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Emotional Intelligence and Compassion Fatigue in Emergency Nurses

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Abstract

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MSN, Walden University, 2014

AS, Southern Union State Community College, 2000

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Abstract

Compassion fatigue (CF) is mental and emotional exhaustion that occurs over time in nurses who provide care to traumatized individuals and includes both secondary traumatic stress syndrome (STS) as well as burnout (BO), which results from being overwhelmed in the workplace. Emotional intelligence (EI) has shown to be helpful in nurses who work in a fast-paced, high-stakes environment, such as the emergency department. The purpose of this quantitative, cross-sectional, descriptive study, guided by Orem's self-care deficit nursing theory, was to determine whether there were relationships (a) between EI and CF in emergency nurses, (b) between EI and STS in emergency nurses, and (c) between EI and BO in emergency nurses. The prevalence of CF among nurses and the consequences of CF, such as depression and emotional exhaustion, supported the salience of this study. Electronic surveys were used to collect data from 89 emergency nurses, which were then analyzed using simple linear regression. A significant relationship (a) between EI and CF was found ($p < .001$) with a moderative effect ($R^2 = .293$), (b) between EI and STS ($p < .003$) with a small effect ($R^2 = .108$), and (c) between EI and burnout ($p < .001$) with a moderative effect ($R^2 = .403$). These results could impact positive social change by reducing the occurrence of CF and increasing EI, which could help reduce the devastating effects of CF, STS, and BO on nurses who work in the emergency department. Additionally, the results could help nurses provide a higher quality of care to their patients. To increase the generalizability of these findings, future research could focus on replication of this study in other nursing specialties as well as in different geographical areas.

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Chapter 1: Introduction to the Study

The problem of compassion fatigue (CF) in nursing has been well documented (Cocker & Joss, 2016; Li et al., 2018). Its prevalence has been shown to be higher among nurses in critical care settings, specifically in the emergency department (Dominguez-Gomez & Rutledge, 2009; Flarity et al., 2013; Mazzotta, 2015; Schmidt & Haglund, 2017). Stamm (2010) defined CF as a combination of secondary traumatic stress (STS) and burnout (BO). STS is the traumatization which can occur in persons caring for others who are traumatized (Stamm, 2010). BO occurs gradually when an individual is overwhelmed in the workplace due to a lack of a supportive work environment or a lack of resources to do their job effectively (Stamm, 2010). The salience of CF in nursing has engendered the attention of many researchers (Cocker & Joss, 2016; Zhang et al., 2018). However, the work to sufficiently address the development and treatment of CF continues in the face of the persistence of the problem.

There has also been recognition of the need for emotional intelligence (EI) in nurses, especially those who work in the fast-paced, high-stakes environment of the emergency department (Codier & Codier, 2015; Holbery, 2015; Landis, 2018). Understanding the daily burden of emotional labor that emergency nurses face has raised awareness of the importance of having the skills to manage and regulate the emotions of self and others in a way that is therapeutic (Codier & Codier, 2015). However, there is currently a gap in the literature on addressing how EI may specifically protect against the development of CF as well as STS and BO—the components of CF. For this study, I addressed this gap by examining the relationship between EI and CF. I also explored the

relationship between EI and STS as well as EI and BO to determine if there is correlation with EI for one or both components that make up CF.

I outline the overall study in this chapter including the background information from research, the purpose of the study, the research questions, the definitions of the variables included in the questions, the significance of this study for the profession of nursing, the knowledge of the discipline, and the potential impact on positive social change.

Background

CF among nurses is a well-documented problem (Al-Majid, et al., 2016; Finley & Sheppard, 2017; Kelly, 2017; Lanier, 2017; Mazzotta, 2015; Zhang et al., 2018). STS and BO together form the phenomena known as CF (Stamm, 2010). The significance of CF and its sequelae on the nursing profession and the patients for which those nurses care has been outlined in research as well (Joinson, 1992; Sorenson et al., 2016; Kelly, 2017; Zhang et al., 2018). Although solutions to address the problem of CF have begun to be explored (Schmidt, & Haglund, 2017; Kelly, 2017; Winters, 2018; Flarity et al., 2013), CF remains a substantial issue in nursing and, specifically, in areas of nursing wherein nurses encounter traumatized patients on a regular basis, such as the emergency department (Hunsaker, et al., 2015; Mazzotta, 2015; Morrison & Joy, 2016). A solution that has not been adequately explored is EI—a potential protective mechanism against the development of CF in nurses. Results of a study conducted on health care providers in Israel found a significant ($p < .05$) negative correlation between EI and CF (Zeidner et al., 2013). This study sought to identify a potential relationship between EI and the

occurrence of CF in emergency department nurses as a way to elucidate a protective mechanism against the development of CF.

Problem Statement

When nurses provide care for patients, they empathize with them in their suffering and want to relieve that suffering (Figley & Ludick, 2017). Over time, these intensely emotional situations place nurses at risk for developing CF (Missouridou, 2017). CF is mental and emotional exhaustion resulting from providing empathic care, on a frequent basis, to individuals who have been traumatized (Figley & Ludick, 2017). As such, it reflects the criteria of both STS and BO; STS resulting from caring for individuals experiencing trauma and BO resulting from being overwhelmed in the workplace (Stamm, 2010). CF can manifest as physical exhaustion and loss of compassion and can diminish the quality of care a nurse is able to provide (Figley & Ludick, 2017).

Nurses who are at significant risk of developing CF include those in specialty areas such as the emergency room (Mazzotta, 2015). The problem of CF among emergency nurses has been well documented (Dominguez-Gomez & Rutledge, 2009; Flarity et al., 2013; Mazzotta, 2015; Schmidt & Haglund, 2017) and has been associated with decreased job satisfaction and lowered patient satisfaction (Hinderer et al., 2014; Zhang et al., 2018). EI may serve as a preventative factor against CF (Holbery, 2015; Zeidner et al., 2013). Holbery (2015) and Scott (2015) outlined the need for EI in emergency nursing due to the repeated exposure to patients in traumatic situations. However, there is a gap in the research on how EI might influence the development of CF

among emergency nurses. High EI levels have been correlated with a decreased incidence of CF in one study of physicians in Israel (Zeidner et al., 2013).

Purpose of the Study

The purpose of this quantitative, descriptive study was to determine if there were relationships (a) between EI and CF in emergency nurses, (b) between EI and STS in emergency nurses, and (c) between EI and BO in emergency nurses.

The predictor variable for this study was EI. The outcome variables were CF, STS, and BO.

Research Questions and Hypothesis

RQ1: What is the relationship between EI and CF in emergency nurses?

$H_0$1: There will be no relationship between EI and CF in emergency nurses.

H_A1: There will be a relationship between EI and CF in emergency nurses.

RQ2: What is the relationship between EI and STS in emergency nurses?

$H_0$2: There will be no relationship between EI and STS in emergency nurses.

H_A2: There will be a relationship between EI and STS in emergency nurses.

RQ3: What is the relationship between EI and BO in emergency nurses?

$H_0$3: There will be no relationship between EI and BO in emergency nurses.

H_A3: There will be a relationship between EI and BO in emergency nurses.

The predictor variable, EI was measured using the Schutte Self-Report Emotional Intelligence Test (SSEIT). The outcome variables of CF, STS, and BO were measured using the Professional Quality of Life Scale (ProQOL).

Theoretical Framework for the Study

Orem's self-care theory (2001) was the theoretical framework for this study. It outlines the concept of self-care as requiring deliberate actions by individuals toward health and wellness (Younas, 2017). However, individuals must be made aware of certain self-care needs to make those deliberate decisions through education by nurses (Younas, 2017). This theory was well suited for this study because of the self-care deficit with CF (Goodwin, 2017; Missouridou, 2017). Self-care theory was extrapolated to predict the relationship between EI and CF. The self-care deficit, CF. could be prevented and treated through education on self-care techniques that include emotion regulation and management (EI). Details on Orem's self-care theory are presented in Chapter 2.

Nature of the Study

This study was designed to be quantitative, descriptive, and correlational in order to determine if there were relationships (a) between EI and CF in emergency nurses, (b) between EI and STS in emergency nurses, and (c) between EI and BO in emergency nurses.

The predictor variable was EI and the outcome variables were CF, STS, and BO. To clarify the relationship, if any, between CF and EI in emergency nursing, data from

two instruments were collected to measure both these constructs and a linear regression was used to determine the significance and strength of the relationship between them.

Definitions

This section offers conceptual and operational definitions of each variable in the study.

Compassion fatigue is a combination of secondary traumatic stress and burnout which can affect healthcare professionals providing empathic care for patients in traumatic situations (Stamm, 2010). Secondary traumatic stress is similar to post traumatic stress disorder (PTSD) in that it leads to the same group of symptoms: depression, anger, short attention span, and various physical symptoms (Joinson, 1992). However, with PTSD, the trauma is experienced directly while secondary traumatic stress occurs to caregivers through their empathic care for those who are experiencing trauma. Burnout is described as an emotional exhaustion that occurs over time and predisposes the caregiver to CF (Figley, 2002). This definition of CF was operationalized by Stamm in 2010 with the development of the Professional Quality of Life Scale (ProQOL).

Emotional intelligence is defined as a type of intelligence wherein the emotions of self and others are appraised and regulated in a way which is beneficial in interpersonal interactions, leadership, and self-care (Salovey and Mayer, 1990). Salovey and Mayer (1990) who first coined the term EI, included branches of the construct in their definition: perception and appraisal of emotions, regulation of emotions in self and others, and appropriate utilization of emotions. Salovey and Mayer's (1990) definition of EI has been

operationalized by Schutte et al. (1998) in the Schutte Self-Report Emotional Intelligence Test (SSEIT).

Emergency nurses are defined as registered nurses who work in the emergency department (ED). For this study, only emergency nurses who have worked greater than one year in the ED and are currently working more than 30 hours per week in the ED will be included. This does not include advance practice registered nurses such as clinical nurse specialists or nurse practitioners.

Assumptions

The first assumption of this study was that the emergency nurse participants would provide honest responses on the surveys. The second assumption was that emergency nurses wanted to provide quality care without experiencing CF.

Scope and Delimitations

CF is widely recognized as a problem in the nursing profession, specifically among emergency nurses (Cocker & Joss, 2016). I sought to determine whether a relationship exists between EI and CF in an effort to determine a potential protective factor against the development of CF.

The target population was registered nurses who work full-time (30 or more hours per week) in the ED. Nurse managers and nurse educators in the emergency department were not included, nor were nurses who work in areas other than the ED. Advance practice registered nurses (APRNs) such as clinical nurse specialists (CNSs) and nurse practitioners (NPs) were not included. The surveys were presented in an electronic format, so internet access was required.

I considered a quasi-experimental design for this study but did not choose it because it was not feasible with the data available. For the theoretical framework, I considered the use of Watson's theory of human caring because of its emphasis on the humanity inherent in nursing practice (Pajnkihar et al., 2017). However, I ultimately chose Orem's self-care theory because CF has been viewed as a self-care deficit and EI has been associated with improving self-care (Hurley et al., 2018). Thus, Orem's theory seemed a better fit.

I also considered using two large emergency departments in the Southeast region of the United States to recruit the sample. However, I realized this might limit the generalizability of the study results. Thus, I decided to request to post the study link on the Emergency Nurses Association's (ENA)external research opportunities website and to share my study on Facebook and LinkedIn. I also recruited nurses through email invitation from states in the Southeast and Midwest regions of the United States using publicly available email lists for their registered nurses. All of these efforts were made to increase the generalizability of the results.

Limitations

This study suffered from two limitations. One was a time management barrier for the participants. Emergency nurses work in a fast-paced and demanding environment (Li et al., 2018). Finding time to complete the survey could have been a barrier to a larger, more representative sample. To address this limitation, tools were selected that would represent a valid measurement of the constructs at hand and could be provided electronically.

The other limitation concerned the study sample. Recruitment was done through (a) the ENA's external research opportunities website; (b) publicly available nurse email lists from states in the Southeast and Midwest regions of the United States; and (c) sharing on Facebook and LinkedIn websites. Therefore, emergency nurses who did not visit the ENA external research opportunities website, lived in one of these states, or saw the Facebook or LinkedIn posts would not see the invitation. This could have limited the generalizability of the study results to these specific areas and organizations in which ENA membership is encouraged.

Significance

For this study, I sought to fill a gap in the literature on the prevention and treatment of CF in emergency nurses. Despite evidence outlining the significance of CF in emergency nurses (Dominguez-Gomez & Rutledge, 2009; Flarity et al., 2013; Mazzotta, 2015) and further evidence that the development of CF may be mitigated by increased EI levels in other health care provider populations (Zeidner et al., 2013), there is a gap in the literature on how having high EI levels may play a role in reducing the development of CF among emergency nurses. Filling this gap could address the problem of CF, which has led to decreased job satisfaction for nurses and has been shown to affect nurses' ability to provide compassionate care (Hinderer et al., 2014; Zhang et al., 2018).

Discovering ways to decrease the incidence of CF could impact positive social change in the emergency setting and the populations served by the emergency department. The effects of CF on the nurse include a loss of empathy and even depersonalization (Jenkins & Warren, 2012; Zhang et al., 2018). Both effects are

detrimental to the nurse-patient relationship (Jenkins & Warren, 2012). Because of them, both the nurse and the patient stand to be impacted positively by a reduction in CF.

Summary

The problem of CF among nurses and specifically among emergency nurses, was outlined. This study sought to address the problem by determining if there is a relationship between EI and CF, thereby recognizing a potential protective factor against CF in emergency nurses. This quantitative, descriptive study used a sample recruited from several access points. This study could provide helpful information for further research into preventing CF.

Chapter 2 provides an in-depth look at the literature reviewed for this study. The variables will be defined in detail and their operationalization will be outlined. Chapter 2 expounds on the need for this study in light of the gap in the current literature.

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Chapter 2: Literature Review

When nurses provide care for patients, they empathize with them in their suffering and want to relieve that suffering (Figley & Ludick, 2017). Over time, however, such intensely emotional situations can place nurses at risk for developing (CF) (Missouridou, 2017). CF is mental and emotional exhaustion resulting from providing empathic care, on a frequent basis, to individuals who have been traumatized (Figley & Ludick, 2017). CF can manifest as physical exhaustion and loss of compassion and can diminish the quality of care a nurse can provide (Figley & Ludick, 2017; Zhang et al., 2018).

Nurses at significant risk of developing CF include those in specialty areas such as the emergency room (Dominguez-Gomez & Rutledge, 2009; Flarity et al., 2013; Mazzotta, 2015; McDermid et al., 2020; Schmidt & Haglund, 2017. High (EI) levels were correlated with a decreased incidence of CF in a study of health care providers in Israel (Zeidner et al., 2013). Those results supported the idea that EI may serve as a preventative factor against CF (Holbery, 2015; Zeidner et al., 2013). Holbery (2015) and Scott (2015) outlined the need for EI in emergency nursing due to the repeated exposure to patients in traumatic situations. However, there is a gap in the research on how EI might influence the development of CF among emergency nurses. The purpose of this quantitative, descriptive study was to determine if there were relationships (a) between EI and CF in emergency nurses, (b) between EI and STS in emergency nurses, and (c) between EI and BO in emergency nurses.

This chapter presents a literature review, which established the relevance of this study based on previous findings and elucidated the gaps in knowledge on the prevention and antecedents of CF. The chapter covers the search strategy, the theoretical framework and its alignment with the study, and an exhaustive description of the key variables.

Literature Search Strategy

I began the literature review with a methodical review of nursing, medical, and psychology databases including CINAHL, Medline, Ovid Nursing Journals, and ProQuest. Google Scholar was also used. Only full-text, peer-reviewed articles were included in the initial search. Keywords used in this search were: *compassion fatigue*, *emotional intelligence*, and *emergency nursing*.

Once closely related articles were identified and reviewed, the search was broadened to the key variables in the study. The concepts of CF and EI were explored both in relation to the profession of nursing as well as their roots in psychology. This broader search included the previously mentioned databases and search engine and included both the individual terms and combinations. For example, "*compassion fatigue* AND *emergency nursing*" as well as "*compassion fatigue* AND *nursing*" were keywords used to ascertain relevant articles which elucidated the concept of CF: its origins, antecedents, and consequences. This same exhaustive search was conducted for EI. Emergency nursing was also explored in this fashion as the population of interest.

The initial searches were conducted using a date range of 2014 to the present. Once articles began to be reviewed, patterns were uncovered solidifying both the conceptual and operational definitions of the key variables. The reference lists of the

selected articles were searched for additional articles. Seminal pieces on EI and CF were also reviewed and dated back as far as 1992 (Joinson, 1992).

Theoretical Foundation

Orem's self-care theory (Orem et al., 1985) was the theoretical framework used for this study. Self-care requires deliberate actions made by individuals toward health and wellness (Younas, 2017). However, individuals must be made aware of certain self-care needs to make those deliberate decisions through education by nurses (Younas, 2017; Mills et al., 2015). This theory is suited well for this study because there is a self-care deficit present with CF (Goodwin, 2017; Missouridou, 2017). The self-care theory could be extrapolated to predict the relationship between EI and CF. The self-care deficit (CF) could be treated and prevented by education on self-care techniques through emotion regulation and management (EI).

Origins of the Theory

Orem's theory of self-care is one of three theories which contribute to the grand self-care deficit nursing theory (SCDNT) (Hartweg & Fleck, 2010). This overarching theory was developed by Orem to define nursing both theoretically and practically (Hartweg & Fleck, 2010). The roles of the patient, as the one requiring care, and the nurse, as the one providing care, were delineated in Orem's grand theory to clarify the relationship around which nursing practice revolves (Hartweg & Fleck, 2010).

The theory of self-care is a middle-range theory focused on the concept of self-care as it relates to the patient (Hartweg & Fleck, 2010). The role of the patient was examined to determine how the need for care is defined, recognized, and met. At the

outset, the patient has a self-care deficit related to overall health and well-being. The patient must recognize this need and then determine what steps are required to meet that need. The patient's ability to recognize and meet that need is affected by basic conditioning factors which include items from age and gender to sociocultural and socioeconomic factors (Orem, 1991). Finally, the patient meets that need through their own actions. A second middle-range theory comprised in SCDNT goes further to define the nurse's part in assisting the patient to meet their own needs when a self-care deficit arises which is out of the scope of the patient's reach alone (Hartweg & Fleck, 2010). The third theory included in Orem's grand theory is the theory of nursing system (Hartweg & Fleck, 2010). This theory completes the model by examining what it means to be a nurse and how the nurse determines if a self-care deficit is present in the patient, thereby determining nursing care as necessary (Orem, 1991). SCDNT represents a grand nursing theory encompassing the theory of nursing system which encompasses the theory of self-care deficit which then encompasses the theory of self-care (Orem, 2001).

Major Theoretical Propositions

Orem (1991) outlined the major propositions of her theory of self-care beginning with the idea that self-care is a regulatory function completed on purpose by humans. Self-care was also conceptualized as a deliberate action that humans take in response to their knowledge of how humans function in order to maintain health and well-being. The third proposition described the use of resources and energy to meet self-care needs and to "maintain essential and safe relationships with environmental factors and forces" (Orem, 1991, p. 70). The fourth proposition explains that self-care actions can be observed by

others when they are externally oriented and can be discovered through subjective inquiry when internally oriented (Orem, 1991). The fifth proposition describes self-care as a system when carried out over time as a set of actions that are interconnected for meeting self-care needs (Orem, 1991). Lastly, Orem (1991) defined the components of the system of self-care over time as sets of care measures or tasks in "order to use valid means" (Orem, 1991, p. 70).

Theoretical Assumptions

The central thesis of the theory of self-care rests on the idea that humans have the potential to develop the skills and motivation necessary to care for themselves (Orem, 1991). Another assumption is that ways humans have of meeting their self-care needs are influenced by cultural and social factors (Orem, 1991). A third assumption characterizes self-care as a deliberate action, one that is approached in a myriad of ways depending on motivation and a human's range of capacity (Orem, 1991). Finally, by recognizing the requisites needed for self-care, ways of meeting those requisites can be explored and self-care can become habitual (Orem, 1991).

Analysis of Previous Applications of Theory of Self-Care

Orem's theory of self-care has been widely used to examine a plethora of issues across the nursing discipline. For example, the theory of self-care was used as a framework to develop an educational tool for patients with a history of myocardial infarction (Mohammadpour et al., 2015). In another study, it was used to understand self-care practices of adolescent girls with dysmenorrhea (Wong et al., 2015). Orem's theory has also been used in nursing education to elucidate the complex self-care needs of a

geriatric patient for nurse practitioners (Hackel & Fawcett, 2018). All these examples reflect Orem's traditional model with the patient as the self-care agent. However, while there is information available on self-care for nurses, there is a dearth of literature specifically using this theory with the perspective of the nurse as the self-care agent. It is this perspective that was used for this study wherein the nurse would be the one who has the capability and drive for self-care, but who also may require the support of educational tools and access to healthy coping mechanisms to realize that self-care. It is this perspective that allowed examination of the construct of CF as a potential self-care deficit in emotional regulation and management rather than viewing it as a loss of compassion.

Rationale for Choosing Theory of Self-Care

There are many references in the literature about the relationship between self-care and CF. For example, Mazzotta (2015) discussed the need for emergency nurses to know themselves and assimilate healthy coping strategies to process detrimental emotions in a constructive way and avoid CF. Sorenson et al. (2016) emphasized the connection between (STS) inherent in caring for patients in distressing situations and resulting CF. In Joinson's (1992) seminal work on CF, the need for nurses to care for themselves to care for their patients was a repeated theme. Joinson (1992) also stated that nurses often put their own needs aside to care for their patients. Self-care is an important aspect of maintaining health and well-being in nurses. Using self-care as the lens through which to conduct this study and interpret its results will provide a perspective that elucidates how EI relates to the self-care needed to prevent CF. Mills et al. (2015) suggested that although there has been much discussion related to self-care with respect

to patients, there is a paucity of literature on the self-care needs of nurses. Mills et al. (2015) goes on to call for an increased valuation for self-care among nurses to support their ability to be compassionate caregivers.

In many of these same studies, emotional health was discussed as a self-protective mechanism for nurses. Nurses may tend to take on the emotions of those surrounding them (Joinson, 1992). This is especially true for nurses who care for patients in traumatic situations, as is often the case in emergency nursing (Mazzotta, 2015; Zhang et al., 2018).

Relevance of the Theory of Self-Care

Orem's Theory of Self-Care includes a definition of self-care as a deliberate action taken to maintain or improve the health and well-being of self (Orem, 1991). Further, the motivation and ability to take this action is affected by basic conditional factors (Orem, 1991). Orem asked nurses to consider these factors which may influence a patient's capacity for self-care agency. When considering the nurse as the self-care agent, the same care must be taken to assess basic conditional factors. This includes assessing available resources, such as the capacity and knowledge to effectively manage and regulate the emotions of self and others in the high-stress situations nurses often find themselves. In this study, EI was viewed as a potential resource for nurse's self-care agency. Thus, Orem's theory provided an appropriate framework for inquiry.

The primary research question is: What is the relationship between EI and CF in emergency nurses? Considering CF as a self-care deficit and EI as a potential means for meeting that deficit, this question reflects the model that Orem laid out in her theory: when resources are not available for a self-care agent to meet their own needs, making

those resources available through educational support can enable the self-care agent to meet those needs (Orem, 2001). This correlational inquiry was a first step in determining whether this relationship exists. The results lend to further study in enhancing EI to protect against CF or, if no correlation was found, to explore other options in meeting the self-care deficit that is CF.

Literature Review Related to Key Variables

The key variables for this study were CF and EI. In this section, the key variables will be defined both conceptually and operationally. The relevant literature shaping the key variables will be discussed and synthesized.

Compassion Fatigue

The concept of CF emerged from studies of Post-Traumatic Stress Disorder (PTSD) in the field of psychology (Figley, 2002). However, CF did not get its name until 1992 with Joinson's seminal work defining it as an idea of particular significance to nursing practice. In the section ahead, the evolution of CF as a concept will be explored including the conflicting thoughts on what it means to experience CF. Lastly, the definition of CF which was adopted for this study will be discussed in detail.

Origin of Compassion Fatigue as a Concept

Figley (2002) described the origin of CF as a concept through his work with soldiers dealing with PTSD. In that work, he defined CF as a secondary stress in people who shared in the suffering of those who experienced trauma (Figley, 2002). This secondary stress syndrome mimicked many of the symptoms of post-traumatic stress even though those experiencing the secondary stress syndrome did not experience the

actual trauma themselves (Figley, 2002). Building on this knowledge, Figley (2002) began to explore the phenomenon in psychologists who experienced this secondary stress syndrome while caring for patients who had experienced trauma.

While Figley (2002) was exploring this "cost to caring" (p. 1433), Joinson (1992) wrote her seminal work on CF, coining the term and bringing awareness of the phenomenon occurring in nursing practice. Joinson (1992) described CF largely as a form of burnout unique to caregivers and outlined the physical, emotional, and physical sequelae of CF and the imperative to raise awareness of the signs of CF within the nursing profession. Her recommendations focused on self-care, emotional wellness, and stress management (Joinson, 1992).

There were foundational differences in Figley's and Joinson's original definitions of CF. Figley (1992) described CF as a form of STS for caregivers of patients with chronic illness or trauma and considered burnout a separate phenomenon with contrasting attributes. Alternatively, Joinson (1992) signified CF as a form of burnout specific to people in caring professions. According to Joinson (1992), the chronic nature of relentless burnout was the impetus for the development of CF in nurses. Figley (2002) offered a similar definition of burnout, however, he delineated burnout as a distinctly separate phenomenon because he theorized that CF could occur very quickly from even a singular encounter with a traumatized patient while burnout occurred gradually, requiring time to develop.

There were also significant similarities between Joinson's and Figley's definitions of CF. Both connected CF with a self-care deficit in the caregiver. Figley (2002)

described how healthcare professionals may “forget that they are human beings” in need of care themselves (p. 1439). Joinson (2002) discussed nurses’ propensity to put others’ needs above their own. Another similarity between these descriptions of CF was the antecedent of empathic concern. Both Joinson (2002) and Figley (1992) theorized that CF could not occur in people lacking empathic concern because it is that very concern that draws them into bearing the suffering of others through empathic care. Although Joinson (1992) was the first to name CF, both Joinson and Figley were instrumental in the early explorations of CF as a concept and both brought awareness to the salience of CF in healthcare professions (Sorenson et al., 2017).

The Evolving Definition of Compassion Fatigue

There have been several different interpretations of what it means to experience CF. Although the specific relationships between attributes and antecedents within the concept of CF vary across studies and writings, most researchers agree that burnout and STS remain consistent as the primary components of CF (Al-Majid et al., 2016; Cocker & Joss, 2016; Finley & Sheppard, 2017; Kelly, 2017; Schmidt & Haglund, 2017; Jakimowicz et al., 2018). Many scholars also include low compassion satisfaction (CS) as an attribute of CF (Al-Majid et al., 2016; Finley & Sheppard, 2017; Schmidt & Haglund, 2017). CS has been defined as the positive feelings that result from providing empathic care (Sacco et al., 2015).

Building upon his previous work, Figley (2002) described burnout and CF as two separate concepts. He argued that CF could occur in acute situations wherein persons provided care for patients experiencing trauma and that even a singular encounter with

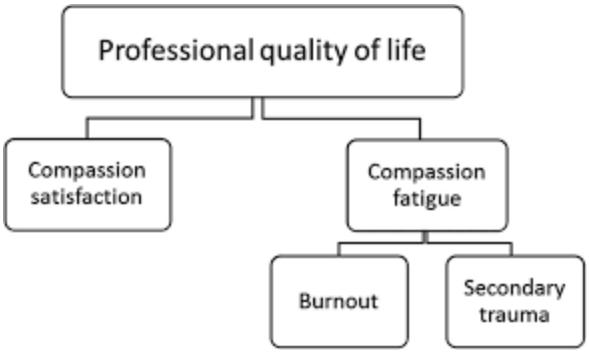
this type of patient was enough for the empathic caregiver to experience CF (Figley, 2002). Burnout, as it was defined by Figley (2002), required time to develop and was chronic in nature thereby occurring as a separate phenomenon from CF. Several scholars have since agreed with this interpretation of burnout and CF as two separate concepts (Beaumont et al., 2016; Cetrano et al., 2017; Hinderer et al., 2014; Kleiner & Wallace, 2017).

Scholars who did not follow this interpretation of CF include Winters (2018) who described STS as an antecedent of CF and Lanier (2017) who delineated CF and STS as two separate concepts with burnout as an antecedent to CF. A recent concept analysis defined CF as STS and concluded that the terms could be used interchangeably (Sorenson et al., 2017). Sorenson et al. (2017) went further to delineate burnout as a separate, but strongly related, concept from CF.

The definition adopted by Stamm (2010) has been reflected in several studies which included various populations of nurses (Finley & Sheppard, 2017; Al-Majid et al., 2016; Schmidt & Haglund, 2017; Jakimowicz et al., 2018). Stamm (2010) defined CF as burnout combined with STS and low CS. Stamm (2010) posited that both "positive and negative aspects of doing one's job influence one's professional quality of life" (p. 8). The positive aspects bring fulfillment in the caring work that is intrinsic to nursing and are referred to as CS (Stamm, 2010; Sacco et al., 2015). Other scholars agreed with this definition (Cocker & Joss, 2016; Kelly, 2017). Stamm's (2010) definition also delineated CF as more consistently linked with STS, but she included burnout in her model of CF because it was considered a strongly related antecedent as shown in Figure 1 below:

Figure 1

Diagram of Professional Quality of Life



Note: Source: Stamm, B. H. (2010). *The ProQOL (Professional quality of life scale: Compassion satisfaction and compassion fatigue).* Pocatello, ID: ProQOL.org. Retrieved from www.proqol.org.

Stamm (2010) operationalized this definition in the form of the Professional Quality of Life (ProQOL) scale. The ProQOL has been widely used in many research studies concerning the incidence of CF (Al-Majid et al., 2016; Beaumont, 2016; Jakimowicz et al., 2018; Mooney et al., 2017; Moran, & Groh, 2017; Zajac et al., 2017). Stamm (2010) considered both the negative and positive aspects of work taken together to equal the professional quality of life. As shown in Figure 2, this meant taking the measure of CS, burnout, and STS to determine the professional quality of life. Therefore, the ProQOL includes three subscales individually measuring CS, burnout, and STS (Stamm, 2010). Burnout and STS are explained in further detail as components of CF in the next section. However, because CS is used in the ProQOL as a determinant of quality of life along with CF, its definition is included below.

Compassion Satisfaction

Stamm (2010) considered CS to be the positive component of professional work-life. CS encompasses the positive feelings that are derived from helping others (Stamm, 2010; Sacco et al., 2015; Hunsaker et al., 2015). For nurses, CS arises from the empathic care provided for patients (Hunsaker et al., 2015).

The ProQOL is the scale most commonly used to measure CF in nursing (Jakimowicz et al., 2018; Stamm, 2010; Yang & Kim, 2012). For this reason, and because the definition of CF adopted by Stamm has been largely shared among nursing scholars, Stamm's definition and the ProQOL were selected for use in this study. The ProQOL will be discussed in detail in chapter three. Stamm's definition of CF, adopted for this study, will be explored in detail below.

Components of Compassion Fatigue

Stamm (2010) defined CF by breaking it down into two parts: burnout and STS. In order to understand the conceptual definition of CF, these parts must be explored.

Burnout. Although terms of burnout and CF have been conflated over the years, most studies revealed a general consensus that burnout is a concept strongly related to CF as an antecedent (Lanier, 2017; Finley & Sheppard, 2017; Al-Majid et al., 2016; Schmidt & Haglund, 2017; Zajac et al., 2017). Burnout is generally considered to be a chronic form of frustration and hopelessness, building from work stressors such as a high workload and lack of support in the workplace (Stamm, 2010; Hunsaker et al., 2015). Burnout is a gradual occurrence largely consisting of increased demands in the workplace coupled with lack of resources (Hunsaker et al., 2015; Harris & Griffin, 2015; Zhang et

al., 2018). Symptoms of burnout include decrease in caring, depersonalization, feeling discouraged, fatigue, emotional exhaustion, depression, apathy, and detachment (Harris & Griffin, 2015; Hunsaker et al., 2015; Jakimowicz et al., 2018; Sorenson et al., 2017). Burnout has been shown to lead to intention to quit, job dissatisfaction, absenteeism, and neglect of work (Basar & Basim, 2016; McDermid et al., 2020). These consequences are like those from CF; thus, it can be difficult to distinguish the cause as either CF or burnout (Hunsaker et al., 2016; Sorenson et al., 2017).

The difference between burnout and CF is elucidated by the gradual and chronic nature of burnout as it is emotional exhaustion over time (Figley, 1995; Stamm, 2010; Basar & Basim, 2016). Another difference is the required antecedent of empathic concern for the development of CF (Figley, 1995; Joinson, 1992). There must first be compassion before CF can develop. In contrast, empathic concern is not required for the development of burnout (Hunsaker et al., 2016).

The presence of burnout in a nurse presents a higher risk for the development of CF (Beaumont et al., 2016). Stamm (2010) lists it as "one element of the negative effects of caring that is known as compassion fatigue" (p. 13). Although there has been much discussion about whether burnout is an antecedent or a component of CF, its inextricable relationship to CF cannot be denied. Stamm (2010) also stated that some trauma that leads to STS may be primary trauma experienced at work because of burnout. Therefore, its inclusion in Stamm's ProQOL and use for measurement of CF in this study is supported.

Secondary Traumatic Stress. Figley (1995) described STS as a stress syndrome resulting from caring for a traumatized person. This particular syndrome encapsulated the symptoms characteristic of those suffering with PTSD, but who were not the primary sufferers of the trauma (Sorenson et al., 2017). Persons experiencing STS have empathic concern for the traumatized individual and that empathic concern is the conduit through which the emotions and experience of the traumatized transfer to the caregiver (Sorenson et al., 2017). Sacco et al. (2015) described STS as a "feeling of despair caused by the transfer of emotional distress from a victim to a caregiver" (p. 33). Caringi et al. (2017) defined STS as "behaviors and emotions resulting from helping a traumatized or suffering person" (p. 186). STS can have an abrupt onset (Sorenson et al., 2017; Figley, 1995). Sorenson et al. (2017) considered STS to be interchangeable with CF.

Compassion Fatigue

For the purpose of this study, I used Stamm's (2010) definition of CF. CF is a combination of the STS experienced by caregivers who are driven by empathic concern to alleviate the suffering of the traumatized individual and the burnout which predisposes the caregiver to STS through chronic emotional exhaustion and frustration with work-related factors. Empathic concern is a required antecedent for CF (Hunsaker et al., 2016). The consequences of CF include high turnover rates, poor nursing outcomes, and disengagement (Sorenson et al., 2017; Kelly, 2017).

Emotional Intelligence

Beyond the idea of traditional intelligence rooted solely in the cognitive intellect, the construct of EI outlined a skill rooted in the accurate perception and utilization of

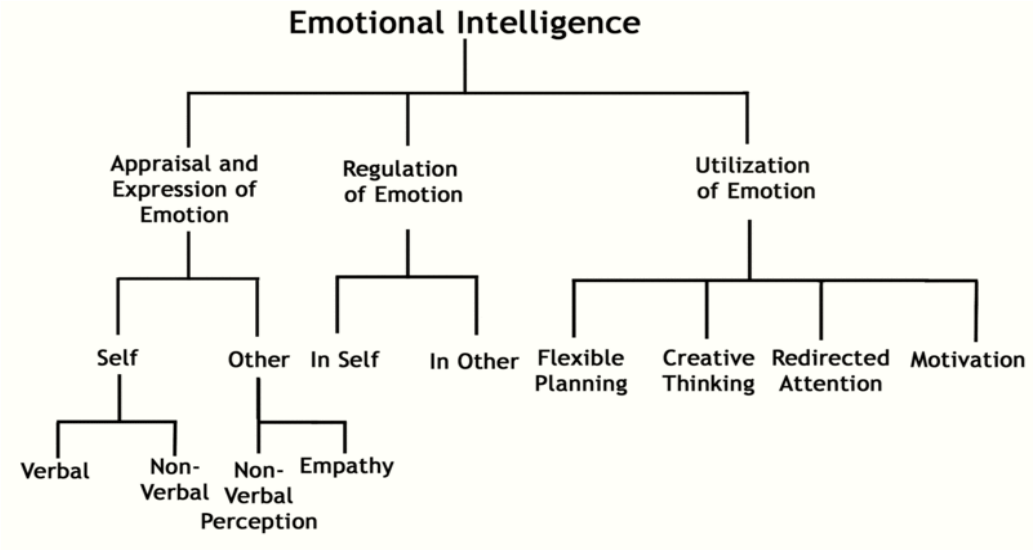
emotions to improve critical and creative thinking and to solve analytical problems (Codier & Codier, 2015). This construct changed the way many thought about interacting with, responding to, and leading others and has been recognized as a critical component of effective nursing practice (Holbery, 2015; Codier & Codier, 2015). In this section, I will present the evolution of the construct of EI, the adopted definition for the current study, and introduce the selection of the tool for measuring EI.

Conceptualization of Emotional Intelligence

EI was first conceptualized by Salovey and Mayer (1990). The construct evolved from and was strongly related to social intelligence which was described as the ability to interact relationally with other people and manage their reactions in different situations (Salovey & Mayer, 1990). A branch of this idea, EI, provides further insight into perceiving, appraising, and managing the emotions of self and others and utilizing those emotions to make critical decisions. Salovey and Mayer (1990) defined EI as "the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use the information to guide one's thinking and actions" (p. 189). This definition was further elucidated by three processes: appraisal and expression of emotion; regulation of emotion in self and others; and the use of emotions to guide behavior and make decisions (Salovey and Mayer, 1990). The conceptual definition of EI by Salovey and Mayer (1990) is modeled in Figure 2 below.

Figure 2

Conceptual Definition of Emotional Intelligence



Note: Source: Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition and Personality, 9*(3), 185-211.

Since Salovey and Mayer (1990) first gave a name to the construct of EI, others have expanded on it (Petrides, & Furnham, 2000). Goleman (1995) authored a book on EI describing how EI can increase the ability to manage and lead others. Goleman's (1995) work has been attributed with bringing attention to the idea of EI as necessary for success in professional life. The Bar-on model defined EI as both emotional and social abilities which affect how people deal with others and the stress of daily demands (Bar-on, 2006). Petrides and Furnham (2001) proposed a distinction between trait and ability EI. Trait EI was dependent on "behavioral dispositions and self-perceived abilities" and could be measured through self-report (Petrides and Furnham, 2001, p. 426). EI involved abilities which could be measured by performance on different items and was also

referred to as information-processing EI by previous works (Petrides and Furnham, 2001).

Although there are many perspectives on the construct of EI, most models include many of Salovey and Mayer's original concepts and fall somewhere on a continuum between trait and ability EI, presenting mixed models. Mayer and Salovey's (1997) revision of their original model postulated that EI was a cognitive ability which can be taught and learned, clarifying that EI levels can increase. Schutte et al. (1998) found that Salovey and Mayer's original model of EI and their revised model in 1997 were the most comprehensive and accurate models of EI. The Salovey and Meyer models were utilized as the framework for the development of The Schutte Self-Report Emotional Intelligence Test (SSEIT) (Schutte et al., 1998). Because of the persistence of Salovey and Mayer's EI model, the components of their model will be outlined below in order to define this variable for the present study. The SSEIT was used to measure EI and will be discussed further in Chapter 3.

Appraisal and Expression of Emotion. This component of EI was described by Salovey and Mayer (1990) as the perception of emotions of self as well as emotions of others. Recognition and appraisal of emotions of self requires self-awareness which allows true expression of emotions (Salovey & Mayer, 1990). Accurate perception of emotions in others is an ability intrinsic to EI which has also been described as a critical competency in nursing (Codier & Codier, 2015; Holbery, 2015). This appraisal of emotion in others is grounded in empathy and includes both verbal and nonverbal perception (Salovey & Mayer, 1990). This empathic concern is largely considered a

prerequisite for the practice of nursing, a practice wherein the foundation of all caring actions (whether physiologically or psychosocially based) is rooted in the nurse-patient relationship and the trust required for that relationship (Teófilo et al., 2018; Feo et al., 2017).

Regulation of Emotion. Regulation or management of emotion is a critical aspect of EI. Salovey and Mayer (1990) discussed regulation of emotion in self and others as an adaptive way of dealing with difficult situations. Regulating the emotions of self involves proactive and reactive efforts to promote or maintain a particular mood (Salovey & Mayer, 1990). This does not involve minimizing emotions, but rather regulating emotional reactions in a way that is resilient and does not contribute to further stress (Codier & Codier, 2015). With the ability to manage emotions in others, emotionally intelligent individuals can motivate others to achieve particular goals (Salovey & Mayer, 1990). Codier and Codier (2015) referred to management of emotions in others as a skill in nursing that is correlated with lower levels of stress and burnout. In this way, nurses who face a higher level of emotional labor, such as those in emergency nursing, have a way to regulate these emotional experiences that is not detrimental (Codier & Codier, 2015; Holbery, 2015).

Utilizing Emotional Intelligence. This aspect of EI involves the ability to use emotions to solve problems (Salovey & Mayer, 1990). Traditionally, the thought that emotions should be separate from reasoning in order to make the best decisions was widely accepted, however Salovey and Mayer (1990) described emotions as necessary for making decisions. Further, Salovey and Mayer (1990) posited that those who use

emotions in decision-making have an advantage in adaptive and creative problem-solving. Codier and Codier (2015) connected this with nursing practice by discussing how reflective appraisal of emotional responses can be used to change behavior and make decisions.

Salovey and Mayer (1990) further broke utilization of emotion down into four components: flexible planning, creative thinking, redirected attention, and motivation. Flexible planning encapsulates the ability to use positive or negative emotions to be more adaptable and foresee a variety of future outcomes (Salovey & Mayer, 1990). Creative thinking is enhanced using emotion to clarify and organize information (Salovey & Mayer, 1990). Salovey and Mayer (1990) posited that strong emotions and attention paid to those emotions could redirect attention to priority problems. Lastly, emotions, both positive and negative, can be harnessed to motivate toward goal-completion (Salovey & Mayer, 1990).

Emotional Intelligence

For the purpose of this study, I adopted Salovey and Mayer's (1990) original definition of EI which is the ability to recognize and accurately perceive emotions in self and others; regulate emotions in self and others in order to move toward particular goals; and utilize emotions to engage in creative thinking, critical decision-making, and motivation of self and others. These abilities have been shown to be critical for effective nursing practice to handle the emotional labor intrinsic to the caring profession (Codier & Codier, 2015; Holbery, 2015).

Studies Related to the Research Question

Although the need for EI in emergency nursing has been discussed (Codier & Codier, 2015; Holbery, 2015) and the prevalence of CF among emergency nurses has been widely recognized (Mazotta, 2015; Schmidt & Haglund, 2017; Hunsaker et al., 2015; Morrison & Joy, 2016), a comprehensive literature review has not revealed any studies wherein the role of EI has been explored in regard to a relationship with prevention of or protection against the development of CF in emergency nurses. This revealed a gap in the literature related to the present research question.

A related study was identified in which both trait ($p < .05$) and ability ($p < .01$) EI were significantly negatively correlated with CF in a small group of health care professionals in Northern and Central Israel (Zeidner et al., 2013). These findings provide a rationale for the present hypothesis that EI and CF will have a negative correlation among emergency nurses.

Summary and Conclusions

I presented the literature review related to the key variables CF and EI. The evolution of the concept of CF and the construct of EI has been explored. Stamm's definition for CF was adopted for this study and Salovey and Mayer's definition of EI was used. Orem's self-care theory was outlined as the theoretical framework for this study with CF framed as a self-care deficit for emergency nurses and EI as the tool to meet that self-care need.

In Chapter 3, I discuss the design for the present study as well as the methodology used to determine if there is a relationship between CF and EI. The instruments which

were used to collect data are presented along with how the key variables were operationalized by those instruments.

Chapter 3: Research Method

The purpose of this quantitative, descriptive study was to determine if there were relationships between (a) EI and CF in emergency nurses, (b) EI and STS in emergency nurses, and (c) EI and BO in emergency nurses.

In Chapter 3, I present the study design, the instruments used, and how the instruments measured and operationalized the key variables of CF and EI. Lastly, I discuss the threats to validity and ethical concerns in this study.

Research Design and Rationale

A quantitative approach was appropriate for this study based on the nature of the research questions. I conducted this study in order to determine if there was a relationship between EI and CF and, further, to determine if there was a relationship between EI and the components that make up CF: STS and BO. Correlational research studies are to examine relationships between variables (Polit & Beck, 2017); thus, a correlational design was a good fit for this study.

Study Variables

The predictor variable for the study was EI and the outcome variables were CF, STS, and BO. EI, a complex construct, is defined as the ability to perceive, appraise, and regulate the emotions of self and others (Salovey & Mayer, 1990). The Professional Quality of Life (ProQOL) instrument is used to measure overall professional quality of life by measuring CF as a combination of BO and STS and compassion satisfaction on two separate scales. (Stamm, 2010). BO means emotional exhaustion related to stressors in the workplace (Stamm, 2010). STS is experienced as a cluster of symptoms arising

from empathic care for a person experiencing a traumatic event (Sorenson et al., 2017). According to Stamm (2010), each subscale included in the instrument can be assessed individually: compassion satisfaction, STS, and BO. However, to measure CF using the ProQOL, the STS and BO subscale measurements should be interpreted as a combination (Stamm, 2010). Although compassion satisfaction is measured in the ProQOL, to determine overall professional quality of life, it is not included in the scale that measures CF and therefore was not addressed in this study.

The research questions were:

RQ1: What is the relationship between EI and CF in emergency nurses?

RQ2: What is the relationship between EI and STS in emergency nurses?

RQ3: What is the relationship between EI and BO in emergency nurses?

Quantitative research methods were used for statistical analysis using a correlational design that helped determine whether a relationship exists between the key variables of EI, CF and STS. A cross-sectional design was appropriate for this study. Cross-sectional studies include data gathered from one point in time as opposed to longitudinal studies, which include data gathered over time (Polit & Beck, 2017). This makes cross-sectional designs well-suited for correlational studies in which the researcher is seeking to examine a relationship between two variables at a single point in time (Polit & Beck, 2017). Links to the electronic versions of the ProQOL and the Schutte Self-Report Emotional Intelligence Test (SSEIT) were sent to emergency nurses via email and posted on the Emergency Nurses' Association's (ENA) external research opportunities

website, Facebook, and LinkedIn. The emergency nurses were asked to complete the surveys electronically.

The time constraints for the study limited the time for gathering data and completing the study. Time constraints included limited response time due to the need to complete the study within a prescribed time frame for completing a dissertation and that I was limited by the Walden IRB to three reminder emails to stimulate participation. Resources were constrained by the willingness of emergency nurses to participate in the study. Emergency nurses work in a fast-paced environment with competing and complex priorities (Li et al., 2018). Due to the nature of their working environment, they had limited time to devote to complete the surveys for my study.

Determining the presence of a relationship between EI and CF through a correlational design provided further knowledge on the concept of CF as it relates to emergency nurses. Findings of my study provided new information about the relationship of EI and CF that was not known in emergency nurses.

Methodology

Population

The target population was registered nurses who have worked in the emergency department (ED) in the United States. To sample this target population, I reached out through multiple access points: including the ENA, the social media websites Facebook and LinkedIn, and publicly available email lists from states in the Southeast and Midwest regions of the United States. Registered nurses who have worked in the ED for less than one year or work less than 30 hours per week were excluded. Advanced practice

registered nurses were also excluded from this study. There are approximately 90,000 registered nurses working in the ED in the United States (Nurses for a Healthier Tomorrow, n.d.)

Sampling and Sampling Procedures

I used convenience sampling to recruit participants for this study. Convenience sampling is a nonprobability sampling strategy which uses easily available participants (Polit & Beck, 2017). There can be bias associated with convenience sampling because the participants self-select and are not randomly selected. I recruited participants throughout the United States through the ENA's external research opportunities website as well as through the social media websites Facebook and LinkedIn and through publicly available nurse email lists from states in the Southeast and Midwest regions.

I recruited participants by sending an invitation to participate in the study to registered nurses who are included on the publicly available email lists and by posting the study invitation and link on Facebook and LinkedIn. I also posted my study link on the ENA's external research opportunities website. A copy of the invitational email can be found in Appendix A.

Inclusion Criteria

To be eligible to participate in this study, the participant must have been a registered nurse who has worked in the ED for more than one year. The ED must have been in an acute care hospital. The participant must have also been currently working more than 30 hours per week in the ED.

Exclusion Criteria

Advanced practice registered nurses were excluded from this study. Nurses who work part-time, or less than 30 hours per week, in the ED were excluded. Nurses who worked in the ED for less than one year were excluded. Registered nurses who do not work in the ED in an acute care hospital were excluded. For example, nurses who work in an urgent care setting or a stand-alone ED were excluded.

Determination of Sample Size

I determined the sample size for this study by using G*Power Software (Faul et al., 2009). The a priori sample size was calculated using the Correlation: Bivariate normal model from the exact test family in the G*Power calculator. I used a two-tailed test with the level of significance at $a = 0.05$ and power at 0.80. The traditional standard for power level is 0.80 (Polit & Beck, 2017). Nursing research studies usually have small to moderate effect sizes (Polit & Beck, 2017). The sample size needed to produce a medium effect (0.30) was calculated to be 84.

Procedures for Recruitment, Participation, and Data Collection

I obtained the publicly available nurse email lists and sent each nurse an email that included information about the study, the purpose of the study, what participation in the study will require, approximate investment of time required, and how study results will be used (See Appendix A). At the end of the email, the link for the study was included began with the screening questions. The screening questions are listed in Appendix B. If the individual answered appropriately to the screening questions, the screen advanced to the consent form. After the individual agreed, the screen advanced to

the demographic information form and the electronic versions of the ProQOL and the SSEIT.

The same procedure was used for the ENA external research opportunities website except that the study link was posted and not emailed. The same study invitation used in the emails was posted on Facebook and LinkedIn as well.

Demographic Information.

Demographic information was collected as a part of this study to complete descriptive statistical analysis on the sample. A copy of the demographic information questionnaire is found in Appendix C. Number of years as a registered nurse, number of years as an emergency nurse, and whether the nurse is a certified emergency nurse (CEN) were included in the demographic information. Also, gender, ethnicity, age, highest degree obtained, and marital status were included.

Data Collection

I collected data through the electronic versions of the ProQOL, SSEIT, and demographic information form using SurveyMonkey. These data were de-identified when downloaded by using the anonymous responses feature in SurveyMonkey so now identifying information was in my survey questions (SurveyMonkey.com, 2019b). The data were then entered into the Statistical Package for Social Sciences (SPSS) version 27.0 to run descriptive statistics and a linear regression to address the research questions.

Exiting the Study

The participant exited the study once the surveys were submitted electronically. No further action was required of the participant.

Instrumentation and Operationalization of Constructs

CF was measured using the ProQOL. The ProQOL has been widely used to measure CF in nursing research (Al-Majid et al., 2016; Jakel et al., 2016; Mooney et al., 2017; Williamson, 2019; Zajac, Moran, & Groh, 2017) and its brevity was fitting for my study. EI was measured using the SSEIT. The SSEIT has also been used in nursing research to measure EI (Di Lorenzo et al., 2019; Heydari et al., 2016; Štiglic et al., 2018) and is a reliable tool that is easy to distribute in electronic format (Schutte et al., 1997).

Professional Quality of Life scale

The development of the ProQOL began with the Compassion Fatigue Self Test developed by Charles Figley (Stamm, 2010). Figley and Beth Hudnall Stamm began collaborating on the measurement of CF in 1988 and, later, both mutually agreed that future development and ownership of the measure would belong solely to Stamm (2010). The current name of the instrument, Professional Quality of Life Scale, was coined by Stamm in 2005 after adding the measurement of positive aspects of work life (compassion satisfaction) along with measuring CF (Stamm, 2010). Stamm (2005) addressed the psychometric difficulties present with Figley's Compassion Fatigue Self Test and reduced the time investment needed to take the scale by reducing it from 66 items to 30 items. Stamm (2005) used data from nurses, as well as other "helper" professions, to develop the current iteration of the ProQOL. Both the brevity of the scale and the development using data from nurses specifically, made this instrument particularly appropriate for this study. The ProQOL is the tool used most often to measure CF and CS in those who take care of people experiencing trauma or suffering

(ProQOL.org, 2019). The ProQOL has been updated several times and the current version, ProQOL-5, was used for this study.

Stamm (2010) defined professional quality of life as "the quality one feels in relation to their work as a helper" (p. 8). The ProQOL has three distinct subscales used to measure quality of work life: CS, burnout, and STS (Stamm, 2005). Both the burnout and STS subscales are taken to determine the level of CF. The three subscales cannot be combined to yield a composite score, however, Stamm (2010) did include interpretive guidelines based on the results of the three subscales together. For example, Stamm (2010) described that a person with a high score on the CS subscale, low score on the burnout subscale, and a low score on the STS subscale would generally have a positive and healthy quality of work life.

The ProQOL uses a five-point, Likert-type scale for self-scoring of each of the 30 items ranging from one (never) to five (very often). Permission to use the ProQOL in research is included on the instrument itself and parameters are discussed in the Concise ProQOL Manual (Stamm, 2010). A copy of this permission can be found in Appendix D.

Reliability and Validity. Stamm (2010) provided a Cronbach's alpha score for each of the three subscales with the CS subscale $a = 0.88$, the burnout subscale $a = 0.75$, and the STS subscale $a = 0.81$. Stamm (2010) reported that over 200 published papers supported the good construct validity of the ProQOL. The ProQOL continues to be broadly used to measure both CS and CF in nurses (Al-Majid et al., 2016; Jakel et al., 2016; Mooney et al., 2017; Williamson, 2019; Zajac et al., 2017).

Schutte Self-Report Emotional Intelligence Test. Schutte et al. (1998) developed the SSEIT based on the definition of EI as outlined by Salovey and Mayer (1990). This instrument has also been referred to as the Assessing Emotions Scale (Schutte et al., 2009). Schutte et al. (1998) alluded to the various approaches and definitions of EI over the years after the term was first coined by Salovey and Mayer, however, they chose to use the Salovey and Mayer (1990) definition and the revised Salovey and Mayer (1997) definition of EI because they represented the "most cohesive and comprehensive models of emotional intelligence" (p. 169). Schutte et al. (1998) set out to develop a brief and valid measure of EI based on the Salovey and Mayer EI model.

Schutte et al. (1998) began with a 62-item tool based on the Salovey and Mayer EI model. During development, the original SSEIT was tested by having participants complete the SSEIT along with other, established measures of EI (Schutte et al., 1998). Thirty-three items were selected for use in the final version of the SSEIT after pilot-testing revealed those 33 items to be reliable measures of EI and representative of all the components of the Salovey and Mayer model of EI. The SSEIT employs a five-point Likert-type scale for each of the 33 items.

The brevity of this scale was a good fit for this study considering that time to participate in the study could have been an issue for RNs who work full-time in the ED. Permission to use the SSEIT was requested from Dr. Schutte and a copy of that permission is included in Appendix E.

Reliability and Validity. Schutte et al. (1998) reported a Cronbach's alpha of 0.90 for the 33-item SSEIT. The validity of the SSEIT was supported by a significant

negative correlation ($p < 0.0001$) with findings on the Toronto Alexithymia Scale and significant positive correlations ($p < 0.0001$) with several applicable subscales of the Trait Meta Mood Scale (Schutte et al., 1998).

Data Analysis

Data were analyzed using the Statistical Package for Social Sciences (SPSS) version 27.0 software. Participants who did not meet inclusion criteria were excluded from the study by the screening questions included before the survey began. Before downloading data from SurveyMonkey, the data were cleaned by filtering and subsequently excluding incomplete survey responses (SurveyMonkey.com, 2019c).

Research Questions and Hypotheses

RQ1: What is the relationship between EI and CF in emergency nurses?

$H_0$1: There will be no relationship between EI and CF in emergency nurses.

H_A1: There will be a relationship between EI and CF in emergency nurses.

RQ2: What is the relationship between EI and STS in emergency nurses?

$H_0$2: There will be no relationship between EI and STS in emergency nurses.

H_A2: There will be a relationship between EI and STS in emergency nurses.

RQ3: What is the relationship between EI and BO in emergency nurses?

$H_0$3: There will be no relationship between EI and BO in emergency nurses.

H_A3: There will be a relationship between EI and BO in emergency nurses.

Analysis Plan

After uploading the data into the SPSS software, I ran descriptive statistics using the demographic information included in the survey. These statistics revealed information

about the means of scores of different demographic groups on the SSEIT and the ProQOL. I then ran a linear regression to address the research questions for this study. Linear regression is commonly used to determine if one variable can predict the occurrence of the other variable (Laerd Statistics, 2018). A simple linear regression was run to test the hypotheses. The significance level was set at $p < .05$ with a confidence level of 95% to reject the null hypothesis. The effect size determined the strength of the relationship between the covariates. Cohen (1988) described an effect size of .10 as a small or weak correlation, .30 as a moderate correlation, and .50 as a large or strong correlation. I also calculated a Cronbach's alpha for the ProQOL and SSEIT instrument results.

Threats to Validity

There were potential threats to validity within my study. These included statistical conclusion validity and external validity. This section describes those threats and my efforts to address them.

External Validity

Because this was a quasi-experimental study, there was a threat to external validity. The use of a convenience sample was necessary due to time and access constraints; however, it meant that randomization was not possible. Without randomization, the generalizability of the results of the study (the external validity) can be affected (Polit & Beck, 2017). To address this, I used a national professional nursing organization's website to post the study link. This increased the generalizability of the results by including participants from across the nation rather than one regional area.

Another potential threat to external validity is testing reactivity. The threat of reactivity can be a problem for interventional studies as the participants may react differently to the measures because they are aware that they are participating in a study and want to perform well (Polit & Beck, 2017). My study was at a lower risk for this threat because it did not include an intervention. Also, the participants were informed that their responses would be de-identified before the data were downloaded. This process greatly decreased the risk of testing reactivity (Polit & Beck, 2017).

The threats of interaction of selection and experimental variables; reactive effects of experimental arrangements; specificity of variables; and multiple treatment interference did not apply to this study because of its design.

Internal Validity

The differential selection threat to internal validity was minimized in this study because there was only one sample group (Polit & Beck, 2017). Even though convenience sampling was used, this would not affect internal validity because there are not two groups being compared. The comparison was across one group at one section in time.

The cross-sectional design of this study also reduced the chance of maturation; experimental mortality; selection-maturation interaction; testing; instrumentation; statistical regression; and history-related threats to internal validity. These threats occur more often in longitudinal studies wherein the passage of time may allow for changes in the participants not related to the key variables or in studies which include an intervention (Polit & Beck, 2017). This was not applicable for my study.

Statistical Conclusion Validity

Statistical conclusion validity refers to the ability to infer that the correlational relationship between the variables is real (Polit & Beck, 2017). To support statistical conclusion validity, I chose instruments which were tested for reliability by the developers. Another effort to address this threat was the use of a high power level (0.80) and a high level of significance ($a = 0.05$) in calculating the sample size. A high power level decreases the chances of Type II error (false acceptance of the null hypothesis) (Polit & Beck, 2017). A high significance level reduces the chances of a Type I error (false rejection of the null hypothesis) (Polit & Beck, 2017).

Ethical Procedures

Access to Participants

I requested permission to post my study link and it was subsequently posted on the ENA's external research opportunities website. I also emailed my study invitation and link to registered nurses in states with publicly available email lists in the Southeast and Midwest regions of the United States. Lastly, I posted my study invitation and link on Facebook and LinkedIn.

Treatment of Human Participants

Prior to collecting data, I obtained IRB approval from Walden University's Institutional Review Board (IRB approval number: 08-31-20-0382255). The risk to participants in this study was minimal. The demographic information and data collected through the instruments did not include protected health information. The sample was self-selected and voluntary and I did not specifically recruit any vulnerable populations.

Recruitment was completed by sending the study invitation to the email addresses from the states with publicly available nurse email lists. These email addresses were obtained without cost from those states' boards of nursing and departments of health. Recruitment was also completed by posting the study link on the ENA's external research opportunities website, Facebook, and LinkedIn. Explicit information about the voluntariness of this study was included in the study invitation. There was no ethical concern related to recruitment for this study. There has been no conflict of interest identified for this study. No interventions or treatments are included in this study, so there was no ethical concern related to intervention activities.

Treatment of Data

As data were collected through SurveyMonkey, it was protected through their secure platform. SurveyMonkey uses industry standard encryption to protect all participants' data and requires a password and account verification for users accessing that data (SurveyMonkey.com, 2019). SurveyMonkey's platform and infrastructure is located on a SOC 2 accredited data center (SurveyMonkey.com, 2019a).

All data were de-identified before it was downloaded from SurveyMonkey. Results of demographic information and both surveys were kept on a password protected hard drive which can only be accessed by the researcher. The de-identified data were uploaded into SPSS to run statistical analyses. The data will be kept on the hard drive for five years following the completion of the study and then it will be destroyed.

Summary

This study had a correlational design to determine if there was a relationship between EI and CF in emergency nurses. The convenience sample was recruited through several access points. EI level was determined using the SSEIT and CF was determined using the ProQOL. Both instruments were administered in electronic format through SurveyMonkey and a linear regression was completed on the data in SPSS after download. Convenience sampling presented a threat to external validity which was minimized by collecting data from more than one region. The threat to internal validity for this study was minimal. I took care to protect my participants by seeking IRB approval before collecting data. The data were kept secure through collection on a secure platform and storage on a password-protected hard drive.

In Chapter 4, I l discuss the process of data collection including timeline and any discrepancies found. I also explore the demographic characteristics and representativeness of the study sample and the results of the statistical analysis of the research questions.

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Chapter 4: Results

The purpose of this quantitative, descriptive study was to determine if there were relationships between (a) EI and CF in emergency nurses, (b) EI and STS in emergency nurses, and (c) EI and BO in emergency nurses. The problem of compassion fatigue is salient (Cocker & Joss, 2016; Li et al., 2018; Zhang et al., 2018), especially for nurses who work in critical care or emergency settings (Dominguez-Gomez & Rutledge, 2009; Flarity et al., 2013; Mazzotta, 2015; Schmidt & Haglund, 2017). In determining the existence of a relationship between EI and CF, a potential protective factor against the development of CF could be revealed in EI thereby addressing the gap in literature concerning effective prevention of CF. The components of CF, BO, and STS were also investigated in relation to CF in emergency nurses.

The research questions and hypotheses for this study were as follows:

RQ1: What is the relationship between EI and CF in emergency nurses?

$H_0$1: There will be no relationship between EI and CF in emergency nurses.

H_A1: There will be a relationship between EI and CF in emergency nurses.

RQ2: What is the relationship between EI and STS in emergency nurses?

$H_0$2: There will be no relationship between EI and STS in emergency nurses.

H_A2: There will be a relationship between EI and STS in emergency nurses.

RQ3: What is the relationship between EI and BO in emergency nurses?

$H_0$3: There will be no relationship between EI and BO in emergency nurses.

H_A3: There will be a relationship between EI and BO in emergency nurses.

In this chapter, I outline the data collection process and the changes from the proposed data collection plan. I explore the demographic overview of the study sample. I also present the results of the study, including the assumptions and statistical analyses.

Data Collection

Data collection began after receiving approval from the IRB (August 31, 2020) and continued until the required sample size (n = 84) was met (December 24, 2020). Of the 220 responses, 89 were completed and eligible, yielding a response rate of 40%.

Discrepancies from Proposed Data Collection Plan

In the proposed data collection plan, I had planned to send the study surveys via email to nurses listed with the Emergency Nurses Association and to post the survey invitation and link to the study on Facebook and LinkedIn. After receiving IRB approval for this plan and posting the study link on the two social media websites, only a few responses were collected. In attempting to obtain the email addresses from the ENA, I was told that the ENA provides only physical mailing lists and not email lists of their members. However, I learned that the ENA had an External Research Opportunities website where approved research studies could be posted. Therefore, I requested an updated IRB approval (a) to post my study link to the ENA External Research Opportunities website and (b) to increase the number of candidates, to reach out to registered nurses in a state in the Southeast region and a state in the Midwest region using publicly available email addresses. This updated process was approved by the IRB and the study was approved by the ENA for its External Research Opportunities website.

Results

Descriptive Statistics

The sample consisted of registered nurses who were actively working in an ED and who had been actively working in the ED for at least one year. These nurses worked more than 30 hours per week in the ED in an acute care hospital. The sample did not include advanced practice registered nurses.

The sample included 77 (86.5%) female participants and 12 (13.5%) male participants (see Table 1 below). According to the U. S. Bureau of Labor Statistics (2021), females make up 87.4% of the registered nurse workforce in the United States. Therefore, this study sample was representative of the registered nurse workforce by gender.

Table 1

Gender

	N	%
Male	12	13.5
Female	77	86.5

The sample consisted of 72 (80.9%) White participants, six (6.7%) Black or African American participants, seven (7.9%) Hispanic participants, one (1.1%) Asian participant, two (2.2%) participants from multiple races and one (1.1%) participant who identified as other (see Table 2 below). The ethnic breakdown of participants for this study was slightly less diverse than the total population of registered nurses in the United

States which is made up of 75.3% White nurses, 13.4% Black nurses, 8.7% Asian nurses, and 7.9% Hispanic nurses (U. S. Bureau of Labor Statistics, 2021).

Table 2

Ethnicity

	N	%
Hispanic	7	7.9
White	72	80.9
Black or African American	6	6.7
Asian	1	1.1
From multiple races	2	2.2
Other	1	1.1

The age of the study sample was as follows: 13 (14.6%) were 18-29 years old, 20 (22.5%) were 30-39 years old, 19 (21.3%) were 40-49 years old, 17 (19.1%) were 50-59 years old, 19 (21.3%) were 60-69 years old and 1 (1.1%) was 70 or older (see Table 3 below). There were 26 (29.2%) participants who identified as single, 44 (49.4%) married, 16 (18%) divorced, and 3 (3.4%) widowed (see Table 4 below).

Table 3

Age in Years

	N	%
18-29	13	14.6
30-39	20	22.5
40-49	19	21.3
50-59	17	19.1
60-69	19	21.3
70 or older	1	1.1

Table 4

Marital Status

	N	%
Single	26	29.2
Married	44	49.4
Divorced	16	18.0
Widowed	3	3.4

There was a large portion of the sample who had practiced as registered nurses for greater than 15 years (41 [46.1%]) so the sample mainly consisted of experienced nurses. The participants' years practicing as registered nurses were as follows: 10 (11.2%) had practiced for 10-15 years, 18 (20.2%) had practiced for 5-10 years, 13 (14.6%) had practiced for 2-5 years, and 7 (7.9%) had practiced for 1-2 years (see Table 5 below).

Table 5

Years as a Registered Nurse

	N	%
1-2 years	7	7.9
2-5 years	13	14.6
5-10 years	18	20.2
10-15 years	10	11.2
>15 years	41	46.1

The experience level in the ED was varied with 10 (11.2%) having 1-2 years ED experience, 7 (7.9%) having 2-3 years ED experience, 8 (9%) having 3-4 years ED experience, 9 (10.1%) having 4-5 years ED experience, 18 (20.2%) having 5-10 years ED experience, and 37 (41.6%) having greater than 10 years ED experience (see Table 6 below). The sample had 20 (22.5%) participants who have certification as emergency nurses (see Table 7 below).

Table 6

Years Worked in the ED

	N	%
1-2 years	10	11.2
2-3 years	7	7.9
3-4 years	8	9.0
4-5 years	9	10.1
5-10 years	18	20.2
>10 years	37	41.6

Table 7

Certified Emergency Nurse (CEN)

	N	%

Yes	20	22.5
No	69	77.5

The sample was varied in educational preparation with most participants (54 [60.7%]) having a bachelor's degree, that was followed by 19 (21.3%) participants having an associate degree, 13 (14.6%) having a master's degree, 2 (2.2%) having a doctorate, and 1 (1.1%) having a diploma.

Table 8

Highest Degree Earned

	N	%
Diploma	1	1.1
Associate	19	21.3
Bachelor	54	60.7
Master	13	14.6
Doctorate	2	2.2

Statistical Assumptions of Linear Regression

I conducted a simple linear regression to test the null hypothesis for each of the three research questions. Linear regression has several statistical assumptions: both the predictor and outcome variables should be continuous; the variables should have a linear relationship; there should be no significant outliers; there should be independence of observations; there should be homoscedasticity; and the residual errors should be approximately normally distributed (Laerd Statistics, 2018). The following statistical assumptions were met for this study.

Continuous Variables

The variables (EI, CF, BO, and STS) used for this study were all measured at the interval level which meets the assumption of continuous variables (Laerd Statistics, 2018).

Linear Relationship

Linear regression requires that there be a linear relationship between the predictor and outcome variable (Laerd Statistics, 2018). This can be determined by viewing the pairs of variables on a scatterplot (Laerd Statistics, 2018). Each of the predictor variables (CF, BO, and STS) were placed in a scatterplot with the outcome variable (EI) and linearity was confirmed for each pair.

Outliers

No significant outliers should be present for a linear regression (Laerd Statistics, 2018). Casewise diagnostics were included in the linear regression for the variable set for each research question. There were no outliers for RQ1 and RQ2. One outlier was identified for RQ3, however, because the instruments used fixed range scales, this was determined to not be a true outlier. Therefore, this data point was kept in the model.

Independence of Observations

Because of the nature and design of this study, there is no reason to assume that observations would be correlated. When this is the case, it is not necessary to test for independence of observations (Laerd Statistics, 2013).

Homoscedasticity

Homoscedasticity was confirmed by viewing the standardized residuals and standardized predicted values on a plot. Homoscedasticity can be assumed when the standardized residuals and standardized predicted values appear random and reveal no specific pattern (Laerd Statistics, 2013). This was completed for each of the variable sets (see Figures 3-5 below).

Figure 3

Scatterplot for CF

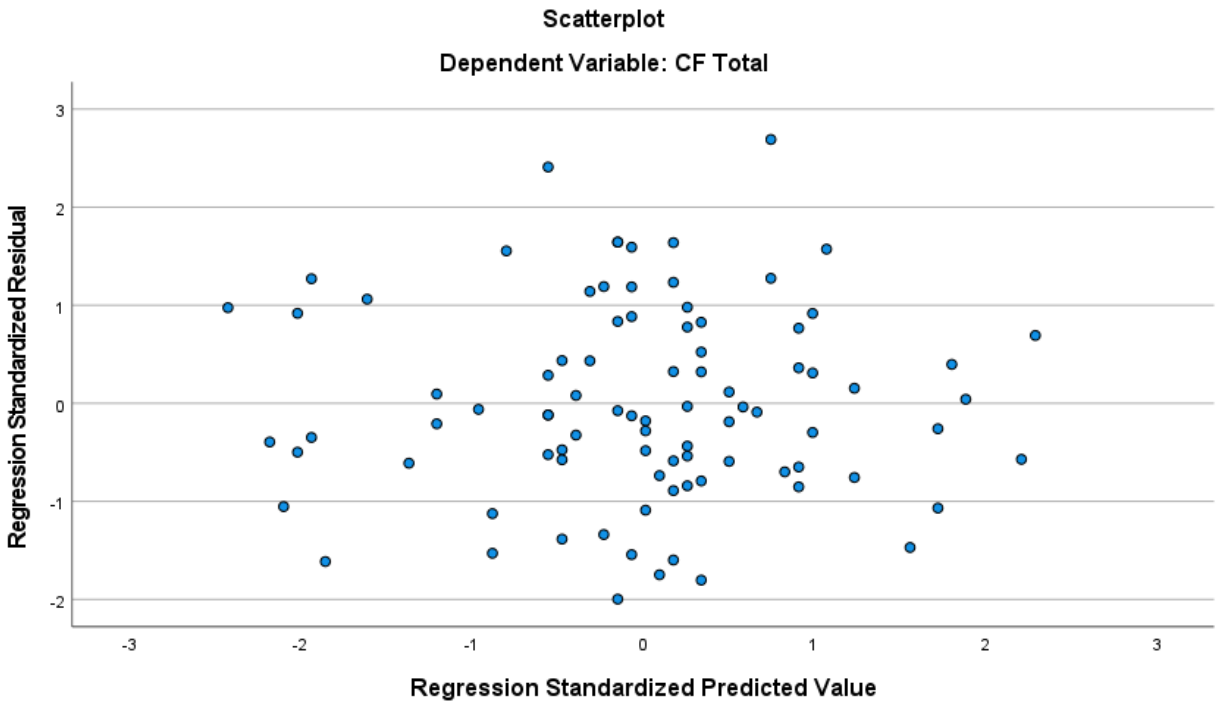


Figure 4

Scatterplot for Burnout

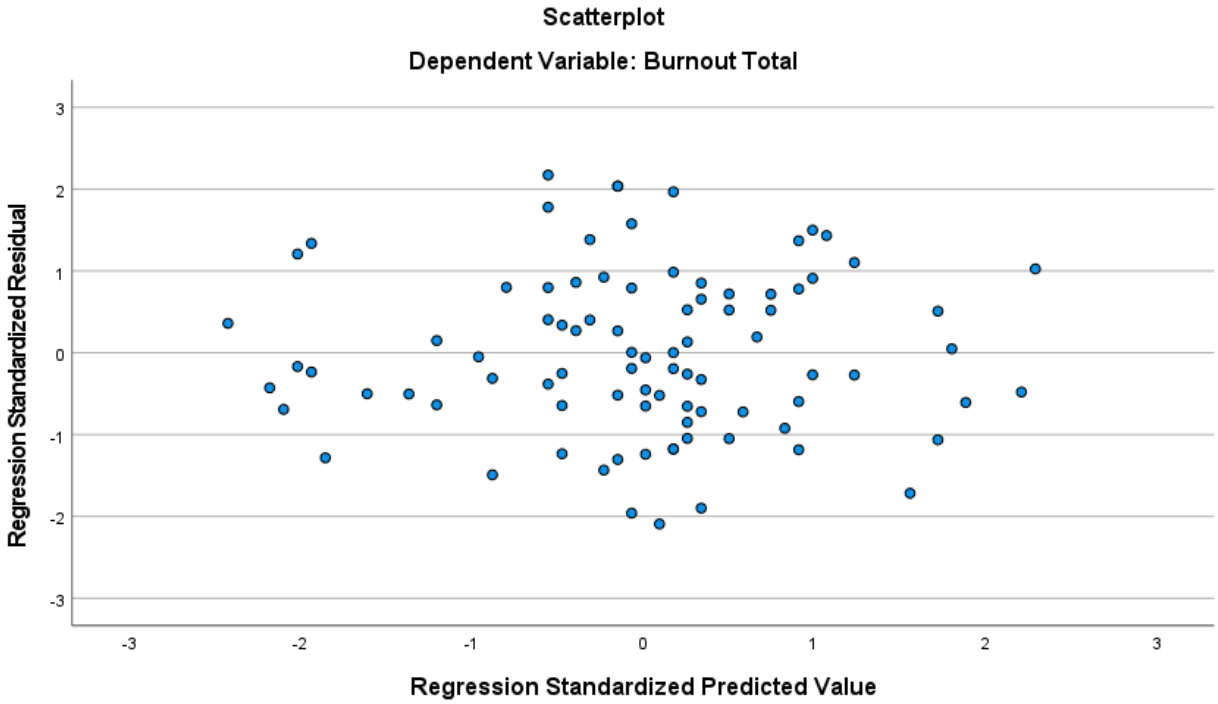
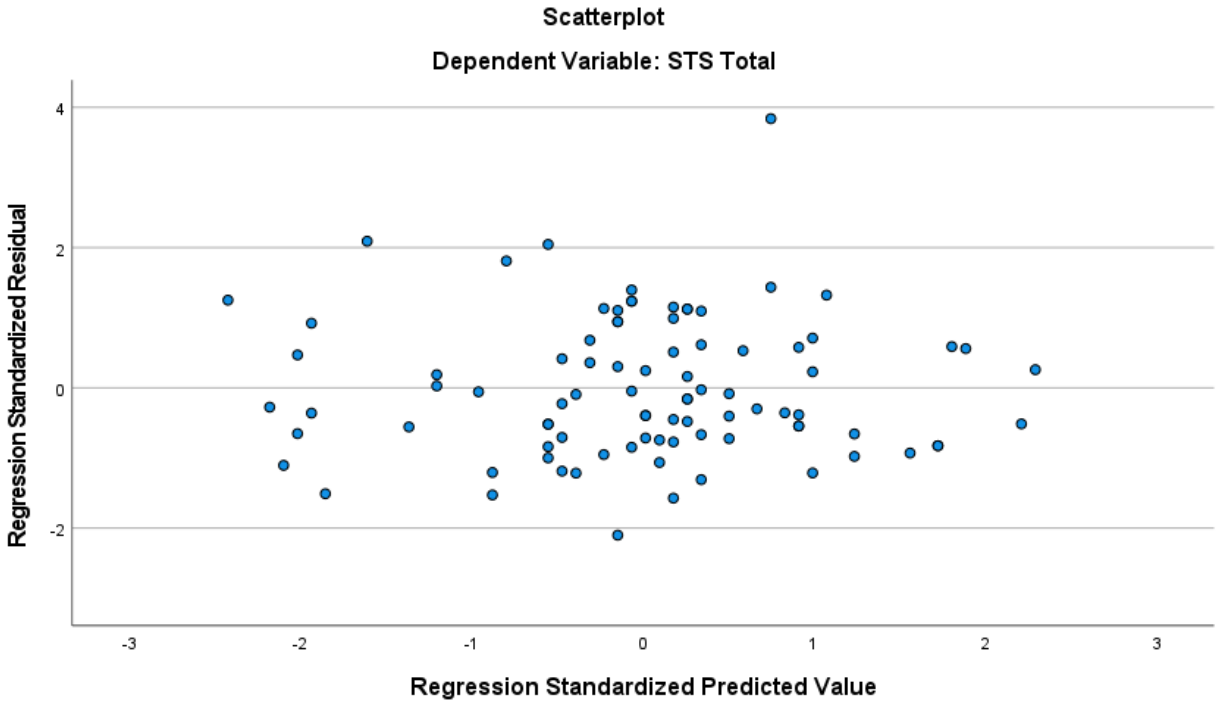


Figure 5

Scatterplot for Secondary Traumatic Stress



Residual Errors

The assumption for linear regression is that residual errors will be normally distributed (Laerd Statistics, 2013). Normal distribution of residuals was confirmed by viewing the residuals on a histogram (see Figures 6-8 below).

Figure 6

Residuals for Compassion Fatigue

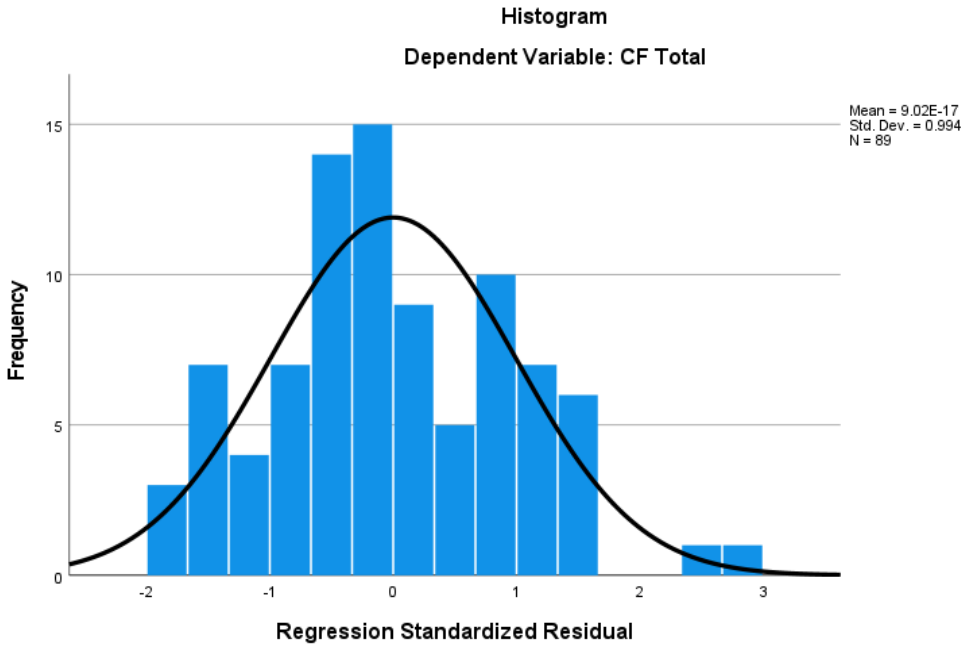


Figure 7

Residuals for Burnout

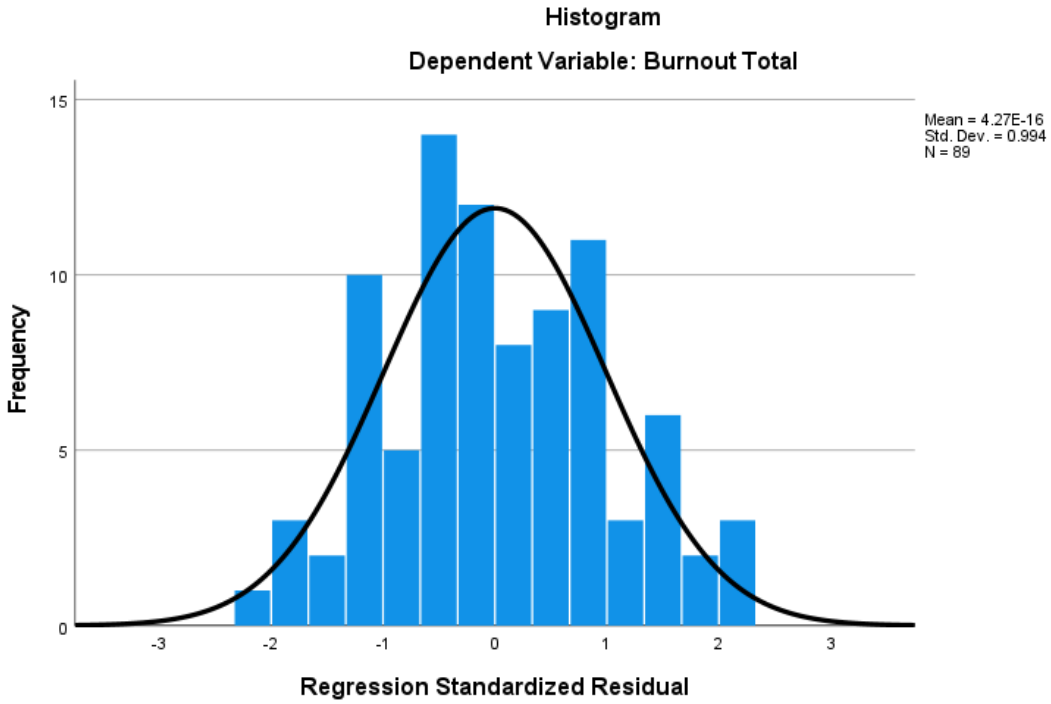
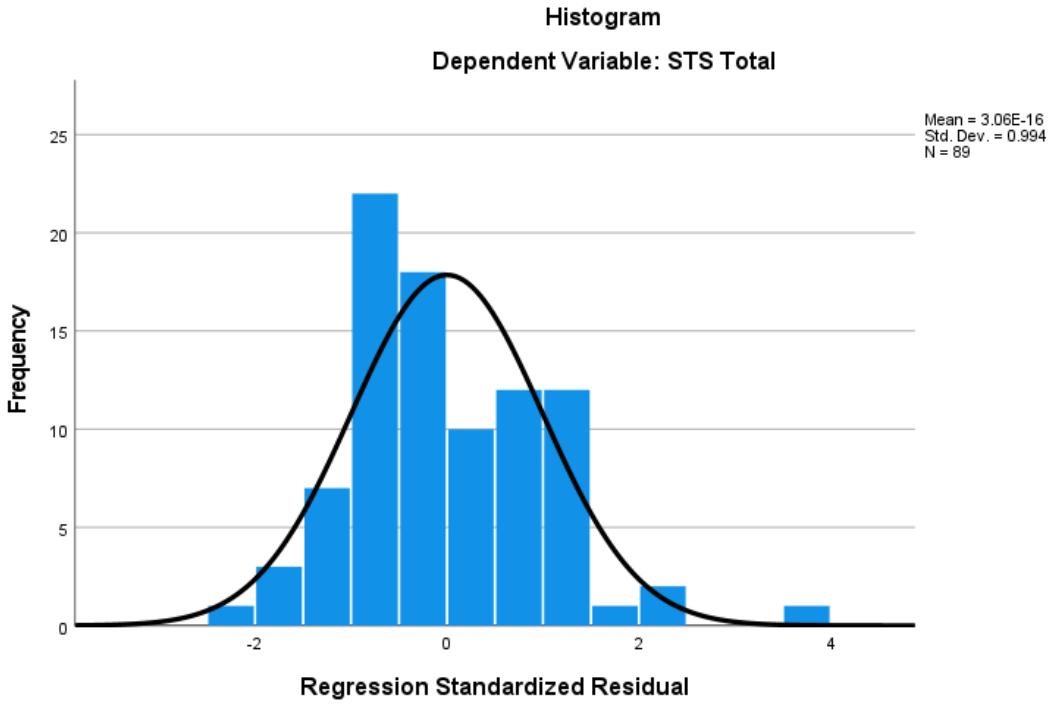


Figure 8

Residuals for Secondary Traumatic Stress



Reliability of the Instruments

I conducted a Cronbach's alpha for each of the scales used to measure internal consistency and reliability (Laerd Statistics, 2013). For the SSEIT, the Cronbach's alpha was .87 which reveals a high level of internal consistency for this scale (Laerd Statistics, 2013). The Cronbach's alpha for the ProQOL CF scale was .884, the ProQOL BO scale was .827, and the ProQOL STS scale was .832. All three ProQOL scales demonstrated a high level of internal consistency.

Findings by Research Question

I conducted a simple linear regression to examine each of the research questions. The findings for each question are outlined below.

RQ1: What is the relationship between EI and CF in emergency nurses?

$H_0$1: There will be no relationship between EI and CF in emergency nurses.

H_A1: There will be a relationship between EI and CF in emergency nurses.

For RQ1, the predictor variable was EI and the outcome variable was CF. The predictor variable was found to be statistically significant [B = -.514, 95% C.I. (1, 87), p < .001], showing that for every one unit increase in EI, CF changed by -.514 units. Regarding effect size, the linear regression model explained approximately 29% of the variability [R^2 = .293]. According to Cohen (1988), this would be a moderate effect size. Therefore, the null hypothesis was rejected.

RQ2: What is the relationship between EI and STS in emergency nurses?

$H_0$2: There will be no relationship between EI and STS in emergency nurses.

H_A2: There will be a relationship between EI and STS in emergency nurses.

For RQ2, the predictor variable was EI and the outcome variable was STS. The predictor variable was found to be statistically significant [B = -.176, 95% C.I. (1, 87), p < .003], showing that for every one unit increase in EI, STS changed by -.176 units. For effect size, the model explained approximately 11% of the variability [R^2 = .108]. According to Cohen (1988), this is a small effect size. Therefore, the null hypothesis was rejected.RQ3: What is the relationship between EI and BO in emergency nurses?

$H_0$3: There will be no relationship between EI and BO in emergency nurses.

H_A3: There will be a relationship between EI and BO in emergency nurses.

For RQ3, the predictor variable was EI and the outcome variable was BO. The predictor variable was found to be statistically significant [B = -.338, 95% C.I. (1, 87), p

< .001], showing that for every one unit increase in EI, BO changed by -.338 units. The model explained approximately 40% of the variability [R^2 = .403]. This effect size is in the moderate to strong range (Cohen, 1988). Therefore, the null hypothesis was rejected.

Summary

Statistical analysis revealed a significant correlation between EI and CF, BO, and STS. The results of the linear regression models supported the rejection of the null hypothesis for each of the three research questions. For RQ1, the predictor variable (EI) was found to be statistically significant [B = -.514, 95% C.I. (1, 87), p < .001]. For RQ2, the predictor variable (EI) was found to be statistically significant [B = -.176, 95% C.I. (1, 87), p < .003]. For RQ3, the predictor variable (EI) a was found to be statistically significant [B = -.338, 95% C.I. (1, 87), p < .001]. The Cronbach's alpha for the ProQOL CF scale was .884, the ProQOL BO scale was .827, and the ProQOL STS scale was .832. All three ProQOL scales demonstrated a high level of internal consistency.

In Chapter 5, I will discuss the interpretation of these results, limitations of the study, recommendations for future research, implications for practice and positive social change, and final conclusions of the study.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this quantitative, descriptive study was to determine if there were relationships (a) between EI and CF in emergency nurses, (b) between EI and STS in emergency nurses, and (c) between EI and BO in emergency nurses. CF is a problem among nurses, particularly among nurses working in the emergency department (Mazzotta, 2015; McDermid et al., 2020; Schmidt & Haglund, 2017). Although it has been posited that EI is necessary for nurses working in the emergency department (Holbery, 2015; Scott, 2015), there is a gap in the literature on how EI might relate to the occurrence of CF in emergency department nurses. The results of this study revealed a significant ($p < .001$) negative correlation between EI and CF. Further, significant negative correlations were identified between EI and BO ($p < .001$) and EI and STS ($p < .003$). In this chapter, I discuss the interpretation of these findings as well as limitations of the study. I also review implications for practice and social change.

Interpretation of the Findings

The phenomenon of CF has been studied in depth and shown to be a critical issue for many in the nursing profession (Cocker & Joss, 2016; Zhang et al., 2018). The sequelae of CF present a tremendous burden for nurses (Nolte et al., 2017) and can affect the patients they care for and the organizations in which they work (Nolte et al., 2017; Zhang et al., 2018). Although much has been written about CF and its devastating effects, there is still a dearth of literature on possible prevention measures or ways to protect nurses from experiencing this phenomenon. One study found that EI was significantly ($p < .05$) negatively correlated with CF in health care providers (Zeidner et al., 2013). The

results of this study confirmed that EI is significantly ($p < .001$) negatively correlated with CF in emergency nurses. These results substantiated the importance of EI as a potential protective measure against the development of CF in emergency nurses.

In the literature review, a gap was noted on the relationship between EI and CF in emergency nurses. The results of this study extend the knowledge about the measures used to deal with CF including EI. The relationship identified between EI and CF reveals a way to potentially prevent the development of CF in emergency nurses.

I also found that higher EI levels were significantly ($p < .001$) negatively correlated with BO. This is relevant to the research question, and also due to nurses facing unprecedented levels of BO related to caring for patients during the COVID-19 pandemic (Manzano García & Ayala Calvo, 2021). BO occurs gradually when nurses face overwhelming workloads, low levels of support in the workplace, or limited resources (Stamm, 2010). In showing a negative correlation between EI and BO, a potential protective measure against BO is revealed.

A significant ($p < .003$) negative correlation was also noted between EI and STS. STS is a component of CF and can be detrimental for caregivers. It typically occurs when nurses provide care for traumatized patients. Through the empathic care they provide, nurses can then vicariously experience traumatic stress (Sorenson et al., 2017). This study has shown that EI can provide some protection against STS. This is especially important for nurses who frequently take care of traumatized patients, such as those in the emergency department.

Findings in the Context of the Theoretical Framework

The theoretical framework used for this study was Orem's' theory of self-care. The self-care theory focused on the self-care deficit present in patients and the deliberate action required to address that deficit (Younas, 2017). In using this framework, CF was viewed as the self-care deficit present in many emergency nurses and EI was posited as a tool to address this deficit. The findings of this study support the idea that EI provides some measure of protection against the self-care deficit that is CF. Further, Orem's theory also proposes that the patient must have awareness of the self-care deficit in order to take deliberate action (Younas, 2017). Awareness of CF as a problem within the nursing profession has been brought through the many research studies outlining it as a pertinent issue (Al-Majid, et al., 2016; Finley & Sheppard, 2017; Kelly, 2017; Lanier, 2017; Mazzotta, 2015; Zhang et al., 2018). My study adds knowledge of a deliberate action which can be taken to address the self-care deficit of CF. This action could be taken through education as there are studies that have shown that EI can be taught (Cotler et al., 2017; Gilar-Corbí et al., 2018). Teaching EI to nurses and nursing students could be helpful in reducing levels of CF, BO, and STS as self-care deficits.

Limitations of the Study

This study was limited by the use of a convenience sample. Email invitations were sent to recruit participants from states who had publicly available email addresses. The invitation flyer was also posted on Facebook and LinkedIn and made available on the ENA's External Research Opportunities website. Thus, only nurses who viewed the invitation or lived in one of those states were made aware of the study. So, this study was

limited to those populations of emergency nurses and further to those emergency nurses who would choose to participate in the study.

Recommendations

The results of this study present several opportunities for further research. The exact study could be replicated within a different geographical location to further explore the generalizability of the results. Subsequent to the findings, an interventional study focusing on teaching EI could be conducted to evaluate EI and CF levels both before and after the intervention. This study could also be replicated with different nursing specialties such as nurses who work in critical care and oncology which are areas with high levels of CF (Alharbi et al., 2019; Xie et al., 2021).

Implications

The implications of these findings for the nursing profession are substantial. CF has plagued the profession in ways that has impacted the health and well-being of nurses and their ability to care for patients (Nolte et al., 2017; Zhang et al., 2018). The incidence of CF has also been correlated with high turnover rates (Nolte et al., 2017). Any measure to reduce, prevent, or address CF and its components: BO and STS is one that could significantly impact the profession of nursing in a major way.

The results of this study have uncovered a way to prevent the development of CF in emergency nurses. In increasing EI and lowering the incidence of CF, the devastating sequelae of CF can be minimalized or avoided. This can induce positive social change through the reduction of phenomena that negatively impact the lives of emergency nurses and the experience of the patients they care for.

Conclusion

Through this research study, I sought to uncover a potential mechanism for protection against the development of CF in emergency nurses. Utilizing a quantitative methodology and linear regression, a significant negative correlation between EI and CF was revealed. The results of this study show that EI is correlated with a lower incidence of CF in emergency nurses, thereby demonstrating a significant insight into a new way to approach the development of CF. The impact of these results for positive social change cannot be understated due to the harmful nature of the sequelae of CF on nurses and patients alike. Using this knowledge to address and prevent the development of CF has the potential to impact the nursing profession in a profound way.

References

Alharbi, J., Jackson, D., & Usher, K. (2019). Compassion fatigue in critical care nurses: An integrative review of the literature. *Saudi Medical Journal, 40*(11), 1087–1097.

Al-Majid, S., Carlson, N., Kiyohara, M., Faith, M., & Rakovski, C. (2016). Assessing the degree of compassion satisfaction and compassion fatigue among critical care, oncology, and charge nurses. *Journal of Nursing Administration, 48*(6), 310-315. doi:10.1097/NNA.0000000000000620

Bar-On, R. (2006). The Bar-On model of emotional-social intelligence (ESI). *Psicothema, 18*(Suplemento), 13-25.

Basar, U., & Basim, N. (2016). A cross-sectional survey on consequences of nurses' burnout: Moderating role of organizational politics. *Journal of Advanced Nursing, 72*(8), 1838-1850. doi:10.1111/jan.12958

Beaumont, E., Durkin, M., Hollins Martin, C. J., & Carson, J. (2016). Measuring relationships between self-compassion, compassion fatigue, burnout and well-being in student counsellors and student cognitive behavioural psychotherapists: a quantitative survey. *Counselling & Psychotherapy Research, 16*(1), 15-23. doi:10.1002/capr.12054

Caringi, J. C., Hardiman, E. R., Weldon, P., Fletcher, S., Devlin, M., & Stanick, C. (2017). Secondary traumatic stress and licensed clinical social workers. *Traumatology, 23*(2), 186-195. doi:10.1037/trm0000061

Cetrano, G., Tedeschi, F., Rabbi, L., Gosetti, G., Lora, A., Lamonaca, D., & ... Amaddeo, F. (2017). How are compassion fatigue, burnout, and compassion satisfaction affected by quality of working life? Findings from a survey of mental health staff in Italy. *BMC Health Services Research, 17*(1), 755. doi:10.1186/s12913-017-2726-x

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

Codier, E., & Codier, D. (2015). Do emergency nurses have enough emotional intelligence? *Emergency Nurse (2014+), 23*(3), 26.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Erlbaum.

Cotler, J. L., DiTursi, D., Goldstein, I., Yates, J., & DelBelso, D. (2017). A mindful approach to teaching emotional intelligence to undergraduate students online and in person. *Information Systems Education Journal, 15*(1), 12–25.

Di Lorenzo, R., Venturelli, G., Spiga, G., & Ferri, P. (2019). Emotional intelligence, empathy and alexithymia: a cross-sectional survey on emotional competence in a group of nursing students. *Acta Bio-Medica: Atenei Parmensis, 90*(4–S), 32–43.

Dominguez-Gomez, E., & Rutledge, D.N. (2009). Prevalence of secondary traumatic stress among emergency nurses. *Journal of Emergency Nursing, 35*(3), 199-204.

Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods, 41*, 1149-1160.

Feo, R., Rasmussen, P., Wiechula, R., Conroy, T., & Kitson, A. (2017). Developing effective and caring nurse-patient relationships. *Nursing Standard, 31*(28), 54–62.

Figley, C. R. (2002). Compassion fatigue: Psychotherapists' chronic lack of self-care. *Journal of Clinical Psychology, 58*(11), 1433-1441.

Figley, C. R., & Ludick, M. (2017). Secondary traumatization and compassion fatigue. In S. N. Gold, S. N. Gold (Eds.), *APA handbook of trauma psychology: Foundations in knowledge* (pp. 573-593). American Psychological Association. doi:10.1037/0000019-029

Finley, B. A., & Sheppard, K. G. (2017). Compassion Fatigue: Exploring early-career oncology nurses' experiences. *Clinical Journal of Oncology Nursing, 21*(3), E61-E66. doi:10.1188/17.CJON.E61-E66

Flarity, K., Eric Gentry, J., & 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

Gilar-Corbí, R., Pozo-Rico, T., Sánchez, B., & Castejón, J. L. (2018). Can emotional competence be taught in higher education? A randomized experimental study of an emotional intelligence training program using a multimethodological approach. *Frontiers in Psychology, 9*.

Goodwin, M. (2017). Work/life balance. Best practices in healthcare management begin with self. *Nursing Economic$, 35*(3), 152-155.

Goleman, D. (1995). *Emotional intelligence*. Bantam Books.

Hackel, J., & Fawcett, J. (2018). Teaching and learning from case studies: The added value of using a nursing conceptual model to construct cases. *Nursing Science Quarterly, 31*(3), 263-271. doi:10.1177/0894318418774872

Harris, C., & Griffin, M. Q. (2015). Nursing on empty: Compassion fatigue signs, symptoms, and system interventions. *Journal of Christian Nursing: A Quarterly Publication of Nurses Christian Fellowship, 32*(2), 80-87.

Hartweg, D. (1991). *Dorothea Orem: Self-care deficit theory* (Vol. 4). Sage Publications.

Hartweg, D. L., & Fleck, L. M. (2010). Dorothea Orem's self-care deficit theory. In M.E. Parker & M.C. Smith (Eds.), *Nursing theories and nursing practice* (pp. 121-145). F.A. Davis.

Heydari, A., Kareshki, H., & Armat, M. R. (2016). Is nurses' professional competence related to their personality and emotional intelligence? A cross-sectional study. *Journal of Caring Sciences, 5*(2), 121.

Hinderer, K. A., VonRueden, K. T., Friedmann, E., McQuillan, K. A., Gilmore, R., Kramer, B., & Murray, M. (2014). Burnout, compassion fatigue, compassion satisfaction, and secondary traumatic stress in trauma nurses. *Journal of Trauma Nursing, 21*(4), 160-169. doi:10.1097/JTN.0000000000000055

Holbery, N. (2015). Emotional intelligence – essential for trauma nursing. *International Emergency Nursing, 23*(1), 13-16. doi:10.1016/j.ienj.2014.08.009

Hunsaker, S., Chen, H.-C., Maughan, D., & Heaston, S. (2015). Factors that influence the development of compassion fatigue, burnout, and compassion satisfaction in emergency department nurses. *Journal of Nursing Scholarship, 47*(2), 186–194.

Jakimowicz, S., Perry, L., & Lewis, J. (2018). Compassion satisfaction and fatigue: A cross-sectional survey of Australian intensive care nurses. *Australian Critical Care, 31*(6), 396–405. doi:10.1016/j.aucc.2017.10.003

Jakel, P., Kenney, J., Ludan, N., Miller, P. S., McNair, N., & Matesic, E. (2016). Effects of the use of the provider resilience mobile application in reducing compassion fatigue in oncology nursing. *Clinical Journal of Oncology Nursing, 20*(6), 611–616. https://doi-org.ezp.waldenulibrary.org/10.1188/16.CJON.611-616

Jenkins, B., & Warren, N. A. (2012). Concept analysis: compassion fatigue and effects upon critical care nurses. *Critical Care Nursing Quarterly, 35*(4), 388-395.

Joinson, C. (1992). Coping with compassion fatigue. *Nursing, 22*(4), 116-118.

Kelly, L. A. (2017). Effect of meaningful recognition on critical care nurses' compassion fatigue. *American Journal of Critical Care, 26*(6), 438-444. doi:10.4037/ajcc2017471

Kleiner, S., & Wallace, J. E. (2017). Oncologist burnout and compassion fatigue: Investigating time pressure at work as a predictor and the mediating role of work-family conflict. *BMC Health Services Research, 17*(1), 639. doi:10.1186/s12913-017-2581-9

Laerd Statistics. (2013). Simple linear regression. Retrieved from https://statistics.laerd.com/premium/spss/lr/linear-regression-in-spss-11.php

Laerd Statistics. (2018). Linear regression analysis using SPSS statistics. Retrieved from https://statistics.laerd.com/spss-tutorials/linear-regression-using-spss-statistics.php

Landis, P. (2018). When patients backslide into their back story: Can emotional intelligence help emergency nurses? *Journal of Emergency Nursing, 44*(6), 650–651. doi:10.1016/j.jen.2018.07.015

Lanier, J. (2017). Running on empty: Compassion fatigue in nurses and non-professional caregivers. *Ohio Nurses Review, 92*(6), 21-26.

Lee, E., Daugherty, J., Eskierka, K., & Hamelin, K. (2018). Compassion fatigue and burnout, one institution's interventions. *Journal of PeriAnesthesia Nursing*.

Li, H., Cheng, B., & Zhu, X. P. (2018). Quantification of burnout in emergency nurses: A systematic review and meta-analysis. *International Emergency Nursing*, *39*, 46–54.

Lyon, S., & Thompson, C. (2018). Emotional intelligence and compassion: Considerations for recruiting mental health nursing students. *Mental Health Nursing, 38*(2), 10–12.

Manzano García, G., & Ayala Calvo, J. C. (2021). The threat of COVID-19 and its influence on nursing staff burnout. *Journal of Advanced Nursing, 77*(2), 832–844.

Mazzotta, C. P. (2015). Paying attention to compassion fatigue in emergency nurses. *The American Journal of Nursing, 115*(12), 13. doi:10.1097/01.NAJ.0000475268.60265.00

McDermid, F., Mannix, J., & Peters, K. (2020). Factors contributing to high turnover rates of emergency nurses: A review of the literature. *Australian Critical Care, 33*(4), 390–396. doi: 10.1016/j.aucc.2019.09.002

Mills, J., Wand, T., & Fraser, J. A. (2015). On self-compassion and self-care in nursing: Selfish or essential for compassionate care? *International Journal of Nursing Studies, 52*(4), 791-793.

Missouridou, E. (2017). Secondary posttraumatic stress and nurses' emotional responses to patient's trauma. *Journal of Trauma Nursing, 24*(2), 110-115. doi:10.1097/JTN.0000000000000274

Mohammadpour, A., Sharghi, N. R., Khosravan, S., Alami, A., & Akhond, M. (2015). The effect of a supportive educational intervention developed based on the Orem's self-care theory on the self-care ability of patients with myocardial infarction: A randomised controlled trial. *Journal of Clinical Nursing, 24*(11–12), 1686–1692. https://doi-org.ezp.waldenulibrary.org/10.1111/jocn.12775

Mooney, C., Fetter, K., Gross, B. W., Rinehart, C., Lynch, C., & Rogers, F. B. (2017). A preliminary analysis of compassion satisfaction and compassion fatigue with considerations for nursing unit specialization and demographic factors. *Journal of Trauma Nursing, 24*(3), 158–163. https://doi-org.ezp.waldenulibrary.org/10.1097/JTN.0000000000000284

Morrison, L. E., & Joy, J. P. (2016). Secondary traumatic stress in the emergency department. *Journal of Advanced Nursing, 72*(11), 2894–2906. https://doi-org.ezp.waldenulibrary.org/10.1111/jan.13030

Nolte, A. G. W., Downing, C., Temane, A., & Hastings, T. M. (2017). Compassion fatigue in nurses: A metasynthesis. *Journal of Clinical Nursing, 26*(23–24), 4364–4378. https://doi-org.ezp.waldenulibrary.org/10.1111/jocn.13766

Nurses for a Healthier Tomorrow. (n.d.). Emergency nurses. Retrieved from https://www.nursesource.org/emergency.html

Orem, D. (1991). *Nursing: Concepts of practice* (4th ed). St. Louis: Mosby.

Orem, D. (2001). *Nursing: Concepts of practice* (6th ed). St. Louis: Mosby.

Orem, D. E., Taylor, S. G., & Renpenning, K. M. (1985). *Nursing: Concepts of practice*.

Pajnkihar, M., McKenna, H. P., Stiglic, G., & Vrbnjak, D. (2017). Fit for Practice: Analysis and Evaluation of Watson's Theory of Human Caring. *Nursing Science Quarterly, 30*(3), 243–252. doi:10.1177/0894318417708409

Petrides, K. V., & Furnham, A. (2000). On the dimensional structure of emotional intelligence. *Personality and Individual Differences, 29*(2), 313-320.

Petrides, K. V., & Furnham, A. (2001). Trait emotional intelligence: Psychometric investigation with reference to established trait taxonomies. *European Journal of Personality, 15*(6), 425-448.

Polit, D. F., & Beck, C. T. (2017). *Nursing research: Generating and assessing evidence for nursing practice* (10th ed.). Philadelphia, PA: Wolters Kluwer.

ProQOL.org. (2019). Professional quality of life measure: ProQOL.org. Retrieved from https://proqol.org/ProQol_Test.html

Sacco, T. L., Ciurzynski, S. M., Harvey, M. E., & Ingersoll, G. L. (2015). Compassion satisfaction and compassion fatigue among critical care nurses. *Critical Care Nurse, 35*(4), 32-44. doi:10.4037/ccn2015392

Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition and Personality, 9*(3), 185-211.

Schmidt, M., & Haglund, K. (2017). Debrief in emergency departments to improve compassion fatigue and promote resiliency. *Journal of Trauma Nursing, 24*(5), 317-322. doi:10.1097/JTN.0000000000000315

Schutte, N.S., Malouff, J.M., & Bhullar, N. (2009). The Assessing Emotions Scale. C. Stough, D. Saklofske & J. Parker (Eds.), *The assessment of emotional intelligence*. New York: Springer Publishing, 119-135.

Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences 25*, 167-177.

Scott, T. (2015). Teaching emotional intelligence. *Emergency Nurse, 23*(3), 5. doi:10.7748/en.23.3.5.s1

Sorenson, C., Bolick, B., Wright, K., & Hamilton, R. (2016). Understanding compassion fatigue in healthcare providers: A review of current literature. *Journal of Nursing Scholarship, 48* (5), 456-465.

Sorenson, C., Bolick, B., Wright, K., & Hamilton, R. (2017). An evolutionary concept analysis of compassion fatigue. *Journal of Nursing Scholarship, 49*(5), 557-563. doi:http://dx.doi.org.ezp.waldenulibrary.org/10.1111/jnu.12312

Stamm, B. H. (2005). *The ProQOL manual.* Retrieved from http://compassionfatigue.org/pages/ProQOLManualOct05.pdf

Stamm, B.H. (2010). *The concise ProQOL manual*, 2nd Ed. Pocatello, ID: ProQOL.org.

Štiglic, G., Cilar, L., Novak, Ž., Vrbnjak, D., Stenhouse, R., Snowden, A., & Pajnkihar, M. (2018). Emotional intelligence among nursing students: Findings from a cross-sectional study. *Nurse Education Today, 66,* 33–38.

SurveyMonkey.com. (2019a). Making responses anonymous. Retrieved from https://help.surveymonkey.com/articles/en_US/kb/How-do-I-make-surveys-anonymous

SurveyMonkey.com. (2019b). Security statement. Retrieved from https://www.surveymonkey.com/mp/legal/security/

SurveyMonkey.com. (2019c). Survey data cleaning: 7 things to check before you start your analysis. Retrieved from https://www.surveymonkey.com/curiosity/survey-data-cleaning-7-things-to-check-before-you-start-your-analysis/

Teófilo, T. J. S., Veras, R. F. S., Silva, V. A., Cunha, N. M., Oliveira, J. D. S., & Vasconcelos, S. C. (2018). Empathy in the nurse-patient relationship in geriatric care: An integrative review. *Nursing Ethics, 969733018787228*. https://doi-org.ezp.waldenulibrary.org/10.1177/0969733018787228

U. S. Bureau of Labor Statistics. (2021). Labor force statistics from the current population survey. Retrieved from https://www.bls.gov/cps/cpsaat11.htm

Williamson, D. (2019). Effectiveness of providing education about alcohol use disorders and compassion fatigue for emergency department nurses. *Journal of Addictions Nursing (Lippincott Williams & Wilkins), 30*(1), 32–39.

Winters, A. (2018). Secondary traumatic stress and compassion fatigue: A guide for childbirth professionals when the infant dies. *International Journal of Childbirth Education, 33*(3), 46-50.

Wong, C. L., Ip, W. Y., Choi, K. C., & Lam, L. W. (2015). Examining self-care behaviors and their associated factors among adolescent girls with dysmenorrhea: An application of Orem's Self-Care Deficit Nursing Theory. *Journal of Nursing Scholarship,* (3), 219. doi:10.1111/jnu.12134

Xie, W., Wang, J., Zhang, Y., Zuo, M., Kang, H., Tang, P., Zeng, L., Jin, M., Ni, W., & Ma, C. (2021). The levels, prevalence and related factors of compassion fatigue among oncology nurses: a systematic review and meta-analysis. *Journal of Clinical Nursing (John Wiley & Sons, Inc.), 30*(5/6), 615–632.

Yang, Y. H., & Kim, J. K. (2012). A literature review of compassion fatigue in nursing. *Korean Journal of Adult Nursing, 24*(1), 38-51.

Younas, A. (2017). A foundational analysis of Dorothea Orem's Self-Care Theory and evaluation of its significance for nursing practice and research. *Creative Nursing, 23*(1), 13-23. doi:10.1891/1078-4535.23,1.13

Young H. Y. & Jong K. K. (2016). Factors influencing turnover intention in clinical nurses: Compassion fatigue, coping, social support, and job satisfaction. *Journal*

of Korean Academy of Nursing Administration, 22(5), 562–569. https://doi-org.ezp.waldenulibrary.org/10.11111/jkana.2016.22.5.562

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.446-453

Zeidner, M., Hadar, D., Matthews, G., & Roberts, R. D. (2013). Personal factors related to compassion fatigue in health professionals. *Anxiety, Stress & Coping*, *26*(6), 595-609. doi:10.1080/10615806.2013.777045

Zhang, Y.-Y., Han, W.-L., Qin, W., Yin, H.-X., Zhang, C.-F., Kong, C., & Wang, Y.-L. (2018). Extent of compassion satisfaction, compassion fatigue and burnout in nursing: A meta-analysis. *Journal of Nursing Management, 26*(7), 810–819. doi: 10.1111/jonm.12589

Appendix A: Study Invitation

You are invited to participate in a study on emotional intelligence and compassion fatigue in emergency nurses.

You are eligible if you are a registered nurse who has worked in the emergency department for more than one year. The emergency department you work in must be in an acute care hospital (not a stand-alone emergency department). You also must be working more than 30 hours per week in the emergency department.

It takes approximately 20 minutes to complete both surveys and internet access is required. The results will be used to determine if a relationship between emotional intelligence and compassion fatigue exists in emergency nurses. Participation in my study is completely voluntary. Your participation is greatly appreciated.

I hope you will consider participating in my study by clicking on this link:

Sincerely,
Kylie Yearwood, MSN, RN
kylie.yearwood@waldenu.edu
PhD Candidate, Walden University

Appendix B: Participant Screening Questions

Are you a registered nurse (RN) with a current license to practice?

Yes

No

Have you worked as a registered nurse (RN) in the emergency department in an acute care hospital for one year or longer? (This does not include urgent care clinics or stand-alone emergency departments)

Yes

No

Do you work as a registered nurse (RN) in the emergency department for 30 or more hours per week?

Yes

No

Are you an Advanced Practice Registered Nurse (APRN) such as a Nurse Practitioner (NP) or Clinical Nurse Specialist (CNS)?

Yes

No

Appendix C: Demographic Information

What is your age in years?

18-29

30-39

40-49

50-59

60-69

70 or older

What is your gender?

Male

Female

Other

What is your ethnicity?

White

Black or African American

American Indian or Alaskan Native

Asian

Pacific Islander

Hispanic

From multiple races

Other (please specify)

What is your marital status?

Married

Divorced

Single

Widowed

How many years have you practiced as a registered nurse?

1-2 years

2-5 years

5-10 years

10-15 years

>15 years

How many years have you worked in the emergency department?

1-2 years

2-3 years

3-4 years

4-5 years

5-10 years

>10 years

How many hours per week do you work in the emergency department on average?

30-35 hours

35-40 hours

>40 hours

Are you a Certified Emergency Nurse (CEN)?

Yes

No

What is the highest degree you have earned?

Diploma

Associate

Bachelor

Master

Doctorate

Appendix D: Permission to Use the ProQOL

Permission for Use of the ProQOL (Professional Quality of Life Scale: Compassion Satisfaction and Compassion Fatigue) www.proqol.org

Accompanied by the email to you, this document grants you permission to use for your study or project

The ProQOL (Professional Quality of Life Scale: Compassion Satisfaction and Compassion Fatigue) www.ProQOL.org

Prior to beginning your project and at the time of any publications, please verify that you are using the latest version by checking the website. All revisions are posted there. If you began project with an earlier version, please reference both to avoid confusion for readers of your work.

This permission covers non-profit, non-commercial uses and includes permission to reformat the questions into a version that is appropriate for your use. This may include computerizing the measure.

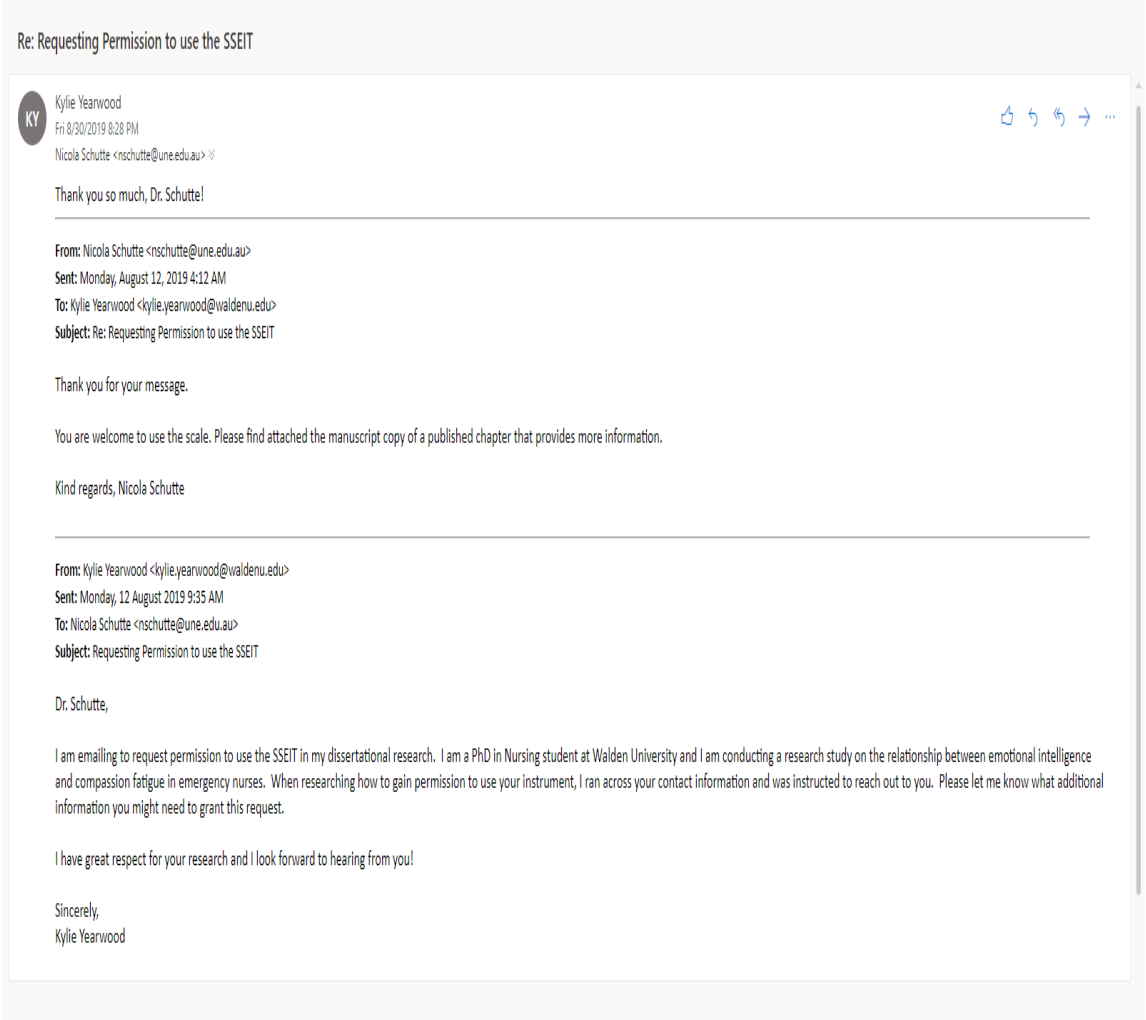
Please print the following reference or credit line in all documents that include results gathered from the use of the ProQOL.

Stamm, B. H. (2010). The ProQOL (*Professional Quality of Life Scale: Compassion Satisfaction and Compassion Fatigue*). Pocatello, ID: ProQOL.org. retrieved [date] www.proqol.org

Permission granted by
Beth Hudnall Stamm, PhD
Author, ProQOL
ProQOL.org
info@proqol.org

Help us help all of us. Please consider donating a copy of your raw data to the data bank. You can find more about the data bank and how you can donate at www.proqol.org and www.proqol.org/Donate_Data.html. Data donated to the ProQOL Data Bank allow us to advance the theory of compassion satisfaction and compassion fatigue and to improve and norm the measure itself.

Appendix E: Permission to Use the SSEIT



Re: Requesting Permission to use the SSEIT

KY

Kylie Yearwood
Fri 8/30/2019 8:28 PM
Nicola Schutte <nschutte@une.edu.au>

Thank you so much, Dr. Schutte!

From: Nicola Schutte <nschutte@une.edu.au>
Sent: Monday, August 12, 2019 4:12 AM
To: Kylie Yearwood <kylie.yearwood@waldenu.edu>
Subject: Re: Requesting Permission to use the SSEIT

Thank you for your message.

You are welcome to use the scale. Please find attached the manuscript copy of a published chapter that provides more information.

Kind regards, Nicola Schutte

From: Kylie Yearwood <kylie.yearwood@waldenu.edu>
Sent: Monday, 12 August 2019 9:35 AM
To: Nicola Schutte <nschutte@une.edu.au>
Subject: Requesting Permission to use the SSEIT

Dr. Schutte,

I am emailing to request permission to use the SSEIT in my dissertational research. I am a PhD in Nursing student at Walden University and I am conducting a research study on the relationship between emotional intelligence and compassion fatigue in emergency nurses. When researching how to gain permission to use your instrument, I ran across your contact information and was instructed to reach out to you. Please let me know what additional information you might need to grant this request.

I have great respect for your research and I look forward to hearing from you!

Sincerely,
Kylie Yearwood