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Compassion Fatigue: A cross-sectional study

Donna B. Carrillo. MSN

A dissertation submitted to the faculty of the Medical University of South Carolina in partial fulfillment of the requirements for the Degree of Philosophy in the College of Nursing

August 2016

Approved by:



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TABLE OF CONTENTS

LIST OF TABLES	4
LIST OF APPENDICES	6
ACKNOWLEDGEMENTS	7
ABSTRACT	9
INTRODUCTION	10
MANUSCRIPT I	20
MANUSCRIPT II	41
MANUSCRIPT III	62
CONCLUSION/SUMMARY.....	85
APPENDICES	84

LIST OF TABLES

TABLE I: Compassion Stress and Fatigue Model.....	76
TABLE II: ProQol Instrument.....	78
TABLE III: Demographics Questionnaire of Study.....	77
TABLE IV: Variables.....	78
TABLE V: Descriptors of Compassion Fatigue.....	79
TABLE VI: Compassion Fatigue Prevalence – ProQol.....	80

LIST OF APPENDICES

APPENDIX I: Institutional Review Board Letter of Approval.....	88
APPENDIX II: Off Campus Study Site Form.....	89
APPENDIX III: Letter of Participation to Participants.....	93

LIST OF FIGURES

Figure 1: Post Card Reminder to Participants.....89

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I love you all with all of my heart, always.

Dedication:

To *Kip and Micha* ~ my sons ~ my inspiration for all my life.

Beverly and Taylor ~ you left too soon, always with me, but God needed you more.

“She believed she could, so she did.”

— **R.S. Grey, Scoring Wilder**

Abstract

Purpose: This dissertation addresses compassion fatigue and the ambiguous use of the closely related synonyms of burnout, secondary traumatic stress disorder, and vicarious traumatization in acute care nurses. The aim of this dissertation was to define the concept of compassion fatigue within nursing practice, to identify and examine preventive and intervention strategies and to determine the prevalence of compassion fatigue in acute care nurses.

Design: This manuscript includes a concept analysis based on the evolutionary method to identify attributes, antecedents and consequences of compassion fatigue, an integrative review examining strategies to reduce compassion fatigue, and a cross sectional, quantitative study to define and measure key components to establish contributing factors of compassion fatigue based on completion of the Professional Quality of Life Scale, also known as ProQol.

Conclusions: These findings provide a greater understanding of how compassion fatigue impacts the nursing professional; and its deleterious effects lead to negative outcomes on quality of patient care and safety.

Relevance: This study arose directly from my personal interest as a masters' prepared registered nurse working in acute care and observing the deleterious effects that occurred from compassion fatigue if unrecognized and untreated. Therefore, this dissertation explored ambiguous terms, preventive and intervention strategies and the impact on acute care nurses in a rural setting.

There is a need to create an instrument specifically designed to measure compassion fatigue in nurses that is sensitive to detect the day to day nuances in their practice that lead to compassion fatigue, define parameters for the use of synonyms based on stages of symptoms leading to compassion fatigue, and develop interventions to prevent and ameliorate the negative consequences on their health and patient care.

Introduction

Compassion fatigue is a condition which can become overwhelming and place unnecessary burdens on nurses (Potter, 2006). The focus of this dissertation is compassion fatigue in acute care nurses, specifically those working in rural areas. Compassion fatigue has been found to stem from the nurse/patient relationship as a result of intense nurse caring and identification with patient suffering (Aycock & Boyle, 2009; Coetzee & Klopper, 2010; Sabo, 2011).

The term compassion fatigue was first introduced in relation to the study of burnout in nurses, but was never defined within nursing practice. Since then, the term has been used synonymously with burnout, secondary traumatic stress disorder and vicarious traumatization. These key terms continue to assimilate with compassion fatigue as they all describe continued exposure to extreme pain and suffering and exposure to life altering events. Studies reveal there is a high prevalence of compassion fatigue among nurses. Despite the diversity of nurses studied, there is not a particular pattern demonstrating which nurses suffer the most, yet the most commonly studied are those working in the emergency department (ED), critical care and oncology (Sabo, 2011). Not a single study was found on acute care nurses or nurses working in rural areas in regards to the prevalence of compassion fatigue during a review of the literature on compassion fatigue.

After reviewing several publications on the topic, my interest and eagerness for understanding grew, and compassion fatigue became the focus of this dissertation. As a pioneer of research on compassion fatigue, Figley stated, "We as practicing professionals have a special obligation to our students and trainees to prepare them for these hazards. A place to start is to incorporate stress, burnout, and compassion fatigue into our curriculum, and especially our

supervision in practica” (2005). Providing awareness of the signs and symptoms early in a nurse’s career may help eliminate development and progression of compassion fatigue. The research on compassion fatigue continues to grow, now focusing on all healthcare providers, not just counselors and public service workers.

Gaps in Knowledge

Although the number of studies has increased over the last few years demonstrating that compassion fatigue negatively impacts nurses, additional research is needed to demonstrate that further insight is required for prevention and intervention as well as development of a valid and reliable measure of compassion fatigue specific to nurses (Aycock & Boyle, 2009, Berger & Gelkopf, 2011, Carter, Dyer & Mikan, 2013, Rogers et al, 2013, Todaro-Franceschi, 2013, Zadeh et al, 2012). Research on compassion fatigue has suffered from both conceptual and methodological limitations. Conceptually, researchers have attempted to differentiate compassion fatigue from job burnout, vicarious trauma and general psychological distress, but the terms still remain vague (Jenkins & Baird, 2002; Sabin-Farrell & Turpin, 2003; Salston & Figley, 2003). Lack of conceptual clarity has hindered measurement and empirical study of these concepts. Methodologically, there have been several compassion fatigue scales proposed but few validation studies and little information on their psychometric properties is available (Gentry et al., 2002; Stamm, 2002) Most of the instruments that have been used thus far were developed to measure symptoms in trauma survivors with direct exposure as opposed to events arising from indirect exposure as is experienced by healthcare professionals (Bride, Robinson, Yegidis, & Figley, 2004).

In a review of the literature of nurses and compassion fatigue, studies specific to the treatment of compassion fatigue varied significantly. The range of recommendations included

education, resiliency and self-care training, complimentary alternative medicine and debriefing of events. (Hegney et al, 2014, Drury et al, 2014, Potter et al, 2013, Smart et al, 2014, Wenzel et al, 2011, Duncan et al, 2011, Hecktman, 2012, Lombardo & Eyre, 2011, Tabor, 2011 & Van der Wath, Van Wyck & Janse, 2013). The use of integrated terms hinders researchers and providers in understanding compassion fatigue as a distinct experience and impede the development of appropriate interventions. Associated terminology such as burnout, secondary traumatic stress syndrome and vicarious traumatization are often described interchangeably with compassion fatigue. Most often, these terms are not well distinguished from one another (Rothschild & Rand, 2006). Compassion fatigue is defined as a combination of physical, emotional, and spiritual depletion associated with caring for patients in significant emotional pain and physical distress (Boyle, 2011). Burnout is described as feelings of exhaustion, frustration, anger and depression that have continued over a long period of time (Stamm, 2010). Secondary traumatic stress disorder is defined as a component of compassion fatigue, driven by fear and work related trauma (Rigenbach, 2009). Vicarious traumatization is self-perception when exposed to traumatic events causing a disruption in self-esteem, interruption in the sense of safety that contributes to anxiety, depression, disconnection and burnout (Baird & Kracen, 2006; Sprang et al, 2007). The operational gaps and overlapping symptoms require further research to provide distinction of definitions and to add to the body of knowledge related to compassion fatigue.

Exploration of the Concept of Compassion Fatigue

Initially, the evolutionary method of concept analysis described by Rodgers was performed through a six-step process to identify attributes, antecedents and consequences of compassion fatigue and to define the concept within nursing practice (2000). The objective of this analysis was to provide further distinction of associated terms, signs and symptoms, and

related concepts. The overall outcome of the analysis provided improved understanding of the integrated terms revealing similar characteristics yet recognizing distinct differences. Second, a focused integrative review was conducted to identify and examine preventive and intervention strategies to reduce compassion fatigue in acute care nurses. Following a method of research review designed by Cooper, the process consisted of the following: formulating the problem, searching the literature, gathering information, evaluating the studies for appropriateness, analyzing and interpreting the findings, and disclosing the evidence and presenting results (2010).

Third, a cross-sectional, quantitative study was conducted to define key components of compassion fatigue to establish factors that contribute to compassion fatigue based on completion of the ProQol Scale. The ProQol scale was designed to measure compassion fatigue, compassion satisfaction and burnout (Stamm, 2002, 2005). The target population was acute care nurses working in a rural area. Charles Figley's Compassion Stress and Fatigue Model underpinned the concepts of this study. The aims of this study were to: 1) establish the prevalence of compassion fatigue, caregiver satisfaction, and burnout measured with the ProQol and 2) determine the relationship among demographic and work-related characteristics related to compassion fatigue, compassion satisfaction and burnout and its impact on the practice environment (2005).

Theoretical Frameworks

The framework for this first study was the Compassion Stress and Fatigue Model. This etiological model is based on the assumption that empathy and emotional energy are necessary to establish an effective therapeutic relationship (Figley, 1995, 1997, 2001). The purpose of this model is to provide a discipline specific framework that addresses caregivers at risk for

developing compassion fatigue, for the development of successful intervention recommendations, guidance of innovations, and evaluation of effective measures for compassion satisfaction and appropriate components of disengagement for self-care. Figley has noted several factors that either prevent or predict compassion fatigue. The process begins with exposure to the victim (patient), empathic concern, and empathic ability, leading to an empathic response. This empathic response along with the factors of disengagement and a sense of satisfaction lead to residual compassion stress. Finally, residual compassion stress, prolonged exposure to suffering, traumatic memories, and the degree of life disruptions result in compassion fatigue. These many components together form a causal model, which predicts this clinical phenomenon. These four variables are significant attributes in the role of a caregiver (nurse), yet they are risk factors for developing compassion fatigue (Figley, 1995, 1997).

The variables of a *sense of satisfaction* and *disengagement* are used as measures to prevent compassion fatigue in this model. When caregivers are satisfied with their ability to care for others, they experience a sense of satisfaction. Disengagement is a healthy way in which caregivers can promote self-care by professionally distancing themselves from those in their care (Figley, 1995). Caregivers may eventually experience compassion fatigue if the coping actions are not successful. The residual emotional energy from the empathic response lingers. If the stress is not relieved, the consequences of prolonged stress become apparent. The final three variables in this model play a role in increasing the likelihood of developing compassion fatigue. They are *prolonged exposure to suffering*, *traumatic recollections* and *overall life disruption*. Prolonged exposure indicates an ongoing sense of responsibility, often with lingering emotional attachment. Traumatic recollections are memories that can trigger symptoms of anxiety or other mental distress. Finally, the caregiver may experience a life disruption, which could be an illness,

change in professional or personal responsibilities, or a change in lifestyle. This added stress combined with other existing variables in the model could increase the probability of compassion fatigue, especially if the coping actions of achieving satisfaction and practicing disengagement are unsuccessful (Figley, 1995). The components of this model, as measured by the ProQoL include compassion fatigue, compassion satisfaction and burnout. Using the CF model underpins the understanding of the key elements and in what way they feed into the positive and negative aspects of helping others. The components assist in the classifications of the theoretical levels. When studying CF we must continue focusing on the environments and the actual work situation itself. This model contributed to understanding the influence of the environment on the people providing care or assistance and the personal impact and the work that is done.

Descriptions of Manuscripts I, II, and III

Presented in this compendium are three manuscripts related to compassion fatigue that present the trajectory of my research. The first manuscript is an analysis of the concept of compassion fatigue and the related synonyms of burnout, secondary traumatic stress disorder and vicarious traumatization. The second manuscript is an integrative review to determine the most common interventions and preventive measures for compassion fatigue. The final manuscript is a report of a cross-sectional survey to determine prevalence of compassion fatigue in acute care nurses in a rural setting.

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Manuscript I

Concept Fatigue: A concept analysis

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Compassion Fatigue: A concept Analysis

Abstract

Aim. To utilize the evolutionary method of concept analysis to identify attributes, antecedents and consequences of compassion fatigue and to define the concept of compassion fatigue within acute care.

Background: The term *compassion fatigue* was first introduced in relation to the study of burnout among nurses, but it was never defined within this context; it has since been adopted as a synonym for many other disorders, including secondary traumatic stress disorder and vicarious traumatization. The terms *burnout*, *secondary stress disorder* and *vicarious traumatization* are frequently used in nursing literature to describe nurses' behavior in relation to the signs and symptoms of compassion fatigue. Many of these terms are far removed from the original meaning. This paper provides further determination of associated terms, signs and symptoms, and related concepts to facilitate improved understanding of the integrated terms.

Design: Evolutionary method of concept analysis.

Data Sources: Four bibliographic databases were searched, including OVID/Medline, CINAHL, PubMed, and PsychInfo, from January 1992 to June 2016. Initial search terms and words included *compassion fatigue*, *burnout*, *vicarious traumatization*, *secondary traumatic stress disorder* and *nurse*, separately and combined.

Methods: Strategic literature searches of PubMed, CINAHL, OVID/Medline, and PsychInfo were performed in 2015 using keywords, and 47 full-text articles were assessed.

Results: Seventeen articles were used in the final analysis of compassion fatigue in acute care nurses and the related terms reviewed to reveal distinct yet similar characteristics to delineate the need for further study.

Conclusion: This analysis has helped clarify compassion fatigue and the related terms as a concept with supporting research and review. Most research related to compassion fatigue has been conducted in oncology, emergency and critical care settings, yet the largest population of nurses works in acute care and is non-specialty. The use of integrated terms impedes researchers and providers understanding of compassion fatigue as a distinct experience and therefore also impedes the development of appropriate prevention measures, educational initiatives and other interventions to address the specific needs of nurses suffering from compassion fatigue. Integrated terms often impede the effectiveness of the understanding of true compassion fatigue of impeding appropriate education, prevention and intervention.

Keywords: compassion, fatigue, compassion fatigue, burnout, secondary traumatic stress disorder, vicarious traumatization

Introduction

Compassion fatigue is a relatively new term, appearing only in the latest dictionaries and recent health professions literature, resulting in varying definitions that are unable to supply consensus or conceptual clarity. Several key terms found in the literature continue to assimilate with compassion fatigue as they all describe continued exposure to extreme pain and suffering, traumatic life altering events, identifying with another's suffering, and accepting, and experiencing the pain of others, vicariously. These terms, *burnout*, *secondary traumatic stress disorder* and *vicarious traumatization*, have been used conjunctively, without clarification of the concept. Therefore, it is important to distinguish compassion fatigue from these other terms. An examination of unambiguous definitions and meanings for *compassion fatigue* is important to understanding and exploring the concept.

The term *compassion* has been utilized in various settings across time. Compassion is most often associated with concern and sympathy for the suffering of others and is a necessary component for nursing care at the bedside. *Fatigue* is defined as "lassitude or weariness resulting from either bodily or mental exertion."¹ To date, no reported studies have clearly defined the concept of compassion fatigue in acute care nurses nor have there been any specific means of scoring nurses for compassion fatigue developed based on their practice and the nuances it encompasses.²

*The Oxford English Dictionary*¹ defines compassion fatigue as an apathy or indifference towards the suffering of others or to charitable causes acting on their behalf, typically attributed to numbingly frequent appeals for assistance, esp. donations; (hence) a diminishing public response to frequent charitable appeals." The origin of compassion fatigue traces back to November 1967 when Albert W. Farmer used the first reference in an Indiana newspaper, *The Vidette Messenger*,

saying, "More people are hungry today than ever before. Many Americans have compassion fatigue - tired out with all the repeated calls to do good."²

In 1992 Carla Joinson introduced the term compassion fatigue to healthcare when completing a study of burnout and the nature of its effects on emergency room nurses. According to Joinson, the nurses she studied seemed to have lost their "ability to nurture" and demonstrate compassion."³ Johnson, however, never formally defined the term compassion fatigue as a concept, and in 1995, Charles Figley began discussing the term as a "softer" version of secondary traumatic stress disorder.⁴ Figley introduced the concept as a process through which the caregiving individual's own internal experience becomes transformed through engagement with others trauma.

It is important to develop a clear understanding of compassion fatigue in order for it to be clearly recognized among healthcare professionals. A review of the term compassion fatigue indicates that prolonged exposure to traumatic events takes its toll on a nurse's well-being and ability to care for others. According to Bakker and colleagues, "nurses are particularly vulnerable to work-related stress and have an increased risk for being vulnerable to this phenomenon."⁵ Factors that contribute are increased patient complexity, reliance on advanced technology to sustain or prolong life, continued emphasis on decreasing cost, the constant perceived lack of time, and the push for perfection as a nurse.⁵ Nurses who suffer from compassion fatigue have loss of endurance, apathy and depression which directly influence the quality of care and, ultimately, patient safety.⁵

Developing a clear understanding of compassion fatigue as a distinct term and concept is necessary. As we continue to search for improved understanding of the concept, we need to be able to develop appropriate prevention and intervention strategies based on these findings,

specifically for acute care nurses. The first step for improved comprehension is to conduct an analysis of the terms, identify common components and define the similar attributes. The purpose of this paper is to provide an analysis of compassion fatigue utilizing the process of Rodger's evolutionary view.⁷

According to Rodgers concepts are not considered stagnant and change as quickly as new knowledge and ideas emerge, and they are most often open to the interpretation of the analysts.⁷ In an evolutionary view, the key to a successful analysis includes identifying the most common uses of the concept, determining the defining attributes, antecedent representation, consequences, exemplifying various aspects of the concept, and defining the empirical references.⁷ This analysis will ultimately influence how nurses can continue to build on evidence-based practice, merging theory with application, and improve the delivery of nursing care.

Methods

Specific to Rodgers' approach, there are six steps to the analysis: (1) identify the concept of interest and associated expressions and surrogate terms (2) identify and select a sample for data collection; (3) collect the relevant data and identify the attributes of the concept and contextual basis of the concept and variations; (4) analyze the data for the above characteristics of the concept; (5) identify a paradigm of the concept; and (6) identify the hypotheses and implications for further development of the concept. According to Rodgers, concepts are dynamic, overlapping, dependable, purposeful, and context-dependent. The evolutionary method acknowledges that concepts change and is an inductive form of inquiry and review, lending to a philosophical approach of overview. In this view, the investigation, the investigator should work back and forth among the various activities involved in the inquiry, yet the first activity always is to identify the concept of interest and appropriate expressions.⁷

The question guiding this analysis is as follows: Is the concept of compassion fatigue and its related symptoms and synonyms consistently identified and understood in the scientific literature related to nurses in acute care?

Because of the confusion with other terms, these terms were used in the search encompassing several overlapping and integrated elements. The American Institute of Stress noted that the most common terms are *compassion fatigue*, *burnout*, *vicarious traumatization* and *secondary traumatic stress disorder*.⁷

This technique requires a literature review to identify the attributes, antecedents, surrogate and related concepts, consequences, and contextual variations of the concept. Understanding and developing a concept of compassion fatigue and interchangeable terms in the acute care setting are necessary to find solutions to prevent and alleviate compassion fatigue. Clarity is necessary to ensure that the concept effectively reflects the realities of nursing practice.³⁴

Data Sources

Strategic literature searches of PUBMED, The Cumulative Index of Nursing and Allied Health Literature (CINAHL), OVID/Medline, and PsychInfo using keywords were performed in 2015. Pertinent databases with electronic access from two university libraries were searched. Search terms included compassion fatigue, burnout, secondary traumatic stress disorder and vicarious traumatization in all databases. MeSH databases were searched in PubMed. Clinical queries were also searched using the above terms. Inclusion criteria for each database or search included: scholarly journals, research articles and publications from 1992 through 2015. A final examination of the precursors, and interchanging terms created the necessity to complete a thorough review into the environmental, social, and historical and other contextual concerns

related to compassion fatigue through the views of nurses with compassion fatigue. The analysis included a search of medical, psychological, scientific and nursing literature. The key words compassion fatigue, vicarious traumatization, burnout, secondary traumatic stress disorder and nurse were used to identify and retrieve literature. In the first stage of the search, each database was examined individually and limited to English. Peer-reviewed publications that were published anywhere within the time frame of 1992 (when the term “compassion fatigue” was first introduced) to 2015 were considered. In the second stage of the search, the abstract of each study was scrutinized to determine the relevance of the article to this study.

Thirty-six full text articles were assessed for eligibility. The exclusion criteria used in this stage of the search included: book reviews, commentaries, editorials, and letters to the editors. This criterion led to the removal of publications that were only professional opinions not substantiated by actual studies or reviews. Abstracts were reviewed and articles were included if the study discussed historical, cultural, precursors and sociological aspects of compassion fatigue and the most common related synonyms. After exclusion criteria were applied, the search resulted in 17 articles using key words, compassion fatigue, burnout, secondary traumatic stress disorder and vicarious traumatization.

Multiple interdisciplinary databases were used to establish relevant literature within medicine, nursing and psychology. The sample analyzed for the concept analysis was composed primarily of nursing research and reviews.

Attributes

Defining attributes are characteristics of a concept that appear frequently and help differentiate it from other concepts.⁸ The repeated characteristics describing the relationship of

compassion fatigue, acute care nurses and related synonyms presented four defining attributes: (1) emotional exhaustion, (2) depression (3) reduced performance, (4) loss of empathy.

Emotional exhaustion

Compassion is the regard and respect for fellow humans, including the bearing of another's suffering and a desire to relieve it.⁹ Compassionate caring has certain emotional consequences that result from helping or wanting to help a suffering person. Evidence suggests that sustained compassionate nursing practice can lead to compassion fatigue and emotional exhaustion. Deleterious consequences develop over time, gradually worsening as a result of emotional exhaustion with reduced sense of personal accomplishment and daily stress.^{10, 11, 12} Professionals in caregiver roles need assistance with the stress and discouragement they experience in the workplace and may need time away or even a job change.

Depression

Nurses who exhibit an increase in symptoms of depression are considered to be in the high-risk category for compassion fatigue and may exhibit signs of frustration, disengagement, impatience, hopelessness, and a loss of sympathy.¹⁴ Emotional pain can lead to intrusive thoughts and images, anxiety, depression, startled responses, sleeping problems, nightmares, and avoidance of reminders of the patients' trauma.¹³ Summarized symptoms include negative arousal, intrusive images of critical experiences, difficulty separating work from personal life, increased anger, dread of work and self-destructive behaviors with loss of hope and purpose.¹⁵

Empathy

Empathetic caring and interpersonal skills are at the core of the nursing role.¹⁷ Empathy is considered the ability to understand and appreciate another person's feelings, experience, etc.¹ When caregivers experience compassion fatigue, the end result can also be a loss of empathy and a depersonalization.¹⁶ However, the cost of providing this empathic nursing care can contribute to caregiver compassion fatigue. Nurses who do not recognize or cope with these symptoms often have difficulty expressing empathy for patients and providing effective care.¹⁸ The cumulative effects of exposure to other people's distress and suffering and the work environment may lead to a lack of empathy, or a total collapse on the part of the nurse. Individuals are wired for empathy, not stoicism, and thus caregiving can take a toll emotionally, physically, and spiritually.^{15, 19}

Antecedents

Antecedents were specifically defined as events or incidents that must occur or be in place prior to the occurrence of the concept. Antecedents that have been identified for compassion fatigue in acute care nurses include, but are not limited to: (1) caregiver exposure to suffering, (2) intense and continuous contact with patients, (3) high demand environment, (4) caring more for their patients than self.

Caregiver exposure to suffering

Research indicates that the phenomenon is connected to the therapeutic relationship between the healthcare provider and patient. The traumatic or suffering experience of the patients trigger responses, on multiple levels.²⁰ Stressors such as death, suffering, the risk of exposure to diseases, overcrowding, and caring for patients who are very ill or demanding are impacting constraints.²¹ Other constraints that may cause stress are shift work, lack of sleep, and family pressures.

Nurses in this environment of ever-changing technology and patient-care standards in which the stakes are very high have little control over anything in their surroundings. Repeated exposure can lead to compassion fatigue from prolonged exposure to the demands of caring for those who suffer.¹⁶

Intense, repeated contact with patients

This repeated exposure can lead to emotional exhaustion and over time; develop compassion fatigue.¹⁵ Contact with genuine human suffering along with a nurse's calling to the profession of nursing, places nurses at greater risk for this development. Nurses with high degrees of empathy tend to be overinvolved with patients and families. This involvement is intensified in situations in which the causative event was horrific in nature, resulted in many deaths, or involved children.⁵ In some cases, the event may create anxiety and moral conflict for the nurse, making care of the patient difficult.²³ Compassion fatigue is inevitable given the constant exposure to suffering of others and the natural human response to witnessed suffering. Nurses today are practicing in an ever-increasing climate of complexity and intensity which predisposes them.²⁴

High demand populations

Individuals experiencing compassion fatigue appear to work with high demand populations including patients with multiple disease processes and complex diagnoses. Caring, particularly for people living the last part of their lives, often involves occupational role stressors, patient and family stressors, cumulative losses, compassion fatigue, and chronic bereavement.^{25, 26, 27} Repetitive exposure to environments with high patient acuity, workplace violence, prolonged patient holding, overcrowding, unrealistic patient expectations, trauma, and death can be challenging and emotionally draining causing distress.^{19, 28}

Caring more for their patients than self

The same tendencies nurses have for helping others make this profession especially vulnerable to overlooking their own needs. It is as if nurses have a self-care blind spot as health care providers.²⁹ Nurses have an inherent need to take care of people in crisis. However, nurses sometimes lose sight of the need to take care of themselves until they are in crisis and it most often too late.³⁰

Consequences

Consequences are identified themes that consistently arise from the concept.¹¹ The following were identified as consequences as a result of compassion fatigue that affects acute care nurses: (1) loss of empathy, (2) absenteeism, (3) compulsive behaviors, (4) increased physical ailments.

Loss of empathy

Empathetic caring and interpersonal skills are at the core of the nursing role.^{14, 31} However; the cost of providing this empathic nursing care can contribute to caregiver fatigue that leads to nurses experiencing loss of empathy and compassion. The cumulative effects and the work environment may lead to emotional withdrawal, a lack of empathy, or a total collapse on the nurses' ability to care.¹¹

Absenteeism

Researchers have described how fatigue among nurses lowers morale and increases absenteeism, affects the quality of treatment for patients, and has an accompanying financial impact on the hospital.¹⁵ Stress can negatively affect the nurse's health by inducing high blood pressure, gastritis, peptic ulcers, and fatigue, any of which may result in an increase in the number of sick days, indecision, difficulty with problem solving, isolation or withdrawal, and

behavioral issues.¹⁵ When compassion fatigue hits critical mass in the workplace, the organization itself suffers. Chronic absenteeism, spiraling Worker's Comp costs, high turnover rates, friction between employees, and friction between staff and management are among organizational symptoms that surface, creating additional stress on workers.¹⁵

Compulsive Behaviors

Unmanaged compassion fatigue is leaving a mark on nurses' personal lives. Numerous authors have identified symptoms of compassion fatigue.^{9, 10, 13, 15} Symptoms include excessive use of substances for self-treatment and destructive behaviors: nicotine, alcohol, illicit drugs, promiscuity, and eating disorders. Some of the recognized effects of compulsive behaviors include divorce or broken relationships, anxiety, professional dysfunction, medical errors, poor customer satisfaction scores, cynicism, loss of compassion, and leaving the specialty.¹⁵

Increased physical ailments

Not surprisingly, nurses' bodies "bear the brunt" of their stress. This may be expressed in irregular eating and sleeping, musculoskeletal tension, respiratory problems, substance abuse, and decreased immune system functioning.³² Several studies have found that somatic symptoms are common among stressed nurses.¹⁵ Emotional exhaustion and dissatisfaction with working hours were found to be correlated with sleep disturbances, creating the potential for a vicious cycle of self-perpetuating exhaustion in nurses. Data suggest that caregiving can take an emotional, physical, professional, and relational toll upon care providers.¹⁵ It leads to physical and emotional stress on the nurse to the extent that nurses have been described as the second victim.^{10, 15}

Findings

Several areas and methods to address and introduce recognition of compassion fatigue with an emphasis of prevention of the severity of the attributes, antecedents and consequences were identified. A synthesis of the evidence indicates that compassion fatigue, as well as its synonymous terms placed acute care nurses at risk and thus endangered the safe care provided to their patients. In this review, the synonymous terms included burnout, secondary traumatic stress disorder and vicarious traumatization. In an effort to reduce or ameliorate compassion fatigue, researchers identified education and intervention with continued evaluation and follow-up as a solution to limiting the consequences. Investigators have also examined characteristics contributing to compassion fatigue in acute care areas including patient load, acuity, hours worked and lack of managerial support. Findings from several studies have presented the compelling need for introducing the concept of compassion fatigue to nurses early in their careers. Despite these recommendations, confusion with the terms and symptoms continue to affect the understanding and importance of education and the prevention process.

The literature over compassion fatigue has grown over the last decade with recognition of the expanding number of nurses impacted by compassion fatigue. Many of these nurses have been excused or even shown a degree of acceptance of their behavior. This increases the number of nurses who continue to practice despite the acknowledged need for intervention. The lack of intervention places these nurses at increased risk for the attributes and consequences identified, and may place patients at risk for inadequate or poor nursing care.

Exemplar

One article identified the interchangeable confusion of the terms associated with compassion fatigue and the impact on social stigma and misunderstanding. Najjar and associates note how the concept of compassion fatigue has suffered due to conflicts and clarity of

synonyms as well as hindering measurement and empirical study. After reviewing several studies, the conclusions were limited due to ambiguity and no differentiation of the related constructs. This review recognizes the paucity in advanced studies and measurement designed to include nurses. As determined by the evolutionary method of concept analysis, this article was included to provide insight into the consequences and misperceptions of the interchangeable terms.³⁴

Implications

There is a need for future research to identify and examine effective ways for the introduction of education, prevention, and intervention. Figley introduced the idea of healthcare's responsibility to inform healthcare providers regarding the hazards of their work and to assist them in preparation.¹⁴ Nurses need to be educated about their vulnerability when working with traumatized patients; early on in their careers they should be taught the signs and symptoms of compassion fatigue and the related synonyms. Nurses need to care for themselves both personally and professionally. If nurses neglect caring for themselves and fail to recognize their own vulnerability, they may compromise their ability to provide quality care. Balancing personal and professional life is an important message for all professional caregivers.³⁵

Potential strategies identified in the literature include use of formal and informal debriefing, providing the nursing staff with increased and frequent education on compassion fatigue and related synonyms as well as death education and grief counseling. For professional strategies, learning to set boundaries and personal limits advocate for diversifying types of patients cared for regarding level of acuity, identifying potential responses to difficult scenarios debriefing, focusing on positive components of patient care, and meeting regularly with groups of respectful professional that share common goals.³⁵

After completing the review of the scientific literature, it is evident that healthcare organizations, providers and scientists are acknowledging the need for concept clarification of compassion fatigue, while the research lacks focus on defining all the associated terms, providing consistent recommendations that encourage education, prevention and intervention.

Conclusion

It is vital that individual nurses, leaders, and the healthcare industry work together to see methods to prevent and alleviate compassion fatigue. Future research should address effective ways to identify and consistently define compassion fatigue and the most frequent associated terms of burnout, secondary traumatic stress disorder and vicarious traumatization. Qualitative research on compassion fatigue and the related terms can help researchers clarify subtle differences and identify the terminology/conceptual and operational definitions surrounding these concepts. Longitudinal studies are needed to investigate contributing factors to the development of the symptoms. There is also a need for research that identifies evidence-based practices for enhancing compassion satisfaction among acute care nurses while mitigating factors that lead to negative outcomes for nurses and the patients that receive their care.

Clarity in the related constructs and terms used synonymously with compassion fatigue need further investigation to differentiate between the ambiguous definitions. The related terms of compassion fatigue, burnout, secondary traumatic stress disorder and vicarious traumatization share significant similarities but are different in their cumulative processes. Findings indicate the need to distinguish clearly the link between empathic suffering and nurses vulnerability.

Nurse leaders are faced with the continuous, competing demands of managing the satisfaction of patients, families, retention of experienced nurses and provision of quality and safe care. Understanding compassion fatigue, recognizing the signs and symptoms, and

identifying the best practice interventions will help nurses maintain caring attitudes and behaviors. There is a tendency for nurses who are isolated in their own specialty areas to focus on the stressors in their particular environment. They often lose sight that regardless of the specialty, or area of practice, all nurses are at risk. Many nurses have an inherent need to take care of people in crisis. However, nurses sometimes lose sight of the need to care for themselves until they are in crisis. Often the warning signs and symptoms go unrecognized by the nurse and their colleagues. Increased awareness is imperative to emphasize the mental and emotional impact of caring for patients.

In conclusion, the intent of this concept analysis is to provide a literary review of compassion fatigue as it relates to acute care nursing. Acute care nurses may be reluctant to acknowledge the emotions associated with compassion fatigue, many of them may even find difficulty admitting they are suffering from the symptoms. Stressors from compassion fatigue may be reduced significantly if appropriate and timely assessment is conducted and prompt interventions provided.

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Manuscript II

Compassion Fatigue and Rural Acute Care Nursing: Interventions, Preventions and Strategies

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Abstract

The aim of this integrative literature review was to identify and examine preventive and *intervention strategies to reduce compassion fatigue in (CF) in acute care nurses. CF conceptually, has been extensively studied, yet very little research has been done specifically on* this phenomenon in this particular population. A comprehensive multi-step search (published January 2005 to May 2015) of the literature indexed in CINAHL, Pubmed, OVID/Medline, and PsychInfo was performed reviewing CF, interventions and inpatient nursing. A sample of 20 research reports met the inclusion criteria. A systematic and iterative approach was used to extract and reduce the data. The overall analysis of the information garnered revealed startling statistics impacting the nursing professional and implicated dire outcomes from CF including deleterious effects to quality of patient care and safety. Other implications include healthcare financial risk and a continued nursing shortage.

Objective:

The aim of this integrative review was to identify and examine preventive and intervention strategies to reduce compassion fatigue in (CF) in acute care nurses.

Introduction

The number of nurses with compassion fatigue (CF) continues to increase as work demands become more stressful, patient ratios increase, acuity worsens, regulations become more stringent, finances are constrained, and work-related technology grows more complicated¹. Identifying and intervening on the factors that contribute to CF is essential to effectively address the problem of nurses leaving the bedside.

Compassion fatigue (CF) is defined as a combination of physical, emotional, and spiritual depletion associated with caring for patients in significant emotional pain and physical distress². Joinson³ first used the term CF in 1992 while studying burnout in emergency department nurses. She proposed that nurses, who are empathetic and caring individuals, absorb the stress of the traumatic events of others in their care³. Theorists also argue that persons who display high levels of empathy to others' suffering from, for example, traumatic injuries or life limiting illnesses, are more vulnerable to experiencing CF^{4,5}. As a result, nurses with CF may experience chronic fatigue, irritability, dread or fear of going to work, lack of joy, and feelings of despondency. They may also self-medicate with alcohol or prescription drugs as well as develop eating and sleeping disorders, and overtly exaggerate emotional and physical symptoms such as headache and body aches⁶. Other symptoms of CF include cynicism, boredom, anxiety, hyper vigilance, loss of compassion, and feelings of hopelessness and constant discouragement^{6,7}. Compassion fatigue not only impacts the nurse as an individual, but also decreases work

productivity and employee retention, increases sick days, and can negatively impact the quality of patient care and their overall recovery outcomes⁹.

These deleterious consequences emphasize the importance of exploring preventive measures and intervention strategies to reduce the burden of CF. According to a recent survey completed by Nursing Solutions Incorporated¹¹ the average cost of turnover rate for a bedside nurse ranges from \$36,900 to \$57,300, resulting in the average hospital losing \$4.9M – \$7.6M. Currently, the turnover rate for bedside nurses ranges from 9.8% to 39.8%; the national average is 16.4%, a 2.2% increase from 2013¹¹. In a recent survey of 141 inpatient facilities and 131,622 nurses an increase of 1.5% over the past two years, noting a 14% increase from the previous year¹⁰. While the relationship between CF and turnover is unknown, the population of nurses at greatest risk for leaving employment due to CF is acute care nurses¹¹.

The purpose of this review is to examine extant research related to CF in nurses, and summarize and synthesize findings to develop preventive measures and successful interventions. Special attention was devoted to identifying current research conducted on nurses, defined as bedside or acute care nurses, the largest group of healthcare workers in this profession¹⁰.

This integrative review focuses on nurses, working in an acute care setting and identifies current research and summarizes and synthesizes findings of preventive measures and interventions while reviewing barriers and potential strategies for avoiding CF.

Methods

Prior to beginning the search, defined constructs of interest, identified search terms and the purpose of the review were established. Following a method of research review designed by H. M. Cooper¹², the review process consisted of the following: formulating the problem,

searching the literature, gathering information, evaluating the studies for appropriateness, analyzing and interpreting the findings, disclosing the evidence and presenting results¹².

The search focused on the identified problem regarding preventive measures and interventions for CF in non-specialty, bedside and acute care nurses. No articles were found specifically focusing on this group of healthcare providers. The search was therefore adjusted to include articles reviewing CF preventive measures and interventions in other nurse specialties. Using this strategy, four bibliographic databases were searched, including OVID/Medline, CINAHL, PubMed, and PsychInfo, from January 2005 to May 2015. Initial search terms and words included *nurs**, *inpatient*, *acute care*, *intervention*, *treatment*, *prevention*, *compassion fatigue*, *compassion satisfaction*, *burnout*, *vicarious traumatization*, *secondary traumatic stress disorder*, separately and alternately combined. The initial search resulted in 20,143 articles. Reference lists of previous studies and relevant publications were also reviewed. Due to the ambiguity of the associated terms, burnout, vicarious traumatization, secondary traumatic stress syndrome and volume of articles, the final search was limited to: nurse, compassion fatigue and intervention.

Inclusion criteria included qualitative and quantitative studies, interviews, case studies, expert opinions and conceptual papers such as concept analyses published in the past 10 years in scholarly, peer-reviewed journals, and related to nurses and compassion fatigue or the closely associated terms and interventions and prevention. The articles were reviewed if they followed the screening questions for a clearly focused question and the focus was CF and interventions. Exclusion criteria removed articles that were professional opinions not substantiated by actual studies or reviews. After exclusion criteria were applied the search resulted in 20 articles. Table

1 summarizes the 20 studies found using key words with nurses, compassion fatigue and interventions and prevention.

Overview

Sample sizes of studies reviewed ranged from 2 to 2756 study participants including agency, neonatal, oncology, and nephrology, intensive or critical care unit (ICU/CCU), emergency department (ED), trauma, pediatric, hospice, palliative care, well baby, and military nurses. No study specifically focused on acute care nurses. All study locations were in the United States except for three conducted in Ireland, Israel and two in Australia. The majority of studies were qualitative in nature.

Prevalence and Interventions

Abendorth and Flannery¹² conducted a study to describe the prevalence of CF in hospice nurses, exploring the relationship between nursing characteristics and CF risk. The study also analyzed predictive risk factors associated with CF regarding demographic and work related factors. A response rate of 38.3% of 583 surveys presented evidence that nearly 80% of the nurses' surveyed experienced moderate to high levels of CF. The study analysis revealed that stress, trauma, anxiety, life demands, and excessive empathy were key determinants of CF risk.

Significant decreases in self-reported symptoms of CF were reported in a cross sectional survey by Markwell et al.,¹⁴. Of 210 trauma nurse participants, 23.7% reported CF. This study supports that caring for trauma patients may lead to BO, CF, and STS. Markwell et al.,¹⁴ indicated that identifying the prevalence and predictors of these can inform the development of interventions to mitigate or minimize BO, CF, and STS in trauma nurses.

In a cross sectional survey of 109 nurses, Hooper et al.,¹⁵ exploring the prevalence of CS, BO, and CF among emergency nurses and other selected inpatient specialties. Of the ED

surveyed, 82% demonstrated moderate to high levels of CF. In comparison to the other specialty areas of nursing studied, the other areas and nurses studied, did not reach significant measurable levels of compassion fatigue. This study demonstrates the necessity of intervening and offering support for alleviating CF.

Hinderer, et al,¹⁶, investigated the relationship of BO, CF, CS and STS to personal and environmental characteristics, coping mechanisms, and exposure to traumatic events in 128 trauma nurses using a cross sectional study design. Of this sample, 35.9% had scores consistent with BO, 27.3% reported CF, 7% reported STS, and 78.9% had high CS scores. High BO and high CF scores predicted STS. Nurses reported that caring for challenging patients, futile work efforts, environmental stressors and personal experience triggered CF. These participants also reported that the strength of working relationships with co-workers was associated with reducing CF, CO and STS. Education was recommended as a means for self-care and enabling nurses to take necessary for prevention and recognition of these impending developments.

Educational Interventions to Reduce CF

Aycock & Boyle,¹⁷, completed a national survey of oncology nurses to identify resources available to help nurses counter CF. Participants provided information about the availability of interventions in three major categories: on-site professional resources, educational programs, and specialized retreats. The availability of resources ranged from 0%–60%. Of the 103 responses of the surveyed nurses, nurses reported having the most access to employee assistance programs (EAP) at 60%. Educational programs were offered with an average of one or two training programs a year and the specialized retreats were described as episodic with only a small percentage (3%) being mandatory.

A quasi-random trial by Berger & Gelkopf,¹⁸ assessed the efficacy of an intervention aimed to educate 42 well baby nurses about stress and trauma. The intervention was comprised of 12 weekly 6-h sessions. Each session included theoretical knowledge, experiential exercises based on the nurses' work or personal life experience, and the learning of skills accompanied by homework assignments. Using cut-off recommendations by Stamm¹⁹ for the Professional Quality of Life Scale, 20% of the nurses surveyed demonstrated CF and 28.7% burnout (BO). After the training the scores had decreased to 11.9% for CF and 7.0% for BO. These results show that specialized training can reduce CF and BO with education.

Carter, Dyer & Mikan²⁰, conducted a five-week, descriptive, correlational study of hospice nurses that was by comprised of educational sessions, offering nurses the information, skills, and support necessary to identify factors that negatively affected sleep quality. Nurses set personal goals to change behaviors associated with the development of CF. The use of Cognitive Behavioral Therapy Intervention (CBT-I) to deliver group format education was well received and seemed to positively affect sleep onset latency, total sleep time, and sleep efficiency scores at 3 weeks post-intervention. The CBT-I intervention is a widely researched and empirically validated treatment approach for insomnia symptoms²¹. The researchers concluded this approach offers a cost-effective way to engage nurses in self-care activities, decreasing sleep disturbances and depressive symptoms. The study recommends further investigation to improve self-care using CBT-I interventions in nurses who are at high risk for CF.

Rogers and colleagues²² examined whether neonatal nurses who care for dying infants could improve their knowledge and level of comfort via an educational intervention provided by hospice nurses to assist in lessening the symptoms of CF. In a pre-test, intervention, post-test study of 82 nurses that attended educational sessions, the focus was on pain/symptom

management, ethical/legal aspects, communication/culture, spiritual/anxiety and prevention of CF. The investigators concluded that education enhanced nurses' comfort and knowledge in the areas of ethical issues and symptom management related to moral distress in the care of dying infants and on CF.

Todaro-Franceschi²³ conducted an explorative descriptive study-evaluating end of life (EOL) education of 473 critical care nurses. The findings demonstrated that educational interventions may enhance perceptions and preparedness when dealing with death, and showed improved ProQol scores by improving preparedness for end of life care. The investigators concluded that better preparation could enhance CS and lessen the potential of negative consequences such as chronic fatigue, irritability, dread of going to work and lack of empathy.

In a study reviewing didactic and hands-on learning by Zadeh, et al²⁴ surveyed 126 nurses who completed three sessions at two separate intervals and evaluated the education provided reviewing specific topics. Zadeh, et al²⁴, found that 75% reported that the education offering would considerably change the way they perform their jobs. This study demonstrated that supportive educational opportunities with new coping strategies on an ongoing basis were of necessity in avoiding CF.

Resiliency and Self-Care Interventions

Hegney, et al.²⁵ initiated a three part study of Australian nurses. Phase one of the study was a self-reporting, exploratory, cross sectional survey of 132 nurses working in varying areas of an tertiary facility. The work areas included ICU, high dependency unit, medical unit, outpatient chemotherapy and emergency department. Approximately 20% of the nurses in the sample had a profile that involved potential risk due to elevated levels of compassion fatigue symptoms. The findings concluded future design interventions for CF should be focused on

resilience, targeting negative moods, and psychosocial interventions. Drury, et al.²⁶ conducted interviews and focus groups to explore the factors impacting self-care (CS) CF, anxiety and depression in a group of nurses in Australia, working in various areas. This study was phase two, initiated to determine evidence of CF in Australian nurses; no other studies regarding CF had been conducted in that country at the time of this publication. The findings indicated that a model of resilience, rather than compassion satisfaction, would enable nurses to work in the current challenging nursing environments. The researchers found that resilient nurses remain in the nursing workforce and provide higher-quality patient care, and that their capacity to cope is enhanced through strong social and collegial infrastructure, supporting quality of care. This study also indicated that the model should be focused on moving away from the development of CS and toward creating resilience in nurses as an appropriate intervention.

Duffy, Avalos and Dowling²⁷ completed a cross sectional survey focusing on 105 ED nurses and CF in Ireland. The findings noted that nurses need to be made aware of the risk factors and symptoms associated with STS. The investigators posit that through greater awareness, appropriate self-care strategies may be developed. They also reported a previous review of the literature demonstrated that education for ED nurses demonstrated decreased levels of BO, CF and STS in nurses in Colorado,²⁸. Based on these reported findings an educational program for Irish ED nurses should include recognition of symptoms, the role of counseling, and healthy lifestyle changes in hopes of alleviating STS and CF.

Over a 6-month period, Potter, et al.²⁹, conducted a descriptive pilot study to evaluate a resiliency program designed to educate oncology nurses about compassion fatigue. The findings suggested that secondary trauma scores declined immediately after the program completion, remained decreased at three months and then dropped again at 6 months. The authors noted this

was the first reported study to show long-term benefits from a CF program designed to deliver useful strategies to nurses for managing stress at work and home.

Smart and colleagues³⁰ completed a cross-sectional survey with 139 participants; the purpose of the research was to investigate CS and CF levels measured with the ProQol as a self-reporting instrument. Using a linear regression model, researchers found that nurses in critical care areas scored significantly lower than those working in non-critical areas. The study also indicated that by identifying predictors of CF, interventions might be developed to modify behaviors as a design for self-care.

Wenzel, et al.³¹ led a focus group of 34 nurses evaluating the effectiveness of interventions to reduce CF by observing staff behaviors. They concluded that support issues were of concern at all levels of the work environment. The study identified challenges regarding work bereavement, current support for managing grief and loss, and support for interpersonal functioning and resiliency. Wenzel, et al.³¹ recommended that by addressing the concerns brought forth by the focus groups, job satisfaction could improve as well as decrease the potential for CF. The staff reported improved ability to recognize and discuss their thoughts and feelings related to their grief and bereavement after focusing on key components such as “self-supportive” care environments.

Complementary Alternative Medicine (CAM) Interventions

Duncan and associates³², conducted a complementary and alternative medicine wellness clinic (CAM) at a major military hospital to evaluate modalities of ear acupuncture, clinical acupressure, and Zero Balancing provided in a wellness clinic to balance body energy and structure to amplify wellness. Outcomes included stress, compassion, and pain. Of the 2,756 participants, more than half strongly agreed that they experienced increased compassion with

patients, better sleep, and improved mood after receiving the interventions. Perceived benefits were sustained and enhanced by number of clinic visits. The most frequently reported health habit changes were related to exercise, stress reduction, diet/nutrition, and weight loss. Findings suggest that hospital wellness based clinics providing CAM is perceived to have positive results on stress reduction at work, and improved mood, sleep, and lifestyle habits. Duncan et al.³² noted that over 75% of the staff surveyed reported improved compassion with patients after clinic participation. Based on their findings, they recommended that providing resources such as onsite CAM wellness clinics as one approach to preventing and mitigating CF.

Concept Analysis, Case Studies and Inquiry

Hecktman³³ conducted a case study targeting pediatric oncology nurses and their daily occupation-related stress. Hecktman³³ claims that prior to this case study, no literature review had been compiled to comprehensively address practice implications and provide recommendations for pediatric oncology staff nurses. The review presents data to support the argument that pediatric oncology nurses are at increased risk of experiencing stress. Hecktman concluded that no single intervention can prepare a nurse for each stressful event yet employing a wide range of stress prevention and management interventions can assist in decreasing stress responses. She noted that several interventions have been identified and found to be effective in avoiding CF in pediatric oncology nurses. She provided examples creating strong support systems, debriefing of stressful events, EOL education focusing on managing patient symptoms and family support, art therapy and CAM.

Lombardo and Eyre³⁴, presented a case study of nurses exposed to stressors leading to CF. The stressors included high patient acuity and elevated census creating amplified anxiety and sadness due to an increased workload. They described a variety of interventions to enhance

wellness opportunities and decrease job stress and suggested that by recognizing compassion fatigue symptoms and developing a personal plan of care nurses will be able to meet their own needs and the needs of patients and families, creating caring environments and empathic relationships.

In a concept analysis Tabor³⁵ discussed development of successful interventions, the need for clarity of concepts, and the necessity for facilitating future research for VT, CF and BO. In the analysis, terminology, symptomology, relevant interventions and opportunities for personal growth were discussed. Recommendations for program implementation should include education and outreach at preventing long-term sequelae with potential detrimental consequences leading to CF. Interventions should be specifically aimed at preventing long-term consequences of CF by utilizing screening, counseling and education. Tabor³⁵ noted and that early recognition of symptoms is crucial to the nurses' quality of life.

In 2011, Van der Wath, Van Wyk and Van Rensburg³⁶ reported an inquiry of eleven nurses caring for victims of violence in the workplace setting. The inquiry posits that the act of exploring experiences related to caring for those who have experienced violence, elicits sympathy and emotional distress. The inquiry generated an opportunity to develop guidelines through which support can be offered to nurses. The authors present that nurses are often in positions of "powerlessness" as witnesses to stressful events. These feelings place the nurses at a great risk of developing CF. They recommend employee assistance program (EAP), development of peer and multi-disciplinary support systems and debriefing to provide support and education to empower nurses and alleviate CF.

Synthesis

Of the 20 papers reviewed, six intervention studies were specific to CF, in specialty nurses, and researchers of those studies presented educational and interventional approaches for preventing and treating CF and the closely related concepts. The educational interventions involved onsite counseling, weekly sessions with group meetings, specialized retreats, CBT-I, and didactic interventions with assigned homework. Findings indicate these educational interventions may be helpful in recognizing the symptoms of CF and practicing preventive measures that alleviate symptoms. Five studies on resiliency and self-care indicate that as awareness of CF improves, scores on instruments such as ProQol that measure CF also improve as nurses become aware of their own thoughts and feelings. The authors of a single CAM intervention study noted that over half of the participants reported improved sleep habits, compassion and improved lifestyle due to preventive measures offered at an onsite wellness clinic. Literature reviews related to intervention and prevalence of CF suggest that identifying predictors and measuring the prevalence of CF, and including continuing education, could mitigate or minimize the prevalence of CF, BO, and STS. Because none of these studies targeted acute care nurses, case studies, a concept analysis and a phenomenological inquiry were included in this review. The case studies indicates that education for nurses can help identify symptoms of CF and developing personal self-care plans can assist in creating empathic relationships. Researchers also recommend creating support systems, debriefing, art therapy, CAM and focusing on family are vital aspects of avoiding CF. Finally the concept analysis posits that clarity of concepts and education are necessary for identification and prevention of CF.

Limitations

Compassion fatigue research has suffered from conceptual and operational limitations. Conceptually researchers have used CF interchangeably with other terms. Operationally, there

have been several interventions and preventive strategies mentioned and reviewed with reports of improvements in, or reduced CF, yet none demonstrate statistically significance reductions in CF. Another methodological limitation is the lack of validated instruments to measure CF and their psychometric properties specifically including the elements of working in an acute care setting as a registered nurse. The most common measuring scales used the Compassion Fatigue Scale, the Secondary Traumatic Stress Scale and the Professional Quality of Life Scale (Adams, et al.³⁷; Bride, Figley & Boscarino³⁸; Stamm,³⁹ others do not encompass all the nuances impacting the work of registered nurses.

This review verifies that there remains a high prevalence of CF among nurses; specifically nurses working in specialty areas like the ED and oncology, the most frequently studied nursing populations. Despite the diversity and volume of nurses studied in various areas, there did not appear to be a consistent pattern demonstrating which nurses suffer “the most” from CF. In addition, no single study was devoted to acute care nurses providing inpatient care working in non-specialty areas. Importantly, this review exemplifies that acute nurses are understudied.

Implications

The past 4 years have seen a steady rise in hospital turnover rates (NSI, 2015). Compassion fatigue and the related factors and concepts are a determining factor in nurses choosing to leave the bedside⁴⁰. Reducing CF may reduce the number of nurses leaving the bedside, improving our national nursing shortage but more importantly improving the overall quality of life for both our patients and their care providers^{41, 42}. Yet there are no designated interventions or standard recommendations from nursing governing or accrediting organizations that can prepare the nurse for each stressful event or lesson their exposure to patients suffering.

Based on the findings of this review, education is the most studied approach to address distress, including CF for nurses. The findings place particular emphasis on recognition and prevention of symptoms for alleviating work related stressors. Bedside nurses are of particular interest because they care for the largest population of patients and face the most challenges due to the constant demands and changes of the healthcare environment. Lack of an established protocol for identifying, preventing and treating CF and the lack of clarity of CF concepts continue to hinder the progress of prevention. Future research should target acute care nurses at the bedside, and interventions explored for effectiveness in preventing CF and the relationships between nursing workforce losses, nurse quality of life, and quality of patient care.

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Manuscript III

A Cross-Sectional Survey on Acute Care Nurses Working in Rural Areas

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Abstract

Objective: Compassion fatigue can significantly impact the quality of life of acute care nurses working at the bedside. Failure to recognize the deleterious effects may adversely impact the quality of patient care and inadvertently, patient safety. The purpose of this study was to investigate compassion fatigue as measured by the Professional Quality of Life Scale (ProQol) instrument in acute care nurses living in rural areas.

Methods: Using a cross-sectional survey design, 500 nurses were mailed a demographic questionnaire and the, ProQol, a self-administered instrument including 10 objective, closed-ended questions.

Results: There was a response rate of 21% (n=107). Of the 107 respondents, 34 % scored as being at risk for compassion fatigue based on the ProQol Scale. No statistically significant relationships of surveyed demographics and compassion fatigue were observed.

Conclusion: This cross-sectional study provides a first step in the process for evaluating compassion fatigue in rural nurses working in acute care. There is still much to learn about compassion fatigue in acute care nurses. Processes for accurately assessing compassion fatigue in nurses must be established before preventive measures and interventions can be created. Additional characteristics of acute care nurses including health, BMI, financial constraints and support systems may need further consideration. Compassion fatigue requires more purposeful attention from all professionals across the healthcare continuum. Until the consequences and ramifications of compassion fatigue can be measured and linked to specific determinants, it will remain an elusive aspect of nurses' work.

Introduction

Compassion fatigue results from prolonged exposure to patients' traumatic experiences. Patients' trauma can create a resurfacing of unresolved trauma in nurses working with vulnerable populations (Figley, 1995). Contributing factors may vary among nurses including demographic and work-related factors. Understanding the positive and negative aspects may improve the nurses' ability to employ appropriate coping skills while maintaining a caring patient-nurse relationship (Benner & Wrubel, 1989). Previous studies estimated that one in five nurses suffer from compassion fatigue and leave their profession as a result of this suffering (Kovner, Brewer & Fatehi, 2014). According to the Compassion Stress and Fatigue Model, empathy and emotional energy are necessary to establish therapeutic relationships **Table 1**. (Figley, 1995, 1997, 2001). Repeated exposure to the suffering of others often leads to compassion fatigue, whose symptoms include anxiety, boredom, hyper vigilance, loss of compassion, feelings of hopelessness and constant discouragement (Figley, 1995; Joinson, 1992). An understanding of how internal and external factors, including factors impacting professional and social involvement, such as patient acuity and nursing experience, may prevent or mitigate negative effects could be useful in the future design of proactive strategies that help nurses of repeated exposure to trauma and suffering.

The study aims were to: 1) establish the prevalence of compassion fatigue, caregiver satisfaction, and burnout measured with the ProQol Scale, and 2) determine the relationships among demographic and work-related characteristics related to compassion fatigue, compassion satisfaction and burnout and its impact on the practice environment.

Prior Research

Much research exists regarding compassion fatigue on professional quality of life in other disciplines, particularly at-risk populations of therapists, social workers, chaplains, law

enforcement officers, first responders, and providers including nurses, working in critical care, oncology, and emergency departments (Smart, et al, 2014). Limited information is available, however, to determine which factors negatively influence the development of compassion fatigue in acute care nurses such as differences in hours worked per week, shift worked, numbers of years in profession, age, marital status and other demographic and work place variables.

A review of the literature related to compassion fatigue in nursing suggests several individual variables should be compared for potential influence on compassion fatigue including gender, number of children, race and other unique characteristics. Organizational variables may include employment status, hours worked and length of shift. Since both organizations and individuals vary significantly, it is difficult to examine all potential factors and their relationships to compassion fatigue. In this exploratory study, acute care nurses working in a rural setting based on the population provided by the Tennessee Health Related Boards and the largest subgroup of nurses employed were examined. The aims were to: 1) determine the prevalence of compassion fatigue risk among acute care nurses in acute care; and 2) identify individual factors are related to compassion fatigue. The long-term goal is to provide a better preliminary understanding of compassion fatigue in nursing working in rural hospitals that could inform future approaches to prevent or ameliorate compassion fatigue. For this study, compassion fatigue is defined as a state experienced by those helping people in distress; it is an extreme state of tension and preoccupation with the suffering of those being helped to the degree that it is traumatizing for the helper (Figley, 2005). Compassion fatigue is operationalized in terms of risk: individuals receive a summative score on the ProQol compassion fatigue scale from scores on three subscales including burnout, traumatic stress and compassion satisfaction subscales.

In summary, the overall objectives of this survey were to identify the prevalence of compassion fatigue in acute care nurses in a rural setting and to determine select demographic variables that predict nurses that may be at risk for compassion fatigue.

Theoretical Framework

Charles Figley's Compassion Stress and Fatigue Model underpins the concepts of this study. Figley's etiological model is based on the assumption that empathy and emotional energy are necessary to establish an effective therapeutic relationship (Figley, 1995, 1997, 2001). This model provides a discipline specific framework addressing caregivers at risk for compassion fatigue, for the development of successful intervention recommendations, guidance of innovations, and evaluation of effective measures for compassion satisfaction and appropriate components of disengagement for self-care. Figley has noted several factors that either prevent or predict compassion fatigue. The process begins with exposure to the victim, empathic concern, and empathic ability, leading to an empathic response. This empathic response along with the factors of disengagement and a sense of satisfaction lead to residual compassion stress. Finally, residual compassion stress, prolonged exposure to suffering, traumatic memories, and the degree of life disruptions result in compassion fatigue. These many components together form a causal model, which predicts this clinical phenomenon. These four variables are significant attributes in the role of a caregiver, yet they are risk factors of compassion fatigue (Figley, 1995, 1997). The variables are part of the measuring of the ProQol scoring. Certain questions like "I feel like I have been affected by the traumatic events of those I help" or "I have a difficult time separating my personal life from work" (Stamm, 2010). The goal is to identify the prevalence of compassion fatigue to develop methods of recognition, implementation and

prevention strategies. Using Figley's model, demographic and work-related characteristics were assessed along with the prevalence of compassion fatigue in acute care nurses in rural areas.

Methods

A cross-sectional, quantitative, survey was conducted to assess compassion fatigue, caregiver satisfaction and burnout in acute care nurses in a rural setting. The survey was mailed to nurses working in acute care, in the state of Tennessee. The survey included a letter of invitation along with an explanation for completing the survey. A pre-addressed, stamped envelope was included for return of the survey to promote anonymity. A post card was sent 7 days after the initial mailing as a reminder to complete the survey and return within the 30-day time frame. The study occurred from May 7, 2016 through June 7, 2016. The Medical University of South Carolina (MUSC) Institutional Review Board granted approval for this research study.

Setting and Sample

For the sample populations, currently licensed nurses were selected from a database provided by the Tennessee Health Related Boards and randomly selected based on provided zip codes and work area. The target sample was nurses practicing in rural environments. The survey was mailed to 500 nurses, and a response rate of 20% was anticipated (Yammarino, Skinner & Childers, 1991).

Instruments

A demographic questionnaire and the ProQol survey (**Table 2**) were used in the study (Stamm, 2002, 2010). Permission to use the ProQol instrument was granted via the website of the survey's author, B. H. Stamm (2010). The ProQol survey consists of 3 subscales: 1) compassion satisfaction, 2) burnout, and 3) and secondary traumatic stress disorder. The ProQol

scale, a 30-item questionnaire, has been used extensively in research asking respondents to rate items on a 5-point Likert scale ranging from 1 (*never*) to 5 (*very often*). Each subscale has 10 items, and some items require reverse scoring, as outlined in the ProQol Manual; subscale scores cannot be combined to create a total score. Of the three subscales, burnout and secondary traumatic stress are considered components of compassion fatigue, whereas compassion satisfaction is a stand-alone measure. The higher the scores for burnout and secondary traumatic stress, the higher the levels of compassion fatigue. Stamm (2010) reported that the construct validity upon which the ProQol Instrument is based has been “well established in over 200 published papers” (p.13). Previous testing indicated accepted levels of internal reliability for each of the subscales; the Cronbach’s alpha was 0.88 for compassion satisfaction, 0.75 for burnout and 0.81 for compassion fatigue/secondary traumatic stress disorder (Stamm, 2010).

Demographic questions included questions about professional status, and personal demographics (Table 3). A cover letter was sent along with the survey inviting the participants to complete the survey and to return it in the pre-addressed, stamped envelope within the designated time frame of 30 days from postmark. To promote optimal response, a post-card was sent 10 days after the initial survey mailing as a thank you and reminder to complete and return the questionnaire. Nurses were assured their responses would remain anonymous and that no identifiers would be collected. Participants were informed that completion of the survey was voluntary and return of the survey was their agreement for participation in the study.

Statistical Analysis

Data were analyzed using SPSS, version 24.0. The demographic variables of participants included age, gender, race, marital status, years’ experience, employment status, hours worked per pay period, shift hours, number of children and pursuit of personal interest. Descriptive

statistics were used to describe the participant's demographic and work-related characteristics. The subscale scores were assessed for normality using the Shapiro-Wilk test. Homogeneity of variance was assessed using Levene's test and both results were not significant. Pearson's r was used to determine association between the subscale scores. The Chi Square Test of independence was used to test for a statistically significant relationship between variables. **Table 4.**

Results

During the 30-day time frame given for survey completion, 148 of the 500 surveys mailed were returned. Forty-seven were returned because of an incorrect address or other circumstances, including unknown subject that made the envelopes undeliverable per the postal service. This resulted in a response rate of 21% or ($n = 107$) completed surveys.

Compassion fatigue. Prevalence of risk for compassion fatigue was 34% with 36 participants scoring positive for compassion fatigue risk on the ProQol subscales.

Demographics. The sample characteristics were: females ($n = 93$, 87%) and males ($n = 14$, 13%) with an average age of 48.8 (range 23 to 64 years). The largest group for ethnicity was White ($n = 101$, 94%). The majority of the respondents were married ($n = 76$, 71). The number of children reported by participants was 0-2 children ($n = 61$, 57%) 3-4 ($n = 35$, 33%) and 5 and over ($n = 11$, 10%). With regard to nursing experience the majority ($n=55$, 51%) had over 21 years of experience; ($n=26$, 24%) had between 6 and 10 years of nursing experience. There were ($n = 85$, 79%) respondents working full time, ($n =12$, 11%) working part-time and ($n = 10$, 10%) working in an as needed position. The shift hours worked were ($n = 46$, 43%) worked 8 hours, ($n = 11$, 10%) worked 10-hour shifts and ($n = 50$, 47%) worked 12-hour shifts. Over ($n=82$, 77%) worked 41-80 hours per pay period; the second largest group worked less than 40 hours ($n = 15$, 14%) and ($n =10$, 9%) worked over 81 hours. In view of hours work, personal time in

hours was also documented with ($n = 82, 77\%$) having at least 5 or below hours for personal interest and ($n = 25, 23\%$) having at least 6 hours. For aim 2, we surveyed differences in demographics and work characteristics of nurses working in acute care in rural areas. A chi-square test was performed to determine relationships with these demographic variables and compassion fatigue; no statistically significant relationships were found since all p values were greater than the significance level of .05 (**Table 4**).

Discussion

The primary aims of this study were to establish the prevalence of compassion fatigue, as measured by the ProQol Scale and to determine the relationships among demographic and work-related characteristics. Data from this study show nurses working in rural areas of Tennessee scored similarly on the ProQoL scale ($n = 36, 34\%$) to previous research studies for compassion fatigue, that demonstrated 26% to 86% of employed nurses are at risk for developing compassion fatigue (Ariapooran, 2014).

While there are limited studies of acute care nurses, and to our knowledge, no studies of nurses working in rural areas, compassion fatigue was found to affect 26% ($n = 34$) in a study of 132 nurses working in emergency departments (Hooper, et al, 2010). In another study of 473 critical care nurses, compassion fatigue was found to be prevalent in nurses ($n = 218, 46\%$) (Todaro - Francesci, 2012). This wide ranges of prevalence rates suggest there may be differences in practice settings; the majority of studies were conducted in magnet status hospitals, most of which are academic health care centers in urban areas, consisting of samples of specialty nurse, while this survey was conducted in mostly smaller community hospitals consisting of a sample of acute care nurses providing care on predominantly medical-surgical units. These differences in patient populations and practice settings may explain the lower

ProQoL scores in the rural nursing population where there is perhaps a lower “stressful” environment of care. Thus, comparisons of the ProQoL scores cannot be made between nurses working in rural settings to those practicing in specialty areas in large medical centers.

There is some debate regarding the appropriateness of using the ProQol instrument to measure compassion fatigue in nurses. While ProQol has been recognized as one of the most frequently used scales for measuring compassion fatigue (Najjar, 2010), conflict remains regarding the consideration of the constructs between burnout and secondary traumatic stress/compassion fatigue that are considered synonymous term for compassion fatigue. Najjar et al (2010) reviewed fifty-seven studies to identify the prevalence of compassion fatigue in cancer care healthcare providers, the instruments used to measure it, and means of prevention and treatment. Findings from the review suggest there are ambiguous definitions of compassion fatigue that fail to adequately differentiate it from related constructs (i.e. burnout, secondary traumatic stress) and there were differences in the factors related to compassion fatigue in each professional area. Figley and others have observed through years of study that *secondary trauma*; *compassion fatigue* and what has been termed *job burnout* have been used interchangeably. Figley has suggested that secondary trauma/compassion fatigue is not the same as burnout and that each should be treated as having a separate effect on a professional's well being (2012). However, for this study, the ProQol considers all burnout and secondary trauma to be components of compassion fatigue, thus for this survey, burnout was included. Controversy remains in the nursing literature regarding “what” constitutes compassion fatigue and whether burnout should be a separate construct. Until a consistent definition is determined, the ProQol remains the most relevant approach to measure compassion fatigue.

For aim 2, individual demographic factors and work-related factors were examined in this cross sectional survey; none demonstrated a significant impact on compassion fatigue. The nurses who scored positive for compassion fatigue were White (n=34, 94%), females (n=31, 86%), thirty six years of age and older (n=32, 88%), with nursing experience of 21 years or more (n=36, 100%) and few opportunities for personal time (n=35, 97%). Based on previously published studies, findings were similar regarding age of nurses studied with a range of 22 to 62 years of age and nurses with the most years experience (n=99) as significant for compassion fatigue (Burtson & Stichler, 2010). In the study by Abendoth & Flannery, older nurses were found to score higher (n =185) on compassion fatigue (2010).

It is essential to establish processes for improving compassion satisfaction for nurses in acute care. The environment must be studied and manipulated to create methods for decreasing the prevalence of compassion fatigue. All aspects of the nursing profession must be considered for development of a scale that is relevant to the nuances and challenges that nurses face in their every day work environment.

Limitations. There are several limitations when measuring compassion fatigue. The synonymous use of terms to describe compassion fatigue, including secondary traumatic stress, vicarious traumatization and burnout present substantial barriers to determining the prevalence of compassion fatigue. Until each construct has been appropriately defined, there will difficulty with comparing results across studies.

And due to lack of conceptual clarity about what constitutes compassion fatigue, it is unclear how it differs from other adverse work outcomes, such as job burnout (Jenkins & Baird, 2002). There are also a number of compassion fatigue scales, with many dissimilar items (Figley,

1995; Gentry et al., 2002; Stamm, 2002). Finally, no study fully incorporates all aspects or description of compassion fatigue or key variables in the compassion fatigue model.

This study was comprised of a small sample based on rural areas in Tennessee with a response rate of 21%. To make definitive conclusions regarding compassion satisfaction, burnout and compassion fatigue, a larger study is needed and additional demographics should be included to better explain differences in sample characteristics. For example, considerations such as work-life balance, satisfaction with personal goals, socioeconomic status should be considered. Additional qualitative studies could provide insights into other life experiences relevant to nurses and their lives. This sample size was comprised mostly of White women limiting the generalizability of the findings to male nurses. Data were also collected by self-report and thus is subject to limitations such as honesty, introspective ability, understanding, response bias, and control of the sample (Austin, et al, 1998). Finally, because the data were collected from nurses working in rural setting, findings may not be generalizable to a more diverse population of nurses working in urban or suburban settings.

Conclusion

Awareness of the factors associated with compassion fatigue can assist with early identification and encourage nurses to seek help from appropriate sources. This cross sectional study provides a first step toward understanding the relationships among compassion fatigue, compassion satisfaction, and burnout in acute care nurses working in rural areas. Even though this study results are limited due to small sample size future research studies should recruit larger sample sizes, include more racial and ethnic diversity, and include more males. Ideas to increase response rate include reduction of respondent burden; use graphic designs to increase aesthetic appeal, frequent reminder letters, and offer a prize drawing after completion. Mixed

methods of data collection such as qualitative interviews paired with quantitative measures would improve evaluation of the theories based on compassion fatigue. Further research is indicated to address how the constructs of compassion fatigue are related to nurse and patient outcomes. There is much needed encouragement and support for developing and maintaining a healthy work environment.

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Table 1.

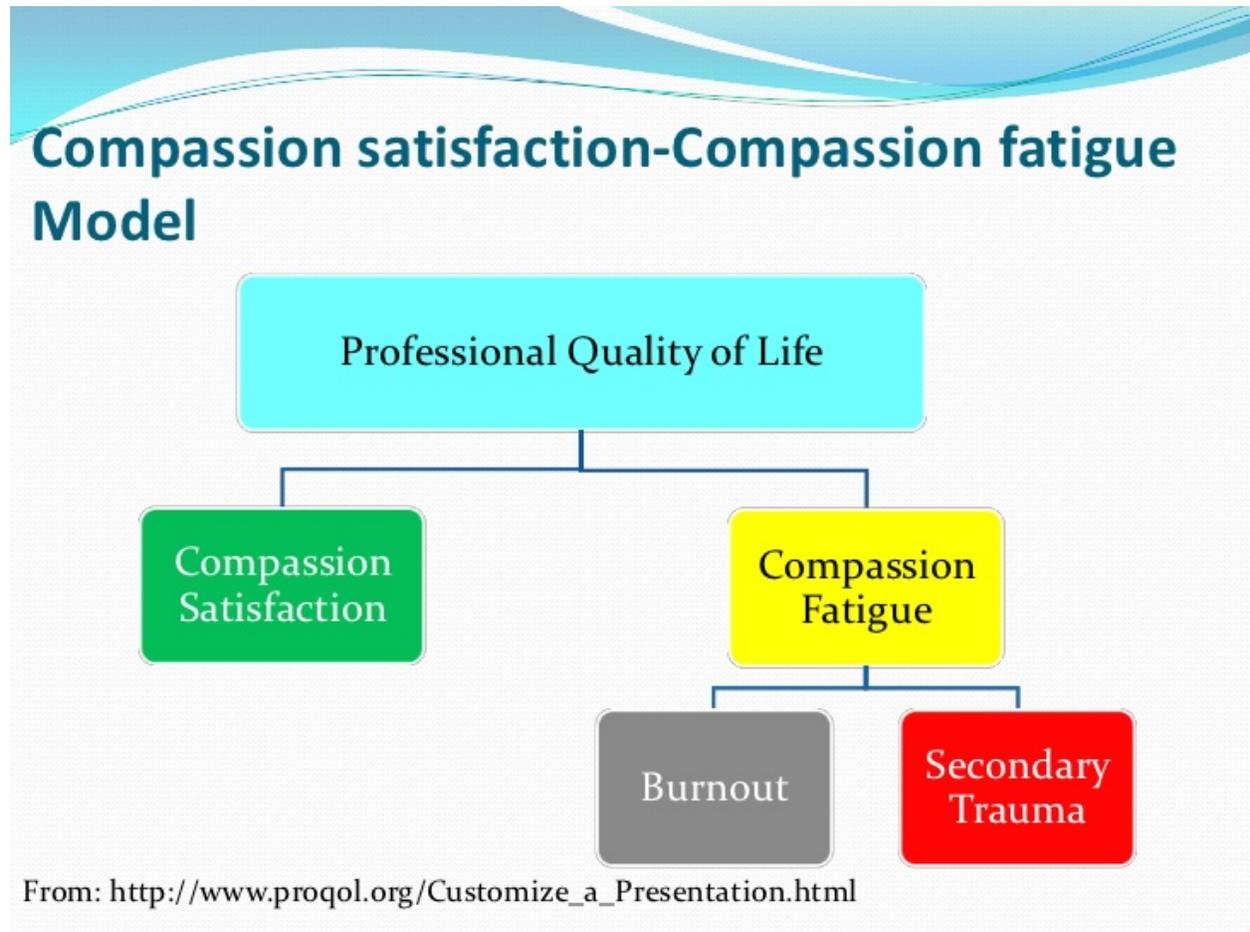


Table 2. Professional Quality of Life Scale (ProQOL)

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.

Table 3.

(EXAMPLE) Demographic Survey

Demographics	
Age (years)	
Gender:	
Female	
Male	
Race:	
White/Non-Hispanic	
African American/Black	
Hispanic/Latino	
Asian	
Hawaiian/Other Islander Pacific	
Native American/Alaskan Indian	
Marital Status:	
Married	
Single	
Divorced	
Widowed	
Co-Habiting	
Separated	
Experience in Nursing (years)	
Employment Status:	
Full time	
Part time	
Flex/PRN	
Hours worked per pay period last 2 weeks	
Shift Hours:	
8	
10	
12	
Number of Children	
Number of times last week able to pursue personal interest	

Table 4.

Variable	Compassion Fatigue		Chi Square Test	
	Yes n =36	No n=71	X ²	p-value
Age (years)				
18 - 35	3	20	6.07	.057
36 +	33	51		
Gender				
Female	30	63	.613	.736
Male	6	8		
Ethnicity				
White	33	68	7.3	.121
Non-white	3	3		
Marital Status				
Married	25	51	4.65	.324
Single	2	7		
Divorced	9	13		
Nursing (years)				
0 - 5	1	6	2.72	.052
6 -10	6	20		
11 - 20	3	16		
21 +	26	29		
Emp. Status				
FTE (full-time)	26	59	4.27	.371
Part-time	4	8		
PRN	6	4		
Hrs./pay period				
< 40	2	13	6.88	.142
> 41 - 80	29	53		
81 >	5	5		
Shift Hours				
8	18	35	4.49	.343
10	3	8		
12	15	28		
Children Number				
0-2	18	43	2.86	.239
3-4	15	20		
5 +	3	8		
Personal Time Hours				
5 or less	32	67	2.14	.343
6 or more	4	4		

Table 5.

Descriptors of Compassion Fatigue
<ul style="list-style-type: none">▪ Burnout▪ Borrowed stress▪ Compulsive sensitivity▪ Disabled resiliency▪ Emotional contagion▪ Empathic distress▪ Empathic strain▪ Empathy fatigue▪ Empathy overload▪ Existential suffering▪ Fatal availability▪ Indirect trauma▪ Secondary victimization▪ Soul pain▪ Vicarious trauma▪ Wounded healer▪ Counter-transference▪ Secondary Traumatization

Table 6.

Prevalence Based on ProQol

>57 positive

<57 negative

Burnout	Secondary Traumatic Stress/CF	Compassion Satisfaction	Compassion Fatigue Risk	N (107) N = 36 at risk for CF
↓	↑	↓	Positive	12 (11%)
↑	↑	↓	Positive	10 (9%)
↑	↓	↓	Positive	10 (9%)
↓	↓	↑	Negative	30 (28%)
↓	↓	↓	Negative	40 (37%)
↑	↓	↑	Positive	4 (4%)
↓	↑	↑	Negative	1 (0.9%)

*Any positive score of Burnout is considered positive even though separate concepts

Conclusion

This dissertation explored the concept of compassion fatigue, burnout, and secondary traumatic stress disorder and compassion satisfaction. The number of nurses with compassion fatigue continues to increase as work demands become more stressful, patient-to-nurse ratios increase, acuity worsens, regulations become more stringent, finances are increasingly constrained, and work-related technology grows more. Promoting self-awareness and self-care among acute care nurses in rural hospitals is of particular importance because they are at high risk for CF. Addressing the problem of CF is particularly crucial because registered nurses comprise the largest group of healthcare workers in the United States. Unfortunately CF is poorly managed because it remains under-recognized among acute care nurses; by the nurses themselves and nursing management.

In the first manuscript of this dissertation compendium, a concept analysis was completed after searching four data bases for scholarly articles. Seventeen articles were used in the final analysis of compassion fatigue in acute care nurses and the related terms reviewed to reveal distinct yet similar characteristics to delineate the need for further study. The articles employed were from 1999 through 2016. Integrated terms and the use of secondary traumatic stress, burnout, vicarious traumatization, and counter-transference, are all examples of terms used synonymously for compassion fatigue. This was demonstrated throughout all the literature.

In the second manuscript of this dissertation, an integrative review explored the literature to substantiate the need for further research. The integrative literature review identified and examined preventive and intervention strategies to reduce compassion fatigue in acute care nurses. Compassion fatigues conceptually, has been extensively studied, yet very little research has been done specifically on this phenomenon in acute care nurses. The overall analysis of the information garnered revealed startling statistics impacting the nursing professional and

implicated dire outcomes from compassion fatigue including deleterious effects to quality of patient care and safety. Other implications include healthcare financial risk and a continued nursing shortage. Lack of an established protocol for identifying, preventing and treating CF and the lack of clarity of CF concepts continue to hinder the progress of prevention. Future research should target acute care nurses at the bedside, and explore interventions for effectiveness in preventing CF and the relationships between nursing workforce losses, nurse quality of life, and quality of patient care.

Building on the conclusions of manuscripts of one and two, a cross-sectional survey was designed to evaluate the incidence of compassion fatigue, caregiver satisfaction and burnout using the ProQol Instrument and to determine the relationship among demographic and work-related characteristics related to compassion fatigue, compassion satisfaction and burnout and its' impact on the practice environment. The outcomes of the survey indicate that nurses continue to experience compassion fatigue and the results did represent a correlation with the specific demographic factors including work and personal events. The sample size of the survey was small due to a response rate of only 107 participants. As a logical next step, a mixed methods study would be beneficial in evaluating the perception and understanding of acute care nurses and the impact of compassion fatigue. Based on those findings, self-care strategies and treatments based on the nurses' insight would enable future development of preventive measures and interventions.

Lessons Learned and Next Steps

There were several limitations found during this dissertation. Little is known about predictive factors in nurses. All the instruments for measuring compassion fatigue were designed to evaluate counselors and service workers with only slight modifications for nurses

and healthcare providers. The ProQol Instrument was used as the best measure currently available for measuring across all healthcare disciplines, yet no measure has been created to measure CF in nurses (Figley, 2010). The stigma of being labeled with burnout and compassion fatigue continues to be a factor that also impedes research and nurses openly seeking options for treatment and self-care.

In an effort to address the understudied phenomenon it is imperative to develop successful tools for measuring the nuances that impact nurses in their daily work environment and create an environment of education providing tools in the workplace. The potential for creating comfortable, relaxing areas in their work environment could transform the stress from every day practice to a level where self-care is manageable. As we plan for the next step, further research is needed to determine if intervention strategies such as education, promotion of self-care and leadership involvement are able to mitigate the symptoms and lesson the overall impact to patient safety and outcomes.

Several valuable lessons were learned about the research process and importance of timeliness of interactions as well as the amount of time to develop each step is always underestimated. Working with the Institutional Review Board and learning their processes for development of each step will be invaluable as I consider the next process in my research of compassion fatigue.

Additionally the time that I spent with Dr. Kelechi is one of the most important aspects during my study process. Her valuable insight and guidance demonstrates a trajectory of success that will serve me well as I plan to create an instrument designed to measure compassion fatigue in nurses working at the bedside that can be catered to specialty areas as well. My plan is to seek a grant toward the development of this instrument with the long-term objective of preventive

measures, education and intervention to be a standard for healthcare facilities to develop programs for avoidance of compassion fatigue.

Appendix 1.

**Institutional Review Board for Human Research (IRB)
Office of Research Integrity (ORI)
Medical University of South Carolina**

**Harborview Office Tower
19 Hagood Ave., Suite 601, MSC857
Charleston, SC 29425-8570
Federal Wide Assurance # 1888**

APPROVAL:

This is to certify that the research proposal **Pro00051920** entitled:
Compassion Fatigue in Acute Care Nurses in a Rural Hospital Setting

Submitted by: **Donna Carrillo**
Department: **Medical University of South Carolina**

for consideration has been reviewed by **IRB-I - Medical University of South Carolina** and approved. In accordance with 45 CFR 46.101(b)(2), the referenced study is exempt from Human Research Subject Regulations. No further action or Institutional Review Board (IRB) oversight is required, as long as the project remains the same. However, you must inform this office of any changes in procedures involving human subjects. Changes to the current research protocol could result in a reclassification of the study and further review by the IRB.

Because this project was determined to be exempt from further IRB oversight, consent document(s), if applicable, are not stamped with an expiration date.

Research related records should be retained for a minimum of three years after termination of the study.

Approval Date: **6/2/2016**

Type: **Exempt**

Administrator, **IRB - Medical University of South Carolina**
Katherine Bright*

***Electronic Signature:** *This document has been electronically signed by the IRB Chairman through the HSSC eIRB Submission System authorizing IRB approval for this study as described in this letter.*

Appendix 2.



Office of Research Integrity
 19 Hagood Ave, Suite 601
 (843) 792-4148
 Fax (843) 792-7457

Off Campus Study Site Form

PRO/HR # Pro00051920

STUDY TITLE: Compassion Fatigue in Acute Care Nurses in a Rural Hospital Setting

PRINCIPAL INVESTIGATOR: Donna Carrillo

ADDRESS OF OFF-SITE FACILITY: preaddressed letters will be sent to participants

NAME OF NON-MUSC INVESTIGATOR/ INSTITUTIONAL OFFICIAL: N/A

SECTION I.

A. Is the off-campus site “engaged” in human subject’s research pertaining to this study?

To make this determination you will need to consult the OHRP website to assist in determining if the off campus site’s role in this study makes the site “engaged.” In general, an institution is considered *engaged* in a particular non-exempt human subjects research project when its employees or agents for the purposes of the research project obtain: (1) data about the subjects of the research through intervention or interaction with them; (2) identifiable private information about the subjects of the research; or (3) the informed consent of human subjects for the research. See the following link for categories and guidance:

<http://www.hhs.gov/ohrp/policy/engage08.html>

1. Check either A or B below: (Completion of A or B is required)

(A) Activities at the off-campus site are consistent with examples under Category A; the site is engaged in human subjects research

If you checked this section, please identify the specific type of activity or activities to be done at this off site campus by providing the number of the example from the OHRP website. For example: A1, A2, A3, etc.

X_ (B) Activities at the off-campus site are consistent with examples under category B; the site is not engaged in human subjects' research

If you checked this section, please identify the specific type of activity or activities to be done at this off site campus by providing the number of the example from the OHRP website. For example: B1, B2, B3, etc.

2. Does the off-campus site have a Federal Wide Assurance (FWA)?

Yes If yes, what is their FWA:
 No

3. Does the off-campus site have an Institutional Review Board for Human Research?

Yes No

If Yes, the individual or site must contact that IRB and provide MUSC with documentation on whether IRB approval is required.

Please provide the name, address and phone number of the IRB:

If Yes, has the off-campus site's IRB approved this study?

Yes No

If the off-campus site's IRB has not approved this study, will review by that IRB be required?

Yes No

If no, please explain.

SECTION II. *(Complete this section if you selected Section I.A(1)(A)).*

A. List all community individuals that will be engaged in the study.

Individuals are "engaged" if they will: (1) obtain data about research participants through intervention or interaction with them; or (2) obtain identifiable private information or identifiable specimens about the participants of the research – even if they do not directly interact with them or (3) the informed consent of human subjects for the research. More information pertaining to

what constitutes engagement can be found in the OHRP guidance on engagement at:
<http://www.hhs.gov/ohrp/policy/engage08.html>

Individual's Name <i>Use full legal name</i>	Individual's Credentials and/or Position <i>(e.g., M.D., Executive Director., recruitment specialist)</i>	Individual's Role on the study <i>(e.g., consent, deliver interventions, data analysis)</i>

To expand table, move to the end of the last row and press the tab key.

****Any community individual "engaged" in research will need to complete the CITI MIAMI training course and be listed on the eIRB personnel list.**

**** If any community individual member of a facility is considered "engaged" in research, the site is then considered "engaged in research under section I(A)(1) of this form.**

B. For each individual listed above who will be involved in the informed consent process, please complete the information below.

Name: Current Position/Role at the Facility: Human Subjects Education/Training:

You may copy and paste this box as many times as needed. Box expands.

*****For those individuals and/or sites that do not have their own IRB, MUSC may consider taking on the role of IRB of Record. Please review the [guidance](#) provided by SCTR (pg2) on how to apply for a Federal Wide Assurance (FWA) / Institutional Authorization Agreement (IAA). Contact your MUSC IRB administrator if you have questions.**

****MUSC may assume IRB responsibilities for non-affiliated institutions and investigators only under certain conditions (i.e., such as when an approved IRB Authorization Agreement exists designating the MUSC IRB to serve as the IRB of Record and the facility applies for and receives and FWA from OHRP).**

****If the MUSC IRB takes on the role of IRB of Record, individuals must complete an IRB approved education program ([CITI MIAMI](#)) for the protection of human research participants prior to conducting this, or any other, research involving human participants.**

Figure 1.

Donna Carrillo, MSN

P. O. Box 461

Summertown, TN 38483

Recipient Address

(Front)

Reminder for Survey Completion –

Please complete survey and return in pre-addressed, stamped envelope 30 days from the date of receipt.

Thank you for participating in this survey.

Donna Carrillo, MSN

(Back)

Appendix 3.**Letter of Invitation**

May 5, 2016

Dear Colleague;

My name is Donna Carrillo, a registered nurse and doctoral candidate at the Medical University of South Carolina. I would like to invite you to participate in a research project entitled **Compassion Fatigue in Acute Care in Rural Nursing**. I have been studying compassion fatigue for over ten years and your participation and sharing of experience could be a valuable part of this study.

You are being asked to participate in this survey because you are a registered nurse working in a rural area in the state of Tennessee. The primary purpose of this study is to investigate compassion fatigue (CF) in nurses providing care in a rural hospital setting by identifying variables that affect the nurses' professional quality of life. The goal of the study is to survey nurses to identify demographic and work-related characteristics (or constructs) that may contribute to this phenomenon. Your participation is voluntary and completion and return of the survey will be considered informed consent. All information will remain confidential.

This research could assist in developing programs to prevent and/or reduce compassion fatigue and improve the retention rate of nurses at the bedside.

Completion of the survey will take approximately 15 to 20 minutes. Please answer all questions as accurately as possible. Please return the survey in the provided pre-addressed, stamped envelope within 30 days.

Donna Carrillo, Principal Investigator (PI), a doctoral candidate at the Medical University of South Carolina is conducting this survey. The PI has included an email address or phone number for further communication if you so desire.

Thank you!

Donna Carrillo, MSN
P. O. Box 461
Summertown, TN 38483
Cell: 843-467-1991
donna.carrillo@me.com