

2019

Evaluating Interventions to Mitigate Compassion Fatigue Among At-Risk Nursing Populations

Emily R. Derayunan
University of Central Florida

 Part of the [Maternal, Child Health and Neonatal Nursing Commons](#)
Find similar works at: <https://stars.library.ucf.edu/honorsthesis>
University of Central Florida Libraries <http://library.ucf.edu>

This Open Access is brought to you for free and open access by the UCF Theses and Dissertations at STARS. It has been accepted for inclusion in Honors Undergraduate Theses by an authorized administrator of STARS. For more information, please contact STARS@ucf.edu.

Recommended Citation

Derayunan, Emily R., "Evaluating Interventions to Mitigate Compassion Fatigue Among At-Risk Nursing Populations" (2019). *Honors Undergraduate Theses*. 469.
<https://stars.library.ucf.edu/honorsthesis/469>

EVALUATING INTERVENTIONS TO MITIGATE COMPASSION FATIGUE AMONG AT-
RISK NURSING POPULATIONS

by

EMILY DERAYUNAN

A thesis submitted in partial fulfillment of the requirements
for the Honors in the Major Program in Nursing
in the College of Nursing
and in The Burnett Honors College
at the University of Central Florida
Orlando, Florida

Spring Term, 2019

Thesis Chair: Dr. Diane Andrews

ABSTRACT

This thesis examined the experience of compassion fatigue in nurses through analysis of research studies conducted within the past ten years. A literature review was completed using CINAHL Plus with Full Text, MEDLINE, and PsycINFO databases. Efficacy of current management strategies and interventions was evaluated. Findings indicate that educating nurses working in high-risk units improves self-recognition and lowers compassion fatigue levels. Institutional factors such as a lack of managerial support and organizational commitment contribute to the experience of compassion fatigue. An organization's involvement in maximizing compassion satisfaction through meaningful recognition of nurses' contributions to care and implementation of organizational prevention programs minimizes the risk of developing compassion fatigue. Once self-recognition by nurses and organizations participation level in mitigating compassion fatigue is addressed, interventions can be implemented to attenuate the experience of compassion fatigue. Resiliency programs and mindfulness-based interventions were efficacious in mitigating compassion fatigue.

DEDICATION

This undergraduate thesis is dedicated to my loving and supportive mentors, friends, and family.

To the professors and clinical instructors who have been my mentors over the past two years, especially Geraldine Luzincourt, Chris Deatruck, and Sherrina Stewart. You all inspire me to strive to be the best nurse I can possibly be. Thank you all for the guidance and support provided to me through both the good and bad times.

To the friends that I have made during nursing school, especially Suzette Cedeno and Samerawit Tadele. I am positive that I would not have survived nursing school without you all by my side. Thank you for all the words of encouragement and support through not just nursing, but through life as well.

Finally, I would like to thank my mother, Marvie Derayunan. Your never-ending support throughout my time in nursing school has allowed me to achieve all that I have. You exemplify the nurse I can only aspire to be. None of this would have been possible without you. Thank you for all that you do.

ACKNOWLEDGEMENTS

Thank you to the Burnett Honors College and the faculty from the College of Nursing for providing me with their guidance and assistance as I completed this literature review. Thank you all for the learning opportunities and for providing the best education to your students.

I would also like to thank the College of Nursing and Orlando Health for awarding me with very generous Honors in the Major Scholarships.

I am grateful for my committee members, Dr. Diane Andrews and Dr. Victoria Decker.

To Dr. Andrews, my chairperson, I cannot thank you enough for your mentorship through this research process. Your guidance and perspective has offered an incredible amount of insight both in this process and with guidance in nursing. I have been able to overcome so much and your patience and encouragement is the reason why I have been able to persevere through this process. I cannot thank you enough for your time and dedication.

To Dr. Decker, my committee member, thank you so much for your support and encouragement during this process. I would not have been able to do this without you.

TABLE OF CONTENTS

INTRODUCTION	1
BACKGROUND	2
Compassion Fatigue.....	2
Burnout	3
Secondary Traumatic Stress.....	4
Compassion Satisfaction.....	5
SIGNIFICANCE.....	6
PROBLEM.....	8
PURPOSE.....	9
METHOD	10
LIST OF FIGURES	11
FINDINGS	12
Self-Recognition of Compassion Fatigue by Nurses	13
Interventions to Assist in Mitigating Compassion Fatigue.....	15
The Role of Institutions in Mitigating Compassion Fatigue.....	17
DISCUSSION.....	19
Self-Recognition	19
Interventions	20
Institutional Involvement	22

LIMITATIONS.....	23
RECOMMENDATIONS.....	24
CONCLUSION.....	26
APPENDIX A: TABLE OF EVIDENCE.....	27
REFERENCES.....	37

INTRODUCTION

Nurses enter the field of nursing with the intention of helping others by providing empathetic care to patients. However, as nurses enter the workforce, many are not prepared for the full scope of physical, emotional, and mental demands that patients often require from their team of healthcare professionals (Al-Majid, Carlson, Kiyohara, Faith, & Rakovski, 2018). The ability to be empathic and caring makes nurses susceptible to becoming victims of stress stemming from the needs of patients and their families, resulting in compassion fatigue (Lombardo & Eyre, 2011). While compassion fatigue is not a phenomenon unique to the profession of nursing, the demands required of the patient to the nurse makes nurses particularly susceptible to stressors that can affect the overall performance of the nurse and the patient outcomes. Research suggests that nurses taking care of high-acuity patients such as those in emergency, oncology, and critical care units, are at higher risk for developing compassion fatigue (Al-Majid et al., 2018; Potter, Desbiels, & Rodriguez, 2013; Sorenson, Bolick, Wright, & Hamilton, 2017). With more nurses interested in practicing nursing with high-acuity patients, it is important to explore the concept of compassion fatigue and the efficacy of interventions to prevent compassion fatigue, as it pertains to this population of nurses.

BACKGROUND

Compassion Fatigue

Compassion fatigue is the emotional cost of caring for traumatized individuals or bearing witness to others' trauma (Figley, 2002; Sorenson et al., 2017). Figley (1995), first used this term to describe what occurs when a nurse experiences the combination of secondary traumatic stress and burnout. It originates from the understanding that post-traumatic stress disorder can also affect individuals who know about a traumatic event that impacted someone close to them and can manifest as an acute onset of physical, emotional, and work-related symptoms that affect patient care and relationships (Figley, 1993; Lombardo & Eyre, 2011). Although the understanding of compassion fatigue has evolved from its original definition, the common theme is related to an event or events that are emotionally wearing (Sorenson et al., 2017). The reoccurrence of traumatic events among nurses coupled with their efforts to empathize and show compassion can manifest as poor self-care behaviors and increased self-sacrifice. This "cost of caring" which occurs as a result of a distinct traumatic event or series of events allows it to be distinct from, but still related to secondary traumatic stress and burnout (Lombardo & Eyre, 2011).

Compassion fatigue remains a term that is used in tandem with burnout, secondary traumatic stress (STS), and compassion satisfaction (Sorenson et al., 2017). To understand the experience of compassion fatigue, it is essential that we differentiate it from the other terms. Burnout and STS are often used as synonyms for compassion fatigue, but the causality is different. Meanwhile, compassion satisfaction refers to the positive aspects of caring.

Burnout. Researchers associate burnout with compassion fatigue because of the similar symptom of emotional exhaustion associated with both phenomena. However, in burnout, emotional exhaustion results from a gradual onset of a negative response to job strain (Sorenson et al., 2017). It is one of a triad of symptoms which also includes cynicism, and inefficacy as a response to chronic job stressors (Leiter & Maslach, 2004). Like compassion fatigue, nurses that experience burnout have a diminished empathic ability to care for their patients and develop a lack of professional efficacy. This cascade of events, often combined with unsupportive professional practice environments, is associated with a decrease in quality of patient care and an increase in turnover intentions (Laschinger, Finegan, & Wilk, 2008). As a result nurses may become less effective and experience an inability to cope with the demands and changes in their environment. This outcome mirrors the consequences of compassion fatigue.

Compassion fatigue describes a more acute experience of emotional exhaustion in nurses. Because of the commonality of emotional exhaustion, those studying compassion fatigue found it necessary to differentiate the causality of that exhaustion. The resulting definition of compassion fatigue clarifies the source of the exhaustion as acute and trauma related. Joinson (1992) first characterized compassion fatigue as a unique form of burnout. Over time, efforts to differentiate the terms, focused on the onset of symptoms and the impact on nursing practice. In burnout, the onset is more progressive and may cause indifference, disengagement, and withdrawal from patients and the work environment. In comparison, compassion fatigue and secondary traumatic stress can have a more acute onset and may precipitate an unwillingness to be involved in patient care (Lombardo & Eyre, 2011). In essence, burnout is associated with the

nature of the work environment whereas compassion fatigue is associated with emotionally wearing events (Sorenson et al., 2017).

Secondary traumatic stress. Secondary traumatic stress is consequent to knowing about a traumatizing event experienced by another. It is the stress which results from helping or wanting to help a traumatized or suffering person (Figley, 1995). A person may acquire symptoms of secondary traumatic stress through exposure to a traumatized individual and experiencing the empathy which results from a desire to help the suffering person (Beck, 2011). The concept of secondary traumatic stress was used to help explain “the costs of caring” that many individuals experienced when they learned of someone else’s trauma (Figley, 1993). Similar to compassion fatigue, secondary traumatic stress can develop suddenly, and the individual may experience feelings that mirror compassion fatigue symptoms (Beck, 2011). When Joinson (1992) differentiated burnout and the idea of the “cost of caring” compassion fatigue, he conceded that the terms secondary traumatic stress and compassion fatigue could be used interchangeably. Secondary traumatic stress was offered as a clinical description for the symptoms associated with the experience and the term compassion fatigue provided a definition of the phenomena.

Compassion Satisfaction

While nurses can experience stressful workplace situations and traumatic events which produce negative emotional and behavioral consequences, nurses can also experience positive outcomes related to stressful circumstance. This response is defined as compassion satisfaction. Compassion satisfaction is the pleasure that individuals derive from being able to do their work well (Stamm, 2010). In nursing, compassion satisfaction can explain the pleasure that nurses can

receive from providing care to their patients, even under stressful condition. This sense of pride and success in their work promotes positive patient and work-related outcomes. Compassion satisfaction has an inverse relationship with compassion fatigue. Research indicates that when compassion satisfaction in nurses decrease compassion fatigue increases (Burtson & Stichler, 2010).

SIGNIFICANCE

Compassion fatigue is an occupational workplace hazard experienced by nurses that most likely result from the delivery of empathic, relationship-based care (Lombardo & Eyre, 2011). Compassion fatigue appears to have its primary effect on the nurse's emotional and physical well-being. For nurses, compassion fatigue can manifest as work-related, physical, and emotional symptoms. A nurse may feel anxious, depressed, resentful, and fatigued and these physical and emotional symptoms can result in work-related symptoms such as reduced ability to feel empathy towards patients or families and avoidance or dread of working with certain patients. The confluence of these symptoms decreases the work efficacy of nurses, thereby affecting patients and institutions. It can result in poor patient experiences, lowered nurse job satisfaction and high nurse turnover rates (Al- Majid et al., 2018).

It is often said that nurses are the backbone for patient care. They are the primary health professionals that engages in the largest amount of direct care for patients. Research indicated that nurses spend 37% of their time with their patient (Westbrook, Duffield, & Creswick, 2011). Seventy-six percent of this time was related to direct care, indirect care, medication tasks, and professional communication. Compassion fatigue has the adverse effect of increasing nurses' intention to leave the nursing profession (Sorenson et al., 2016). Nursing turnover is the process where the nursing staff leaves or transfer within the hospital environment (Kovner, Brewer, Fatehi, & Jun, 2014). Consequently, this affects the patients because high turnover rates in nurses lead to poor patient outcomes and disruption in patient care (Potter, Desbiends, & Rodriguez, 2013). Furthermore, nurse turnover rates have been found to be inversely related to the quality of care and positively associated with unit-based high levels of patient falls (Kovner et al., 2014).

When nurses experience compassion fatigue and a lack of compassion satisfaction, these phenomena impact recruitment and retention of nurses (Li, Early, Mahrer, Klaristenfeld, & Gold 2014). From a financial standpoint, the cost of recruitment and onboarding, as well as the challenge to retain a new employee, may make replacing RNs difficult for an organization. The experience of compassion fatigue may contribute to negative patient care outcomes, nursing turnover and associated costs.

Research reveals that the caring behavior of nurses is the most influential aspect of patient advocacy and is a good indicator of patient satisfaction (Potter et al., 2013). A consequence of compassion fatigue is low nurse satisfaction which can threaten patient safety. Research has shown that nurses' lack of professional efficacy, because of compassion fatigue, has caused them to miss important changes in their patients' conditions (Bodenheimer & Sinsky, 2014). As nurses are susceptible to developing compassion fatigue, the ability to provide consistent and comforting care to patients can be challenging to maintain. As a consequence, when nurses can't provide adequate care, patient outcomes, safety, and satisfaction are all negatively impacted.

PROBLEM STATEMENT

The phenomenon of compassion fatigue affects nurses across all settings, but it is apparent that nurses who are exposed to high-acuity patients are more susceptible to the development of compassion fatigue. Research addressing compassion fatigue is ongoing, but little has addressed strategies to identify it in the workplace and promote strategies which promote emotional health and well-being.

PURPOSE

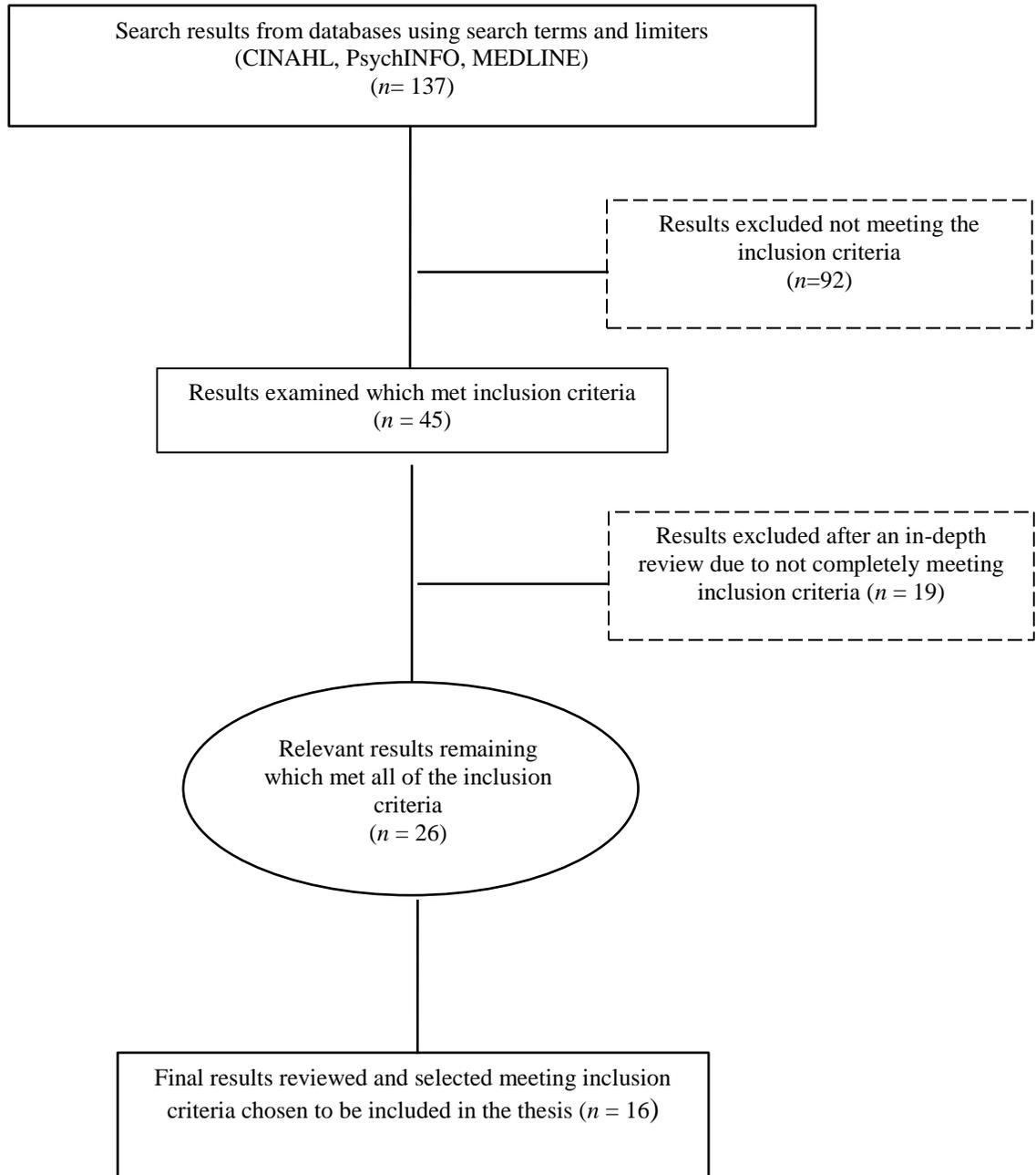
The purpose of this review is to identify, analyze and synthesize existing literature related to the experience of compassion fatigue among nurses considered at risk for developing compassion fatigue. The focus of this review will be on the current strategies and interventions that are being used to manage compassion fatigue among nurses identified as at risk. For purposes of this literature review, interventions used by organizations, supervisors, and the nurses themselves to mitigate compassion fatigue will be evaluated. The successfulness of those interventions and the effectiveness of prevention efforts will be considered. In addition, this thesis will include recommendations and suggestions for further study.

METHOD

A literature review was completed using CINAHL Plus with Full Text, MEDLINE, and PsycINFO databases. Inclusion criteria included nurs*, compassion fatigue OR secondary traumatic stress syndrome OR burnout, AND "high risk*" OR "Chronic* Ill*" OR oncolog* OR cancer OR "high acuity" OR "critical care" OR "intensive care" OR PICU OR NICU OR pediatric OR paediatric OR emergency OR "acute care." Additional search terms of compassion* OR caring AND intervention* OR program* or mentor* or Recognition were used. Articles were limited to peer-reviewed research articles published in the United States and Western Europe, no earlier than the year 2008 except for original concept definitions of the topic and nursing theory.

An initial search using these key terms and limiters produced 137 unduplicated articles. Results were excluded after conducting a review of the title and abstract of each article. Any article that did not include information about interventions to combat compassion fatigue were excluded (Figure 1). Articles were excluded if they did not focus on compassion fatigue amongst populations identified as high-risk such as oncology, critical care, and emergency department. An exception was made for three articles which did not include unit specificity because, upon further discrimination of the included population, a portion of participants in these studies met the qualification of high-risk nursing populations. After a thorough review of the literature, 16 articles meeting these criteria were identified.

Figure 1: Selection Method of Literature



FINDINGS

Sixteen studies were included in this literature review. Selected studies discussed the importance of self-recognition of compassion fatigue by nurses, interventions to assist in mitigating compassion fatigue, or the role of institutions in mitigating compassion fatigue. All studies were published within the past 10 years. All studies had qualitative, descriptive elements given the difficulty of quantifying compassion fatigue. Two studies were systematic reviews (Cocker & Joss, 2016; Wentzel & Brysiewicz, 2017), two non-experimental using a correlational or predictive design (Aycock & Boyle, 2009; Duarte & Pinto-Gouveia, 2016), and one used interviews (Potter, Deshields, Berger, Clarke, Olsen & Chen, 2013). In total, 13 used surveys (Adimando, 2017; Aycock & Boyle, 2009; Duarte & Pinto-Gouveia, 2016; Flarity, Gentry & Mesnikoff, 2013; Gauthier, Meyer, Grefe & Gold, 2015; Hevezi, 2016; Jakel, Kenney, Ludan, Miller, McNair & Matesic, 2016; Kelly & Lefton, 2017; Klein, Riggenbach-Hays, Sollenberger, Harney & McGarvey, 2018; Meadors & Lamson, 2008; Potter et al., 2013; Todaro-Franceschi, 2013; Zajac, Moran & Groh, 2017).

The sample size ranged from 13 participants to 1136. The hospital units studied included oncology (Aycock & Boyle, 2009; Duarte & Pinto-Gouveia, 2016; Hevezi, 2016; Jakel et al., 2016; Potter et al. 2013; Zajac et al., 2017), emergency department (Flarity et al., 2013), mental health (Adimando, 2017), intensive care (Gauthier et al., 2013; Kelly & Lefton, 2017; Meadors & Lamson, 2008; Todaro-Franceschi, 2013), pediatric nurses (Adimando, 2017; Gauthier et al., 2013; Meadors & Lamson, 2008) and generalized without unit specificity (Cocker & Joss 2016; Klein et al., 2018; Wentzel & Brysiewicz, 2017). Age range, educational background, and degrees acquired included novice to expert level practitioners.

Self-Recognition of Compassion Fatigue by Nurses

To have effective interventions to combat compassion fatigue, nurses should first be able to recognize the manifestations of experiencing compassion fatigue before interventions can be implemented. There are positive benefits of educating nurses working in high-risk units in improving self-recognition and lowering compassion fatigue levels (Adimando, 2017; Flarity et al., 2013; Meadors & Lamson, 2008; Todaro-Franceschi, 2013).

Adimando (2017) conducted an educational workshop to increase awareness of risk factors, causes of and symptoms of compassion fatigue to empower nurses to identify and prevent its onset. Twenty-four nurses participated in one-hour educational workshops that were offered multiple times over eight weeks. Participants knowledge on the topic was assessed by pre-and post-tests with a 29% increase in acquisition of knowledge from a pre-test score of 61.9% to a post-test score of 90.9%. Three nurses commented that through the workshop they had realized that they had suffered from compassion fatigue in the past while working in pediatric intensive care units and pediatric oncology units and had left their jobs because of symptoms of compassion fatigue. Additionally, all three nurses endorsed that had they had an educational workshop before their decision to leave their jobs, they may have been able to manage and alleviate the symptoms of compassion fatigue on their own.

Flarity et al. (2013) conducted a similar study evaluating the effectiveness of educational programs on decreasing compassion fatigue and burnout symptoms and increasing compassion satisfaction of 73 emergency nurses. There was a 10% improvement of compassion satisfaction, a 34% decrease of burnout, and a 19% decrease in secondary traumatic stress symptoms when evaluated through pre- and post-tests.

Meadors & Lamson (2008) provided an educational seminar to 185 pediatric intensive care health care providers to describe the scope of compassion fatigue in this population with a secondary aim of evaluating the effectiveness of providing seminars on compassion fatigue. Of those sampled for the educational seminar, 115 were nurses, eight nurse practitioners, and two nurse managers. Participants were divided into groups per their stress scores, and when compared, those in the high-stress group reported lower knowledge of the warning signs of compassion fatigue. Comparably, those in the lower stress group reported feeling they had more resources than the higher stress groups did to manage stressors at work and home, grief at work, and multiple deaths/traumas at work. After attending the educational seminar, participants reported increased knowledge of the warning signs of compassion fatigue ($M = 4.22$, $SD = 0.77$, $p = .001$) and decreased tenseness ($M = 2.81$, $SD=1.22$, $p = .001$), feelings jittery ($M=2.05$, $SD=1.03$, $p = .001$), and feelings of being overwhelmed ($M=3.17$, $SD=1.29$, $p=.001$) compared to their pretest scores.

Todaro-Franceschi (2013) conducted an exploratory, descriptive study to identify if critical care nurses' perceptions of preparedness and ability to care for the dying and their loved ones are related to their professional quality of life. Findings indicate that when nurses perceive themselves as prepared and able to care for the dying they experience higher compassion satisfactions scores ($r = 0.40$, $p < .001$), lower compassion fatigue scores ($r = -0.12$, $p < .01$) and lower burnout scores ($r = -.10$, $p < .05$). These findings indicate that self-recognition of the ability to care for others and the level of preparedness that nurses feel are related to lower compassion fatigue scores. This suggests that adequate recognition of compassion fatigue by nurses is necessary to combat the effects before interventions can be conducted.

Interventions to Assist in Mitigating Compassion Fatigue

Once self-recognition of compassion fatigue is addressed by nurses, interventions to assist in mitigating compassion fatigue can begin to take effect. The most often recommended intervention suggested to help minimize its effects is resiliency workshops (Klein et al., 2018; Potter et al., 2013). Klein et al (2018) conducted a resiliency program focused on compassion fatigue education. Fifteen healthcare professionals, including 12 nurse practitioners, participated in three 90-minute educational sessions held two weeks apart. Upon completion of the program, participants expressed an increase in compassion satisfaction (mean difference = 1.60) and a reduction in burnout (mean difference = 0.75.) While the sample size of this study was small, there are positive effects of compassion satisfaction and burnout in participants over time.

Potter et al (2013) conducted a similar study with a sample of 13 oncology nurses who participated in a five-week program involving five 90-minute sessions on compassion fatigue resiliency. Secondary traumatization score on the Professional Quality of Life Version IV declined immediately after the program and remained down at three months, and dropped again at six months indicating a statistically significant mean difference compared with baseline (\bar{X} difference = 3.54, $p = 0.044$, 95% CI [0.09, 6.99]). All participants evaluated the program positively concerning their ability to apply and benefit from resiliency techniques.

An additional suggestion to mitigate compassion fatigue is to provide mindfulness-based interventions to decrease compassion fatigue and improve compassion satisfaction (Duarte & Pinto-Gouveia, 2016; Gauthier et al., 2015; Hevezi, 2016.) Duarte and Pinto-Gouveia (2016) had 94 oncology nurses participate in a study aimed to explore the effectiveness of an on-site mindfulness-based intervention for nurses. Participants attended a six-week mindfulness-based

group intervention, with each session focusing on a new theme and a different practice. Results post-intervention indicated that nurses in the intervention reported significant decreases in compassion fatigue ($F = 18.60$, $p < 0.001$, partial $\eta^2 = 0.29$), burnout ($F = 10.65$, $p = 0.002$, partial $\eta^2 = 0.19$), stress ($F = 7.73$, $p = 0.008$, partial $\eta^2 = 0.14$) and increases in satisfaction with life ($F = 7.73$, $p = 0.008$, partial $\eta^2 = 0.14$), mindfulness ($F = 5.26$, $p = 0.026$, partial $\eta^2 = 0.10$), and self-compassion ($F = 5.79$, $p = 0.020$, partial $\eta^2 = 0.11$).

Gauthier et al. (2015) conducted a study looking at the feasibility of a shorter mindfulness-based intervention for 38 PICU nurses before each work week to investigate changes in nursing stress, burnout, self-compassion, mindfulness and job satisfaction. Regarding the efficacy of a mindfulness-based intervention, the most significant change was in stress from baseline to post-intervention. High stress levels were reported at baseline ($M = 78.92$, $SD = 13.71$). After completing the 5-minute mindfulness-based practice, stress levels were reported to have decreased significantly ($M = 74.03$, $SD = 10.46$, $p = .006$).

Hevezi (2016) had a similar study looking at the effects a short structured meditation had in decreasing compassion fatigue and improving compassion satisfaction in oncology nurses. Fifteen nurses participated in using specific meditations designed to establish a sense of calm, relaxation, and self-compassion five days a week for four weeks. Results revealed that the intervention demonstrated a significant increase in compassion satisfaction scores (mean difference = -2.96 , 95% confidence interval [CI] = $[-4.98, -0.36]$, $t[14] = -2.48$, $p = .027$, $d = 0.63$) and a decrease in burnout (mean difference = 4.13 , 95% CI = $[1.66, 6.60]$, $t[14] = 3.581$, $p = .003$, $d = 0.56$) and secondary trauma (mean difference = 3.00 , 95% CI = $[0.40, 5.96]$, $t[14] = 2.174$, $p = .047$, $d = 0.56$). These results indicate that the practice of both short and long

meditation exercises can be effective in improving nurse outcome and can potentially help with combatting compassion fatigue.

While resiliency programs and mindfulness-based interventions are efficacious in mitigating compassion fatigue, through a review of the literature, it was found that among proposed interventions, nurses did not find unit based debriefings to be helpful in reducing compassion fatigue levels (Zajac et al., 2017). Zajac et al. (2017) conducted a study implementing unit-based debriefings as an intervention to provide support to oncology nurses. This intervention began after patient death and lasted three months. Pre-intervention Professional Quality of Life scores indicated average levels of compassion satisfaction ($\bar{X} = 40.81$, $SD = 4.932$) and secondary traumatic stress ($\bar{X} = 24.17$, $SD = 4.051$) with low burnout levels ($\bar{X} = 22.5$, $SD = 4.505$). Post-intervention levels showed no significant difference in burnout or secondary traumatic stress. Although staff did not appear to have compassion fatigue at either point of data collection, they did find the debriefing sessions helpful and that the patients perceived higher levels of care.

The Role of Institutions in Mitigating Compassion Fatigue

Interventions to combat compassion fatigue can be identified, but the institution in which nurses work also impacts the development of compassion fatigue. An organization's participation level in implementing interventions can be a contributing factor in the feasibility of mitigating compassion fatigue (Flarity et al. 2013). Flarity et al. suggest that organizational prevention programs may help maximize caregivers' level of compassion satisfaction and minimize the risk of developing compassion fatigue. Institutional factors such as a lack of

managerial support and organizational commitment were found to be contributing factors (Flarity et al., 2013; Kelly & Lefton, 2017; Wentzel & Brysiewicz, 2017)

Wentzel & Brysiewicz (2017) indicated the need for written policies on protective and preventative strategies to promote wellness and prevent compassion fatigue in employees. Studies showed the need for management to encourage personal resources to employees to create a balance between professional and personal life as a means to combat compassion fatigue amongst oncology nurses. Organizational commitment to ensure that all participants can attend interventions in mitigating compassion fatigue is essential to allow for the sustainability of the benefits of successful interventions for more extended periods (Wentzel & Brysiewicz, 2017).

Kelly and Lefton (2017) distributed a quantitative, descriptive online survey to 1,136 critical care nurses from 24 hospitals to examine the effect of meaningful recognition programs implemented by institutions on nurses' levels of compassion fatigue. The DAISY Award program was chosen as a standardized meaningful recognition program among hospitals. For nurses in the sample, meaningful recognition through a nomination for The DAISY Award indicated a reported lower burnout. Secondary traumatic stress was decreased in nurses by job satisfaction. Compassion satisfaction was higher in nurses who had received meaningful recognition through a DAISY nomination. In addition to acknowledging and valuing nurses' contribution to care, the implementation of organizational meaningful recognition programs has the potential to reduce burnout and boost compassion satisfaction among critical care nurses.

DISCUSSION

Based on this integrative review of the literature on compassion fatigue, it was determined that the current strategies and interventions being used to manage compassion fatigue place an importance on a combination of personal and institutional variables. Self-recognition of compassion fatigue by nurses and institutional involvement when implementing interventions to mitigate compassion fatigue should be considered prior to implementation of interventions. The overall findings of the articles revealed that once self-recognition and institutional involvement have been considered, resiliency workshops and mindfulness-based interventions are the most effective manner in mitigating compassion fatigue.

Self-Recognition

The review determined that the individual nurse's ability to self-recognize the experience of compassion fatigue contributes to the effectiveness of interventions used to moderate the symptoms that a nurse may experience. By improving self-recognition among nurses working in high-risk units, there is a reduction in compassion fatigue levels (Adimando, 2017; Flarity et al., 2013; Meadors & Lamson, 2008; Todaro-Franceschi, 2013).

Adimando (2017) found that by increasing awareness of risk factors, causes of, and symptoms of compassion fatigue, nurses can potentially prevent adverse effects of the phenomena from occurring. Nurses that participated in this study recognized that they had experienced compassion fatigue in the past while working in high-acuity units and suggested that had they realized at the time the symptoms they were experiencing, they would have been able to manage and relieve the symptoms of compassion fatigue on their own. Flarity et al. (2013) also determined that by providing educational programs to increase self-recognition there is a

resulting higher expression of compassion satisfaction, and lower expression of compassion fatigue and burnout symptoms.

Meadors and Lamson (2008) identified higher compassion fatigue in nurses working in pediatric critical care units. They hypothesized that individuals working with high levels of clinical stress can result in exhibition in higher levels of compassion fatigue. Furthermore, individuals with higher levels of clinical stress had paralleling levels of personal stress and less knowledge of the warning signs of compassion fatigue. Provision of educational seminars on identification of compassion fatigue may help these nurses relieve symptoms of stress and mitigate the development of compassion fatigue.

Nurses' perception of themselves as prepared and able to care for critical patients is also a factor in developing compassion fatigue. Todaro-Franceschi (2013) found that when nurses discern themselves as prepared and capable of caring for higher acuity patients they experience higher levels of compassion satisfaction and lower levels of compassion fatigue. Better nursing preparation to care for critical patients may reduce the development of compassion fatigue.

Interventions

Studies within this literature review suggested that resiliency workshops and mindfulness based interventions were the most effective in mitigating compassion fatigue among at-risk nurses. Resiliency training involves educational interventions which help participants identify compassion fatigue symptoms and strategies to promote resiliency (Klein et al., 2018).

Interventions included in resiliency training involve redirection of thoughts and emotions through the promotion of self-regulation, self-validation, and self-care (Potter et al., 2013). By equipping nurses with the coping strategies needed to deal with trauma and stress, nurses can

benefit from higher compassion satisfaction scores as well as maintenance of positive professional and personal relationships.

Mindfulness-based interventions allow for the cultivation of emotional regulatory skills that aid in adaption to stress (Duarte & Pinto-Gouveia, 2016). They are designed to teach participants to become more aware of thoughts, feelings, and physiological responses to events as they occur in the clinical setting. Studies that involved oncology and PICU nurses (Duarte & Pinto-Gouveia, 2016) found that the use of mindfulness-based interventions resulted in significant decreases in stress, burnout, and increases in compassion satisfaction. Implementation of both short and long meditation exercises demonstrate that mindfulness-based interventions can be effective in combatting compassion fatigue (Hevezi, 2016).

While resiliency programs and mindfulness-based interventions are effective, Zajac et al. (2017) suggests that unit based debriefings may not be as helpful in averting the development of compassion fatigue. Unit based debriefings are utilized to provide support to nurses after experiencing a trauma with the goal of decreasing compassion fatigue among staff. Zajac et al. determined that implementing this intervention did not result in statistically significant data to support the effectiveness of unit-based debriefings in mitigating compassion fatigue. However, staff did find the debriefings helpful in acknowledging grief and loss. Additionally, patients perceived higher levels of care with the nurses involved in this intervention.

Institutional Involvement

Institutional factors such as organizational commitment and consistency in managerial support play contributing roles in the viability of mitigating compassion fatigue (Flarity et al., 2013; Kelly & Lefton, 2017; Wentzel & Brysiewicz, 2017). While interventions to inhibit

compassion fatigue can be identified, the involvement of the institution can impact the development of this phenomenon. The Flarity et al (2013) intervention study on compassion fatigue among emergency nurses indicated that organizations have important roles in the treatment and prevention of compassion fatigue. Organizational participation in prevention programs was suggested to be helpful in maximizing compassion satisfaction levels and minimizing the risk of developing compassion fatigue.

Wentzel and Brysiewicz (2017) examined interventions used to mitigate compassion fatigue among oncology nurses. Based on the findings, a need for policies on protective and preventative strategies to promote wellness among employees was indicated. Additionally, it was suggested that managerial encouragement and organizational commitment be present to ensure that all participants have access to resources available to combat compassion fatigue. Institutional involvement is essential for the sustainability of the benefits from interventions such as resiliency training programs.

Kelly and Lefton (2017) indicated that the use of standardized meaningful recognition programs such as the DAISY Award among hospitals was effective in reducing burnout and secondary traumatic stress while increasing compassion satisfaction levels. Implementation of meaningful recognitions programs is noted to be helpful in acknowledging nurses' value and contribution to care while addressing high levels of turnover, burnout and secondary trauma.

LIMITATIONS

The principal limitation of this study is the difficulty in generalizing the literature as individual nurses experience varying degrees of compassion fatigue, burnout, secondary traumatic stress, and compassion satisfaction. Many of the studies rely on the perception of compassion fatigue making findings from these studies limited to the scope of the participant's understanding of the experience of compassion fatigue. Additionally, some of the studies used had small sample sizes (Hevezi, 2016; Klein et al., 2018; Potter et al., 2013), lending difficulty in statistical representation of the experience of compassion fatigue among nurses. Furthermore, very few studies exist that solely examine the experience of compassion fatigue among at risk nurses resulting in the need to use articles that included the evaluation of compassion fatigue experienced by other health care professionals. Finally, the purview of the literature review is limited based on the author's understanding of the literature as a novice researcher.

RECOMMENDATIONS

The literature review found that the current strategies and interventions to mitigate compassion fatigue rely on personal and institutional factors. Self-recognition of compassion fatigue by nurses has been shown to contribute to the efficacy of implementing interventions to combat the phenomena (Adimando, 2017; Flarity et al., 2013; Meadors & Lamson, 2008; Todaro-Franceschi, 2013). Increasing awareness of risk factors, causes of, and symptoms of compassion fatigue among nurses may possibly reduce adverse effects (Adimando, 2017). If provision of educational seminars on identification of compassion fatigue can be given to nurses who are at risk, nurses can be better equipped to deal with stressors that can potentiate the development of compassion fatigue.

The research reviewed has been based on the nurses' perceptions and perspectives of the experience of compassion fatigue. Todaro-Franceschi (2013) determined that when nurses perceive themselves as capable to care for higher acuity patients, they experience higher levels of compassion satisfaction and compassion fatigue. The literature is limited in evaluating nurses' self-perception and confidence level regarding patient care. Further understanding of the impact of nurses' self-perception on their capability to care for higher acuity patients may be warranted in addressing factors that can affect effective mitigation of compassion fatigue.

Managerial involvement and organizational commitment in implementing compassion fatigue interventions requires further analysis. Flarity et al. (2013) intervention study suggested that organizations have important roles in the treatment and prevention of compassion fatigue. Initiating meaningful recognition programs should be considered as a means to acknowledge nurses' value and address high levels of turnover, burnout, and secondary trauma (Kelly &

Lefton, 2017). Implementing hospital-wide policies on protective and preventative strategies to promote wellness among nurses can ensure an equal access of resources to all employees and address decreasing compassion satisfaction and increasing compassion fatigue levels.

Finally, resiliency programs and mindfulness-based interventions are proving to be effective interventions for at-risk nurses (Klein et al., 2018; Potter et al., 2013; Duarte & Pinto-Gouveia, 2016; Gauthier et al., 2015). However, these interventions are not widely supported and initiated. In 2018, Klein et al. studied resiliency training that focused on educating strategies that promote resiliency through the effects of compassion fatigue symptoms. Their study suggested that resiliency training increases compassion satisfaction scores. Potter et al. (2013) study on resiliency training showed decreasing compassion fatigue levels. Mindfulness-based interventions similarly saw a decrease in compassion fatigue (Duarte & Pinto-Gouveia, 2016; Gauthier et al. 2015). If these intervention methods have proven to be effective in combatting compassion fatigue, institutions should support and implement programs that aid in acquisition in resiliency skills and education of mindfulness techniques.

CONCLUSION

The experience of compassion fatigue among nurses is the result of the physical, mental, and emotional wear associated with provision of empathic patient-care. The demands required of high-acuity patients to the nurse makes nurses susceptible to stressors that can affect their overall performance. While nurses cannot always avoid the stress that accompanies caring for patients, resiliency training and mindfulness-based interventions are effective in mitigating compassion fatigue. The effectiveness of these interventions is aided by self-recognition of the experience of compassion fatigue by the nurse and organizational involvement in carrying out these interventions.

Compassion fatigue affects the nurse, the institution, and the patient. As nurses are practicing nursing through the care of high-acuity patients, it is important that effective interventions to combat compassion fatigue are utilized by nurses and institutions. By allowing nursing professionals the resources to care for themselves, they are able to provide effective and empathic care to others.

APPENDIX A: TABLES OF EVIDENCE

Table 1. Summary Table of Research Literature on Compassion fatigue

Study	Design, Sample Size, and Scales	Participants and Settings	Aim	Key Findings	Suggested Interventions	Theme Relevancy
Adimando, A. (2017).	Evidence-Based Change Project N=24 Professional Quality of Life Scale Version 5	24 nurses working in the Pediatric Emergency and Psychiatry Departments of a large urban hospital	Increase awareness of risk factors, causes of and symptoms of CF among nurses and provide demonstrations and recommendations of self-care activities that may help in preventing and/or counteracting the effects of CF.	Positive outcomes of knowledge acquisition increased understanding of CF, and reinforcement of the purpose and practice of self-care were appreciated because of an educational workshop.	Providing a workshop on CF in all health care settings, as a means for helping to combat the onset of negative consequences of CF on organizations, employees and patients would be beneficial.	This addresses the need for adequate recognition of CF by nurses and colleagues to combat the effects of CF through interventions.
Aycock, N., & Boyle, D. (2009).	Nonexperimental, descriptive, correlational design survey N=103 Availability of Interventions for CF for Oncology Nurses Questionnaire	103 oncology nurses from varying hospitals throughout the United States	Identify resources available to oncology nurses to manage the effects of CF.	On-site professional resources, education addressing workplace – related coping and off-site retreats to promote renewal are interventions made available to oncology nurses to combat CF.	Helpful interventions that are available to a small subset of oncology nurses indicates that existing blueprints exist for colleagues to replicate in their practice settings.	This addresses the efficacy of and need for suggested interventions to combat CF.

Table 1. Summary Table of Research Literature on Compassion fatigue

Study	Design, Sample Size, and Scales	Participants and Settings	Aim	Key Findings	Suggested Interventions	Theme Relevancy
Cocker, F., & Joss, N. (2016).	Systematic Review N=13 Professional Quality of Life Scale Version 5 pre/post intervention	13 studies that contained a quantitative evaluation of an intervention that reported outcomes on a standardized and validated measure for CF.	Identify existing evidence on interventions to reduce CF in healthcare professionals and determine the most effective workplace-based strategies for reducing CF.	Interventions involving an element focused on teaching and/or bolstering resilience and self-efficacy are found to be the most effective measure to combat CF.	Providing educational resources with a focus on resiliency and self-efficacy training can help equip nurses with the tools needed to deal with the stress and dilemmas that occur because of the job.	This addresses the efficacy of current interventions of CF. This finding is important to identify which interventions are most helpful in combatting CF.
Duarte, J., & Pinto-Gouveia, J. (2016).	Non-randomized, wait-list correlational design survey N=93 Professional Quality of Life Scale version 5, Depression Anxiety Stress Scale, Acceptance and Action	93 nurses from 2 major oncology hospitals in Portugal.	Explore the effectiveness of an on-site mindfulness-based intervention (MBI) on oncology nurses' psychological outcomes.	Nurses receiving MBI reported significant decreases in burnout, stress, and experiential avoidance with increased satisfaction with life, self-compassion, and mindfulness.	Mindfulness training may improve oncology nurses' quality of life and possibly reflect improvement in patient care and nurses' clinical environments.	This addresses the efficacy of suggested interventions to combat CF.

Table 1. Summary Table of Research Literature on Compassion fatigue

Study	Design, Sample Size, and Scales	Participants and Settings	Aim	Key Findings	Suggested Interventions	Theme Relevancy
	Questionnaire-II, Ruminative Responses Scale-Short, Satisfaction with Life Scale, Self-Compassion Scale, Five Facets of Mindfulness Questionnaire.					
Flarity, K., Gentry, J.E., & Mesnikoff, N. (2013).	Qualitative using a resiliency training seminar N=73 Professional Quality of Life Scale Version 5 Pre/post intervention	RNs from 2 EDs in Colorado Springs, CO	Examine the treatment effectiveness of a multifaceted education program to decrease CF and Burnout and increase Compassion Satisfaction of Emergency Nurses	Positive response to developing a self-help method to resolve CF issues and prevent future occurrences	Organizational prevention programs to help increase Compassion Satisfaction and reduce CF	This applies to suggested interventions to combat CF
Gauthier, T., Meyer, R.M.L., Grefe, D., & Gold, J.I. (2015)	Controlled 4-week intervention study using descriptive statistics	38 nurses out of a possible 104 nurses working in the PICU at an urban pediatric	Evaluate the feasibility of a 5-minute mindfulness meditation for PICU nurses	Considering the level of participation, adherence, and completion of self-report surveys, the feasibility and efficacy of a 5-minute mindfulness	A spiritually-based tool, such as mindfulness meditation, would assist	This addresses the efficacy of suggested interventions

Table 1. Summary Table of Research Literature on Compassion fatigue

Study	Design, Sample Size, and Scales	Participants and Settings	Aim	Key Findings	Suggested Interventions	Theme Relevancy
	N=38 Nursing Stress Scale, Maslach Burnout Inventory, Mindfulness Attention Awareness Scale Self-compassion scale	academic hospital	before each work shift to investigate change in nursing stress, burnout, self-compassion, mindfulness, and job satisfaction.	meditation is viable for this nursing population.	nurses to connect with beliefs and deepen coping mechanisms to deal with stress and dilemmas that arise on the job.	to combat CF.
Hevezi, J.A. (2016).	Non-randomized pre/post intervention study N=15 Professional Quality of Life Version 5, Pre/post intervention with supplementary questions	15 oncology nurses in an academic medical center	Evaluate whether short structured meditations decrease compassion fatigue and improve compassion satisfaction among oncology nurses.	Meditation practices among this population increased feelings of relaxation, helped develop a sense of self-compassion, and provided positive physical, emotional and mental reactions to stress.	Introduce meditation techniques at an organizational level to help maintain and improve compassion satisfaction.	This addresses the efficacy of suggested interventions to combat CF
Jakel, P., Kenney, J., Ludan N., Miller, P.S., Mcnair, N.,	Quasi-experimental longitudinal pre/post	25 clinical RNs from an inpatient oncology unit	Examine if the use of the Provider Resilience mobile	There is not a significant relationship between the intervention and control groups on secondary traumatic stress,	The small sample size in this study limited the generalizability	This addresses the themes of efficacy of suggested

Table 1. Summary Table of Research Literature on Compassion fatigue

Study	Design, Sample Size, and Scales	Participants and Settings	Aim	Key Findings	Suggested Interventions	Theme Relevancy
& Matesic, E. (2016).	intervention study N=25 Professional Quality of Life Version 5, Provider Resilience Mobile Application. Pre/post intervention.		application (PRMA) will improve oncology nurses' professional quality of life.	compassion satisfaction and burnout among oncology nurses.	of the findings; a larger sample is needed to explore potential effects of a mobile application on CF and burnout in this high-risk nursing population.	interventions to combat CF in relation to a high-risk nursing populations.
Kelly, L.A., & Lefton, C. (2017).	Quantitative multi-site descriptive online survey N=1136 Professional Quality of Life Version 5 Single item predictor questions using a 5-point Likert agreement scale.	726 adult ICU nurses from hospitals with an established meaningful recognition program in the United States 410 adult ICU nurses in hospitals without a meaningful recognition	Examine the effect of meaningful recognition and other predictors on CF amongst critical care nurses.	Similar levels of burnout, secondary traumatic stress, compassion satisfaction, overall satisfaction, and intent to leave were reported by nurses in hospitals with and without meaningful recognition programs. Meaningful recognition was a significant predictor of decreased burnout and increased compassion satisfaction.	Having a meaningful recognition program can be a significant predictor of decreased burnout and higher compassion satisfaction.	This addresses the themes of predisposing factors of CF in relation to suggested interventions to combat CF.

Table 1. Summary Table of Research Literature on Compassion fatigue

Study	Design, Sample Size, and Scales	Participants and Settings	Aim	Key Findings	Suggested Interventions	Theme Relevancy
		program in the United States				
Klein, C.J., Riegenbach-Hays, J.J., Sollenberger, L.M., Harney, D.M., & McGarvey, J.S. (2018).	Exploratory pre/post interventional pilot study N=18 Professional Quality of Life Version 5 Pre/post intervention	18 adult healthcare professionals from a large Midwestern academic medical center	Assess the efficacy of a formalized educational program on compassion satisfaction, compassion fatigue, vicarious trauma, self-care, resilience and quality of life amongst health care professional's quality of life.	There was an increase in compassion satisfaction and a small reduction in burnout amongst participants upon completion of the program	The provision of self-care education to healthcare providers can have positive effects for compassion satisfaction and burnout in participants over time.	This addresses the efficacy of suggested interventions to combat CF.
Meadors, P., & Lamson, A. (2008)	Quantitative study N=185 Social Readjustment Rating Scale, Index of Clinical Stress, and	185 health care provider and staff employed or affiliated with a children's hospital at a regional southeastern hospital	To evaluate the effectiveness of providing educational seminars on compassion fatigue to health care providers working on	Health Care providers working on critical care units with children reported that educational seminars on compassion fatigue not only increase the awareness of compassion fatigue and the implication, but also seem to offer the	A seminar on compassion fatigue, primary and secondary traumatization and clinical stress management is beneficial in	This addresses the efficacy of suggested interventions to combat CF.

Table 1. Summary Table of Research Literature on Compassion fatigue

Study	Design, Sample Size, and Scales	Participants and Settings	Aim	Key Findings	Suggested Interventions	Theme Relevancy
	Compassion Fatigue Measure developed by the researchers		critical care units with children	providers a decreased clinical stress level	increasing awareness and offers providers a decrease level of stress.	
Potter, P., Deshields, T., Berger, J.A, Clarke, M., Olsen, S., & Chen, L. (2013).	Descriptive Pilot Study N=13 Professional Quality of Life Version 5, Maslach Burnout Inventory-Human Services Survey, Impact of Event Scale-Revised, Nursing Job Satisfaction Scale	13 Oncology nurses employed in an outpatient infusion center at a National Cancer Institute in the Midwestern United States	Evaluate a resiliency program designed to educate oncology nurses about compassion fatigue	There were long-term benefits of reduced secondary traumatization scores post intervention reported by participants in this study.	Resiliency programs positively affect the ability of oncology nurses to apply and benefit from resiliency techniques to combat Compassion Fatigue	This addresses the efficacy of suggested interventions to combat CF.
Todaro-Franceschi, V. (2013).	Exploratory Descriptive Study using survey and voluntary convenience sampling N=473	473 critical care nurses from the United States	Explore if there is a relation between the critical care nurses' perceived ability to provide quality care at the end of life and their	There is a statistically significant positive relationship between perception of preparedness/ability to provide quality end of life care and overall professional quality of life.	For critical care nurses who may be facing death on a regular basis, better preparation to care for the dying can	This addresses the themes of efficacy of suggested interventions to combat CF in relation to a high-risk

Table 1. Summary Table of Research Literature on Compassion fatigue

Study	Design, Sample Size, and Scales	Participants and Settings	Aim	Key Findings	Suggested Interventions	Theme Relevancy
	Perception of Preparedness and Ability of Care for the Dying tool (PPACD) Professional Quality of Life Version 5		professional quality of life (compassion satisfaction, burnout and compassion fatigue)		enhance compassion satisfaction and lessen the potential for compassion fatigue and burnout.	nursing populations.
Wentzel, D., & Brysiewicz, P. (2017)	Systematic Review N=31 Questionnaires (Maslach Burnout Inventory, Link Burnout Inventory, Professional Quality of Life Version 5, Pittsburgh Sleep Quality Index, Beck Depression Inventory, Hogan Grief reaction Checklist) focus Groups, Record Reviews,	31 studies that contained a quantitative, qualitative, and mixed method evaluation of an intervention that reported outcomes on a standardized and validated measure for CF.	Evaluate the effectiveness, feasibility, and nurses' experience of interventions to manage compassion fatigue among oncology nurses.	Interventions that involved organizational/managerial support were found to be the most effective in its' effort to combat CF.	Involving organizations and management in the process of implementing intervention to combat CF is essential in producing positive results	

Table 1. Summary Table of Research Literature on Compassion fatigue

Study	Design, Sample Size, and Scales	Participants and Settings	Aim	Key Findings	Suggested Interventions	Theme Relevancy
	Observation, Narrative Writing, Storytelling, and Anecdotal Evidence					
Zajac, L.M., Moran, K.J., & Groh, C.J. (2017).	Mixed-Method Sequential Design N=91 Professional Quality of Life Version 5 Pre/Post Intervention	91 nurses from medical oncology and medical/surgical oncology units in comprehensive cancer center located in the Midwestern United States	Develop an intervention to support staff experiencing grief after patient death with the long-term goals of decreasing staff CF and increasing patient satisfaction.	Staff did not appear to have CF at the time of pre/post intervention data collection point, however they found debriefing sessions helpful and patients' perception of care was higher compared to previous years. Most staff reported that debriefings were helpful in acknowledging grief and loss.	While debriefing sessions are helpful in acknowledging grief and loss among nurses in oncology units, it does not show efficacy in combatting compassion fatigue.	This addresses the efficacy of suggested interventions to combat CF.

REFERENCES

- Adimando, A. (2017). Preventing and alleviating compassion fatigue through self-care: an educational workshop for nurses. *Journal of Holistic Nursing: Official Journal Of The American Holistic Nurses' Association*, 898010117721581-898010117721581.
doi:10.1177/0898010117721581
- Al-Majid, S., Carlson, N., Kiyohara, M., Faith, M., & Rakovski, C. (2018). Assessing the degree of compassion satisfaction and compassion fatigue among critical care, oncology, and charge nurses. *The Journal of Nursing Administration*, 48(6), 310-315.
doi:10.1097/NNA.0000000000000620
- Austin, C. L., Saylor, R., & Finley, P. J. (2017). Moral distress in physicians and nurses: impact on professional quality of life and turnover. *Psychological Trauma: Theory, Research, Practice and Policy*, 9(4), 399-406. doi:10.1037/tra0000201
- Aycock, N., & Boyle, D. (2009). Interventions to manage compassion fatigue in oncology nursing. *Clinical Journal of Oncology Nursing*, 13(2), 183-191.
doi:10.1188/09.CJON.183-191
- Beck, C. (2011). Secondary traumatic stress in nurses: a systematic review. *Archives of Psychiatric Nursing*, 25(1), 1-10. doi:10.1016/j.apnu.2010.05.005
- Bodenheimer, T., & Sinsky, C. (2014). From triple to quadruple aim: care of the patient requires care of the provider. *The Annals of Family Medicine*, 12(6), 573-576.
doi:10.1370/afm.1713
- Burtson P.L. & Stichler J.F. (2010). Nursing work environment and nurse caring: relationship among motivational factors. *Journal of Advance Nurses*, 66(8):1819-1831.

- Cocker, F., & Joss, N. (2016). Compassion fatigue among healthcare, emergency and community service workers: a systematic review. *International Journal of Environmental Research and Public Health*, 13(6). doi:10.3390/ijerph13060618
- Duarte, J., & Pinto-Gouveia, J. (2016). Effectiveness of a mindfulness-based intervention on oncology nurses' burnout and compassion fatigue symptoms: a non-randomized study. *International Journal of Nursing Studies*, 64, 98-107. doi:10.1016/j.ijnurstu.2016.10.002
- Figley, C. R. (1993). Compassion stress and the family therapist. *Family Therapy News*, (February), 1–8.
- Figley, C.R. (1995). *Compassion fatigue: coping with secondary traumatic stress disorder in those who treat the traumatized*. New York: Brunner-Mazel.
- Figley, C. R. (2002). Compassion fatigue: psychotherapists' chronic lack of self-care. *Journal of Clinical Psychology*, 58(11), 1433–1441.
- Flarity, K., Gentry, J. E., & Mesnikoff, N. (2013). The effectiveness of an educational program on preventing and treating compassion fatigue in emergency nurses. *Advanced Emergency Nursing Journal*, 35(3), 247-258. doi:10.1097/TME.0b013e31829b726f
- Gauthier, T., Meyer, R. M. L., Grefe, D., & Gold, J. I. (2015). An on-the-job mindfulness-based intervention for pediatric ICU nurses: a pilot. *Journal of Pediatric Nursing*, 30(2), 402-409. doi:10.1016/j.pedn.2014.10.005
- Hevezi, J. A. (2016). Evaluation of a meditation intervention to reduce the effects of stressors associated with compassion fatigue among nurses. *Journal of Holistic Nursing: Official Journal of The American Holistic Nurses' Association*, 34(4), 343-350.

- Jakel, P., Kenney, J., Ludan, N., Miller, P. S., McNair, N., & Matesic, E. (2016). Effects of the use of the provider resilience mobile application in reducing compassion fatigue in oncology nursing. *Clinical Journal of Oncology Nursing*, 20(6), 611-616.
- Joinson, C. (1992). Coping with compassion fatigue. *Nursing*, 22(4), 116, 118-119, 120.
- Kelly, L. A., & Lefton, C. (2017). Effect of meaningful recognition on critical care nurses' compassion fatigue. *American Journal of Critical Care*, 26(6), 438-444.
doi:10.4037/ajcc2017471
- Klein, C. J., Riggenbach-Hays, J. J., Sollenberger, L. M., Harney, D. M., & McGarvey, J. S. (2018). Quality of life and compassion satisfaction in clinicians: a pilot intervention study for reducing compassion fatigue. *The American Journal of Hospice & Palliative Care*, 35(6), 882-888. doi:10.1177/1049909117740848
- Kovner, C. T., Brewer, C. S., Fatehi, F., & Jun, J. (2014). What does nurse turnover rate mean and what is the rate?. *Policy, Politics & Nursing Practice*, 15(3/4), 64-71.
doi:10.1177/1527154414547953
- Laschinger, H. S., Finegan, J., & Wilk, P. (2009). New graduate burnout: the impact of professional practice environment, workplace civility, and empowerment. *Nursing Economic\$,* 27(6), 377-383.
- Leiter, M. P., & Maslach, C. (2004). Areas of worklife: a structured approach to organizational predictors of job burnout. *Research in Occupational Stress and Well-being Emotional and Physiological Processes and Positive Intervention Strategies*, 3, 91-134.
doi:10.1016/s1479-3555(03)03003-8
- Li, A., Early, S. F., Mahrer, N. E., Klaristenfeld, J. L., & Gold, J. I. (2014). Group cohesion and organizational commitment: protective factors for nurse residents' job satisfaction,

- compassion fatigue, compassion satisfaction, and burnout. *J Prof Nurs*, 30(1), 89-99.
doi:10.1016/j.profnurs.2013.04.004
- Lombardo, B., & Eyre, C. (2011). Compassion fatigue: a nurse's primer. *Online Journal of Issues in Nursing*, 16(1), 1-1. doi:10.3912/OJIN.Vol16No01Man03
- Meadors, P., & Lamson, A. (2008). Compassion fatigue and secondary traumatization: provider self care on intensive care units for children. *Journal of Pediatric Health Care*, 22(1), 24-34. doi:10.1016/j.pedhc.2007.01.006
- Potter, P., Deshields, T., Berger, J. A., Clarke, M., Olsen, S., & Chen, L. (2013). Evaluation of a compassion fatigue resiliency program for oncology nurses. *Oncology Nursing Forum*, 40(2), 180-187. doi:10.1188/13.ONF.180-187
- Potter, P., Deshields, T., & Rodriguez, S. (2013). Developing a systemic program for compassion Fatigue. *Nursing Administration Quarterly*, 37(4), 326-332.
doi:dx.doi.org/10.1097/NAQ.0b013e3182a2f9dd
- Sorenson, C., Bolick, B., Wright, K., & Hamilton, R. (2016). Understanding compassion fatigue in healthcare providers: a review of current literature. *Journal of Nursing Scholarship: An Official Publication of Sigma Theta Tau International Honor Society of Nursing*, 48(5), 456-465. doi:10.1111/jnu.12229
- Sorenson, C., Bolick, B., Wright, K., & Hamilton, R. (2017). An evolutionary concept analysis of compassion fatigue. *Journal of Nursing Scholarship: An Official Publication of Sigma Theta Tau International Honor Society of Nursing*, 49(5), 557-563.
doi:10.1111/jnu.12312
- Stamm, B. H. (2010). *The concise ProQOL manual*. Retrieved June 13, 2018 from ProQOL.org
- Todaro-Franceschi, V. (2013). Critical care nurses' perceptions of preparedness and ability to

- care for the dying and their professional quality of life. *Dimensions Of Critical Care Nursing: DCCN*, 32(4), 184-190. doi:10.1097/DCC.0b013e31829980af
- Wentzel, D., & Brysiewicz, P. (2017). Integrative review of facility interventions to manage compassion fatigue in oncology nurses. *Oncology Nursing Forum*, 44(3), e124-e140. doi:10.1188/17.ONF.E124-E140
- Westbrook, J. I., Duffield, C., Li, L., & Creswick, N. J. (2011). How much time do nurses have for patients? A longitudinal study quantifying hospital nurses' patterns of task time distribution and interactions with health professionals. *BMC health services research*, 11, 319. doi:10.1186/1472-6963-11-319
- Zajac, L. M., Moran, K. J., & Groh, C. J. (2017). Confronting compassion fatigue: assessment and intervention in inpatient oncology. *Clinical Journal of Oncology Nursing*, 21(4), 446-453. doi:10.1188/17.CJON.446-45