MARYWOOD UNIVERSITY

Interdisciplinary Ph.D. in Human Development

Effects of Self-Care Practices and Personal and Occupational Variables on Compassion Satisfaction, Burnout, Secondary Traumatic Stress, and Compassion Fatigue in Hospice Nurses.

Linda C. Denz

A Dissertation in Ph.D. in Human Development/Social Work

Submitted in Partial Fulfillment
Of the Requirements for the Degree of
Ph.D. in Human Development

April 5, 2019

COPYRIGHT PAGE

© 2019- Linda C. Denz, all rights reserved.

Acknowledgements

My faith in the Lord from whom all good things come has guided me throughout this project. I am grateful to all the members of my Dissertation Committee with whom I have had the pleasure to work with during this research study. Each member provided valuable insight into the need for clarity in undertaking scientific research. Each of these professionals, in the midst of their own busy lives, gave of themselves, guiding me and for that I am so thankful. I would especially like to thank Dr. Gail Cabral IHM, the chairman of my committee. As my teacher and mentor, she has taught me more than I could ever give her credit for here. She is resilient in the face of many deadlines and takes any obstacles as challenges to overcome. Dr. Keller and Dr. Weldon bring great wisdom to their work and do so effortlessly.

Nobody has been more important to me in the pursuit of this degree and research project, than the members of my family. Most importantly, I would like to thank my loving and supportive husband Albert, who is always beside me in whatever I pursue in life. I wish to thank my loving and supportive mother who always had time to talk when I needed self-care. Thank you to my four children who I am so proud of and who inspire me with their own accomplishments. I want to say thank you to all my grandchildren who have been so understanding when I have not been available. I hope in each one of your lives you have a dream and live toward that dream.

ABSTRACT

In this study, the frequency of self-care behaviors of hospice nurses was explored to demonstrate whether there is a relationship between frequency of self-care behaviors and compassion satisfaction, and compassion fatigue measured by burnout and secondary traumatic stress. This quantitative study consisted of a questionnaire of 19 self-care behavior activities, the Self-Care Behavior Inventory (SCBI), the Professional Quality of Life (ProQOL) screen, and personal and occupational demographics. Ninety-one hospice nurses from the Hospice and Palliative Nursing Association (HPNA) participated in the study. There was a significant positive correlation between frequency of self-care behaviors and compassion satisfaction. There was a significant negative correlation between self-reported burnout and frequency of self-care behaviors, and there was a negative correlation between frequency of self-care behaviors and secondary traumatic stress. Some exploratory findings revealed that supervisor support in the workplace was related to higher compassion satisfaction scores and lower burnout scores, but was not related to secondary traumatic stress. An unanticipated finding was the participants' emphasis on the importance of peer support. Peer support was related to lower scores on secondary traumatic stress and burnout, and higher scores on compassion satisfaction. It is hoped this study will inform hospice organizations and nursing schools regarding policies, procedures, and practices.

Keywords: compassion fatigue, caregivers, compassion satisfaction, burnout, secondary traumatic stress, nursing stress, hospice nursing stressors, hospice nurses

Table of Contents

Chapter 1

Overview of the Study

Wherever professionals engage in caregiving, there exists a level of empathy and caring provided by the professional. In one professional field, nursing, caregiving lies at the very core of the work being done; this sets the stage for some nurses to experience too much empathy and cross professional boundaries when delivering care (Osofsky, Putnam, & Lederman, 2008; Thompson, 2003). Observing professional boundaries means performing caregiving tasks that are expected from a nurse, and crossing professional boundaries means going above and beyond what is expected (Joinson, 1995). Crossing professional boundaries can contribute to burnout and secondary traumatic stress, both of which are components of compassion fatigue (Sacco, Ciurzynski, Harvey, & Ingersoll, 2015). Burnout and secondary traumatic stress surface when there are stressors encountered by nurses. Whether or not these stressors become problematic has much to do with the nurses themselves. Through the lens of Lazarus's stress theory, "individuals interpret and appraise stressful conditions differently" (Robinson, 2018, p.339). Lazarus focused on psychological stress responses instead of looking at physiological responses, which challenged the work of earlier stress researchers (Robinson, 2018). There are common stressors experienced by nurses working in the healthcare field; however, Lazarus asserted that it is how an individual is able to deal with stress that is important (Lazarus, 1990). When accounting for stress and stressors, it is suggested that self-care is an important deterrent for compassion fatigue and stress in all professionals, including nurses (Stamm, 2009). Lazarus felt that how someone copes and interprets the stress determines whether or not something becomes a stressor (Lazarus, 1992).

A leading researcher on compassion fatigue, Stamm wrote that "compassion fatigue is characterized by the negative aspects of providing care to those who have experienced extreme or traumatic stressors" (Stamm, 2010, p.21). There are unique burdens placed on caregivers according to Joinson, the nurse who first brought compassion fatigue to light (1992). "Nurses as caregivers are taking care of patients in pain and who are fearful, anxious, stressed, and often unable to cope" (Joinson, 1992, p.116). The patients will often look to nurses in this situation to ease their symptoms, and this may place considerable stress on the nurses.

Hospice nurses would seem to be more at risk for compassion fatigue because they work with patients who do not get better and who are dying; hospice nurses often work in the client's home surrounded by family and friends, and may face many deaths over short periods of time. Within the interpersonal relationships between hospice nurse and patient, and with the use of empathy and emotional energy, the hospice nurse may be put in a position to develop compassion fatigue(Sabo, 2008, p.2). When providing care to patients experiencing pain, suffering, or trauma, hospice nurses may experience adverse effects similar to those of their patients (Sabo, 2008, p.2). Nurses who develop secondary traumatic stress often complain of difficulty sleeping, being afraid, experiencing intrusive thoughts, and even demonstrate avoidance (Stamm, 2010, p.13).

Self-care refers to all the activities one can engage in that will decrease stress and negative outcomes in a person's life (Santana & Fouad, 2017). Self-care is also thought to minimize the experience of compassion fatigue and, in fact, influence positively a caregiver's chances of compassion satisfaction. Nurses in particular have reported different factors that impact the components of compassion satisfaction, burnout, and secondary traumatic stress, but

very little is known about their self-care habits. Self-care has been shown to positively affect quality of life; however, there is a significant gap in the literature about self-care practices or their frequencies that deter compassion fatigue (Endicott, 2006; Shapiro, Brown, & Biegel, 2007; Thompson, 2011).

Statement of the Problem

Studies have shown that there are many contributors to a nurse's experience of compassion fatigue, such as personal factors like age, gender, and years in nursing; however, stress has been shown to be the overall contributor (Sacco et al., 2015). Occupational stressors have been noted to influence burnout in nurses, such as the nursing unit where a nurse works, support available in the workplace, size of caseloads, and difficult work environments (Sacco et al., 2015). Other occupational stressors mentioned include a reported lack of self-confidence in communication skills with clients and relatives about end-of-life issues, staying in a specialized field for a length of time, and lack of time off (Pereira, Fonseca, & Carballo, 2011). Occupational factors may always be changing; however, what does a nurse do for himself/herself when feeling overwhelmed and stressed? Self-care is designed to restore emotional balance and decrease the negative effects of stress (Esposito & Fitzpatrick, 2011; Hawkins et al., 2007).

Hospice nurses reported many of the same stressors and challenges of other acute care nurses, such as inadequate time with patients who are dying, no time to grieve, large workloads, and no time to respond emotionally or cope with losses (Slocum-Gori, Hemsworth, Chan, Carson, & Kazanjian, 2011). Personal and occupational factors contributed to compassion fatigue as shown in the literature (Slocum-Gori et al., 2011); however, there is limited data on how nurses can reverse these factors and feel better. It has been suggested that self-care behaviors may be beneficial, as these behaviors promote a balance between work and personal

life and decrease stress (Aycock & Boyle, 2009; Hegney, Craigie, Hemsworth, Osseiran-Moisson, Aoun, Francis, & Drury, 2014; Lombardo, 2011) The recently developed Self-Care Behavioral Instrument (SCBI) will be helpful in filling the gap in the literature on self-care and will allow for further research on the subject (Santana & Faoud, 2017). Using SCBI for this study provided necessary data on the self-care habits of hospice nurses (Santana & Faoud, 2017). The demographic survey provided some exploratory information on hospice nurses' personal and occupational variables, which were used to explore their relationship to compassion satisfaction, burnout, and secondary traumatic stress.

Compassion Fatigue

Compassion fatigue was first addressed in 1992, when nurse Carla Joinson described symptoms such as burnout and secondary traumatic stress observed in nurses she supervised. Joinson felt that a nurse's inability to deal with stress was at the heart of the problem (Joinson, 1992, p.116). Stress often builds and affects behavior, emotions, and thoughts, according to Joinson, who felt that nurses needed to recognize these symptoms before they lead to compassion fatigue (1992). She indicated that stress can also be overwhelming and aggressive, and encouraged nurses to distance themselves from stress, and to take time for engaging in activities of pleasure and interest (Joinson, 1992). Joinson encouraged nurses to learn about boundaries, to take advantage of down time, to find balance in their lives, and to develop a spiritual side to their life (Joinson, 1992).

Purpose and Significance of the Study

The purpose of this quantitative research study was to look at whether there was a relationship between the frequency of self-care behaviors and burnout, secondary traumatic stress, compassion fatigue, and compassion satisfaction in hospice nurses.

Examination of the literature indicated that data from research using a validated self-care instrument was lacking; until recently, no such instrument had been available. The research on self-care practices of nurses in the literature was limited, and usually consisted of generalized statements about the importance of self-care. When talking about self-care, researchers have been unable to provide any general data on the use of self-care. Research studies often focused on one self-care practice implemented for a study, and then noted how nurses responded to that particular practice, or simply promoted self-care practices that were physical in nature, such as walking (Berg, Hershberger, Halers-Schmidt, & Leypoldt, 2014; Pereira, et al., 2011; Sacco et al., 2015; Whitebird, Ache, Thompson, Rossum, & Heinrich, 2013). In this study, the general self-care practices of hospice nurses were explored in an attempt to discover whether frequencies of reported self-care impacted a nurse's experience of compassion satisfaction, burnout, and secondary traumatic stress.

Theoretical/Conceptual Framework

Through the lens of Lazarus's stress theory, which emphasizes the subjective aspect of stress, a nurse draws from the environment and from within to determine whether something is a stressor (Lazarus, 1993). Lazarus categorized stressors in three distinct ways: as harms, threats, or challenges (Lazarus, 1993, p. 5). According to Lazarus, with harm there is some type of psychological damage and irreversible loss. This in many ways parallels what can happen with secondary traumatic stress or burnout (Stamm, 2009). With threat, meanwhile, there is the

anticipation of harm that is imminent, and with challenge there are difficult demands that cause someone to dig in and attempt to overcome the challenge (Lazarus,1993, p.5). Lazarus concluded that when there are stressors, an individual appraises the situation in the context of how it is impacting their well-being (Lazarus, 1993, p.7).

Lazarus explained how coping affects stress by describing two styles of coping: problem-focused coping and emotion-focused coping. In problem-focused coping, coping may change the circumstances which cause stress for the better, while emotion-focused coping changes the way the individual understands what is happening (Lazarus, 1993, p.8).

Lazarus also pointed to the work of Folkman and Moskowitz (2000), who suggested that a person's positive affect may prevent breakdown when under stress (Lazarus, 2000, p.670). Folkman and Moskowitz (2000) feel that positive affect is relevant to caregiving when caregivers actively seek to keep events positive so that the caregiver can gain psychologically (Lazarus, 2000, p.670). This aligned with Lazarus's earlier work on how coping strategies can decrease stress (Lazarus, 1990). Many self-care behaviors are also coping strategies; for example, exercise, relaxation techniques, and talking with other professionals are activities that may also decrease stress.

Definitions. Figure 1 is a professional quality of life diagram noted in the ProQOL handbook by Stamm (2010, p.8). Each of the components of compassion fatigue are depicted.

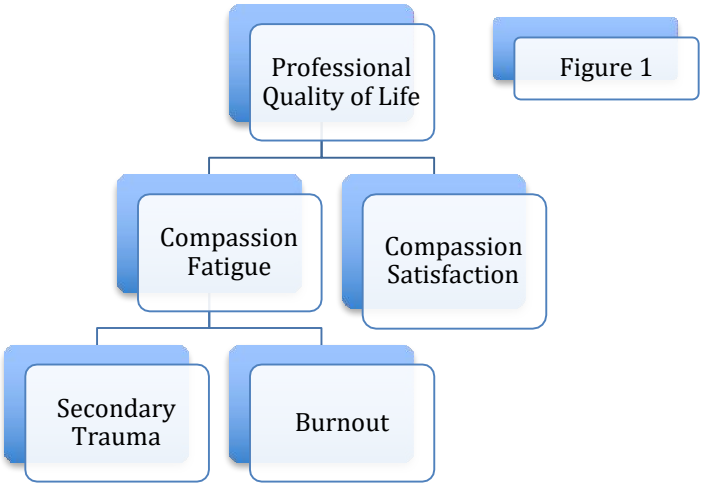

Figure 1. Professional quality of life diagram. Adapted from The ProQOL Manual, 5th Edition by B. Stamm, 2009.

Burnout. Burnout, one of the components of compassion fatigue (Stamm, 2010, p.10), is caused by stress in the everyday work environment that can be rooted in the organization or the clients being served, or may be due to personal factors in the professional's life (Newell & MacNeil, 2010). "Burnout is a psychological syndrome of exhaustion, cynicism, and inefficacy, which is experienced in response to chronic job stressors" (Maslach & Leiter, 2007, p.368).

Secondary traumatic stress. When professionals work continuously with clients who have suffered trauma, they may take on symptoms of post-traumatic stress disorder (PTSD), such as difficulty sleeping, nightmares, anger, or hyper-vigilance (Newell & MacNeil, 2010). To clarify, secondary stress is usually a behavioral response on the part of the professional to trauma they are hearing about or witnessing (Newell & MacNeil, 2010).

Compassion fatigue. Stamm (2010) describes compassion fatigue as "the negative aspect of our work as helpers" (Stamm,2010, p.3). Stamm and Figley (2009) note that compassion fatigue consists of two parts: burnout and secondary traumatic stress. Understanding that compassion fatigue manifests as burnout or secondary traumatic stress, then the negative aspects

encountered by helpers may include symptoms such as exhaustion, frustration, anger, depression, and trauma (Stamm,2010).

Lazarus's stress theory suggests that a person appraises each stressor they encounter as a harm, threat, or challenge (Lazarus,1990, p. 3). When the person appraises a stressor involving harm or threat of harm, these are the negative aspects of a person's perceptions, while a challenge is a positive attempt to overcome challenges (Lazarus, 1990).

Compassion satisfaction. According to Stamm, "compassion satisfaction is about the pleasure you get from doing your job well; it is the affirmative aspect of caring" (Stamm, 2005, p.3). In addition, Stamm and Figley (2009) suggest that compassion satisfaction is an important positive component of the work of the caregivers. It is expected to be more strongly present when there is neither burnout nor secondary traumatic stress. When there is no burnout or secondary traumatic stress, compassion satisfaction is more likely.

Professional quality of life. "Professional quality of life is the individual's feeling of constructive and destructive emotions during work. It most commonly highlights the positive or progressive and negative or damaging things that working people go through" (Mohsin, Shahed, & Sohail, 2017, p. 2).

Self-care. Self-care consists of emotional, relational, and cognitive components and also includes physical and spiritual aspects (Santana & Faoud, 2017). Nurses expend a lot of energy in their role as caregivers, and they must be able to move from the caregiving role to taking care of themselves (Joinson, 1992). Joinson (1992) believed that when nurses consistently remain in caregiving roles and do not take the time to renew themselves or relieve any stressors, then they are at risk for compassion fatigue.

Stress. Lazarus (1990) wrote that stress was a "relationship between a person and their environment" (p.4). According to him, "the stress relationship is one in which demands tax or exceed the person's resources" (Lazarus, 1990, p.3).

Stressors. Lazarus & Folkman (1984) indicated that what is considered a stressor is subjective and determined by the individual after appraising a situation. The environment may change an appraisal of the situation making this an ongoing process (Lazarus & Folkman,1984).

Chapter 2

Literature Review

This chapter reviewed the current hospice nursing literature and other acute care nursing literature related to stress, compassion satisfaction, burnout, and secondary traumatic stress, as well as current literature on self-care habits. How stressors impact hospice nurses in the performance of their job was explored. Additionally, studies that show compassion satisfaction, secondary traumatic stress, and burnout in hospice nurses afforded an understanding of the prevalence of burnout and secondary traumatic stress (Abendroth & Flannery, 2006; Boyd, Merkh, Rutledge, & Randall, 2011; Tunnah, Jones, & Johnstone, 2012). The intent of this information was to present to the reader a coherent understanding of hospice nursing stress and how that stress contributed to the risk of burnout and secondary traumatic stress and how it influenced compassion satisfaction in hospice nurses. The final literature reviewed was the literature on self-care and whether it decreased burnout, secondary traumatic stress, and compassion fatigue and increased the probability of compassion satisfaction. The literature showed studies where a self-care intervention was introduced to nurses without collecting empirical data. There was no validated scale to measure degrees of self-care until 2017, therefore there was a gap in the literature.

Once focused primarily on physical stressors, the concept of stress has expanded over the years to now include psychological stressors through the work of Lazarus (Robinson, 2018, p. 339). This information is beneficial when investigating compassion fatigue. Developing the transactional model of stress, Lazarus explained that every person reacts differently because they are able to “appraise” each situation encountered and determine if it is a stressor to them or not (Robinson, 2018). Lazarus also introduced coping as a step in reducing stress and a part of

the appraisal process (Robinson, 2018). Stress and stressors unique to nurses have been identified in the literature on burnout and second traumatic stress, both of which are components of compassion fatigue. Folkman and Moskowitz (2000) felt that when caregivers gave positive meaning to the work they were doing then the caregiver gained psychologically (Folkman & Moskowitz, 2000, p.670).

The chapter begins with an introduction to compassion fatigue and the ambiguity of the concept, and then explains the theoretical framework used in the study. The rest of the chapter is broken down into sections. These include an exploration of the types of nursing stressors encountered in each of the components of compassion fatigue, an examination of hospice nursing stress in particular, and an analysis of self-care. The chapter concludes with a summary of the review of current literature.

The information used to support the elements of the chapter was obtained through a search of the nursing literature. The following databases and others were used to explore the literature: ERIC (EBSCO), PsycARTICLES, Academic Search Elite, CINAHL, Google Scholar, and Proquest. Search terms included but were not limited to: compassion fatigue, secondary traumatic stress, compassion satisfaction, burnout, self-care, hospice nurses, acute care nurses, and stress. Every attempt was made to be comprehensive in this study.

History

Carla Joinson, a nurse, introduced the concept of compassion fatigue in 1992. Considered one of the first efforts to open consciousness to nursing stressors, burnout, and the experience of compassion fatigue, Joinson's article warned that nurses tend to forget how important it is to take a break from caregiving and helping others until it may be too late (1992). It was through Joinson's appeal to nurses to care for themselves as well as others that research on compassion

fatigue grew. Joinson did not offer nurses information on how to care for themselves, but offered in her article the advice of Doris Chase, who suggests nurses need "to learn about boundaries, to find humor in their work, to take alone time, to set priorities, to develop a spiritual side, and see themselves beyond their professional role" (Joinson,1992, p.121). From the beginning, it has been suggested that self-care, as it is now known, is fundamental to reducing the effects of compassion fatigue (Endicott, 2006; Shapiro, Brown, & Biegel, 2007; Thompson., 2011).

Since Joinson's article (1992), Charles Figley has contributed much research data on compassion fatigue (1995). Figley originally looked at family traumatization and, after Joinson's article, began looking at the traumatization that was occurring in those who treated the traumatized, which included nurses (Figley, 1995). Figley and Stamm (2010) then developed the Professional Quality of Life (ProQOL) scale as a screening tool for compassion fatigue. Figley (1995) was instrumental in developing concepts related to compassion fatigue, including its components, burnout, secondary traumatic stress including vicarious traumatization, and the concept of compassion satisfaction. He would later write a book, *The Treatment of Compassion Fatigue* (2013), which introduced the concept of the Accelerated Recovery Program (ARP). "This was a 5-session program developed to help 'the helper' by knowing triggers, acquiring necessary skills, self-care habits, connecting with others, knowing resources available, and using self-soothing techniques" (Figley, 2013, p.10). Self-soothing techniques are ways of calming such as lighting a candle, drinking a cup of tea, taking a bath, being outside, or watching a sunset. Again, the recommendation for reducing compassion fatigue in the book is the use of self-care, which each of these activities could be considered. Although self-care techniques were encouraged, a validated self-care instrument was not used or shown to be available.

Figley & Radey (2007) introduced one of the first tools to measure self-care in social workers, a model which they felt would generate compassion satisfaction in other professional caregiving fields. The model implied that there were three factors that would be beneficial for social workers to use to create compassion satisfaction. These three factors were effect, work resources, and self-care (Figley and Radey, 2007, p.207) The authors went on to state that "there is little empirical research on self-care and how it impacts the professional and client" (Figley and Radey, 2007, p.213) but that common sense suggests its importance.

With the volumes of information available on compassion fatigue, there has been difficulty understanding how compassion fatigue is measured. Joinson (1992) coined the term "compassion fatigue", used to describe what she was witnessing in her nurses. The concepts of burnout and secondary traumatic stress had not been introduced yet. Is compassion fatigue both the effects of burnout and secondary traumatic stress, or does it stand alone? The literature itself was not clear, and there was an ambiguity about the term itself. Stamm stated that compassion fatigue "is characterized by the negative aspects of providing care to those who have experienced extreme or traumatic stressors" (Stamm, 2010, p.21), which sounded like burnout and secondary traumatic stress. Stamm (2010) goes on to say that "there really is no delineation between compassion fatigue, secondary traumatic stress, and burnout and when researchers have tried to find real differences between the concepts they have been unsuccessful" (Stamm, 2010, p.9). However, for the current study we used the three variables, compassion satisfaction, burnout, and secondary traumatic stress, because they have been the most widely used in the literature (Stamm, 2010).

Theoretical background. Lazarus wrote that stress was a "relationship between a person and their environment" (Lazarus, 1990, p.4). When this happens, as noted earlier in the

definitions section, a stressor in the environment is recognized and appraised by the individual. According to Lazarus & Folkman (1984), a stressor is subjective and determined by the individual. What might be a stressor to one person may not be a stressor to another. In essence, each hospice nurse will look at stressors differently. One nurse may find that stress is useful or a challenge and this helps her to experience satisfaction in accomplishing the task at hand. Another nurse may be immobilized by the same stressor and, as the effect of this perception, may suffer the effects of either burnout or secondary traumatic stress.

As Lazarus pointed out, each person appraises their environment for stressors, and when something is changed then the stressor may also change (Lazarus, 1990). A nurse who uses effective coping skills can decrease his/her stress reaction or a change in the environment itself can decrease stress reactions, according to Lazarus (1990). Adding to Lazarus's stress theory, Lazarus & Folkman (2006) suggested that the basis of stress was a person's appraisal of any given stressful situation encountered. The first step is the primary appraisal where the person is determining if the situation is stressful or not. Secondly, the person is usually thinking about how they will deal with the stressor and finally, they reappraise the situation using skills and options they may have learned to increase or decrease the stressor (Fehr & Washburn, 2018). As noted in the literature, nursing can be a highly stressful and physically demanding job (Berg et al., 2016; Carter et al., 2013; Cashavelly et al., 2008; Joinson,1992). When a nurse faces a specific circumstance, she may note her own physiological and psychological response. In the second step of dealing with stress suggested by Lazarus & Folkman (2006), the nurse then may appraise the skills she has to deal with the specific circumstance. Simultaneously the third step of Lazarus's approach, reappraisal is taking place. The process may indicate that she has the skills in place to deal to decrease the effect of stressors. Sometimes if people perceive that they do not

have skills in place to deal with the situation, they continue to experience their stressors as highly negative. Thus, they remain in a condition of continued stress, which is leading in the direction of burnout (Abendroth & Flannery, 2006; Fehr & Washburn, 2018; Hunsaker, et al., 2015; Joinson, 1992; Komachi et al., 2012; Tunnah et al., 2013).

Components of Compassion Fatigue

Understanding that stress and stressors play a large part in compassion fatigue, the next section will first examine burnout and secondary traumatic stress as components of compassion fatigue, and then examine compassion satisfaction, as each has a level of stress associated with it. Finally, exploring compassion fatigue in the nursing field as a whole (Joinson, 1992; Lazarus, 1990; Newell & MacNeil, 2010) will clarify how each relates to hospice nurses.

Stress and burnout. The theme of work-related stress and stressors is connected to incidences of burnout, which is a component of compassion fatigue (Berg et al., 2016; Newell & MacNeil, 2010; Range & Rotherham, 2010). When burnout occurs, a professional may often demonstrate behaviors that include tardiness, absenteeism, fatigue, disengagement from clients, and a general inability to perform in his or her role (Newell & MacNeil, 2010). Stress in the work environment has been reported by many nurses (Berg et al., 2014; Newell & MacNeil, 2010; Range & Rotherham, 2010). According to Newell and MacNeil, stress in a professional's environment included things such as a professional perceiving little or no support in their workplace, a large turnover of staff, minimal staffing, and heavy workloads (Newell & MacNeil, 2010).

Encountering stress in the workplace environment sets the stage for burnout, which may cause psychological disruption and manifest in a professional as a feeling of being emotionally drained (Stamm, 2009; Lazarus, 2000). As noted previously in Chapter 1, there are three ways

of looking at a stressor according to Lazarus: as either a harm, a threat, or a challenge (Lazarus, 2000, p. 5). Professionals with burnout may consider a stressor a harm or threat and will often disengage from their colleagues and from the clients they serve, and do not feel any sense of accomplishment in the work they are doing (Lazarus, 2000; Newell & MacNeil, 2010).

Stamm (2009), who was one of the designers of the screening tool for burnout, reinforced the crippling effects of burnout for any organization, stating, "Those participants scoring high on burnout, in any combination with the other scales, are at risk as individuals and put their organizations in high-risk situations" (Stamm, 2009, p.22). Burnout in any member of a healthcare team, especially nurses, affects client care, decreases productivity, leads to the inability to focus on work, and influences high turnover rates (Berg et al., 2014).

Several of the most challenging issues nurses reported in clinical practice included working with someone who is suffering, in pain, or grieving; working with the dying client and their families; and finally, the death of a client (Ayala & Carnero, 2013; Barr, 2017; Gallagher & Gormley, 2009; Range & Rotherham, 2010). Hospice nurses noted the same stressors as other nurses, perhaps even more frequently. Nurses often felt they did not have the emotional support they needed, especially if a client was suffering at the end of their lives (Whitebird et al., 2013). Pediatric oncology nurses acknowledged that client distress was the number one contributor to a stressful work environment for them (Gallagher & Gormley, 2009).

Trauma team nurses identified their stressors as working with children, senseless deaths, incidences of multiple family members being hurt, and interacting with family members (Berg et al., 2016). They also found deficiencies in the workplace environment that were stressors, including the lack of needed equipment, inefficiencies in the healthcare process, and the lack of a

call schedule, among others. As we noted, stress triggers came from interpersonal interactions as well as occupational shortcomings (Berg et al., 2014).

Stress occurs when demands that are placed upon a nurse exceed the available resources the individual has to manage them (Lambert, Lambert, & Yamase, 2003, as citied in Riahi, 2011; Lazarus, 1990). Nurses have indicated a deficiency in their communication skills when talking with clients and families about death and dying (Newell & MacNeil, 2010; Range & Rotherham, 2010). Although nursing schools introduced death and dying as topics in their curriculum, nurses felt ill-equipped when it came to communicating with clients and their families about death and dying (Gallagher & Gormley, 2009; Range & Rotherham, 2010). Nurses taking care of dying clients have indicated that they lack essential skills to talk with family and clients adequately (Range & Rotherham, 2010).

Colleagues and coworkers can be another stressor for professionals, especially if there is tension and competition in the workplace (Newell & MacNeil, 2010). As Newell and MacNeil noted, there was a level of emotional expectation in working as a caregiver. These emotional demands, including "chronic use of empathy," opened caregivers to professional burnout (Newell & MacNeil, p.59).

Stress and secondary trauma. Another component of compassion fatigue was secondary traumatic stress, which occurred when professionals who work continuously with clients who have suffered trauma take on symptoms of post-traumatic stress disorder (PTSD) themselves; symptoms of PTSD include difficulty sleeping, nightmares, anger, and hyper-vigilance (Newell & MacNeil, 2010). To clarify, secondary stress is usually a behavioral response on the part of the professional to trauma they are hearing about or witnessing (Newell & MacNeil, 2010). Hospital nurses in Japan reported a 90% rate of having experienced

secondary trauma as part of their work (Komachi, Kamibeppu, Nishi, & Matsuoka, 2012). The number one traumatic stressor for these nurses was working with children, especially dying children, while the most often occurring secondary traumatization came from "care for a patient in serious condition" (Komachi et al., 2012, p.158). As the information revealed, these are standard global nursing stressors (Komachi et al., 2012).

Compassion satisfaction. Stressful working environments also included those found in mental health nursing (Ward, 2011), emergency room nursing (Hunsaker, Chen, Maughan, & Heaston, 2015), and nursing in NICU settings (Barr, 2017). Although these areas are stressful, nurses working in these areas have indicated they are gratified by the work they are doing. Using individual interviews and focus groups, mental health nurses provided themes that were analyzed for their noteworthy stressors and how these nurses needed to "maintain balance" (Ward, 2011, p.82). In contrast to other nurses, these nurses shared that the unique population they served provided them job satisfaction and gratification. The workplace stressors in the mental health unit, which were evident in many other nursing settings (poor staffing, having to work off-shifts, and hectic work environments) seemed less stressful to the mental health nurses interviewed, who felt they had skills needed to maintain therapeutic relationships and provide care (Ward, 2011).

At one time, emergency room nurses across the United States were evaluated for compassion satisfaction, secondary traumatic stress, and burnout, and were also evaluated to determine if work or personal characteristics influenced their risk for secondary traumatic stress, compassion satisfaction, or burnout (Hunsaker et al., 2015). Participating emergency room nurses indicated that they were satisfied with their work; they demonstrated low to average levels of compassion fatigue and low to average levels for burnout and high levels of compassion

satisfaction (Hunsaker et al., 2015, p.192). “A key predictor, manager support, predicted the compassion satisfaction, compassion fatigue, and burnout in this study” (Hunsaker et al., 2015, p.192). Having support in the workplace revealed that it decreased nursing stress (Hunsaker et al., 2015).

Several factors related to burnout, secondary traumatic stress, and compassion satisfaction were incorporated and provided to NICU staff nurses, who care for premature babies, some with complex medical conditions (Barr, 2017). Of the 140 participants, only a small percentage reported burnout and secondary traumatic stress; however, out of those who reported compassion satisfaction, a small number also reported burnout and secondary trauma (Barr, 2017, p.5). Barr reports that it is not uncommon for there to be co-occurring findings such as this, similar to the concept of positive psychology which states that well-being can have both positive and negative aspects (Barr, 2017, p.5). The important finding of this research is that nurses still experience burnout or secondary trauma even though they feel good about their work (Barr, 2017).

Specific Stressors in Nursing

It is important to look at nursing as a whole to understand the levels of burnout, secondary traumatic stress, and compassion satisfaction in all nurses. Understanding both personal and professional factors that may influence the risk for these things, and if hospice nurses have any unique challenges, was important when preparing for the present study. There were several demographic variables, such as years as a nurse, age, gender, and setting, which have been shown to be influential in whether a nurse shows a risk for compassion fatigue (Gueritault-Chalvin et al., 2000; Perry, Toffner, Merrick, & Dalton, 2011; Tunnah, Jones, & Johnstone, 2012). Prominent themes reported by nurses as stressors in their profession included

having difficulty communicating with clients who are dying and their families, working with children who are seriously ill, being asked to implement care that prolongs life when death is imminent, and witnessing suffering as a client is dying. These stressors are focused on providing care to clients who are at the end of their lives, and this provided an impetus for studying them further in the current study because they impact hospice nurses (Gueritault-Chalvin, et al., 2000; Perry, et al., 2011; Tunnah, et al., 2012).

Work-related stressors have been associated with burnout in healthcare. The reality of occupational burnout in healthcare was seen as a huge barrier for professionals working in chronic care settings; however, this has been challenged at times (Gueritault-Chalvin et al., 2000; Kalichman, Demi, & Peterson, 2000). A study by Bennett, Michie & Kippax (1991), as cited in (Gueritault-Chalvin et al., 2000, p.150) reported that nurses who worked with HIV/AIDS clients did not exhibit higher levels of burnout than did oncology nurses, but did exhibit "greater intensity of symptoms"; this appeared rooted in safety fears and potentially being exposed to the possibility of a HIV/AIDS infection because of occupation.

Some oncology nurses reported that they were unable to provide the best care to their clients, and that these things caused stress for them: time constraints, being unable to ease their patient's pain, enduring stressors at home, becoming too attached to the client, excessive mental and physical fatigue, and experiencing emotional instability (Perry et al., 2011). The oncology nurses were reporting both interpersonal and occupational stressors.

Oncology nurses went on to report that they frequently encounter loss of clients, and shared how they are able to work through grief and cope with the high turnover rates and burnout in their workplace (Wenzel, Shaha, Klimmek, & Krumm, 2011). Self-care, counseling, acknowledgment of nurses' special efforts, organizational support, quality time with clients and

families, and addressing end-of-life issues directly were all helpful for oncology nurses (Wenzel et al., 2011).

Even data on stressors among nursing students was available; when asked, nursing students reported that stressors came from clinical assignments and workload, from the educators and instructors, and from the staff on the nursing wards (Ab Latif & Nor, 2016). There were stressors reported in the clinical environment which included changes in a patient's condition and feeling ill-prepared when moving from the lecture setting to the clinical setting. Colleague challenges and dying and chronic care clients were also considered stressors for nursing students (Olsen & Chen, 2013).

Acute care nursing consists of different specialties in any hospital setting (Kelly, Runge, & Spencer, 2015). Nursing satisfaction rates have been shown to be effective in reducing the effects of compassion fatigue, and when there is greater satisfaction there were more positive and safer work environments. Kelly et al. (2015) described nurses who have worked longer in the nursing field struggling with changes, including the demands made upon a smaller nursing workforce, in which nurses who are fewer in number were expected to deliver better patient outcomes. This type of situation sets the stage for a higher risk of compassion fatigue, and it was suggested that if compassion fatigue was not resolved, its effects may include a decrease in nurse retention rates, an increase in the number of lost work days, and a greater potential for the loss of empathy (Kelly et al., 2015).

Hospice Nursing Stressors

Understanding nursing stressors as they pertain to compassion satisfaction, compassion fatigue, burnout, and secondary traumatic stress before examining hospice nursing stressors in particular provided a deeper understanding of the interconnectedness of these stressors in the

healthcare field. Hospice nursing stressors were consistent with most nursing stressors. The top hospice nursing stressors included working with patients who were dying and feeling unprepared to deal with their emotional needs and those of their families, high workloads, lack of resources, and lack of support (Hawkins, Howard, & Oyebode, 2007). Hospice nurses were not only feeling that they did not have the skills to deal with the emotional needs of their patients, they also expressed occupational challenges were difficult (Hawkins et al., 2007).

Hospice nurses in Florida indicated that over a quarter of the them were at high risk for compassion fatigue, especially those participants with depression and PTSD, and those having socioeconomic challenges (Abendroth & Flannery, 2006). The researchers felt that correlations between all the variables and the ProQOL variables revealed that stress impacted the risk for compassion fatigue, especially in the absence of self-care (Abendroth & Flannery, 2006, p. 353). Some of the variables included in the study were being on edge, self-sacrifice for patients' needs, financial stress, depression, and PTSD diagnosis (Abendroth & Flannery, 2006). Nurses who indicated that they were self-sacrificing were at higher risk for compassion fatigue over others. Self-sacrificing behaviors meant sacrificing their own personal and psychological needs for those of their patients and included an unhealthy level of empathy for patients (Abendroth & Flannery, 2006, p. 353). The results of this study relate to Joinson's work which stressed the need for boundaries in nursing work to decrease the risk of compassion fatigue (1992).

To summarize, stress, time and life constraints, and unhealthy empathy practices were key components of compassion fatigue in this study of hospice nurses in Florida, and these behaviors may be helpful in predicting compassion fatigue (Abendroth & Flannery, 2006, p.353).

Nursing characteristics and work-related factors did not seem to influence the risk for compassion fatigue in this study, according to researchers (Abendroth & Flannery, 2006).

Self-Care

Consistently throughout the literature, nursing stress and stressors were manifested from many factors including the healthcare system itself, the population being served, and from within the personal life of the nurse (Costea, 2011; Hirschfeld, 2009; Lazarus, 1994). Self-care has been shown to be an important component for decreasing stress and promoting balance and it can be found in unique ways (Esposito & Fitzpatrick, 2011; Hawkins et al., 2007). Social support was determined to be an important coping strategy for hospice nurses, which involves staff members engaging in support groups and allowing nurses the ability to express the emotional nature of their work (Hawkins et al., 2007). For those nurses who are vulnerable to stress and who may find it difficult to seek social support, access to professional counseling may be helpful (Hawkins, et al., 2007). An example of an environmental support is the concept called a "serenity room" which was deemed important for nurses, as it was a location close to where nurses work but separate from their work area (Grafton, Gillespie, & Henderson, 2010, p.703). Nurses' response to this environmental support was very positive (Grafton, et al., 2010, p.703).

In a study to see if coping strategies promote resiliency in nursing students, Esposito and Fitzpatrick (2011) found that the number one coping strategy noted by some nursing students was religion through praying or meditating, followed by instrumental support, which is getting help from other people, and planning, which means looking at strategies on what to do; other strategies identified included self-care, which was listed as number eight (Esposito & Fitzpatrick, 2011). In some way, all of the coping strategies mentioned could be considered forms of self-care. It is important to note if nursing students are entering the field of nursing using coping strategies which will be beneficial should they encounter stressors.

Stress reduction programs have been introduced in an effort to expand the knowledge base on nursing needs (Potter et al., 2013). A "stress process model" was developed from obtained nursing data in order to inform better nursing practice (Perry et al., 2011, p 91). Nurses provided recommendations for nursing practice to decrease nursing stress, such as responding to the supportive needs of nurses and the emotional needs of clients and families (Potter et al., 2013).

The medical field has been examined as a whole to determine how the healthcare field in general impacts the well-being of doctors, nurse practitioners, and nurses (Bond et al., 2013; Dunaway & Running, 2009; Fortney, Luchterhand, Zakletskaia, Zgierska & Rakel, 2013; Perlman & Stagnaro-Green, 2010). The significant findings of this research suggest that those professionals who took part in several different types of self-care indicated that it helped them manage burnout and secondary traumatic stress. It would be important to have quantitative data demonstrating that self-care is a deterrent to burnout and secondary traumatic stress.

According to one researcher, self-care is a term that has been used to "refer to a series of disconnected activities" in response to stressors or stress (Breiddal, 2012, p.7). Breiddal states that self-care activities are thought to improve or restore health and in the context of palliative care settings, they were thought to protect professionals from stressors (Breiddal, 2012). Breiddal reports that understanding further the concept of stressors and why they are stressors for an individual should be recognized first, this is similar to ideas stressed by Lazarus (Breiddal, 2012; Lazarus,1990). Using the concept of self-care and engaging organizations in the promotion of self-care are thought to be ways in which to embed self-care as a part of the life of an organization (Breiddal, 2012). Hospice nurses face many of the same stressors as other nurses: caring for someone who is suffering, working with both clients and families, and working with

chronic losses (Carter, Dyer, & Mikan, 2013, p. E368). This study indicated that hospice nurses were “chronically bereaved,” and that is why they were more susceptible to compassion fatigue (Carter et al., 2013, p. E368). A program was designed in which hospice nurses participated in one of two intervention groups. The intervention programs offered information either on sleep or relaxation. Each participant was interviewed at baseline, three, and five weeks after the intervention (2013). The results of the study revealed that each of the participants reported average to severe sleep disturbances and average depressive symptoms. After the intervention, sleep disturbances improved. It showed that chronic sleep disturbances negatively influence hospice nurses and their well-being, and that caring for dying patients may often negatively influence nurses, to the point of their leaving their field of work (Carter et al., 2013).

Burnout and secondary traumatic stress are detrimental for nurses, and the concept of developing a resiliency program designed to reduce both burnout and secondary traumatic stress was introduced (Potter et al., 2013). A 5-week training program, consisting of five half-hour sessions on stress reduction and resiliency, was provided to 13 oncology nurses working in an outpatient setting. A pre- and post-test recorded any changes over six months. The program was beneficial for those professionals who participated, as it provided education on contributing factors for burnout and secondary traumatic stress, the effects of stress on the body, and the role of stress management. The program integrated education on the importance of having integrity in the workplace and knowing triggers that cause stress with interventions that promoted resiliency, such as relaxation techniques (Potter et al., 2013). The changes in the post-test were pronounced. Relaxation techniques, meditation, and coping strategies are considered forms of self-care, and they proved beneficial in this study.

One study reports that even a nomination for a recognition award was a significant predictor of those nurses with lower compassion fatigue and higher compassion satisfaction scores (Kelly et al., 2015, p.526). Interestingly enough, the study found that awards were not the only way to provide recognition and that nursing feedback and how a nurse's work impacted other nurses was also important (Kelly et al., 2015, p. 526).

Self-care includes many activities that professionals use to diffuse stress, including walking, yoga, meditation, and retreats. Professionals have revealed that they are engaging in healthy activities and seeking the interventions they need to actively cope with the stress of their jobs (Breiddal, 2012). Data from one European study provided insight to other methods of self-care; these included self-controlling, planful problem solving, and seeking social support Laranjeira, 2011, p.1759). As noted in this study there is no wrong or right way of self-care; the important factor is whether the activity is effective or ineffective (Laranjeira, 2011).
Self-care came in the form of seeking support and self-regulation, which are not typically thought of as self-care (Laranjeira, 2011).

Newell and MacNeil (2010) suggest self-care strategies as preventative of burnout but do not provide data showing evidence of their effectiveness. According to Newell and MacNeil (2010), "any type of human service work has great risk for stress, and many professionals are unaware of the effectiveness of self-care" (Newell & MacNeil, 2010, p.58). Their study made recommendations to a trauma team for coping, which included engaging in self-soothing activities such as taking a warm bath, lighting a candle, having a cup of tea, mindfulness, and promoting organizational interventions such as debriefings (Newell & MacNeil, 2010). Self-care is generalized as a deterrent to stress, burnout, and secondary traumatic stress; however, these

studies did not provide empirical data but instead made recommendations (Aycock & Boyle, 2009; Hegney, et al., 2014; Lombardo, 2011).

Portuguese nurses reported stress in their work setting, and this was explored to better understand the relationship between stress levels and coping strategies in these nurses (Laranjeira, 2011). Using three Portuguese hospital settings to select participants, 102 registered nurses participated in the study. The highest stress-producing factor noted by the nurses had to do with death and dying of patients. Over half of the study's participants indicated that the death and dying of patients was stressful to them, followed by emergency situations, and the fact that they felt they had little support available in the work setting. With this knowledge, Laranjeira obtained data on how the nurses were able to reduce stress: through problem solving techniques, seeking social support, and self-regulation, which are all forms of self-care, as previously mentioned (Laranjeira, 2011).

Clinical supervision has proven to be instrumental in helping nurses deal with stress (Koivu, Saarinen, & Hyrkas, 2011). The habits of nurses on two different nursing units provided concrete findings about why nurses sought supervision, specifically for stress management and practice development (Koivu et al., 2011). These findings are basic to the concept of self-care. Having clinical supervision allows nurses to reach out to a mentor who can guide them through difficult cases, respond to questions they may have, and decrease some of the stressors they may feel in the occupational setting (Koivu et al., 2011). The information obtained sheds some important light on the risk factors, stressors, and populations most at risk for compassion fatigue (Koivu et al., 2011; Wenzel et al., 2011). Clinical supervision proves beneficial for nurses, and nursing students have indicated the importance of clinical support (Melin-Johansson et al., 2018).

Investigating coping styles, Gueritault-Chalvin and colleagues (2010) studied nurses working in AIDS care due to the problem of occupational burnout in this area (2000). The age and workload of the nurse did significantly influence reported burnout. The data from the study found that coping styles were often different in different age groups. The authors make the point that interventions for burnout must be tailored to meet individual needs (Gueritault-Chalvin et al., 2000, p.159). Both stressors and techniques of self-care are individualized and this is important when working with nurses dealing with burnout (Gueritault-Chalvin et al., 2000; Lazarus, 2000).

Exploring resiliency in oncology nurses as a mechanism to decrease stress and prevent compassion fatigue focused on the idea that it is not the actual stressor itself that affects nurses; it is the nurse's response to the stressor that is important to understand (Engel, 2004; Grafton, Gillespie, & Henderson, 2010; Hamilton, Kitzman, & Guyotte, 2006). Questioning whether there is a link between well-being and a person's state of mind, one study looked at resiliency in nurses to better understand why some nurses are able to handle stress effectively while others are adversely affected by it (Grafton et al., 2010). In essence, each nurse has to be able to manage their reactions to stress and science provides evidence that there is a biological link between state of mind and emotions in an individual (Grafton et al., 2010, p. 702). Because there will always be some type of stress in the workplace having a way to manage it and sustain well-being is important (Grafton et al., 2010).

A large number of studies have reported that a significant stressor for nurses is working with end-of-life clients and their families; this is often considered one of the key factors in burnout (Ayala & Carnero, 2013; Barr, 2017; Gallagher & Gormley, 2009; Hawkins et al., 2006; Whitebird et al., 2013). It has been noted that professionals feel they do not have the

emotional support they need; they report that it is difficult to see anyone suffering at the end of their lives (Whitebird et al., 2013). Nurses who reported secondary traumatic stress indicated that they did not have support systems in place with family or friends, did not engage in hobbies, and were more likely to use medicinals (VonReuden, 2010). Zeidner et al. (2013) revealed that those participants who were aware of their emotions and feelings were more likely to recover quickly when needing to restore their emotional balance.

Conclusion

A comprehensive overview of self-care practices in the literature has been provided. Previous literature has emphasized that compassion fatigue is encountered more frequently in settings such as hospice and trauma specialties that deal with people who are dying. A missing piece in the literature reviewed was the frequency of self-care behaviors of nurses in hospice settings. This study was designed for hospice nurses and determined whether certain personal and occupational factors or the frequency of self-care behaviors predisposed them to compassion fatigue, burnout, secondary traumatic stress, or compassion satisfaction. Research in this area provided data that will show if there is a relationship between frequency of self-care behaviors and compassion satisfaction, burnout, compassion fatigue, and secondary traumatic stress. Literature suggested that nurses who experience job satisfaction were more often those involved in self-care behaviors which assisted them in addressing any obstacles (Koivu et al., 2011; Wenzel et al., 2011) Knowing more about hospice nurses and their needs is key to establishing strong, supportive hospice work environments. The purpose of this quantitative research study was to look at whether there was a relationship between the frequency of self-care behaviors and burnout, secondary traumatic stress, compassion fatigue, and compassion satisfaction in hospice nurses.

The current study explored some common nursing stressors in the literature to assess their prevalence (Abendroth & Flannery, 2006; Hunsaker, et al., 2015; Joinson, 1992; Komachi et al., 2012; Tunnah et al., 2013). Using these nursing stressors, which were considered the prelude to things such as burnout, secondary traumatic stress, and compassion fatigue; questions were formulated regarding occupational and personal factors which might be related to the study's main variables (Berg et al., 2014; Newell & McNeil, 2010; Range & Rotherham, 2010), while keeping in mind that a stressor for one nurse may not be the same for another nurse (Lazarus, 1990). Occupational stressors included things such as large caseloads, long hours, medication issues, and lack of support in the workplace (Tunnah, Jones, & Johnstone, 2012).

Research Questions

1. Is there a relationship between frequency of self-care behaviors and compassion satisfaction in hospice nurses?
2. Is there a relationship between frequency of self-care behaviors and burnout in hospice nurses?
3. Is there a relationship between frequency of self-care behaviors and secondary traumatic stress in hospice nurses?
4. Is there a relationship between supervisor support and compassion satisfaction, burnout, and secondary traumatic stress?
5. Is there a relationship between peer support and compassion satisfaction, burnout, and secondary traumatic stress?

Chapter 3

Research Methodology

Research Design

The present quantitative, exploratory, cross-sectional study was used to explore whether there is a relationship between frequency of self-care behaviors and compassion satisfaction, compassion fatigue, burnout, secondary traumatic stress, and supervisor and peer support on hospice nurses.

Participants. The Hospice and Palliative Nursing Association (HPNA) is a large, national organization known for its research and educational information. Participants were registered nurses (RN) recruited from the HPNA. HPNA charges members a small fee to join. There is a newsletter which HPNA members may access and an electronic mailing list that sends e-mails to let nurses know about current news and research opportunities.

Inclusion criteria included HPNA RNs (full- or part-time) whose typical assignment was in a hospice setting (i.e., they did not work in a hospice setting due to a floating schedule). In addition, the participants had all worked in a hospice setting during the past year.

Respondents of incomplete questionnaires were excluded. Any hospice nurses not working in the last 30 days were excluded.

Procedures

After receiving permission from Marywood University and HPNA (see Appendix A and Appendix B), an e-mail describing the research as well as the concepts of compassion satisfaction, secondary traumatic stress, and burnout was distributed to the organization (see Appendix C). The HPNA provided an online link for their membership, so that their members could access Survey Monkey to participate in the study. After signing an informed consent (see

Appendix D), respondents were then able to access the questionnaires. The Self-Care Behavior Inventory (see Appendix E), the ProQOL survey (see Appendix G), and the personal and occupational demographic questionnaires (see Appendix H) were available online through SurveyMonkey for a total of six weeks. The surveys were anonymous. Confidentiality, as well as anonymity, was maintained for all participants. With permission of the HPNA, a link to SurveyMonkey was made available through its website and by e-mails for registered nurses to be directed to a link where they could access the surveys. There was a check box on the site for indicating that informed consent was obtained before the nurses accessed the survey. Once consent had been checked, the nurse accessed SurveyMonkey, which had the Self-Care Behavioral Instrument, the ProQOL, and the personal and occupational demographic survey. The surveys were available for six weeks. A reminder e-mail was sent at 21 days. At the end of the survey, participants in the study were directed to a separate web address to enter their e-mails for a chance to win a raffle for one of two $250 VISA gift cards. This procedure allowed participant's contact information to remain separate from their survey data for anonymity (Kelly, 2015).

The data was entered into SPSS 24 and stored electronically under a password-protected computer. Only the researcher and advisor have access to the data. Three years after the completion of this study, the electronic documents will be deleted and any paper documents will be shredded.

Risks and benefits. The risks in this study were no greater than the risks experienced in daily life or activities. The benefit of this study to the participants is that they will know they are contributing to the research data on compassion satisfaction, burnout, secondary traumatic stress, and self-care.

Primary Variables

The primary variables in the study were self-care behavior (SCB), compassion satisfaction (CS), and compassion fatigue (CF), operationally defined as reported secondary traumatic stress (STS) and burnout (BO).

Measures

Self-Care Behavioral Inventory (SCBI). The Self-Care Behavioral Inventory (SCBI) is a new instrument designed to measure self-care behavior frequency (Santana & Fouad, 2017). No other validated self-care measure could be found in the literature. Santana and Fouad (2017) examined convergent validity through the relationship between Maslach's Burnout Inventory–Human Services Survey (MBI-HSS) and self-care. Results of the reliability analysis of the SCBI demonstrated high reliability ($r=.83$, $p \leq .001$), providing evidence of adequate internal consistency.

> Another validated self-care measure does not exist, so convergent validity was examined through the relationship between well-being ($r=.02$), Emotional Exhaustion (EE) burnout (r=-.13), Depersonalization (D) burnout (r=.10), Personal Achievement (PA) burnout (r=.25), distress (r=.08), and self-perceived competence (r=-.12). Correlations between self-care with EE and PA burnout and self-perceived competence were significant ($p<.001$). In summary, the SCBI demonstrated sound internal consistency of 19 items and the results supported discriminant and convergent validity (Santana & Fouad, 2017, p.143).

Participants were asked to respond to each of the 19 items such as the question "Seek out comforting activities" using a 5-point scale: (1) = "never" (2) = "rarely", (3) = "sometimes", (4)

= “often”, and (5) = “always”. The authors recommend using the total score on the instrument to obtain a measure of each nurse’s self-care behaviors (Santana & Fouad, 2017). The highest score possible would be 95.

Professional Quality of Life

The Professional Quality of Life screen measures compassion satisfaction and the two subsets of compassion fatigue, burnout and secondary traumatic stress. Permission to use the ProQOL tool was obtained from B. Hudnall Stamm (2010), one of the authors of the tool. Participants completed The Professional Quality of Life (ProQOL) Scale, which is designed with two subscales for compassion fatigue which provide risk for burnout and secondary traumatic stress and one subscale for compassion satisfaction (see Appendix F). The tool utilizes a Likert-type scale for 30 questions and asks respondents to indicate how they have experienced each of the items in the last 30 days. There were five responses ranging from 1 = “never”, to 5 = “very often”. Responses from each of the ProQOL sub-scales were used to arrive at three subscores: compassion satisfaction (e.g., “My work makes me feel satisfied”), secondary traumatic stress (e.g., “As a result of my work, I have intrusive, frightening thoughts”), and burnout (e.g., “I feel trapped by my job as helper”). Each of the three subscales was measured and developed in such a way that the instrument does not provide a composite score, but instead provides an “at-risk” gauge on each of the areas.

Internal consistency reliability for the three subscales ranges from 0.72 to 0.89. After completion of the questions, participants were not able to return to the survey. Stamm (2010) indicates the three sub-scales of the ProQOL measure separate constructs. The inter-scale correlations show 2% shared variance (r=-.23; co-σ = 5%; n=1187) with secondary traumatic stress and 5% shared variance (r=.-.14; co-σ = 2%; n=1187) with

> burnout. While there is shared variance between burnout and secondary traumatic stress, the two scales measure different constructs, with the shared variance likely reflecting the distress that is common to both conditions. The shared variance between these two scales is 34% (r=.58; co-σ = 34%). The scales both measure negative affect but are clearly different; the burnout (BO) scale does not address fear, while the STS scale does (Stamm, 2010, p.13).

It is also important to note that the ProQOL is not a diagnostic tool (Stamm, 2009). It has been suggested that it is best to use the ProQOL several times over a period of time because on any given day a nurse could be having a bad day and score high on burnout which may not be a true representation of his/her feelings (Potter et al., 2010).

Compassion satisfaction. Compassion satisfaction was measured by questions 3, 6, 12, 16, 18, 20, 22, 24, 27, and 30 on the ProQOL questionnaire to provide raw scores for compassion satisfaction. On page 31 in the ProQOL manual, there is a tool to convert all raw scores to t scores before using them (see Appendix I). Each of the raw scores were converted to t scores and added up, providing a total t score; then a mean and standard deviation were obtained. If the total score is "43 or less, then a score is low, 44 to 56 is average, and 57 or higher is high" (Stamm, 2010).

Burnout scale. Because compassion fatigue is operationally defined as reported secondary traumatic stress and burnout, questions 1, 4, 8, 10, 15, 17, 19, 21, 26, and 29 measured burnout to provide a raw score for the risk for burnout, after questions 1, 4, 15, 17, and 29 had been reverse scored. All questions were converted to t scores and added together to get a total t score; then a mean and standard deviation were obtained. If the total score is "43 or less, then a score is low, 44 to 56 is average, and 57 or higher is high" (Stamm, 2010).

Secondary traumatic stress. Because compassion fatigue is operationally defined as reported burnout and secondary traumatic stress, questions 2, 5, 7, 9, 11, 13, 14, 23, 25, 28 measured secondary traumatic stress to provide raw scores for risk for secondary traumatic stress. All questions were converted to t scores and added together to get a total t score for secondary traumatic stress; then a mean and standard deviation were obtained. If the total score is "43 or less, then a score is low, 44 to 56 is average, and 57 or higher is high" (Stamm, 2010).

Supervisor support. Supervisor support is defined as a rating of quality of support from supervisors in the workplace based on questions developed by the researcher. Respondents were asked to rate quality of support from supervisors in the workplace. There were four responses to choose from: 1= "Quality of support is excellent", 2 = "Quality of support is satisfactory", 3 = "Quality of support is poor", or 4 = "Quality of support is non-existent. The responses were reverse scored for analysis.

Peer support. Peer support is defined as quality of support from peers in the workplace based on questions developed by the researcher. Respondents were asked to rate quality of support from peers in the workplace. There were four responses to choose from: 1 = "Quality of support is excellent", 2 = "Quality of support is satisfactory", 3 = "Quality of support is poor", or 4 = "Quality of support is non-existent".

Demographic variables. In addition to the measures above, a tool developed by the researcher was used to collect responses to personal and occupational questions. Personal demographics included gender and age while occupational demographics included years in nursing, years in hospice nursing, population area where the nurse worked, the worksite, caseload, hours worked per week, and hours spent commuting.

Descriptive variables. Based on the literature review, questions were included to identify possible stressors related to hospice nursing. Hospice nurses were asked which aspect of hospice work they perceived as most difficult. They were asked about supervisor and peer support at work, if they felt they had the necessary communication skills to work with death and dying patients, and if they felt it was difficult getting time off. The nurses were also asked how far they traveled to get to work, how many hours per week they worked, and their caseload. The data obtained was beneficial for exploratory interests.

Data Analysis/Statistics

Using SPSS version 24, all data was entered. Inferential and descriptive statistics were used to address the research questions.

Chapter 4

Results

Participants

Participants were recruited from the Hospice and Palliative Nursing Association's (HPNA) electronic mailing list and were provided a link to SurveyMonkey to participate. Although the HPNA has open membership, it is unclear how many RNs were available. There were 101 respondents; however, only 91 completed all three required questionnaires, and ten questionnaires were discarded. Of the 91 respondents, 88 indicated they were female, and 3 indicated they were male. The demographic characteristics of participants, such as age, years in nursing, years in hospice nursing, work site, and setting, are available (see Table 1).

Several demographic variables should be noticed. They will be discussed more fully later. The age span of the hospice nurses participating in the study ranged from 18 to 65 or older. There were 78 nurses over the age of 35 (85.8%), with 13 nurses from 18 to 34 years old (14.3%). Responses to the years in hospice nursing item revealed that 51 nurses (50.5%) had worked in hospice for 1 month to 9 years, 25 nurses (24.8 %) had worked in hospice for 10-19 years, 10 nurses (9.9%) had worked for 20-29 years and 5 (5.85%) had worked over 30 years. (see Table 1).

Stressor Variables

The literature review revealed many hospice nursing stressors. This study surveyed participants on stressors, namely caseload per day, hours worked per week, travel per day, communication skills, getting time off, and the most difficult aspect of their work (see Table 2). There was one exploratory question asked regarding other caregiving responsibilities. When asked about caregiving responsibilities outside of the work setting, 49% of the participants did

not report caregiving responsibilities outside of the work setting, while 42 % reported caregiving responsibilities related to elderly parents, a child with a disability, or due to another form of caregiving.

Table 1

Characteristics of Participants and Work Settings (N=91)

Characteristic	N	%
Age at time of survey		
18-34	13	14.3
35-44	15	16.5
45-54	22	24.2
55-65+	41	45.1
Years in Nursing		
1 month – 9 years	14	13.9
10-19	26	25.7
20-29	25	24.8
30+	26	25.7
Years in Hospice Nursing		
1 month – 9 years	51	50.5
10-19	25	24.8
20-29	10	9.9
30+	5	5.8
Work Setting		
In the home	57	62.6
In the hospital	13	14.3
In a hospice center	17	18.5
In a nursing home	4	4.4
Area where you work		
Urban (areas of 50,000 or more)	56	61.5
Urban Clusters (areas of at least 2,500 but less than 50,000)	22	24.2
Rural Areas	13	14.3
Hours worked per week		
8 hours or less	24	26.4
9-12	5	5.5
13-20	8	8.8

21-40	34	37.4
More than 40 hours	20	22.0
Miles traveled per day		
I only travel to and from worksite	32	35.2
0-20 miles	12	13.2
21-40	20	22.0
41-60	17	18.7
Over 61 miles	10	11.0
Caseload per day		
1-7 clients	66	72.5
8-15	19	20.9
16+	6	6.6

Table 2

Participants' Perceptions of Work (N=91)

Characteristic	**N**	**%**
How difficult is it to get time off?		
Very easy to receive time off	14	15.4
Easy to receive time off	33	36.3
Neither easy or difficult to receive time off	21	23.1
Difficult to receive time off	13	14.3
Very difficult to receive time off	10	11.0
Do you feel you have the communication skills to talk with clients and their families about death and dying?		
I believe I do have the skills	88	96.7
I struggle with communication skills	3	3.3
I make every attempt to avoid conversations about death and dying.	-	-
I refer clients and families to another staff member when asked questions about death and dying	-	-
What would you rate the most difficult aspect of your work? (Choose one.)		
Communication about death and dying	10	9.9
Having no support at the workplace	22	21.8
Difficult colleagues	27	26.7
Medication questions	10	9.9
No time to talk about client loss	22	21.8

Participants' Scores on Measures

The Self-Care Behavioral Inventory (SCBI). The Self-Care Behavioral Inventory (SCBI) was a 19-question survey that allowed participants to answer each self-care behavior question using a 5-point scale. The higher the score, the greater the frequency of using self-care practices. If a respondent assigned a five to all 19 questions, the highest score for self-care would be 95. The mean for the SCBI scores was 66.04 with SD = 10.06 (See Table 3 for a summary of grouped frequencies. Appendix F includes the total scores of the frequencies of self-care behaviors.)

Table 3

Total Scores on Self-Care Behavioral Frequencies (N=91)

Characteristic	N	%
Total Scores on SCBIT		
32-34	2	2.2
35-39	-	-
40-49	2	2.2
50-59	15	16.5
60-69	40	44.0
70-79	25	27.5
80-86	7	7.7

Table 4

Mean and Standard Deviation of T Scores for PROQOL variables

Characteristic	Mean t score	SD
Compassion Satisfaction	56.98	7.97
Burnout	52.27	7.59
Secondary Traumatic Stress	63.22	7.27

Professional Quality of Life Measure (ProQOL). The ProQOL looks at three components: compassion satisfaction, which is a participant's satisfaction with their work, burnout, which is indicative of occupational stressors, and secondary traumatic stress, which is indicative of a participant experiencing a secondary traumatization through the client they are helping. As noted in Stamm (2009), it is also important to note that the ProQOL is not a diagnostic tool. Researchers using the ProQOL suggest it is best to use it several times over a period because on any given day a nurse could be having a bad day and score high on burnout which may not be a true representation of his/her feelings (Potter et al., 2010).

Compassion satisfaction. To obtain the scores for compassion satisfaction, ten questions were added together to get a score. The compassion satisfaction raw scores were converted to t scores using the chart in the ProQOL manual (Stamm, 2009, p.31).

Burnout. To obtain the scores for burnout, ten questions were added together after 5 were reversed scored to obtain the raw score. The burnout raw scores were converted to t scores using the chart in the ProQOL manual (Stamm, 2009, p.31).

Secondary traumatic stress. To obtain the secondary stress score, ten questions were added together. The secondary stress raw scores were converted to t scores using the chart in the ProQOL manual (Stamm, 2009, p.31).

Table 5

Perceptions of Supervisor and Peer Support among Hospice Nurses (N=91)

Characteristic	N	%
How would you rate support of supervisors in your workplace?		
Quality of support is non-existent	7	7.7
Quality of support is poor	18	19.8
Quality of support is satisfactory	42	46.2
Quality of support is excellent	24	26.4

How would you rate the quality of support from your peers in your workplace?		
Quality of support is non-existent	4	4.4
Quality of support is poor	8	8.8
Quality of support is satisfactory	38	41.8
Quality of support is excellent	41	45.1

Responses to Questions about Supervisor and Peer Support

Supervisor support. On average, respondents felt supervisor support in the workplace was satisfactory. Seven respondents (7.7%) indicated that they felt supervisor support was non-existent, 18 (19.8%) felt it was poor, 42 (46.2%) felt it was satisfactory, and 24 (26.4%) felt it was excellent (see Table 5).

Peer support. On average, respondents felt peer support in the workplace was excellent. Four respondents (4.4%) indicated that they felt peer support was non-existent, 8 (8.8%) felt it was poor, 38 (41.8%) felt it was satisfactory, and 41 (45.1) felt it was excellent (see Table 5).

Analyses of Research Questions

Research Question 1. Is there a relationship between frequency of self-care behaviors and compassion satisfaction in hospice nurses? A Pearson correlation coefficient was calculated for the relationship between participants' frequency of self-care behaviors and compassion satisfaction. A moderate positive correlation was found ($r(89) = .597$, $p < .01$), indicating a significant linear relationship between the two variables. Higher frequency of self-care behaviors is related to higher compassion satisfaction (see Table 6).

Research Question 2. Is there a relationship between frequency of self-care behaviors and burnout in hospice nurses? A Pearson correlation coefficient was calculated for the relationship between participants' frequency of self-care behaviors and burnout. A moderate negative correlation was found that was significant ($r(89) = -.560$, $p < .000$), indicating that

higher the frequency of self-care behaviors was related to lower scores on burnout (see Table 6).

Research Question 3. Is there a relationship between frequency of self-care behaviors and secondary traumatic stress? A Pearson correlation coefficient was calculated for the relationship between participants' scores on frequency of self-care behaviors and secondary traumatic stress, ($r(89) = -.134$ $p \geq .05$). A weak, negative correlation was found that was not significant. Frequency of self-care behaviors is not significantly related to secondary traumatic stress (see Table 6).

Table 6

Summary of Correlations, Means, and Standard Deviations Between Self-Care Behavioral Frequency and Total Compassion Satisfaction T Score, Burnout T Scores, and Secondary Traumatic Stress T Scores

Measure	Mean	SD	1	2	3	4
Total Self-Care Score	66.04	10.06	-			
Total Compassion Satisfaction t score	56.97	7.97	.59**	-		
Total Burnout t score	52.27	7.59	-.56**	-.77**	-	
Total STS t score	63.22	7.27	-.13	-.21*	.49**	-

****. Correlation is significant at the 0.01 level (2-tailed)**
*** Correlation is significant at the 0.05 level (2-tailed).** ***Total score on the self-care behavior frequency and Total t score for compassion satisfaction.*** **TSTS- Total t score on secondary traumatic stress.**

Research Question 4. Is there a relationship between supervisor support, peer support, and compassion satisfaction, burnout, and secondary traumatic stress?

Supervisor Support

A Pearson correlation coefficient was calculated for the relationships between participants' scores on supervisor support, peer support, compassion satisfaction, burnout and secondary traumatic stress. A moderate positive correlation was found ($r(87) = .501$, $p < .000$), indicating a significant linear relationship between supervisor support and compassion satisfaction. Higher supervisor support scores were related to higher compassion satisfaction scores.

Supervisor support was moderately negatively correlated with burnout, which was significant (r (87) =-.435, p<.000); this indicates that supervisor support is negatively correlated with burnout. Higher supervisor support scores were related to lower burnout scores.

Supervisor support had a weak, negative correlation with secondary traumatic stress that was not significant (r (87) = -.125, p =.241); this indicated that the relationship of supervisor support scores to secondary traumatic stress scores is not significant.

Peer Support

A Pearson correlation coefficient was calculated for the relationship between participants' scores on peer support, compassion satisfaction, burnout, and secondary traumatic stress. A moderate positive correlation was found between peer support and compassion (r (87) = .450, p<.000), indicating a significant linear relationship. Higher peer support scores were related to higher compassion satisfaction scores. Peer support was moderately negatively correlated with burnout which was significant (r (87) =-.501, p < .000), indicating that higher peer support is negatively correlated with burnout. Higher peer support scores were related to lower burnout scores. Peer support was moderately negatively correlated with secondary traumatic stress which was significant (r (87) = -.37, p < .000), indicating that peer support was related to secondary traumatic stress. Higher peer support scores were related to lower secondary traumatic stress scores.

Table 7

Means, Standard Deviations, and Intercorrelations for Scores on Five Measures

Measures	**M**	**SD**	**1**	**2**	**3**	**4**	**5**
Supervisory Support score	2.09	.88	-				
Peer Support Score	1.73	.80	.51**	-			
Total burnout t score	52.27	7.59	-.44**	-.50**	-		

Total compassion satisfaction t score	56.97	7.97	.50**	.45**	-.77**	-	
Total secondary traumatic stress t score	63.05	7.64	-.13	-.37**	.49**	-.21*	-

****. Correlation is significant at the 0.01level (2-tailed).**
***. Correlation is significant at the 0.05 level (2-tailed).**

Composite data: Patterns of individuals' scores on ProQOL. Each of the variables from the ProQOL questionnaire (compassion satisfaction, burnout, and secondary traumatic stress) were converted to t scores and totaled. If the total for the variable is 43 or below, then it is considered a low score for that variable. If the total score is between 44 and 56, then it is considered an average score for the variable, and if the total score is 57 and above, it is considered a high score for the variable. (See Table 8).

Table 8

Total T Scores on Variables (N=91)

Characteristic	N	%
Total high scores (over 57) on variables		
Compassion Satisfaction	60	66.0
Secondary Traumatic Stress	76	83.6
Burnout	22	24.2
Total average scores (44-56) on variables		
Compassion Satisfaction	22	25.3
Secondary Traumatic Stress	15	16.5
Burnout	61	69.3
Total low scores (43 and below) on variables		
Compassion Satisfaction	9	8.8
Secondary Traumatic Stress	0	0.0
Burnout	8	6.6

High secondary traumatic stress scores, high burnout scores, and low compassion satisfaction scores. As noted in Stamm (2009), it is also important to note that the ProQOL is

not a diagnostic tool. Researchers using the ProQOL suggest it is best to use it several times over a period because on any given day a nurse could be having a bad day and score high on burnout which may not be a true representation of his/her feelings (Potter et al., 2010).

According to Stamm, the most dangerous combination is a high secondary traumatic stress score and a high burnout score with a low compassion satisfaction score (Stamm, 2009, p.23). It is important to note that nine participants of this study indicated this combination with their answers and may be at risk for compassion fatigue (see Table 8).

High secondary traumatic stress scores, high compassion satisfaction scores, and low burnout scores. According to Stamm, another high-risk situation is having high secondary traumatic stress scores and high compassion satisfaction scores with low burnout. This is often seen in areas of civil disobedience and war (Stamm, 2009, p. 23). One participant of the study showed high secondary traumatic stress, high compassion satisfaction, and a low burnout score (see Table 8).

High burnout scores. According to Stamm, "Those participants scoring high on burnout, in any combination with the other scales, are at risk as individuals and put their organizations in high-risk situations,"(Stamm, 2009, p. 22). There were 22 participants (24.7%) in this study who indicated high burnout in their answers (see Table 8).

Chapter 5

Discussion

The purpose of this quantitative research study was to look at whether there was a relationship between the frequency of self-care behaviors and burnout, secondary traumatic stress, compassion fatigue, and compassion satisfaction in hospice nurses. The self-care behavior frequency scale (SCBI) was used to assess whether there was a relationship between frequency of self-care behaviors and compassion satisfaction, burnout, and secondary traumatic stress in hospice nurses. A moderate positive correlation was found, indicating a significant linear relationship between frequency of self-care behaviors and compassion satisfaction. Higher frequency of self-care behaviors is related to higher compassion satisfaction.

The data obtained showing a moderate positive relationship between frequency of self-care behaviors and compassion satisfaction is valuable on many levels. The literature review implied that self-care behaviors positively influenced compassion satisfaction, and the findings of this study now provide support for what the non-empirical literature suggested (Cashavelly et al., 2008; Christopher & Maris, 2010; Figley, 2002; Joinson,1992; Kelly et al., 2015; Tunnah et al., 2012). As the data reveals, hospice nurses engaging in frequent self-care behaviors were inclined to have higher rates of compassion satisfaction; this has implications for other caregivers working in the healthcare field, and possibly for other professionals working in other caregiving fields (Bedini, Labban, Gladwell, & Dudley, 2018; Tunnah et al., 2012).

This study examined relationships between frequency of self-care behaviors and reported burnout, and reported secondary traumatic stress scores. A moderate negative

correlation between frequency of self-care behaviors and burnout scores was found. This relationship suggests that self-care may be a protective factor by which burnout may be avoided or reduced. However, in regard to the relationship between frequency of self-care behaviors and secondary traumatic stress among hospice nurses, in this study there was only a weak negative correlation.

The impetus for this study was concern with the idea that there are many nurses suffering from burn-out or at risk for burnout (Joinson,1992; Koivu et al., 2012; Sacco et al., 2015). The number of participants for this study was small. However, 22 participants out of 91 indicated a "risk for burnout" in their scores, according to the interpretation of scores by Stamm (2009; see Appendix G). This finding supports data that was found in the Abendroth and Flannery study (2006) of hospice nurses from all over Florida found that over a quarter of the participants were at high risk for compassion fatigue, and over half indicated moderate risk for compassion fatigue. The present study found highly similar proportions. Other studies also suggest high potential for burnout in nurses (Hawkins et al., 2006; Kelly et al., 2015; Potter et al., 2010).

Support

In the current study, participants were asked which of the following was the most difficult aspect of their work: communication on death and dying, medication issues, no support in the workplace, no time to grieve loss, or difficult colleagues. The respondents indicated that difficult colleagues were the most difficult aspect of their work. The issue of relationships with colleagues was rarely mentioned in the literature. Perhaps this is because this was something nurses were not comfortable disclosing; this fact may be indicative of other

issues nurses have not felt comfortable talking about when it comes to workplace stress. Supervisor and peer support provided important data on support and are discussed more fully below.

Supervisor Support

Supervisor support was related to higher compassion satisfaction scores and lower burnout scores, and was not related to secondary traumatic stress. The literature review indicated the importance of supervisor support; this was true in nursing and in other fields (Koivu et al., 2012; Tunnah et al., 2012). Tunnah et al. (2012) interviewed Wales hospice nurses to better understand their work and their perception of well-being. The main themes they found included job satisfaction and support. The findings of the present study may strengthen the literature on the importance of support in the workplace and broaden the idea of support to include peer support as well as supervisor support.

Finding the right supervisor is not always easy, and sometimes there is no choice. However, increase nurses' feelings that they are functioning effectively.

The importance of having support available should be useful information for administration officials in occupational settings as they design how a hospice will operate. This reinforces what was revealed in the current study: that hospice nurses felt that support in the workplace is important (Tunnah et al., 2012).

Peer Support

Peer support, although very infrequently found in the nursing literature, may be a topic which would surface in qualitative studies; however, its significance was of note in this study. Literature on peer support in other caregiving fields might be investigated. Supervisor support may be more commonly studied and reported because it is part of the occupational setting

(Koivu et al., 2012; Tunnah et al., 2012). Since peer interactions among nurses was infrequently mentioned in the literature, it seems not to have been relevant to researchers in the past. However, in this study it was related to lower scores on secondary traumatic stress, and burnout, and higher scores on compassion satisfaction. One study in the literature indicated that conflict between staff members was a major contributor to burnout (Tunnah et al., 2012, p.284). There are many variables which might contribute to conflict among peers. There may be generational differences regarding openness to changing job requirements, and the use of technology. There may be different expectations regarding promotion and leadership roles. It may be important for administrative leaders as well as supervisors to work on team building among employees. The findings in this study suggest that attention should be paid to both peer and supervisor support for hospice nurses.

Stressor Variables

The current study explored some common nursing stressors mentioned in the literature to assess their prevalence (Abendroth & Flannery, 2006; Hunsaker, et al., 2015; Joinson, 1992; Komachi et al., 2012; Tunnah et al., 2013). Using these nursing stressors, which are considered the prelude to things such as burnout and secondary traumatic stress, questions were formulated regarding occupational and personal factors which might be related to the study's main variables (Berg et al., 2014; Newell & McNeil, 2010; Range & Rotherham, 2010), while keeping in mind that a stressor for one nurse may not be the same for another nurse (Lazarus, 1990). Occupational stressors included things such as large caseloads, long hours, medication issues, and lack of support in the workplace (Tunnah, Jones, & Johnstone, 2012). One of the exploratory questions in this study asked hospice nurses if they had other caregiving demands beyond the caregiving they provided at their worksite. The results

indicated that 42 of the hospice nurses were involved with other caregiving demands besides the worksite, while 49 stated the question was not applicable because they were not involved in any other caregiving demands. This may again be indicative of the ages of the nurses in this small sample. When asked only 14 participants were taking care of elderly parents, a responsibility which is common among middle-aged participants. However, it appears that very few of the hospice nurses in this study were involved in taking care of their elderly parents. One finding is that 15 participants indicated that they have other personal caregiving responsibilities which would be interesting to explore further. Given the fact that many of these nurses were older, it could be that they are caring for spouses, siblings, or grandchildren rather than parents or small children.

Finally, the information that hospice nurses seem to have high risk for burnout and secondary traumatic stress raises the issue of healthy coping. There appears to be a need for information about coping strategies. One of the coping strategies which is discussed below is self-care (Lazarus, 1990).

Communication about Death and Dying

Several articles indicated that talking with family and patients about death and dying was a very difficult aspect of hospice work (Newell & MacNeil, 2010; Range & Rotherham, 2010). Some of the articles indicated that more training needed to be provided to nurses in regard to communication skills related to issues of death and dying (Potter et al., 2010). However, most of the participants of this study did not perceive that they had any communication deficits in this regard. In fact, 87% of the nurses indicated they had communication skills to talk with families and clients about death and dying, while only 3% indicated they did not have those skills. This was a surprising result in the data collected because it was in opposition to the

literature by Newell and MacNeil (2010), Range and Rotherham (2010) and others (Hawkins et al., 2006; Potter et al., 2010). Perhaps there has been a trend in the profession to deal more directly with end-of-life issues, and recent years have seen hospice nurses communicating more effectively with families and patients regarding death and dying.

Limitations of the Study

One of the limitations of the study was the use of a convenience sample. The Hospice and Palliative Nursing Association (HPNA) was used to invite hospice nurses to participate in the study. The HPNA organization has many members who come from all healthcare professions and not all hospice nurses choose to be a member of HPNA. Also, not all members of HPNA are RNs. Anyone interested in hospice is welcome to join. According to the Bureau of Labor Statistics, the number of RNs working for hospice was 2,955,200 in 2016 (Bureau of Labor Statistics, 2018). HPNA's current membership of hospice registered nurses is not available. HPNA was used for obtaining participants because of their newsletter and their e-mail listserv availability. More participants for the study may have been obtained if letters had been written to independent hospice organizations asking for participants.

There were 101 respondents but only 91 completed all questions. In general, the sample of this study is a very small percentage of hospice nurses from a national organization, which means there is limited if any generalizability to the findings.

Another limitation was that the study only used self-reported data. It was assumed that participants of a study would be truthful. However, as the literature has revealed, not all nurses are aware that their symptoms are indicative of burnout or secondary traumatic stress (e.g., Joinson, 1992). In this study, there was no opportunity for observation of nurses in their

occupational setting nor was there any observational data on hospice nurse's self-care practices.

Several questions asked for data according to groupings. For example, ages of participants and years in hospice nursing were grouped in the survey devised by the researcher. More detailed analysis would have been possible with more specific data. It would have been more beneficial to ask each participant's age and actual years in hospice.

As noted in another study, it is also important to note that the ProQOL is not a diagnostic tool. Researchers using the ProQOL suggest it is best to use it several times over a period because on any given day a nurse could be having a bad day and score high on burnout which may not be a true representation of his/her feelings (Potter et al., 2010). This data was reported by the participant once. Also, there was no control over when, or under what circumstances, the survey was taken. As noted above, offering the ProQOL over a period of time may prove informative regarding hospice nurses and each of the primary variables of this study.

Finally, the self-care behavior frequency scale only measured the frequency of specific self-care activities used by participants on one specific instrument. This is a measure of the quantity of activities participants reported using. The quality of the self-care experiences was not reported. As noted previously, self-care is individualized but is there one form of self-care that seems most useful to many nurses? Are there self-care activities that are most helpful to certain types of personalities? There is a dearth of instruments available to measure self-care either quantitatively or qualitatively; however, understanding those that can be offered in the work setting may prove more valuable and further studies could provide that information.

Implications for Hospice Nursing Practice

This study has underlined the importance of incorporating self-care behaviors into the lives of hospice RNs. The more frequent the score on the self-care behavior inventory, the better nurses feel about their work. Compassion satisfaction is important for nurses, and in combination with burnout and secondary traumatic stress it would be important to understand more clearly how nurses are able to work effectively if they experience these variables together. The more that can be done to promote balance and the use of frequent self-care behaviors, the better, and the implications go well beyond hospice nursing (Douglas, 2010).

There are many ways of addressing the needs of hospice nurses from the occupational standpoint. One way is to offer time to debrief about difficult deaths and clients. One program suggested by Aycock et al. (2008) was “Tea for the Soul”, an opportunity where pastoral care personnel bring a cart with soft music, tea, and cookies to the nurses and listen to any challenges the nurses might have had that day or week. The authors underline the importance of bringing this care to the nurses, because most nurses proceed straight from caregiving task to caregiving task and will not seek this service out (p.188). A simple way of addressing the needs of hospice nurses is providing feedback opportunities on a weekly basis so that difficult issues can be discussed and addressed (Aycock et al., 2008, p.188).

Hospice organizations might foster social interaction opportunities for employees. In addition, mentoring by peers with greater longevity or presence in the particular workplace might be helpful. Some nursing organizations have a brief orientation period for new employees. This might be developed further as a help to provide peer support.

There are professionals in other fields, such as mental health clinicians and clinical psychologists, who are provided long-term supervision as they undertake training to work

independently. Another of those professional fields is social work. Social workers finish their master's degree and sit for a licensure exam called the Licensed Master of Social Work (LMSW). Upon receiving this certification and in providing counseling, they work for three years under a supervisor, a person whom they meet with one hour a week, who provides support, checks on diagnoses, and can debrief the social worker on difficult subjects. During this time, a social worker is seeing patients independently and will have the supervisor overseeing their work. This protocol is mandated by the state and must be documented before a social worker can sit for their Licensed Clinical Social Work (LCSW) exam and become more independent. This can be considered practice development and it can provide stress relief at the same time. This is a type of system in place that allows new caregivers in a field to feel validated in their skills and to have a person in place to talk about their challenges. Hospice nurses could benefit from a program like this, and perhaps the profession as a whole could benefit. Hospice nurses would be afforded an hour each week with a supervisor to ask questions, share challenges, and obtain feedback. Allowing more time for nurses to mourn losses and have debriefing regarding difficult cases may be beneficial in situations of burn-out (Stamm, 2009).

The literature indicates that burnout can be changed when important occupational stressors are reduced (Stamm, 2009). This strengthens the importance of having supervisor and peer support in the workplace. This study indicates the need for more opportunities for teaching and training in hospice nursing. It also points to the need for ongoing workshops, renewal retreats, safe places to talk about stressors, and information on the need for self-care.

Another important consideration for the study of compassion fatigue is the attitudes and personalities of the nurses themselves. Motivations for entering the nursing profession may

vary, ranging from desire to give compassion and care, to the desire for a perceived stable and lucrative profession. Also, motivations may change over time over years in this career. According to Douglas (2010), some nurses have shared that they entered the field of nursing with some compassion, but that something happened along the way which changed them (p.417). It is possible that nurses who come into the field with especially high levels of empathy and compassion are more at risk for burnout. This might be especially true if nurses with more empathy and compassion spend less time on self-care behaviors or if they lack insight on the importance of self-care for caregivers.

Ideas for Further Research

People differ both in what causes stress for them and their reactions to stress and this includes nurses. This study examined benefits of self-care as characterized by frequency of behaviors used. Future studies might examine the impact of self-care behaviors as defined as cognitive, emotional, relational, physical and spiritual components of self-care (Santana & Fouad, 2017).

The importance of quality peer support in this study was measured by one simple Likert type response. Further study may investigate the type of support given as well as methods of providing quality support. The role of peer support in the workplace, in relation to supervisor support, might indicate that when nurses do not want to open up to supervisors, support from peers working with the same challenges may be helpful. This type of peer exploration could be used with research on supervisor support in future studies.

Another avenue of research would be to look at individual differences in hospice nurses. Compassion satisfaction, burnout, secondary traumatic stress and self-care behaviors are not complicated concepts, and although this study investigated a simple measure, self-care

behavior frequency, some of the exploratory work opens up questions for further, perhaps more sophisticated studies. If nurses are experiencing burnout and secondary traumatic stress in the workplace and also compassion satisfaction, then what are their coping styles? What protective factors are they using to continue working in the field?

Motivation for going into hospice nursing and staying in hospice nursing should be studied more completely. Exploring why nurses work in hospice could provide information on attitudes learned in nursing school, and delineate changes in both attitudes and motivations that occur over a career trajectory and varying life circumstances.

Conclusion

This study concluded that higher the frequency of self-care behaviors the higher the compassion satisfaction scores and is related to compassion fatigue as defined by lower burnout scores. It also revealed that supervisor support was related to higher compassion satisfaction and lower burnout scores, and was not related to secondary traumatic stress. Finally, peer support was related to all three major variables, higher compassion satisfaction scores, lower burnout scores, and lower secondary traumatic stress scores. The implications for self-care and peer and supervisor support in the lives of hospice nurses is clearly indicated. Hospice organizations can promote the use of self-care practices by providing training opportunities, support systems, and options for self-care within the workplace. The evidence is clear that self-care practices are related to the satisfaction of caregivers in the workplace. Frequency of self-care is a protective factor against both types of compassion fatigue. Self-care practices, therefore, should be encouraged at every level, the personal, the professional, and the organizational.

Personal strategies include eating well, enjoying leisure activities, getting good sleep, maintain healthy family-work balance, relax, mourn losses, use counseling if needed, and develop healthy coping skills (Rourke, 2007, cited in Beck, 2010).

Professional strategies include: maintaining professional boundaries, meet regularly with other professionals, and identify potentially difficult scenarios with patients and how to respond (Rourke, 2007, cited in Beck, 2010).

Finally, organizational strategies include providing comforting physical spaces for professionals, providing adequate resources to do the job, encouraging respect, acknowledging work well done, and creating a support team, and talking about difficult subjects (Rourke, 2007, cited in Beck, 2010.).

References

Abendroth, M., & Flannery, J. (2006). Predicting the risk of compassion fatigue: A study of hospice nurses. *Journal of Hospice and Palliative Nursing, 8*(2), 346-356.

Ab Latif, R., & Mat nor, MZ. (2016). Stressors and coping strategies during clinical practices among diploma nursing students. *Education in Medicine Journal 8*(3), 21-33. http:// Doi:org/10.5959/eimj. v8i3.422

Alkema, K., Linton, J., & Davies, R. (2008). A study of the relationship between self-care, compassion satisfaction, compassion fatigue, and burnout among hospice professionals. *Journal of Social Work in End-of-Life & Palliative Care, 4*(2), 101-119. http://doi: 10.1080/15524250802353934

Aspinwall, L., & Taylor, S. (1997). A stitch in time: Self-regulation and proactive coping. *Psychological Bulletin, 121*(3), 417-436.

Ayala, E., & Carnero, A. (2013). Determinants of burnout in acute and critical care military nursing personnel: A cross-sectional study from Peru. *PLoS ONE 8*(1), 1-8. http://doi: 10.1371/journal.pone.0054408

Aycock, N., & Boyle, D. (2009). Interventions to manage compassion fatigue in oncology nursing. *Clinical Journal of Oncology Nursing, 13*(2), 183-191. http://doi: 10.1188/09.CJON.183-191

Barr, P. (2017). Compassion fatigue and compassion satisfaction in neonatal intensive care unit nurses: Relationships with work stress and perceived social support. *Traumatology. Advance online publication.* http://dx.doi.org/10.1037/trm0000115

Beck, C. T. (2010). Secondary traumatic stress in nurses: A systematic review. *Archives of Psychiatric Nursing, 25* (1), 1 - 10. https://doi.org/10.1016/j.apnu.2010.05.005

Bedini, L., Labban, J., Gladwell, N., & Dudley, W. (2018). The effects of leisure on stress and health of family caregivers. *International Journal of Stress Management, 25*(1),43-55. http://doi10.1037//str0000072

Berg, G., Harshbarger, J., Ahlers-Schmidt, C., & Lippoldt, D. (2016). Exposing compassion fatigue and burnout syndrome in a trauma team: A qualitative study. *Journal of Trauma Nursing 23*(1), 3-10. http://doi: 10.1097/JTN.0000000000000172

Bond, A., Mason, H., Lemaster, C., Shaw, S., Mullin, C., Holick, E., & Saper, R. (2013). Embodied health: The effects of a mind-body course for medical students. *Medical Education Online 2013, 18*, 1-8.

Breiddal, S. (2012). Self-care in palliative care: A way of being. *Illness, Crisis, & Loss, 20*(1), 5-17.

Bureau of Labor Statistics, U.S. Department of Labor. *Occupational Outlook Handbook*, Registered Nurses. Retrieved from https://www.bls.gov/ooh/healthcare/registered-nurses.htm.

Carter, P., Dyer, K., & Mikan, S. (2013). Sleep disturbance, chronic stress, and depression in hospice nurses: Testing the feasibility of an intervention. *Oncology Nursing Forum 40*(5), E368-E373. http://doi: 10.1188/13.ONF.E368-E373

Cashavelly, B., Donelan, K., Binda, K., Mailhot, J., Clair-Hayes, K., & Maramaldi, P. (2008). The forgotten team member: Meeting the needs of oncology support staff. *The Oncologist, 13*, 530-538.

Centers for Medicare and Medicaid Services (2011). *CMS Manual.* Retrieved from https://www.nhpco.org/cms-manuals.

Christopher, J. & Maris, J. (2010). Integrating mindfulness as self-care into counselling and psychotherapy training. *Counselling and Psychotherapy Research,10*(2),114-125. http://Doi:10.1080/14733141003750285

Costea, N. (2011). Are you my nurse? Life and death in the hospice fast lane. *Nursing Forum 46*(4), 251-255.

Douglas, K. (2010). When caring stops, staffing doesn't really matter. *Nursing Economics, 28*(6), 415-419.

Dunaway, L., & Running, A. (2009). Job satisfaction as self-care within a restrictive regulatory environment: Nevada's study. *Journal of the American Academy of Nurse Practitioners 21*,557-564. http://doi: 10.1111/j.1745-7599.2009. 00446.x

Endicott, L. (2006). Self-care of the professional managing compassion fatigue and burnout in one's practice. *Presented at NACSW Convention 2006*, 1-5.

Esposito, E. & Fitzpatrick, J. (2011). Registered nurses' beliefs of the benefits of exercise, their exercise behavior, and their patient teaching regarding exercise. *International Journal of Nursing Practice 17*, 351-356. http://doi: 10.1111/j.1440-172X.2011. 01951. x

Fehr, L. & Washburn, A. (2018*). Stress: Theories.* Salem Press Encyclopedia of Health.

Figley, C. (1983). Catastrophes: An overview of family reactions. In Figley, C. McCubbin, A. Ed, *Stress and the Family*, 11th edition, Brunner/Mazel: New York.

Definition of compassion fatigue by Charles Figley.

Figley, C. (2002). Compassion fatigue: Psychotherapists'chronic lack of self-care. *JCLP/In Session: Psychotherapy in Practice, 58*(11), 1433-1441.

Figley, C. (2013). *Treating compassion fatigue*. New York: Routledge.

Folkman, S., & Moskowitz, J. (2000). Positive affect and the other side of coping. *American Psychologist 55*(2), 647-654. http://doi: 10.1037//0003-066X.55.6.647

Fortney, L., Luchterhand, C., Zakletskaia, L., Zgierska, A., & Rakel, D. (2013). Abbreviated mindfulness intervention for job satisfaction, quality of life, and compassion in primary care clinicians: A pilot study. *Annals of Family Medicine, 11*(5), 412-420. http://doi:10.1370/afm.1511

Gallagher, R., & Gormley, D. (2009). Perceptions of stress, burnout, and support systems in pediatric bone marrow transplantation nursing. *Clinical Journal of Oncology Nursing 13*(6), 681-685. http://doi: 10.1188/09.CJON.681.685

Grafton, E., Gillespie, B., & Henderson, S. (2010). Resilience: The power within. *Oncology Nursing Forum 37*(6), 698-705.

Gueritaulat-Chalvin, V., Kalichman, S., Demi, A., & Peterson, J. (2000). Work-related stress and occupational burnout in AIDS caregivers: Test of a coping model with nurses providing AIDS care. *AIDS CARE 12*(2), 149-161.

Hatinen, M., Makikangas, A., Kinnunen, U., & Pekkonen, M. (2013). Recovery from burnout during a one-year rehabilitation intervention with six-month follow-up: Associations with coping strategies. *International Journal of Stress Management 20*(4),364-390. http://Doi:10.1037/a0034286

Hawkins, A., Howard, R., & Oyebode, J. (2007). Stress and coping in hospice nursing staff. The impact of attachment styles. *Psycho-Oncology 16*, 563-572. http://doi:10.1002/pon.1064

Hegney, D., Craigie, M., Hemsworth, D., Osseiran-Moisson, R., Aoun, S., Francis, K., &

Drury, V. (2014). Compassion satisfaction, compassion fatigue, anxiety, depression and stress in registered nurses in Australia: Study 1 results. *Journal of Nursing Management 22*, 506-518. http://doi: 10.1111/jonm.12160

Hirschfeld, M., (2009). Accepting responsibility for long-term care-A paradox in times of a global nursing shortage? *Journal of Nursing Scholarship41*(1),104-111. http://doi: 10.1111/j.1547-5069.2009. 01257.x

Hunsaker, S., Chen, H., 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. http://doi: 10.1111/jnu12122

Joinson, C. (1992). Coping with compassion fatigue. *Nursing 92,* (April), 116-121.

Kelly, L., Runge, J., & Spencer, C. (2015). Predictors of compassion fatigue and compassion satisfaction in acute care nurses. *Journal of Nursing Scholarship 47*(6), 522-528. http://doi:10.1111/jnu.12162

Koivu, A., Saarinen, P., & Hyrkas, K. (2011). Stress relief or practice development: Varied reasons for attending clinical supervision. *Journal of Nursing Management, 19,* 644-654. http://doi: 10.1111/j.1365-2835.2011. 01232.x

Komachi, M., Kamibeppu, K., Nishi, D., & Matsuoko, Y. (2012). Secondary traumatic stress and associated factors among Japanese nurses working hospitals. *International Journal of Nursing Practice*, *18,* 155-163. http://doi: 10.1111/j.1449-172X.2012. 02012.x

Lambert, V., Lambert, C., & Yamese, H. (2003). Psychological hardiness, workplace stress and related stress reduction strategies. *Nursing and Health Sciences, 5,* 181-184.

Laranjeira, C. (2011). The effects of perceived stress and ways of coping in a sample of Portuguese health workers. *Journal of Clinical Nursing, 21*, 1755-1762. http://doi: 10.1111/j.1365-2702.2011. 03948.x

Lazarus, R., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York, NY: Springer.

Lazarus, R. (1990). Theory-based stress measurement. *Psychological Inquiry, 1*(1), 3-33.

Lazarus, R. (1993). From psychological stress to the emotions: A history of changing outlooks. *Annual Review of Psychology, 44*, 1-21.

Lazarus, R. (2000). Toward better research on stress and coping. *American Psychologist, 55*(6), 665-673. http://doi: 10.1037//0003-066X.55.6.665

Lombardo, B. (2011). Compassion fatigue: A nurse's primer. *Online Journal of Nursing,16*(1), 1-10. http://doi: 10.3912/OJIN.Vol16No01Man03

Maslach, C., & Leiter, M. (2007). *Stress, concepts, cognition, emotion, and behavior: Handbook of stress.* 358-362. http://doi: 10.1016/B978-0-12-800951-2.00044-3

Mohsin, Z., Shahed, S., & Sohail, S. (2017). Correlated professional quality of life in nurses. *Annals of King Edward Medical University,23*(4),1-5. http://DOI.org/10.17582/journal/akemu/2017/23

National Council of State Boards of Nursing. Website. https://www.ncsbn.org/index.htm

Newell, J., & MacNeil, G. (2010). Professional burnout, vicarious trauma, secondary traumatic stress, and compassion fatigue: A review of theoretical terms, risk factors, and preventative methods for clinicians and researchers. *Best Practices in Mental Health, 6*(2), July 2010, 57-68.

Osofsky, J., Putnam, F., & Lederman, C. (2008). How to maintain emotional health when working with trauma. *Juvenile and Family Court Journal, 59*(4), 91-102.

Pearlman, A., & Stagnaro-Green, A. (2010). Developing a complementary, alternative, and integrative medicine course: One medical school's experience. *The Journal of Alternative and Complementary Medicine, 16*(5), 601-605. http://doi:10.1089/acm.2009.0276

Periera, S., Fonseca, A., & Carvalho, A. (2011). Burnout in palliative care: A systematic review. *Nursing Ethics, 18*(3), 317-326. http://doi: 10.1177/0969733011398092

Perry, B., Toffner, G., Merrick, T., & Dalton, J. (2010). An exploration of the experience of compassion fatigue in clinical oncology nurses. *Canadian Oncology Nursing Journal,* Spring 2011, 91-97.

Potter, P., DeShields, T., Berger, J., Clarke, M., Olsen, S., & Chen, L. (2013). Evaluation of a compassion fatigue resiliency program for oncology nurses. *Oncology Nursing Forum 40*(2), 180-186.

Range, L., & Rotherham, A. (2010). Moral distress among nursing and non-nursing students. *Nursing Ethics 17*(2), 225-232. http://doi: 10.1177/096973309352071

Riahi, S. (2011). Role stress amongst nurses at the workplace: Concept analysis. *Journal of Nursing Management, 19,* 721-731.

Rourke, M. (2007). Compassion Fatigue in pediatric palliative care providers. *Pediatric Clinics of North America,54,* p.631-644. http://Doi.org/10.1016/j.pcl.2007.07.004

Sabo, B. (2008). Adverse psychosocial consequences: Compassion fatigue, burnout and vicarious traumatization: Are nurses who provide palliative and hematological cancer care vulnerable*? Indian Journal of Palliative Care 14*(1), 23-29.

Sacco, T., Ciurzynski, S., Harvey, M., & Ingersoll, G. (2015). Compassion satisfaction and compassion fatigue among critical care nurses. *Critical Care Nurse 35*(4), 32-42. doi: http://dx.doi.org/10.4037/ccn2015392

Santana, M. & Fouad, N. (2017). Development and validation of a self-care behavior inventory. *Training and Education in Professional Psychology 11*(3), 140-145. http://doi: 10.1037tep0000142

Shapiro, S., Biegel, G., & Brown, K. (2007). Teaching self-care to caregivers: Effects of mindfulness-based stress reduction on the mental health of therapists in training. *Training and Education in Professional Psychology*, *1*(2), 105-115.

Slocum-Gori, S., Hemsworth, D., Chan, W., Carson, A., & Kazanjian, A. (2011). Understanding compassion satisfaction, compassion fatigue and burnout: A survey of the hospice palliative care workforce. *Palliative Medicine, 27*(2), 172-178.

Stamm, B.H. (2005). The ProQOL Manual: The Professional Quality of Life Scale: Compassion Satisfaction, Burnout & Compassion Fatigue/Secondary Trauma Scales. Baltimore, MD: Sidran Press. Stamm, B. H. (2008). The ProQOL. www.proqol.org.

Stamm, B. (2009). *The ProQOL Manual*. Institute of Rural Health at Idaho State University in collaboration with Sidran Press.

Stamm, B.H. (2010). The Concise ProQOL Manual, 2nd Ed. Pocatello, ID: ProQOL.org.

Thompson, A., (2013). How Schwartz rounds can be used to combat compassion fatigue. *Nursing Management, 20*(4), 16-20.

Thompson, R. (2003). Compassion fatigue: The professional liability for caring too much. Symposium on The Human Side of School Crises, a public service of the Public Entity Risk Institute (PERI) and The American School Counselor Association (ASCA).

Thomas, J., & Otis, M. (2010). Intrapsychic correlates of professional quality of life: Mindfulness, empathy, and emotional separation. *Journal of the Society for Social Work and Research, 1*(2), 83-98. http://doi: 10.5243/jsswr.2010.7

Tunnah, K., Jones, A., & Johnstone, R. (2013). Stress in hospice at home nurses: A qualitative study of their experiences of their work and wellbeing. *International Journal of Palliative Nursing 18*(6), 283-289.

VonReuden, K., Hinderer, K., McQuillan, K., Murray, M., Logan, T., Kramer, B., Gilmore, R., & Friedmann, E. (2010). Secondary traumatic stress in trauma nurses: Prevalence and exposure, coping, and personal/environmental characteristics. *Journal of Trauma Nursing 17*(4), 191-200. http://doi: 10.1097/JTN.obo13e3181ff2607

Ward, L. (2011). Mental health nursing and stress: Maintaining balance. *International Journal of Mental Health Nursing 20*, 77-85. http://doi: 10.1111/j.1447-0349.2010. 00715.x

Wenzel, J., Shaha, M., Klimmek, R., & Krumm, S. (2011). Working through grief and loss: Oncology nurses' perspectives on professional bereavement. *Oncology Nursing Forum 38*(4), E272-E282. http://doi: 10.1188/11.ONF.E272-E2

Whitebird, R., Asche, S., Thompson, G., Rossom, R., & Heinrich, R. (2013). Stress, burnout, compassion fatigue, and mental health in hospice workers in Minnesota. *Journal of Palliative Medicine 16*(12), 1534-1538. http://doi: 10.1089/jpm.2013.0202

Zeidner, M., Hadar, D, Matthews, G., & Roberts, R. (2013). Personal factors related to compassion fatigue in health professionals. *Anxiety, Stress & Coping, 26*(6), 596-596. http://doi: 10.1.880.108V/10615806.2013.777045

APPENDIX A

MARYWOOD UNIVERSITY EXEMPT REVIEW COMMITTEE Immaculata Hall, 2300 Adams Avenue, Scranton, PA 18509

DATE: TO: FROM: STUDY TITLE:

MU ERC #: SUBMISSION TYPE:

ACTION: APPROVAL DATE: EXPIRATION DATE: EXEMPT CATEGORY:

April 5, 2018 Linda Denz Marywood University Exempt Review Committee

[455811-3] Effects of Self-Care Practices and Personal and Occupational Variables on Compassion Satisfaction, Compassion Fatigue, Burnout, and Secondary Traumatic Stress in Hospice Nurses 2018-E014 Amendment/Modification

APPROVED April 5, 2018 April 5, 2019 2

Thank you for your submission of an Exemption Request for this research study. Marywood University's Exempt Review Committee has APPROVED your request for an Exemption. The project meets the criteria defined by federal regulations for an Exemption and involves minimal risk to participants. All research must be conducted in accordance with this approved submission.

While we have applied the ERC's approval stamp to your email recruitment message/newsletter posting and informed consent form, we realize it may not be feasible to use the stamped versions online. Therefore, please ensure that the language in the transmitted versions is identical to the stamped versions.

Please also note that:

• Any REVISION TO THE PROTOCOL must be submitted to and approved by the ERC prior to initiation.

- All SERIOUS and UNEXPECTED adverse events must be reported to this office.

- All NON- COMPLIANCE issues or COMPLAINTS regarding this study must be reported to this office.

- This project requires CONTINUING REVIEW by this office on an annual basis. Should your study continue beyond the one-year approval period, please reapply prior to the expiration date. No research may continue beyond the expiration date until approved by the ERC.

- A CLOSURE REPORT is due prior to April 5, 2019, unless you are applying for renewal/ continuing review. The appropriate forms for any of the reports mentioned above may be found on the ERC's webpage or in the Forms and Reference Library at IRBNet. If you have any questions, please contact the ERC at 570-961-4782 or cloftus@marywood.edu. Please include your study title and MU ERC number in all correspondence with this office. Thank you and good luck with your research!

- The appropriate forms for any of the reports mentioned above may be found on the ERC's webpage or in the Forms and Reference Library at IRBNet.

- If you have any questions, please contact the ERC at 570-961-4782 or cloftus@marywood.edu. Please include your study title and MU ERC number in all correspondence with this office.

- Thank you and good luck with your research!

APPENDIX B

4/3/2018

Exempt Review Committee Marywood University 2300 Adams Avenue Scranton, PA 18509

Dear Marywood ERC:

I have read a synopsis of Linda Denz's research project, entitled Effects of Self-Care Practices and Personal and Occupational Variables on Compassion Satisfaction, Burnout, Secondary Traumatic Stress, and Compassion Fatigue in Hospice Nurses. I am aware of all risks and benefits involved in the project.

I am authorized to allow access to research participants by sending the consent letter and link for the survey directly to the HPNA Director of Research who will distribute it to the research SIGS and the HPNA newsletter. If a second distribution is needed it is up to the PI to resend it to the HPNA Director of Research. In this way, I hereby grant such access to the HPNA membership.

Sincerely,

Marianne Matzo, PhD, FAAN Director of Research Hospice and Palliative Nurses Association

APPENDIX C

Marywood University
Exempt Review Committee
APPROVED
DATE: 4/5/2018
Expires 4/5/2019

Email Recruitment

Subject Line: Self-Care, Compassion Satisfaction, and Compassion Fatigue in Hospice Nurses

Dear Hospice Nurses:

My name is Linda C. Denz and I am a doctoral student at Marywood University. I am conducting a research study for the next 6 weeks. Its purpose is to understand effects of self-care practices and personal and occupational variables on compassion satisfaction, burnout, secondary traumatic stress, and compassion fatigue in hospice nurses. You are invited to participate in the study if you qualify. To qualify, you must be 18 years or older, an RN who is a member of the Hospice and Palliative Nursing Association. You also must have worked in a hospice setting over the past year; if you are per diem you should have worked in the hospice setting over the past year. The research will take place through an online questionnaire provided on Survey Monkey. It will take about 20 to 30 minutes to complete the survey.

Benefits may include learning more about yourself in the workplace and learning new forms of self -care. Your participation will provide valuable data for hospice nurses.

For your participation, you will have the chance to enter a raffle to receive one of two, $250.00 VISA/MC credit cards being given away by the researcher. After completing the surveys, send your last name and address to onetimeraffle@gmail.com to be entered into the raffle.

Survey Link: https://www.surveymonkey.com/r/S5ZQRYX

This study has been approved by Marywood University's Exempt Review Committee.

Sincerely,

Linda C. Denz
denz@frontiernet.net

APPENDIX D

Informed Consent

Effects of Self-Care Practices and Personal and Occupational Variables on Compassion Satisfaction, Compassion Fatigue, Burnout, and Secondary Traumatic Stress in Hospice Nurses.

Introduction

You are invited to be in a research study about hospice nurses. You were chosen as a possible participant because you are a member of the hospice and palliative nurses association and are a hospice RN, eighteen years old or older. Please read this form. Ask any questions you may have before agreeing to take part in this study.
This study is being conducted by Linda C. Denz, a doctoral student at Marywood University.

Purpose - What the Study is About

The purpose of this study is to understand if hospice nurses' self-care habits, personal, and occupational demographics affect compassion satisfaction, burnout, secondary traumatic stress, and compassion fatigue.

Procedures - What You Will Be Asked to Do

If you agree to be in this study, you will be asked to access a link at your professional organization's website or through a link I will provide. The link will be to Survey Monkey; on this site, you will be able to access these surveys that will require a total of 20 to 30 minutes to complete. The first survey is a basic self-care habits survey, the second is a survey that determines your risk for compassion satisfaction, burnout, secondary traumatic stress, and compassion fatigue. The link will be open from 2/12/2018-2/28/2018 2 weeks and 2 days.

Risks and Benefits

The risks in this study are "no greater than the risks experienced in daily life or activities". The benefits in this study are that hospice nurses will be contributing to valuable information on self-care habits and compassion satisfaction, burnout, secondary traumatic stress and compassion fatigue, burnout, and secondary traumatic stress.

Payment/Rewards

You will receive the right to participate in a raffle to win one of two, $250.00 VISA/MC cards.

Confidentiality

The records of this study will be kept private. You will not be able to be identified in any written or presented report of this study. Only Linda C. Denz, investigator, and Gail Cabral, IHM, PhD., dissertation advisor, will have access to the research records. Records will be kept in a locked file. Records will be kept for three years; then they will be destroyed. Paper records will be shredded and computer records will be deleted. While it is understood that no computer transmission can be perfectly secure, reasonable efforts will be made to protect the confidentiality of your transmission of the survey information.

Taking Part is Voluntary Your participation is voluntary. Your decision to participate or not participate will not affect your current or future relations with the investigator, Linda C. Denz.

It will not affect your relations with Marywood University. You may withdraw at any time without penalty or loss of benefits to which you are entitled.

Contacts and Questions

The investigator conducting this study is Linda C. Denz.

You may ask questions now or later. If you have questions later, you may contact the researcher at *denz@frontiernet.net or by calling 607-201-6650. Doctoral Advisor- Gail Cabral, IHM, PhD.*

If you have questions related to the rights of research participants or research-related injuries (where applicable), please contact Ms. Courene M. Loftus, MPA, CIP, Marywood University's Director of Human Participants Protection and Research Compliance, at (570) 961-4782 or cloftus@marywood.edu.
You may print a copy of this form for your records.

When using the survey site, clicking the button "accept or approve" and proceeding with this survey will acknowledge that you have read and understood the above and consent to participate in this study.

Statement of Consent

I have read the above information. I am a hospice RN. I have asked questions if I had them. I have received answers. I consent to participate in this study.

APPENDIX E

Self-Care Behavior Inventory (Santana & Fouad, 2017)

How often do you...?

Respond to these items using a 5-point scale: (1) *never*, (2) *rarely*, (3) *sometimes*, (4) *often*, (5) *always*

Spend time with others you enjoy	**1**	**2**	**3**	**4**	**5**
Maintain deep interpersonal relationships	**1**	**2**	**3**	**4**	**5**
Stay in contact with important people	**1**	**2**	**3**	**4**	**5**
Seek out comforting activities	**1**	**2**	**3**	**4**	**5**
Take time to chat with peers	**1**	**2**	**3**	**4**	**5**
Allow yourself to laugh	**1**	**2**	**3**	**4**	**5**
Quiet time to complete tasks	**1**	**2**	**3**	**4**	**5**
Seek out projects that are exciting or rewarding	**1**	**2**	**3**	**4**	**5**
Be open to not knowing	**1**	**2**	**3**	**4**	**5**
Eat healthy	**1**	**2**	**3**	**4**	**5**
Exercise	**1**	**2**	**3**	**4**	**5**
Medical care	**1**	**2**	**3**	**4**	**5**
Spend time in nature	**1**	**2**	**3**	**4**	**5**
Take vacations	**1**	**2**	**3**	**4**	**5**
Time off	**1**	**2**	**3**	**4**	**5**
Pray/Meditate	**1**	**2**	**3**	**4**	**5**
Connect with spirituality	**1**	**2**	**3**	**4**	**5**
Contribute to causes	**1**	**2**	**3**	**4**	**5**
Advocacy	**1**	**2**	**3**	**4**	**5**

APPENDIX F

TSCBITotalscoreonselfcarescreen					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	32.00	1	1.0	1.1	1.1
	39.00	1	1.0	1.1	2.2
	40.00	1	1.0	1.1	3.3
	41.00	1	1.0	1.1	4.4
	50.00	1	1.0	1.1	5.5
	51.00	1	1.0	1.1	6.6
	52.00	1	1.0	1.1	7.7
	53.00	2	2.0	2.2	9.9
	54.00	2	2.0	2.2	12.1
	57.00	2	2.0	2.2	14.3
	58.00	3	3.0	3.3	17.6
	59.00	3	3.0	3.3	20.9
	60.00	2	2.0	2.2	23.1
	61.00	3	3.0	3.3	26.4
	62.00	4	4.0	4.4	30.8
	63.00	4	4.0	4.4	35.2
	64.00	8	7.0	8.8	44.0
	65.00	2	2.0	2.2	46.2
	66.00	2	2.0	2.2	48.4
	67.00	7	6.9	7.7	56.0
	68.00	2	2.0	2.2	58.2
	69.00	6	5.9	6.6	64.8
	70.00	2	2.0	2.2	67.0
	71.00	6	5.9	6.6	73.6
	72.00	1	1.0	1.1	74.7
	73.00	3	3.0	3.3	78.0
	75.00	3	3.0	3.3	81.3
	76.00	3	3.0	3.3	84.6
	77.00	4	4.0	4.4	89.0
	78.00	3	3.0	3.3	92.3
	80.00	1	1.0	1.1	93.4
	81.00	1	1.0	1.1	94.5
	82.00	3	3.0	3.3	97.8
	85.00	1	1.0	1.1	98.9
	86.00	1	1.0	1.1	100.0
	Total	91	90.1	100,0	
Missing	System	10	9.9		
Total		101	100.0		

APPENDIX G

SECTION 8: THE PROQOL TEST AND HANDOUT
PROFESSIONAL QUALITY OF LIFE SCALE (PROQOL)

COMPASSION SATISFACTION AND COMPASSION FATIGUE
(PROQOL) VERSION 5 (2009)

When you *[help]* people you have direct contact with their lives. As you may have found, your compassion for those you *[help]* can affect you in positive and negative ways. Below are some questions about your experiences, both positive and negative, as a *[helper]*. Consider each of the following questions about you and your current work situation. Select the number that honestly reflects how frequently you experienced these things in the *last 30 days*.

1=Never 2=Rarely 3=Sometimes 4=Often 5=Very Often

1. I am happy.
2. I am preoccupied with more than one person I *[help]*.
3. I get satisfaction from being able to *[help]* people.
4. I feel connected to others.
5. I jump or am startled by unexpected sounds.
6. I feel invigorated after working with those I *[help]*.
7. I find it difficult to separate my personal life from my life as a *[helper]*.
8. I am not as productive at work because I am losing sleep over traumatic experiences of a person I *[help]*.
9. I think that I might have been affected by the traumatic stress of those I *[help]*.
10. I feel trapped by my job as a *[helper]*.
11. Because of my *[helping]*, I have felt "on edge" about various things.
12. I like my work as a *[helper]*.
13. I feel depressed because of the traumatic experiences of the people I *[help]*.
14. I feel as though I am experiencing the trauma of someone I have *[helped]*.
15. I have beliefs that sustain me.

_____ 16. I am pleased with how I am able to keep up with *[helping]* techniques and protocols.

_____ 17. I am the person I always wanted to be.

_____ 18. My work makes me feel satisfied.

_____ 19. I feel worn out because of my work as a *[helper]*.

_____ 20. I have happy thoughts and feelings about those I *[help]* and how I could help them.

_____ 21. I feel overwhelmed because my case [work] load seems endless.

_____ 22. I believe I can make a difference through my work.

_____ 23. I avoid certain activities or situations because they remind me of frightening experiences
_____ of the people I *[help]*.

24. I am proud of what I can do to *[help]*.

_____ 25. As a result of my *[helping]*, I have intrusive, frightening thoughts.

_____ 26. I feel "bogged down" by the system.

_____ 27. I have thoughts that I am a "success" as a *[helper]*.

_____ 28. I can't recall important parts of my work with trauma victims.

_____ 29. I am a very caring person.

_____ 30. I am happy that I chose to do this work.

_____

WHAT IS MY SCORE AND WHAT DOES IT MEAN?

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

Compassion Satisfaction Scale

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

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

Total: _____

The sum of my Compassion Satisfaction questions is	So My Score Equals	And my Compassion Satisfaction level is
22 or less	43 or less	Low
Between 23 and 41	Around 50	Average
42 or more	57 or more	High

Burnout Scale

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

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

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

Total: _____

The sum of my Burnout Questions is	So my score equals	And my Burnout level is
22 or less	43 or less	Low
Between 23 and 41	Around 50	Average
42 or more	57 or more	High

Secondary Traumatic Stress Scale

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

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

Total: _____

The sum of my Secondary Trauma questions is	So My Score Equals	And my Secondary Traumatic Stress level is
22 or less	43 or less	Low
Between 23 and 41	Around 50	Average
42 or more	57 or more	High

© B. Hudnall Stamm, 2009-2012. Professional Quality of Life: Compassion Satisfaction and Fatigue Version 5 (ProQOL). www.proqol.org. This test may be freely copied as long as (a) author is credited, (b) no changes are made, and (c) it is not sold. Those interested in using the test should visit www.proqol.org to verify that the copy they are using is the most current version of the test.

Our work can be overwhelming. Our challenge is to maintain our resilience so that we can keep doing the work with care, energy, and compassion.

10 things to do for each day

1. Get enough sleep.
2. Get enough to eat.
3. Do some light exercise.
4. Vary the work that you do.
5. Do something pleasurable.
6. Focus on what you did well.
7. Learn from your mistakes.
8. Share a private joke.
9. Pray, meditate or relax.
10. Support a colleague.

For more Information see your supervisor and
visit www.psychosocial.org or www.proqol.org

Beth Hudnall Stamm, Ph.D., ProQOL.org and Idaho State University
Craig Higson-Smith, M.A., South African Institute of Traumatic Stress
Amy C. Hudnall, M.A., ProQOL.org and Appalachian State University
Henry E. Stamm, Ph.D., ProQOL.org

SWITCHING ON AND OFF

It is your empathy for others helps you do this work. It is vital to take good care of your thoughts and feelings by monitoring how you use them. Resilient workers know how to turn their feelings off when they go on duty, but on again when they go off duty. This is not denial; it is a coping strategy. It is a way they get maximum protection while working (switched off) and maximum support while resting (switched on).

How to become better at switching on and off

1. Switching is a conscious process. Talk to yourself as you switch.
2. Use images that make you feel safe and protected (switch off) or connected and cared for (switch on) to help you switch.
3. Find rituals that help you switch as you start and stop work.
4. Breathe slowly and deeply to calm yourself when starting a tough job.

We encourage you to copy and share this card. This is a template for making the pocket cards. You may make as many copies as you like. We have heard from some organizations that they have made thousands of copies. Some people find that it is helpful to laminate the cards for long-term use. The ProQOL helper card may be freely copied as long as (an) author is credited, (b) no changes are made other than those authorized below, and (c) it is not sold.

www.proqol.org

APPENDIX H.

Demographics

1. What is your gender?

- Male
- Female

2. What is your age?

- 18 to 24 years
- 25 to 34 years
- 35 to 44 years
- 45 to 54 years
- 55 to 64 years
- 65 or older

3. How long have you worked in nursing?

- 1 month to nine years
- 10 years to 19+ years
- 20 years to 29+ years
- 30 plus years

4. How many years worked as hospice nurse?

- 1 month to 9 years.
- 10 years to 19+ years.
- 20 years to 29+ years.
- 30 plus years

5. What kind of hospice nursing do you do?

- In the home.
- In the hospital.
- In a hospice center.
- In a nursing home.

6. Do you work in a large urban setting or a rural setting?

- Urban (areas of 50,000 or more people).
- Urban clusters (areas of at least 2,500 people but less than 50,000).
- Rural (areas not meeting specifications for urban or urban clusters).

7. Do you presently provide caregiving to your family when not at work?

- I care for elderly parent/parents in my home.

- I care for elderly parent/parents in their home and then go home.
- I have a special needs child or family member.
- I have children under the age of four in the home.
- Not applicable.

8. What is your caseload per day?

- 1-7 clients
- 8-15 clients
- 16 plus clients

9. How many miles on average do you travel each day to see clients? This question for those who see clients in their homes.

- I only travel to and from my work site.
- 0 to 20 miles
- 21 to 40 miles
- 41-60 miles
- Over 61 miles

10. What is your average workday?

- 8 hours or less
- 9 to 10 hours
- 11 to 12 hours
- 13 to 16 hours

11. How would you describe receiving personal time off?

- Very easy to receive time off
- Easy to receive time off
- Neither easy or difficult to receive time off
- Difficult to receive time off.
- Very difficult to receive time off.

12. Do you feel you have the communication skills to talk with clients and their families about death and dying?

- I believe I have the communication skills needed to talk about death and dying.
- I struggle with communication skills needed to talk about death and dying.
- I make every attempt to avoid conversations about death and dying.
- I refer clients and their families to another staff member when asked questions about death and dying.

13. How would you rate the quality of support from supervisors in your workplace?

- Quality of support is excellent.
- Quality of support is satisfactory.
- Quality of support is poor.
- Quality of support is non-existent.

14. How would you rate the quality of support from your peers in your workplace?

- Quality of support is excellent.
- Quality of support is satisfactory.
- Quality of support is poor.
- Quality of support is non-existent.

15. What would you rate the most difficult aspect of your work? (Choose one).

- Communication about death and dying
- Having no support at the workplace
- Difficult colleagues
- Medication questions
- No time to talk about client loss

APPENDIX I.

TABLE FOR DETERMINING PROQOL T-SCORE FROM RAW SCORES

When using this table to convert scores, it should be noted that the conversion from raw scores to standardized t-scores is not strictly numeric as there are more scores available on a standardized t-score than on the raw score. Calculations using the SPSS scoring scheme will have some variance in comparison to the table. The variance is trivial, and only applies if a person is on the on the border of a cut score. The maximum raw score on the ProQOL is 50 and the total percentiles available are 100.

Compassion Satisfaction				Burnout				Secondary Traumatic Stress		
%tile	Raw Score	t score		%tile	Raw Score	t score		%tile	Raw Score	t score
1	13	19		1	5	28		1	1	34
2	16	23		2	7	31		2	2	35
3	19	27		3	8	32		3	2	35
4	22	31		4	9	34		4	3	36
5	24	34		5	10	35		5	3	36
6	24	34		6	10	35		6	3	36
7	25	35		7	11	37		7	4	38
8	26	36		8	11	37		8	4	38
9	27	37		9	11	37		9	4	38
10	27	37		10	12	38		10	4	38
11	27	37		11	12	38		11	5	39
12	28	39		12	12	38		12	5	39
13	28	39		13	13	39		13	5	39
14	29	40		14	13	39		14	5	39
15	29	40		14	13	39		15	5	39
16	30	41		16	14	41		16	5	39
17	30	41		17	14	41		17	6	41
18	30	41		18	14	41		18	6	41
19	31	43		19	14	41		19	6	41
20	31	43		20	14	41		20	6	41
21	31	43		21	15	42		21	6	41
22	31	43		22	15	42		22	7	42
23	32	44		23	15	42		23	7	42
24	32	44		23	15	42		23	7	42
25	32	44		25	15	43		25	7	42
26	32	44		26	16	44		26	7	42
27	33	45		27	16	44		26	7	42
28	33	45		28	16	44		28	8	44
29	33	45		29	16	44		29	8	44

30	33	45		30	16	44		30	8	44
31	34	47		31	16	44		31	8	44
32	34	47		32	17	45		32	8	44
33	34	47		33	17	45		32	8	44
34	34	47		34	17	45		34	9	45
35	35	48		35	17	45		35	9	45
36	35	48		36	17	45		36	9	45
37	35	48		37	18	46		37	9	45
38	35	48		38	18	46		38	9	45
39	35	48		39	18	46		39	10	46
40	36	49		40	18	46		40	10	47
41	36	49		41	19	48		40	10	47
42	36	49		42	19	48		41	10	47
43	36	49		43	19	48		43	10	47
44	36	49		44	19	48		44	10	47
45	36	49		45	19	48		45	11	48
46	37	51		46	19	48		46	11	48
47	37	51		47	19	48		47	11	48
48	37	51		48	20	49		48	11	20
49	37	51		49	20	49		49	11	48
50	37	20		50	20	50		50	11	49
51	38	52		51	20	50		51	12	50
52	38	52		52	20	50		52	12	50
53	38	52		53	21	51		53	12	50
54	38	52		54	21	51		54	12	50
55	38	52		55	21	51		55	12	50
56	39	53		56	21	51		56	12	50
57	39	53		547	21	51		57	13	51
58	39	53		58	21	51		58	13	51
59	39	53		59	21	51		59	13	51
60	39	53		60	22	52		60	13	51
61	39	53		61	22	52		61	13	52
62	40	55		62	22	52		62	14	52
63	40	55		63	22	52		63	14	52
64	40	55		64	23	53		64	14	52
65	40	55		65	23	53		65	14	52
66	40	55		66	23	53		66	15	54
67	40	55		67	23	53		67	15	54
68	41	56		68	23	53		68	15	54
69	41	56		69	24	55		69	15	54
70	41	56		70	24	55		70	15	54
71	41	56		71	24	55		71	16	55
72	41	56		72	25	56		72	16	55
73	42	57		73	25	56		73	16	55

74	42	57		74	25	56		74	16	55
75	42	57		75	25	56		75	17	56
76	42	57		76	26	58		76	17	57
77	42	57		77	26	58		77	17	57
78	43	59		78	26	58		78	17	57
79	43	59		79	26	58		79	17	57
80	43	59		80	27	59		80	18	58
81	43	59		81	27	59		81	18	58
82	43	59		82	28	60		82	18	58
83	44	60		83	28	60		83	19	60
84	44	60		84	28	60		84	19	60
85	44	60		85	29	62		85	19	60
86	44	60		86	29	62		86	20	61
87	45	61		87	29	62		87	20	61
88	45	61		88	30	63		88	21	62
89	454	61		89	30	63		89	21	62
90	46	62		90	31	65		90	22	64
91	46	62		91	31	65		91	22	64
92	46	62		92	31	65		92	23	65
93	46	62		93	32	66		93	23	66
94	46	62		94	32	66		94	24	67
95	47	64		95	33	68		95	26	70
96	47	64		965	34	69		96	27	71
97	48	65		97	34	69		97	28	73
98	49	66		98	36	72		98	29	75
99	50	68		99	37	73		99	31	77