure to people who have experienced extremely or traumatically stressful events. It is a negative feeling driven by fear and work-related trauma. This occurs when an individual has knowledge about a distressing event experienced by another. The distress manifests from the desire to help the person who was traumatized. Meadors and Lamson (2008, p.25) wrote: "Traumatization symptom levels usually depend on three criteria: proximity, intensity, and duration." Kath and colleagues (Kath, Stichler, Ehrhart, & Sievers, 2013) added that role overload, organizational constraints, and role conflict have been found to directly impact a nurse leader's work related stress level.

Like the staff nurse, a nurse leader who is experiencing burnout and stress may have feelings of inadequacy, inefficiency, and hopelessness regarding their current role. Research

indicated that nurse leaders experience high levels of work related stress, less feelings of personal accomplishments, and emotional exhaustion (Browning, Ryan, Thomas, Greenberg, & Rolniak, 2007; Lewis, Yarker, Donaldson-Feilder, Flaxman, & Munir, 2008; Van Bogaert et al; 2014). Factors influencing a nurse leader's well-being and development of work related stress included: perceived role conflict and role meaningfulness, work/time pressure, personnel resources, decision authority, and job security (Van Bogaert et al., 2014). Competing quality and financial performance metrics place stress on the direct patient care provider, and the nurse leader who is held accountable for positive outcomes on their units. It is an expectation from the executive leadership team, in most organizations, that these publicly reported outcomes are achieved despite limited resources, including human resources and supplies (Kath, Stichler, Ehrhart, & Sievers, 2013). This results in a daily "juggling act" by the leader.

Nurse leaders who are unable to prevent a decrease in nursing positions (i.e., full time equivalents) and support services may feel that they could not "save" the bedside nurse. When equipment and supplies needed for patient care are not present on the unit, the staff turn to the manager who is ultimately accountable for operational issues. This unconscious connection to the plight of the staff nurse can result in the absorption of the nurse's distress by the leader (Sabo, 2006). In addition, as the leader of the unit, they are the front line to deal with the customer who is dissatisfied with aspects of the hospital stay (Skagert, Dellve, & Ahlberg, 2011, Van Bogaert et al., 2014, Anthony et al., 2005) and as a result, are bearing the burden for the organization. At other times, a nurse leader may be required to terminate an employee as a result of financial need and not performance. The individual who executes the organization's plan can suffer the same emotional and psychological effects as the individual who was downsized. This includes anxiety, depression, and physical illness as a result of this emotionally taxing

responsibility (Gandolfi & Hansson, 2011). The development of WRTS can affect an individual's quality of life and job satisfaction which can negatively impact patient care and organizational outcomes (Berger, Polivak, Smoot, & Owens, 2015).

Compassion Fatigue

For this study, CF was defined as a state in which a nurse leader experiences an inability to maintain a desired level of compassionate energy, due to frequent and regular exposure to prolonged, emotionally and psychologically challenging managerial circumstances in the workplace (adapted from Andreotta, 2013). It consists of two elements: burnout and secondary traumatic stress. CF, the negative aspect of helping others, has been described in the simplest terms as the "cost of caring." According to Slatten, Carson, & Phillips Carson (2011), CF occurs when an individual is repeatedly exposed to stories about another's traumatic situations in the workplace. Characteristics of this condition include: somatic complaints, anxiety, depression, and apathy. It can result in a loss of focus while at work and an increase in absenteeism. Individuals may experience exhaustion, frustration, and anger: all symptoms that are typical of burnout.

The presence of CF was found to be pervasive among healthcare practitioners in a variety of settings. In the hospital arena these included the emergency department, the intensive care unit, progressive care unit, oncology, and medical surgical units (Yoder, 2008). Other professionals who suffer from CF include, employee assistance program counselors, mental health professionals, and nursing faculty (Potter et al., 2010; Jacobson, 2012; Ray, Wong, White, & Heaslip, 2013; Price, 2013).

Individuals who are fatigued are, in a sense, impaired. The presence of CF can result in negative outcomes for the individual and the organization such as poor health, decreased

productivity, employee turnover and decreased patient satisfaction. Personal relationships may suffer and they become unable to appreciate the positive aspects of life (Showalter, 2010). The individual is unable to perform a key component of his or her job; caring for others. As this is a preventable and reversible condition, it is important that organizations have an awareness of CF. A significant distinction between the two conditions is that CF can appear more suddenly and subside more quickly than burnout.

In summary, the existing body of research informs our understanding of the experiences of nurses who have left direct patient care for a leadership position. The studies reviewed above examined the constructs of CS, burnout, WRTS, and CF using the ProQOL tool. Therefore, the ProQOL V5 was used for this project. The literature confirmed the existence of CF among nurses and other helping professionals.

Mitigating the Effects of the Stressful Work Environment

Investigators have recognized that some aspects of the complex construct of CF are modifiable. Some of these aspects are person-centered while others are institutional or environment-related.

Coping strategies. Enhancing a leader's competency in managing workload and resources can result in a decrease in workplace stress. (Lewis et al, 2010). The research conducted by Neville and Cole (2013) revealed that nurses who engaged in health promotion activities exhibited less CF, less burnout and more CS than nurses not engaged in health promotion activities (p. 353). Individuals who were able to achieve a resilient state as a result of activities enhancing their personal wellness were better able to cope with and respond to life's stressors. These techniques might be developed and enhanced through education.

Interventions. The participation in a CF program focusing on the development of resiliency skills (Potter, Deshields, & Rodriguez, 2013) has been shown to create emotional health in leaders and the workplace. Technological resources available to individuals include the iChill®, psychological first aid, and provider resilience applications for “just in time” use on smart phones. The last application, provider resilience, has the ProQOL tool embedded as well as techniques to develop resiliency.

Conceptual Model

The conceptual model for this study was the Compassion Satisfaction – Compassion Fatigue model developed by Stamm (2010) and presented in Figure 1. In this model, it is the balance of CS and CF that results in an individual’s professional quality of life. Nurse leaders derive satisfaction from their ability to successfully manage the work environment and create an environment that supports patient care. However, negative aspects of the environment and role (i.e., outcome metrics, budget constraints, employee and patient dissatisfaction) can result in burnout and WRTS placing the individual at risk to develop CF. The implication is that when individuals suffer from CF, their effectiveness as a leader is diminished. By identifying this condition and creating opportunities for role satisfaction and mitigating the risks factors, the organization can protect individual from CF and help create a professional quality of life.

Significance

A nursing leadership role in an organization is an important and stressful one. In today’s healthcare environment, leaders are often required to manage units with more acute patients, less personnel resources, and achieve more stringent metrics than ever before. Health industry changes have translated to an increased workload for nurses at the bedside which increases stress on the leaders who manage them. Nurse leaders find themselves caught between hospital

administrators driving for financial success by demanding increased productivity and overworked nurses. These repetitive demands, the lack of resources, and the plight of the bedside nurse can result in burnout and work related traumatic stress in a nurse leader. Literature exists regarding the factors that contribute to a manager's satisfaction with their work environment and those factors that contribute to the individual's level of stress which may result in burnout. To date, the concepts of work related traumatic stress and CF had not been explored in this specific population. An understanding of CF and the risk factors for developing this condition can be used to alter the work environment and create interventional programs for nurse leaders.

Purpose

The purpose of this DNP project was to determine if nurses in leadership positions are at risk for or are experiencing CF due to the practice environment. Currently a gap in the literature exists related to this phenomenon among nurse leaders.

Specific Aims

This project determined if nurse leaders working in an academic medical center experience CF.

The specific aims were to:

1. Describe the nurse leader's level of CS using the ProQOL V5;
2. Describe the nurse leaders level of compassion fatigue as a measure of a) risk for burnout, and b) risk for WRTS (proxy for secondary traumatic stress), using the ProQOL V5;

3. Determine if there is a relationship among the demographic variables of: age, gender, numbers of years in nursing, and number of years in nursing leadership; and the variables of CS, burnout, and secondary traumatic stress; and
4. Identify factors that are modifiable that can be used to develop a CF prevention program.

Methods

This project was based on and expanded on the work previously conducted among pediatric nurses. Berger and colleagues (2015) researched the prevalence and severity of CF among 239 pediatric nurses under 40 years of age, with 6 – 10 years of experience, working on a medical surgical unit. It was the goal of this project to duplicate the methods in the population of nurse leaders in an urban academic medical center.

Design

This descriptive study utilized a mixed method of data collection and analysis. The quantitative data was collected using self-report of demographic information (Appendix B) and the Professional Quality of Life (ProQOL V5) tool. The qualitative data was collected using two open-ended questions (see Appendix C). This methodology allowed the participants to express their opinions regarding stress in the environment and suggest ways to address it. In addition, they were encouraged to describe their personal experiences.

Study Population

For this project, a homogeneous, purposive sampling technique was utilized. This method was chosen to answer the research question that is specific to the characteristics of individuals in a nursing leadership role.

Participants were nurses employed in a leadership position at two urban academic medical centers with Magnet hospital designation. A leadership position was defined as a job that requires twenty-four-hour accountability for the delivery of patient care. The positions included: shift supervisors, clinical managers, unit directors, senior director, and ACNO, and CNO. The inclusion criteria were as follows: a) The participant is in their leadership position with supervisory responsibilities for 18 months, and b) He or she has at least 5 years of experience as a nurse. The only exclusion criterion was the nurse leader of an oncology unit that recently conducted a study of CF.

Sample size. Fifty-one nurse leaders were enrolled in this study. A smaller sample is acceptable when the population is homogenous, as is the case with the sampling pool (Polit & Beck, 2012). Utilizing a quick table for sample size for multiple regression to obtain the most commonly used power value (.8) reveals that with fifty-one subjects and four predictor variables, a multiple correlation of .45 met this power standard ("Tables of Sample Size," n.d.).

Sources. The subjects were recruited from two organizations which are urban academic medical centers with the dual mission of providing quality healthcare to its patients and offering high level medical education (associated with the same medical school) and are recognized as Magnet facilities by the ANCC. The first facility was a 496-bed academic medical center, with forty-eight individuals in nursing leadership positions. The roles were as follows: chief nursing officer, assistant chief nursing officer, two senior directors, seventeen nursing directors, sixteen clinical managers, eleven nursing supervisors.

The second organization was a free standing children's hospital with 189 beds. There were are a total of twenty-seven leadership positions. The roles included: chief nursing officer,

two senior directors, three directors, eleven managers, three assistant managers, seven nursing supervisors.

The characteristics of the organizations, the number of nurse leaders, and their designated roles were typical of the healthcare industry and enhanced the ability to generalize the results of this study.

Recruitment/enrollment. Participants were recruited by the researcher with the support of the Chief Nursing Officers at each organization. This occurred during a nursing leadership meeting at each facility during which the researcher described the project to the nursing leadership team and provided an opportunity to answer questions regarding their participation. At the meeting, a flyer was distributed along with a brief overview of the project, the researchers' contact information, and a postcard was provided for the nurse leader to indicate "NO" if not interested and "YES, with contact information" if willing to participate. This process assured the nurse that their participation in the study remained confidential. The response cards (see Appendix D) were collected by the researcher from all attendees. A list of the enrolled (email and name) nurse leaders was generated by the researcher.

Data Collection

Data were collected on the variables of interest through questionnaires completed using Survey Monkey ®. The variables were a) sociodemographic characteristics, b) compassion fatigue (comprising: CS, WRTS, and burnout), and c) personal opinion on mitigating CF.

Sociodemographic characteristics. The characteristics of the participants gathered were: age, gender, number of years in nursing, role in organization, and number of years in a nursing leadership role. This information was obtained by self-administered questionnaire

developed by the researcher. The questionnaire had five items, four fill-in-the-blank” and one forced-choice for gender. These items took approximately five minutes to complete (see p. 25)

Compassion fatigue. This construct comprised three sub-constructs of CS, WRTS (proxy for STS) and burnout. These were measured using the well-established, standardized, instrument: The Professional Quality of Life V5 Survey (ProQOL).

Instrument. The tool utilized to gather data from participants was the ProQOL version 5 with the term nurse leaders substituted for helper (see Appendix C). The instrument was designed to measure CS, burnout, and secondary traumatic stress in subscales. The ProQOL measures the positive and negative aspects of helping others, and is comprised of thirty questions related to an individual’s current employment position and the respondent is asked how frequently they experienced a feeling in the course of their work within the last thirty days. The individual responds to the questions using a five point Likert scale (i.e., 1= never to 5=very often). Construct validity has been established by the author and the tool has been utilized in greater than 200 published papers. The subscales measure separate constructs but a shared variance between burnout and STS, which reflects that distress is common to both conditions (Stamm, 2010, p. 13.). The tool has been tested extensively and found reliable with the following Cronbach alphas reported for the 3 scales are as follows: CS .88, burnout: .75, and secondary traumatic stress: .81 (Berger, Polivka, Smoot, & Owens, 2015).

Mitigating CF. The participants were asked to provide their personal opinions on the sources of CF and how it might be mitigated. Following the completion of the ProQol V5 the participant was asked to write their responses to two open-ended questions (see Appendix C).

1. Please take a moment and describe in detail a situation in the last 30 days in which you experienced compassion fatigue at work.

2. Describe in detail how you would change the work environment to minimize or prevent the development of compassion fatigue among nurse leaders.

The participants were encouraged to provide any and all comments related to CF as this provided personal insight and valuable information.

Data Collection Procedures

Using the list of the nurse leaders enrolled at the source meetings, the researcher sent a cover letter with instructions and a link to the online self-report survey. A generic follow-up email was sent weekly after the initial request detailing the number of responses to date, the target number for completion, and a request to complete the survey. Data were collected using anonymous self-administered questionnaires with forced choice items and two open-ended questions. The nurse participants received by email a link to a web based tool using Survey Monkey®. It was available to the participants over a four-week period. The survey included a cover page that explained the research project (Appendix A), followed by a brief demographic tool (Appendix B), the ProQOL tool and two open ended questions (Appendix C). The survey took approximately twenty minutes to complete.

Data Management

Survey Monkey® was utilized as a repository for the raw data collected from the participants. Identical surveys were sent to participants at both institutions, but were tagged A & B in order to maintain confidentiality and facilitate data analysis. The aggregate data were downloaded into an excel spreadsheet and imported into SPSS. The data were stored on a password protected device and will be kept for a minimum of five years from the commencement of the study.

Data Analysis

The demographic data of the participants were described in the following ways: gender of the participants was reported in percentages, years of experience and number of years in a leadership role were reported as a range and mean, and roles were analyzed for consistency and categorized.

The questions on each subscale were exported from Survey Monkey® into SPSS and utilizing code provided in the ProQOL manual the scores were converted to a T score. This score indicated if the individual is at low, average, or high level of CS, burnout, and secondary traumatic stress.

Aim 1 and 2. To describe the nurse leader's level of CS, risk for burnout, and secondary traumatic stress the ProQOL T-scores were computed from the sum of the item scores utilizing the SPSS code provided in the ProQOL manual (Stamm, 2010). The T scores obtained from the sample group were compared to the publisher's norms which include high, average and low categories. For each scale, the number and percentage of responses in the low, average and high categories were reported.

Aim 3. A multiple regression was performed to analyze the relationships between the demographic data and the subscales.

Aim 4. Using an exploratory analysis approach, the two open-ended question responses were coded by the researcher and analyzed for themes and common experiences among the nurse leaders. Utilizing simple thematic analysis, the researcher identified key themes among the participants related to the question (Guest, MacQueen, & Namey, 2012). When reviewing the information provided by the participants the researcher looked for data that supports the concept of compassion fatigue among nurse leaders. The first step was to review the coded data to

determine if the themes form a pattern. The next step was to re-read all the data and consider the validity of the themes. After these two steps, themes were defined and named for further analysis. Data themes derived from responses to the open-ended questions were compared to previously published data.

This method allowed for the discovery of potential solutions to the condition of CF among nurse leaders by identifying items on the highest scores on the ProQOL5 and combining them with the responses from the open ended questions.

Protections of Human Subjects

Consent process. Recruitment included an explanation that participation was entirely voluntary and that completion of the survey online constitutes “informed consent”. The consent process was explained during the recruitment events and in the introductory letter to the survey (refer to Appendix A). A waiver of written documentation of the consent process was requested due to the following criteria: written information describing the research was provided to the subject, the research presents no more than a minimal risk of harm, and the research involves no procedures for which written consent is normally required.

Potential benefits. Participation in this study was entirely voluntary. There were no direct benefits to participation. Subjects were not coerced to participate in any way and declining to respond to the survey did not have any negative consequences as results were anonymous.

Potential risks. The principal risks to participants were a) study burden, b) distress associated with recollection of negative events, and c) breach of confidentiality. Regarding study burden, the nurse leaders were asked to commit approximately twenty minutes of his/her time to the study and this may take place during personal or work-time. Regarding the risk of distress,

the participant may have become emotionally upset when asked to recall stressful or disturbing events in their recent past. Regarding the potential breach of confidentiality, this may occur if non-research personnel and other participants learn that the nurse leader is a participant in the study and non-research personnel and other participants are able to see the responses of other to survey items.

Provisions to minimize burden. Responding to the survey required minimal time and effort. The survey was easily accessible via the personal email message and could be reached and completed from an individual's computer, tablet or smart phone. There were no financial burdens related to participating in this study.

Provisions to minimize distress. A slight risk may have included some discomfort from responding to the questions regarding stressful work experiences. This was discussed in the introductory meeting, allowing the individuals to opt out of participation. However, if this did occur as a result of participating the individuals were provided this link:

<http://psychcentral.com/lib/common-hotline-phone-numbers/> to find psychological support hotlines and services in their area.

Provisions to protect privacy. Recruitment occurred in a group but no attendee was asked to publicly state their participation. A response card was distributed to all attendees who were asked to return them before leaving. Only the researcher knew, from the response card, who enrolled in the study. All data were collected anonymously. All information provided was completely confidential as no personally identifying information was tied to the data collected in this study. Furthermore, because the interest of this study was in the average responses of the entire group of participants, there was no identification of individuals in any written reports of this research. The data collected during this project will be retained for a minimum of five years,

in a password protected file in a password protected computer to which only the primary researcher of this study has access.

Withdrawal of subjects. A participant was able to decline to answer any questions presented during the study and withdraw from this study by not submitting their questionnaire.

Results

Study Population

The survey was sent to fifty-one eligible nurse leaders. Thirty-three individuals (65%) completed the ProQOL tool and the two qualitative questions. There were seven partial responses, four declined participation, eight did not open the attached survey, and one individual opted out from the study. The nurse leaders ranged in age from twenty-eight to sixty-nine years of age (mean = 50, $SD = 9.88$), averaged twenty-five years in nursing and ten years in a leadership role. The population consisted of five males (13%) and thirty-four females (87%). Additional demographics features are shown in Appendix E. The roles were reviewed for consistency and classified into four roles nurse manager, nurse supervisor, director of nursing, and executive leaders (see Appendix F).

Aim 1: Nurse Leaders' level of Compassion Satisfaction

The first aim of the project was to determine level of compassion satisfaction among nurse leaders. All of the participants ($N = 33$) in the project reported average to high compassion satisfaction. The mean T score on the ProQOL tool for CS was 54.55, ($SD = 3.94$). This result indicates that the majority of nurse leaders ($n=22$) scored above the average of 50 established by the publisher (Stamm, 2010) and eleven individuals reported high compassion satisfaction with their role. The participant's mean T scores are listed in Appendix G.

Aim 2: Nurse Leaders' Level of Compassion Fatigue

The second aim of the project was to measure the leader's level of CF as a measure of the risk for burnout and WRTS. All participants reported low to average burnout and low to average WRTS. The mean T score computed from the ProQOL tool for burnout was 43.11, ($SD = 4.04$). On the burnout scale, the participants were almost evenly split into low ($n = 17$) and high ($n = 16$) levels. The mean T score for WRTS was 41.73, ($SD = 3.81$). On this sub-scale, a majority of the nurse leaders, ($n = 22, 67\%$) reported low WRTS. The participant's levels of CS, burnout, and WRTS are depicted in Table 1 (See Appendix G)

Aim 3: Relationship among the Demographic Variables and the Subscales

A regression analysis was performed in SPSS to determine if any of the independent variables (i.e., age, gender, years as a registered nurse, years as a nurse leader) influenced the scores on the subscales of CS, Burnout, and WRTS (See Appendix H). The results indicated no overall significant relationship between the predicted variables and the subscales as evidenced by CS ($F = .52, p = .995$), burnout ($F = .46, p = .76$), and WRTS ($F = 1.63, p = .195$).

Compassion satisfaction. The regression analysis of CS T scores showed that the independent variables of the study (i.e., age, gender, years as a registered nurse, years as a nurse leader), as a group, explained very little of its variation ($R^2 = .007$). The accompanying analysis of variance showed that this R^2 was not statistically significantly different from zero ($F = .05, p = .99$). As shown in Appendix H none of the independent variables were significant. When combined they demonstrate that CS does not depend on any of the independent variables.

Burnout and WRTS. The same held true for the analysis of burnout ($R^2 = .06, F = .49$,

$p = .77$). The analysis of variance of WRTS T scores also showed that the independent variables of the study, as a group, explained very little of its variation ($R^2 = .07$, $F = 1.63$, $p = .19$).

However, further examination of the B-weights (See Appendix H) revealed that WRTS was significantly higher in subjects 50 years and older, than in younger ones ($b = .32$, $p < .02$).

Additionally, the effect of a second variable, years working as a nurse, approached, but did not reach the traditional .05 level of significance ($b = -0.21$, $t = 1.80$, $p < .08$). This indicated that the longer someone worked in a clinical role may lower their WRTS and if the sample size were larger it might reach a level of significant ($p \leq .05$).

Aim 4: Modifiable Factors for CF Prevention Program

The nurse leaders were asked to provide insight on the source of CF in their environment and to offer suggests on how to prevent or minimize this condition. The individual's responses were analyzed for key words and phrases (i.e., level one coding) and then re-examined and further focused (i.e., level two coding) to create themes that addressed the following research questions:

1. Please take a moment and describe in detail a situation in the last 30 days in which you experienced compassion fatigue at work.
2. Describe in detail how you would change the work environment to minimize or prevent the development of compassion fatigue among nurse leaders.

Twenty individuals answered the first question and provided details about potential sources of compassion fatigue. The following themes relative to sources of compassion fatigue emerged: employee related stressors ($n = 8$), patient related stressors ($n = 3$), and organizational stressors ($n = 5$). Notably, 20 % of the individuals stated that they had no feelings of CF in the last thirty days ($n = 4$). They are defined as follows:

Theme 1: Employee related stressors. This was defined as any situation which resulted in a feeling of CF attributed to their employees. The contextual data included the inability to staff ($n = 4$), a lack of personal accountability on the part of the staff, the lack of appreciation for the leader's efforts ($n = 2$), and unprofessional behavior towards the leader. One leader articulated the challenge as follows:

It is difficult to get people involved in anything what is not powered by money incentive. They treat everything as job as opposed to treating a person who is going through difficult times. Accountability goes right there with it. If you just working as a worker it is so easy to call out in the time of high stress and "avoid" this way... some nurses may call out just because the unit is short and they (make it even shorter by calling out) don't want to be a part of it. Later on, on the unit those nurses who work under so much stress of being short staffed, the look at me with pleading eyes to help them out, to get more nurses.

Another nurse leader commented:

The best you can do as a nursing leader is to show compassion, try and offer whatever support you can, and try to help the nurses understand that the patients still need to be taken care of, despite poor staffing. After a long day of dealing with angry nurses, sometimes even being yelled at and verbally berated by them, it can be very difficult to continue to show compassion for their situation.

Theme 2: Patient related stressors. This theme concerned any feeling of CF as a result of their interactions with patients and families. When recalling situations in the last thirty days that lead to CF in the work environment the concepts included dealing with unrealistic patient

expectations ($n = 1$) and disruptive behaviors on the part of the family ($n = 2$). One leader recalled:

A "frequent flyer" patient was admitted (again) and lodged a complaint about nursing care. I wanted to detach myself from the complaint because this patient is not always reasonable and I did not have a great deal of time to sit and listen.

Theme 3: Organizational stressors. This theme was defined as feelings of CF as a result of organizational structure, policies, and procedure. The organizational impact included concerns related to work load/span of control and a perceived lack of support. Specific situations identified as emotionally and psychologically draining included the restructuring and unionization of the department of nursing. The span of control of a leader and the lack of support from Human Resources was noted. One individual described the challenge this way:

Despite the increased span of control for our directors and all the competing priorities, they expect our core measures and service goals to be met. So, when there are complaints about the inability to round on patients, I know I have a lack of empathy.

Theme 4: No experience of CF. This was defined by the lack of discussion regarding sources of CF. Four individuals commented that they had no experience of CF in the last thirty days and one nurse leaders stated:

Despite the work load and the rapidity of change at my hospital, I have not experienced compassion fatigue. I am relatively new to the organization and make every effort not to get in the fray or to get mired in the gossip, etc. I work hard, play hard and know myself well enough that I take "breaks" as needed to keep refreshed.

Prevention and Mitigation Strategies

The second question asked the nurse leaders to discuss how they would change the environment to prevent or minimize the development of CF. Twenty individuals provided solutions. The two prevalent themes that emerged were: organizational solutions and personal solutions. Some participants had no suggestion on how to address this condition in their environment.

Theme 1: Organizational solutions. This was defined as changes that are under the control of the organization. The contextual data for this theme included the addition of more nursing positions to the organization ($n = 3$), a decreased span of control, and more support for the leaders from the human resources department and senior leaders. The need for psychological support during times of stress was mentioned several times ($n = 5$). Transparent communication and leadership development were identified as a possible solution ($n = 2$). One individual voiced their frustration stating:

I would like to be able to help the nurses on the floor and to be received in a positive way when I attempt to help. I'm tired of always being the "bad guy" who always has to deliver bad news.

Another leader said:

There needs to be open communication and support for growth opportunities. Leadership can be very challenging and if there is no end point or goal to obtain it can become a meaningless position.

Theme 2: Personal solutions. This theme was defined by changes that are within the control of the individual. These comments included learning to delegate more effectively, fostering team work, and developing a support network. Participating in self-care activities, such as dedicated lunch breaks, and taking the time to decompress were seen as important strategies to

prevent CF. Personal and professional development was the suggestion of one participant who said:

I believe that the opportunity for sabbaticals ought to be developed for nursing leaders. It can be academic in nature. It would relieve some of the pressure nurse leaders feel, especially in today's environment.

The results of the ProQOL V5 and qualitative questions have provided data on the presence of CF among nurse leaders and their perceptions of the sources of this condition in their professional lives. Valuable insight was provided regarding personal and organizational strategies that may prevent and mitigate CF in this population.

Discussion

Being responsible for and dealing with the physical and emotional needs of patients and employees is stressful and can take a toll on an individual. Over time this can place a nurse leader at risk for compassion fatigue. Developing a level of CS in one's work and professional life is a way to protect against CF and balance work life stressors. CF has been well documented in the literature in direct patient care providers but a gap existed in relation to nurse leaders and their perceptions of compassion satisfaction, burnout, and work related traumatic stress. This project demonstrated the presence of average to high compassion satisfaction and revealed low to average levels of burnout and WRTS in this specific population.

Level of Compassion Satisfaction

The scores indicated that all leaders who participated in the project had an average to high level of CS. Twenty-two had average level of CS and eleven reported high levels of CS. This indicates that despite the stressful work environment the participants are able to derive

satisfaction from their daily interactions with colleagues, employees, patients, and families. This may also be attributed to the positive feedback and support that they receive from their supervisor. Their mean score (54.5) is above the average of 50 which, according to Stamm (2010), represents a greater sense of fulfillment related to your ability to be effective in your job. This finding is similar to study conducted in one of this projects organizations with oncology nurses. Results from the ProQOL version 5 revealed an average score for CS and moderate to low scores for CF (Giarelli, Denigris, Fisher, Maley, & Nolan, 2016). This indicated that the nurse leaders derived satisfaction from their work environment and felt that they are able to make a difference in the lives of their employees (Stamm, 2010). This may continue to protect them from developing compassion fatigue.

Level of Compassion Fatigue

The constantly changing workplace coupled with the demands due to high census and acuity, lack of staffing, and cost containment can lead in burnout (Berger, Polivka, Smoot, & Owens, 2016) a component of compassion fatigue. Both participating organizations struggled with these issues, as well as departmental re-organization, and union campaigns immediately prior to participating in this study. The presence of CF was measured by the risk for burnout and WRTS. All nurse leaders reported a low to moderate levels of burnout and WRTS. This indicated that the nurse leaders were not experiencing distress as a result of their role nor do they feel constrained by their work environment (Stamm, 2010). Similar results have been seen among providers in intensive care units and may be attributed to an individual's resiliency, empathic ability, and level of emotional intelligence (van Mol, Kompanje, Benoit, Bakker, Nijkamp, 2015). In addition, the literature revealed that nurse managers have come to expect and accept a stressful work environment as normal (Shirey, 2006). Based on the results of the

survey, the nurse leaders were successfully managing the operational and emotional demands of their role.

Demographic Predictors

A significant relationship was not found between the age, gender, years of experience, or the number of years in the role with the cut scores on the subscales. As a group, the participants scored average to high for CS, and low to average for burnout and WRTS. This finding was congruent with those of a similar study (Berger, Polivka, Smoot, & Owens, 2015) that nurses over 40 years of age and with great than twenty-five years of experience had the highest CS. The authors attributed this to their experience in their roles and the development of resiliency skills.

It is important to note that the regression analysis performed with WRTS as the dependent variable revealed a significant relationship in the older participants ($p < .03$) indicating the need to pay attention to this dimension of CF in nurse leaders 50 years and older.

Compassion Fatigue Prevention

Stamm (2010) identified that the negative aspect of our work as helpers can lead to the development of CF. The healthcare environment can cause people to become unhappy, feel disconnected, overwhelmed, and preoccupied with thoughts of work. The participant's responses indicated they are experiencing feelings of burnout and WRTS. However, the work environment can be modified to address the issues and situations related to the development of CF. The participant's suggestions regarding prevention fell into two categories: individual and organizational. Giarelli, Denegris, Fisher, Maley & Nolan (2016) found similar responses to the question about how to mitigate the effects of work-related stress. Several of the common recommendations included diffusing the stress, self-care, prioritizing tasks, holding debriefing

sessions, and the benefits of mental health days/sabbatical. Additionally, engaging health promotion activities can help increase an individual's resiliency which enhances their ability to cope with a stressful work environment (Neville & Cole, 2013). Two applications exist for smart phones that can provide nurse leaders with techniques to promote CS and guard against burnout and CF. They are the iChill ®, and Provider Resilience® and both applications include an assessment of an individual's current state and helpful interventions. Personal coping strategies coupled with organizational changes can prevent the development of CF among nurse leaders.

Limitations

There were a few barriers encountered during the completion of this study. One obstacle of the study was that only two agencies were the sources of the sample. This affected the ability to enroll a sufficient number of participants. To attempt to overcome this obstacle, the researcher continued the email reminders over a four-week period and attended several nursing operations meetings to make a general announcement that the survey remains open and to encourage individuals to complete the survey if they have not done so already. In addition, several attempts were made to visit the offices of the nurse leaders to encourage enrollment. The researcher was unable to reach several of the participants as they were in direct patient care assignments during this time period due to a lack of staffing. These individuals who were experiencing double the workload may have had different scores on the ProQOL and provided additional information on their experiences of CF. In addition, the sample size was small and bias may have occurred due to the convenience sample. The individuals participating were all in leadership positions and therefore, may possess a higher level of self-confidence and awareness than a staff nurse.

A potential for response set bias which can occur with surveys that require participants self-report existed. This was somewhat mitigated by utilizing an industry accepted, widely published survey tool. In addition, there were a few incomplete questionnaires and non-responsiveness among the individuals who had agreed to participate. Finally, my own personal bias may have been a limitation of this study. I believed there was a potential that nurse leaders suffered from CF. In order to prevent my bias from influencing the study prior to opening the survey I bracketed the concept, creating a mind map regarding compassion fatigue and continued this process during the analysis phase.

An additional challenge included a reduction in workforce at one organization and the number of nurse leaders eligible to participate decreased from seventy-five to sixty-one. The project was conducted in two academic medical centers, owned by the same for profit healthcare organization, in the same city on the east coast. While many attributes of the organization allow for generalizability the attributes, education, policies & procedures unique to this entity must be taken into consideration.

Clinical Implications

This project revealed that currently the nurse leaders experience a moderate to high level of CS in their daily work life and have a low to moderate risk CF. In order to sustain a healthy professional quality of life, it is important to identify the elements in the work environment that contribute to CS and mitigate CF. Factors identified by the participants to mitigate and treat CF focused on both the individual and the organization.

Suggestions for personal change included taking time for lunch and breaks, participating in stress management techniques, and opportunities to focus on personal development.

Successful interventions to reduce CF have been found to include strategies regarding individual

coping skills, effective communication and relaxation exercises (van Mol, Kompanje, Benoit, Bakker, & Nijkamp, 2015). The organization should consider providing classes for the employee such as yoga, mindful meditation, and crucial conversations, as these evidence based interventions could be implemented with relative ease. The classes could be held around and during the work day schedule to allow for attendance.

Organizational changes may be more difficult to enact but attention needs to be paid to the span of control of a leader, support from departments such as human resources and social work. Educational sessions that enhance the competency and develop leaders need to be part of the continuing educational curriculum.

When leaders within healthcare organizations place an emphasis on personal development and create supportive work environment they allow individuals to exercise their leadership skills (Skagert, Dellve, & Ahlborg, 2011) which can lead to CS with their role. Development of resiliency is another common strategy proposed as an intervention for CF in the literature. Consideration should be given to the development of a rapid response program to support those skills. One successful model has been implemented at Johns Hopkin and is the Resiliency in Stressful Events (RISE) team that responds to staff members who are dealing with stressful, patient-related situations (Wu, n.d.). A similar model could be created for nurse leaders consisting of peers and supervisors to discuss and de-brief difficult leadership situations. Executive leaders should ensure that these opportunities exist and have the expectation that nurse leaders participate as part of their leadership competencies. This may allow the individual to function more effectively in their role which is essential to the delivery of patient care and the daily management of a hospital.

The results of this project were shared with the participating organizations during the nursing leadership meeting. It is the goal of this researcher to publish these findings and add to the existing body of knowledge on the condition of compassion fatigue.

Recommendations

Additional research regarding CF among nurse leaders is needed with a larger sample size and a greater geographic representation. One suggestion would be to repeat this study with members of a professional organization such as AONE. It is also recommended that different variables be studied such as span of control and academic versus community hospitals to ascertain if a difference in the work environment impacts CS, burnout, and CF. Additional qualitative research is needed to identify situations in the workplace that can lead to development of both CS and CF in nurse leaders.

Conclusion

This project has provided insight into the nurse leader's viewpoint on the source of CF and potential solutions for mitigation and prevention. As individuals, the nurse leader establishes the professional expectations and cultural norms for the direct patient care providers through their beliefs, attitudes and behaviors (Schyve, 2009). This role is vital to an organization as nurse leaders are responsible for the day to day operations, which are measured by quality metrics, patient and employee satisfaction. This project revealed an average to high level of CS, coupled with low to average level of burnout and WRTS in nurse leaders; the most positive result you can achieve on the ProQOL. This indicated that the nurse leaders at these two organizations have managed to find a balance between the negative and positive aspects of their roles, resulting in satisfactory Professional Quality of Life (Stamm, 2010). It is important to note, this measurement was only one point in time and the individual's level of CS, burnout, and

WRTS can change in response to the work environment. Therefore, it would be prudent for executive leadership be aware of this condition, understand the contributing factors, monitor for its presence, and provide interventions to prevent and treat CF.

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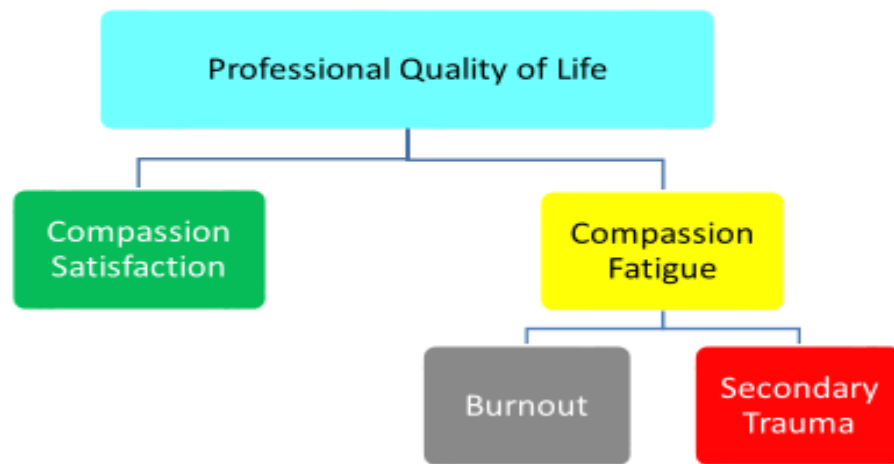
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Figure 1

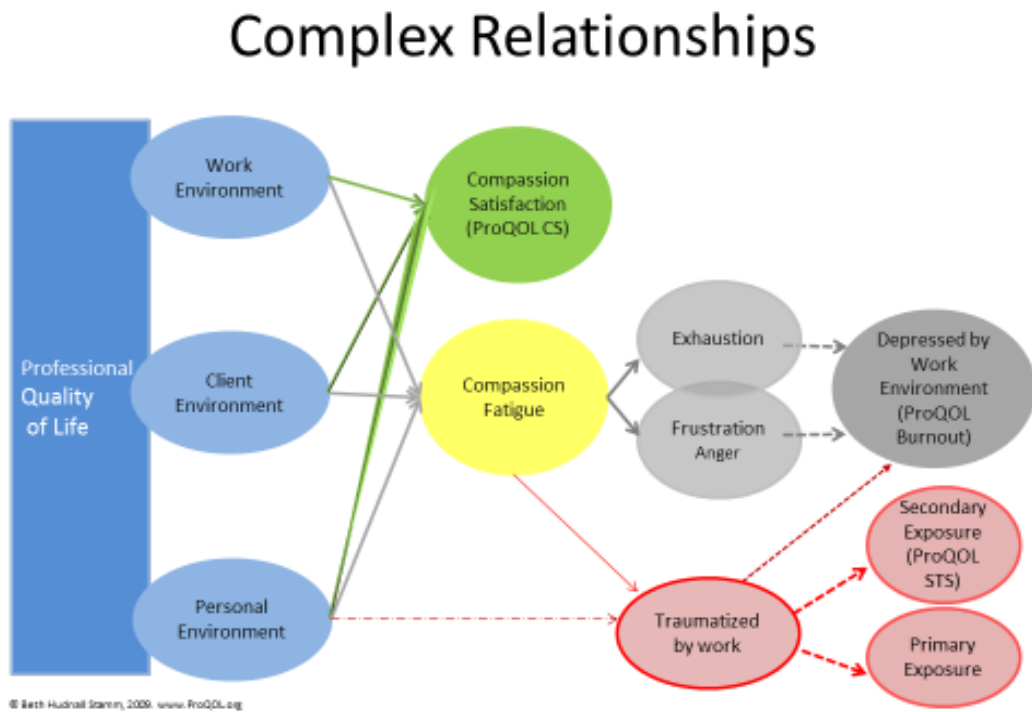
CS-CF Model



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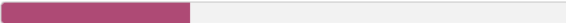
Figure 2



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Appendix A

Compassion Fatigue Among Nurse Leaders (ProQol Survey)

1 / 3  33%**Permission/Consent to Take Part in a Study Conducted at St. Christopher's Hospital for Children and Hahnemann University Hospital**

Principal Investigator: Kirsten Johnson Moore MSN, RN
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As a nurse leader, you are invited to participate in a study regarding compassion satisfaction, burnout, stress, and compassion fatigue. To participate in this study, you should have been in a nursing leadership role for a minimum of 3 years. This study will attempt to quantitatively and qualitatively explore the condition of compassion fatigue among nurse leaders.

As a participant in this study, you will be asked to complete a background information questionnaire and The Professional Quality of Life Scale (ProQOL), fifth version and two open ended questions. The questionnaire will ask general background questions. The ProQOL is a 30-item statement survey using a Likert 1-5 scale assessing signs of stress, job burnout, and job satisfaction. The questionnaire, ProQOL, and following questions are designed to be completed through the Web. The total time required is approximately 20 minutes to complete the questionnaire and survey.

Participation in this study is voluntary, there are no personal benefits to participation. You may decline to answer any questions presented during the study if you so wish. Please note, you may decide to withdraw from this study at any time by not submitting your questionnaire without any penalty. All information you provide is considered completely confidential. No personally identifying information will be tied with the data collected in this study. Furthermore, because the interest of this study is in the average responses of the entire group of participants, you will not be identified individually in any way in any written reports of this research. Fifty people are expected to participate in this study and data collected during this will be retained for a minimum of five years, in a password protected file in a password protected computer to which only the primary researcher of this study have access. There are minimal risks which may include a little discomfort in responding to the questions.

I would like to assure you that this study has been reviewed and approved by the Drexel Institutional Review Board. You may talk to them at [\(215\) 255-7857](tel:215-255-7857) or HRPP@drexel.edu for any of the following:

- o Your questions, concerns, or complaints are not being answered by the research team
- o You cannot reach the research team
- o You want to talk to someone besides the research team
- o You have questions about your rights as a research subject
- o You want to get information or provide input about this research

Consent Statement:

I agree to participate in a DNP project study being conducted by Kirsten Johnson Moore, of the Doctorate of Nursing Practice program, Drexel University College of Nursing and Health Professionals. I have made this decision based on the information I have read in the Information –Consent Letter and have had the opportunity to receive any additional details I wanted about the study. I understand that I may withdraw this consent at any time by not submitting my questionnaire without penalty. Approval of participation will be indicated by continuing onto the survey. If I experience any discomfort from answering the demographic questionnaire and ProQOL survey I can go to <http://psychcentral.com/lib/common-hotline-phone-numbers/> to find psychological support hotlines and services in my area.

NEXT

Appendix B

Compassion Fatigue Among Nurse Leaders (ProQol Survey)

2 / 3  67%

What is your gender?

- Female
- Male

What is your age?

Number of years working as an registered nurse?

Number of years working in a nursing leadership role?

Current role?

Appendix C

Compassion Fatigue Among Nurse Leaders (ProQoI Survey)

ProQoI Questions

3 / 3  100%

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 answer that honestly reflects how frequently you experienced these things in the last 30 days.

	Never	Rarely	Sometimes	Often	Very Often
1. I am happy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I am preoccupied with more than one person I help.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I get satisfaction from being able to help people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I feel connected to others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I jump or am startled by unexpected sounds.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I feel invigorated after working with those I help.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I find it difficult to separate my personal life from my life as a helper.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I am not as productive at work because I am losing sleep over traumatic experiences of a person I help.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I think I may have been affected by the traumatic stress of those I help.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I feel trapped in my job as a helper.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Because of my helping, I have felt "on edge" about various things.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. I like my work as a helper.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. I feel depressed because of the traumatic experiences of the people I help.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. I feel as though I am experiencing the trauma of someone I have helped.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. I have beliefs that sustain me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. I am pleased with how I am able to keep up with helping techniques and protocols.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. I am the person I always wanted to be.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. My work makes me feel satisfied.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. I feel worn out because of my work as a helper.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. I have happy thoughts and feelings about those I help and how I could help them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. I feel overwhelmed because my case (work) load seems endless.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

22. I believe I can make a difference through my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. I avoid certain activities or situations because they remind me of frightening experiences of the people I help.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. I am proud of what I can do to help.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. As a result of my helping, I have intrusive, frightening thoughts.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. I feel "bogged down" by the system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. I have thoughts that I am a "success" as a helper.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28. I can't recall important parts of my work with trauma victims.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29. I am a very caring person.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30. I am happy to do this work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Your survey responses are important to this study, but personal stories are often a better source of information regarding the details of an individual's experience with compassion fatigue. Any and all of your thoughts are valuable to gather information regarding this concept. Thank you.

Please take a moment and describe in detail a situation in the last 30 days in which you experienced compassion fatigue at work.

Please describe in detail how would you change the work environment to minimize or prevent the development of compassion fatigue among nurse leaders?

Appendix D



Compassion Fatigue among Nurse Leaders

Please complete this response card to indicate your willingness to participate in this research project

- No, I am not interested in participating
- Yes, I am interested in participating and my contact information is :

 Email

Kirsten Johnson Moore MSN, RN
Drexel University
kj394@drexel.edu



Appendix E

Participant Demographics

Variable	Total = 39	
Age: 28-69	Mean = 50	
Gender		
Male	5	(13%)
Female	34	(87%)
Race		
Asian/Pacific Islander	1	(2.5%)
Black or African American	1	(2.5%)
Hispanic	2	(5 %)
White/Caucasian	35	(90%)
Highest non-nursing degree		
Diploma	7	(21%)
Associate degree	6	(18%)
Bachelor degree	11	(33%)
Graduate degree	9	(27%)
Highest degree in nursing		
Diploma	2	(5%)
Associate degree	5	(13%)
Bachelor degree	17	(44%)
Graduate degree	15	(39%)
Number of years working as a registered nurse		
Range: 6 – 48 years	Mean = 25	
Number of years working in a nursing leadership role		
Range: .5 – 45 years	Mean = 10	

Appendix F

Classification of Nurse Leaders' Roles

Nurse Manager

This category consists of clinical nurse manager, nurse manager, assistant nurse manager, and ECMO coordinator

Nursing Supervisor

This category consists of nursing supervisors and shift directors

Director of Nursing

Executive Leadership

This category consists of senior director, assistant chief nursing officers, chief nursing officer

Appendix G

Participant's ProQOL Mean T Score

Subscale Level	CS		Burnout		STS/WRTS	
	<i>n</i>	Percent	<i>n</i>	Percent	<i>n</i>	Percent
Low	0	0	17	52	22	67
Average	22	67	16	48	11	33
High	11	33	0	0	0	0

Note: Low and high scores are set at the 25th and 75th percentile as determined by the publisher (Stamm, 2010)

Appendix H
Regression Analysis

Compassion Satisfaction

Descriptive Statistics

	Mean	Std. Deviation	N
CSt Value	54.5455	3.94747	33
What is your age?	49.7576	9.95311	33
What is your gender?	.1515	.36411	33
Number of years working as a registered nurse?	24.67	11.340	33
Number of years working in a nursing leadership role?	10.2485	8.39587	33

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.086 ^a	.007	-.134	4.20457

Predictors: (Constant), Number of years working in a nursing leadership role?, What is your gender? Number of years working as an registered nurse?, What is your age?

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3.647	4	.912	.052	.995 ^b
	Residual	494.994	28	17.678		
	Total	498.642	32			

Dependent Variable: CSt Value

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	55.902	4.967		11.255	.000
	What is your age?	-.028	.151	-.070	-.183	.856
	What is your gender?	.347	2.166	.032	.160	.874
	Number of years working as an registered nurse?	-.008	.132	-.024	-.064	.949
	Number of years working in a nursing leadership role?	.017	.112	.036	.152	.881

Dependent Variable: CSt Value

Predictors: (Constant), Number of years working in a nursing leadership role?, What is your gender?, Number of years working as an registered nurse?, What is your age?

Burnout

Descriptive Statistics

	Mean	Std. Deviation	N
BOt Estimate	43.1121	4.04203	33
What is your age?	49.7576	9.95311	33
What is your gender?	.1515	.36411	33
Number of years working as an registered nurse?	24.67	11.340	33
Number of years working in a nursing leadership role?	10.2485	8.39587	33

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.248 ^a	.062	-.073	4.18601

Predictors: (Constant), Number of years working in a nursing leadership role?, What is your gender?, Number of years working as an registered nurse?, What is your age?

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	32.181	4	8.045	.459	.765 ^b
	Residual	490.634	28	17.523		
	Total	522.815	32			

Dependent Variable: BOt Estimate

Predictors: (Constant), Number of years working in a nursing leadership role?, What is your gender?, Number of years working as an registered nurse?, What is your age?

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	37.506	4.945		7.585	.000
	What is your age?	.151	.150	.373	1.008	.322
	What is your gender?	1.397	2.156	.126	.648	.522
	Number of years working as an registered nurse?	-.065	.131	-.183	-.499	.622
	Number of years working in a nursing leadership role?	-.051	.112	-.106	-.457	.651

Dependent Variable: BOt Estimate

Secondary Traumatic Stress/WRTS

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.434 ^a	.189	.073	3.67553

Predictors: (Constant), Number of years working in a nursing leadership role?, What is your gender?, Number of years working as an registered nurse?, What is your age?

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	87.886	4	21.971	1.626	.195 ^b
	Residual	378.267	28	13.510		
	Total	466.153	32			

Dependent Variable: STSt Estimate

Predictors: (Constant), Number of years working in a nursing leadership role?, What is your gender?, Number of years working as an registered nurse?, What is your age?

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	32.461	4.342		7.477	.000
	What is your age?	.320	.132	.836	2.431	.022
	What is your gender?	-1.146	1.893	-.109	-.605	.550
	Number of years working as an registered nurse?	-.208	.115	-.617	-1.804	.082
	Number of years working in a nursing leadership role?	-.134	.098	-.295	-1.368	.182

Dependent Variable: STSt Estimate