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Compassion Fatigue: Prevalence Among Nurses at a Midwest Pediatric Hospital

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Project: Compassion Fatigue: Prevalence Among Nurses at a Midwest Pediatric Hospital

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Abstract

Compassion fatigue is a term used to describe the unique stressors affecting people in care-giving professions (Joinson in 1992). For nurses, the impact of compassion fatigue may result in stress-related symptoms, job dissatisfaction, decreased productivity, patient satisfaction, safety issues, and job turnover. The purposes of this non-experimental descriptive survey using electronic distribution to collect data were to identify the prevalence of compassion fatigue composed of burnout and secondary traumatic stress and compassion satisfaction among nurses and nursing staff who deliver direct patient care at the hospital and the relationship between demographic variables (age, work category, level of education, work experience) and the presence of compassion fatigue, burnout, secondary traumatic stress, and compassion satisfaction on selected nursing care units at a Midwest pediatric hospital. Swanson's (1991) Caring Theory was used to guide this study. Compassion fatigue was normally distributed throughout the sample. Results demonstrated that nurses who work on the cardiology unit had higher compassion satisfaction scores than nurses who worked in the pediatric intensive care unit, cardiothoracic care unit and the emergency unit. Nurses working in the pediatric intensive care unit had higher secondary traumatic stress scores than nurses who work in the emergency unit and cardiology unit. Additionally, nurses who worked in the pediatric intensive care unit reflected lower compassion satisfaction scores as well as higher burn out and secondary traumatic stress scores than nurses in all of the other nursing care units studied. Compassion satisfaction, burn-out and secondary traumatic stress scores did not statistically differ by age, work category, level of education, or work experience. The results of this study demonstrate the existence of compassion fatigue at a Midwest pediatric hospital. This study provided data necessary to develop a program

addressing compassion fatigue at this hospital. Results also suggest that nurses who work in the pediatric intensive care unit must be a priority group targeted for immediate intervention.

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Introduction

Joinson in 1992 initially used the term compassion fatigue to describe an unusual

form of burnout she noted in emergency unit staff taking care of patients who had

experienced a traumatic event. Later, other health care professions such as social work,

medicine and psychology adopted the concept of compassion fatigue (Day and Anderson,

2011) to describe a frequently occurring outcome in their work. First responders, police

officers, fire fighters, paramedics, and other rescue workers are also at high risk for

development of compassion fatigue but none more likely than nurses who are with

patients more than any other discipline (Newsom, 2010). Nurses' risk for compassion

fatigue is unique in that nurses function as both first responders and sustained responders

providing nursing care to patients and families on a continual basis (Bush, 2009).

An occupational hazard of providing care to patients and families in any setting is

the development of compassion fatigue.   Compassion fatigue may be responsible for the

development of stress-related symptoms and job dissatisfaction among caregivers,

decreased productivity, and job turnover within the healthcare system (Medical News

Today, 2010). Compassion fatigue can influence patient satisfaction and safety (Potter,

Deshields, Divanbeigi, Berger, Cipriano, Norris & Olson (2010).

Compassion fatigue can be costly on a personal and professional level for nurses

and financially for healthcare systems (Lombardo & Eyre, 2011). It is important for

nurses to become knowledgeable about signs and symptoms of compassion fatigue as

well as to be aware of strategies that can be utilized to develop a personal plan of care to

avoid compassion fatigue. Just as importantly, a priority for healthcare systems should

be to provide healthy work environments for their staff as well as a plan to address the

needs of nurses who may be experiencing symptoms of compassion fatigue (Lombardo & Eyre).

Hospital-based pediatric nursing can be a rewarding career, but involves unique challenges to the nurse taking care of children and their families. There is repeated exposure to patients that are experiencing acute and chronic illnesses, pain and perhaps death (Coetzee & Klopper, 2010). Nurses are expected to be proficient in the use of complex technologies and at the same time, engage in therapeutic communication with patients and families who have multiple needs. Additionally, pediatric nurses can become overly involved in their patients and work which may lead to crossing professional boundaries (Zadeh, Gamba, Hudson & Wiener, 2012).

Purpose

The purpose of this study is to identify the prevalence of compassion fatigue (burnout + secondary traumatic stress) and compassion satisfaction in nursing staff that provide direct patient care at a Midwest pediatric hospital. The data obtained will be the first step in developing a multidisciplinary program to address compassion fatigue among health care providers.

Significance of Study

The concept of compassion fatigue has become an increasingly important issue within the healthcare environment (Potter et al, 2010; Potter, Deshields, Berger, Clarke &Chen 2013; Burston & Stichler, 2010). In order to develop a program that educates staff about the effects of compassion fatigue and the strategies they can incorporate into their self-care behaviors to counteract the effects of compassion fatigue, it is necessary to first identify the prevalence of compassion fatigue among direct patient care providers

(Potter et al, 2010). Once the prevalence of compassion fatigue is identified, a program

can be developed to educate staff about the effects of compassion fatigue and provide

healthcare systems administrators with the information necessary to provide positive

work environments (Potter et al, 2010). The need for a multidisciplinary program to

address compassion fatigue should be recognized as a major step in retaining staff,

preventing turnover and improving quality of care provided by staff to the patients

(White and Reg, 2006; McHolm, 2006; Potter et al, 2010). Although this project

addresses only front line nursing staff, other allied health care providers may be

interested in conducting their own surveys to develop programs that may be tailored to

their staff.

Project Rationale

Potter et al. (2010) stress it is necessary for healthcare systems who are

considering developing programs to address compassion fatigue to first assess for the

prevalence of compassion fatigue within the organization. The rationale for undertaking

this study is to determine the prevalence of compassion fatigue among the nursing staff

that provides direct nursing care on certain nursing units at a Midwest pediatric hospital.

Statement of Problem

The problem this study addresses is that the prevalence of compassion fatigue is

unknown among the nursing staff at a Midwest pediatric hospital. There is currently not

a systematic process in place to determine whether compassion fatigue is present. There

is a stated need by the administration of this Midwest pediatric hospital to identify the

prevalence of compassion fatigue among nursing staff at the hospital.

Project Plan

Project outcomes

Prior to beginning this project, outcomes were identified through meetings with identified stakeholders. The outcomes identified for this project were:

1. Short term outcome: Complete the administration of the Professional Quality of Life Scale Version 5 (ProQOL R-V) (Stamm, 2010) to the front line nursing staffs (nurses, advanced practice nurses, patient care technicians) who works on the following pediatric hospital units: emergency, hematology-oncology, pediatric intensive care, cardiac intensive care and cardiology.

2. Intermediate outcome: Analyze and interpret the results of the data obtained in the survey. This information will be shared with those stakeholders who will advocate for and ultimately authorize the development of a program to address compassion fatigue among nursing staff.

3. Long term outcome: The development of a multidisciplinary program to address compassion fatigue among all health care providers.

Stakeholders

Stakeholders included front line nursing staff, patient, families, nurse managers, hospital administration, allied health professionals, chaplains, and the representatives of the hospital foundation that may provide funding for the program to ultimately be developed.

Stakeholder Input

The stakeholders were invited to participate in the Compassion Fatigue

Prevention and Professional Resiliency Facilitator Workshop on October 4th and 5th, 2012

presented by Eric Gentry, PhD., LMHC, CAC, Master Traumatologist. Dr. Gentry is an

internationally recognized leader in the study and treatment of compassion fatigue.

Following this workshop, the stakeholders met on a regular basis to plan for

implementation of a program based on the information presented by Dr. Gentry.

Challenges/Barriers to plan

As a result of the stakeholder interviews, modifications to the original plan were

incorporated. Initially all nursing units within the hospital were going to be included.

However, the final study included nurses and nursing staff from the following units:

pediatric intensive care, cardiothoracic intensive care, emergency, hematology-oncology

and cardiology. This modification is the result of a compromise made when a researcher

from an outside institution asked for hospital participation in a study using the same

survey. The survey was administered electronically to provide anonymity and to respect

the staff's time.

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Project Approval and Timeline

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Once exempt approval was obtained from both the Washington University School

of Medicine and the University of Missouri-St Louis Institutional Review Boards, the

survey was administered in winter of 2013 with completed surveys due within 3 weeks of

distribution. There was a need to complete the data collection and analysis in a timely

fashion as there was much interest and enthusiasm within the institution to use the data to develop an interdisciplinary program addressing compassion fatigue among staff.

Application to Practice

The data obtained from this study is being used to support the development of a multidisciplinary program to address compassion fatigue. A Compassion Fatigue Steering Committee at the hospital has been developing this program, based on Dr. Eric Gentry's work on compassion fatigue and its treatment. The time frame for program implementation is summer of 2013.

The Chief Nursing Officer requested that the data be shared with the director of the Support for Success Program. This program consists of mandatory classes for new employees as well as provision of a mentor during their first year of employment at the hospital. A staff psychologist will now incorporate information from this project into her presentations during these classes. This will provide educational opportunities and reinforcement of information for new staff on the topic of compassion fatigue.

Representatives from the Midwest pediatric hospital's Occupational Health department are also active participants on the Compassion Fatigue Steering Committee due to their concerns about the increase number of employees seeking assistance for what they called " burnout". The occupational health staff now has options for helping these individuals based on the hospital data and interventions and information obtained during Dr. Gentry's seminar.

Theoretical Framework

Swanson's Caring Theory (1991) was chosen to guide this study. Swanson developed the following definition of caring after interviews with women in three

separate perinatal situations: "Caring is a nurturing way of relating to a valued other toward whom one feels a personal sense of commitment and responsibility" (p 165, Swanson). Following the interviews, Swanson empirically identified and described five caring processes: knowing, being with, doing for, enabling and maintaining beliefs that are synonymous with nursing (Swanson).

Knowing

Knowing is "striving to understand an event as it has meaning in the life of the other" (Swanson, 1991, p. 163). When the nurse is in a knowing relationship with the patient, the nurse avoids making assumptions about the meaning of an experience for that patient. The nurse attempts to understand the experience from the patient's point of view without personal bias. Knowing implies the nurse feels what the patient feels as closely as possible, and is an essential part of the caring process (Swanson).

Being With

Being with involves being emotionally present to the other, or simply "being there" (Swanson, 1991). Being with a patient involves the nurse's ongoing availability to the patient who may be experiencing a continuum of feelings ranging from joyful to painful or sad. The nurse "being with" conveys to the patient that he/she matters to the nurse who is caring for them (Swanson).

Doing For

Doing for entails "doing for the other what he or she would do for self if it were all possible" (Swanson, 1991, p. 164). A patient is in a dependent relationship with the nurse to do what the patient is normally able to do for themselves which can create feelings of embarrassment for the patient. Doing for implies the nurse treats the patient

with dignity and respect and provides care in a competent, comforting manner. Patients will often remember the nurse "doing for" them as those acts which are most appreciated (Swanson).

Enabling

Enabling means" facilitating the other's passage through life's transitions and unfamiliar events" (Swanson, 1991, p. 164). Through professional knowledge and experience the nurse can help the patient heal and eventually return to self-care practices. Enabling involves providing and explaining information as well as offering emotional support during the transition process. The nurse focuses on the patient's concern and helps him or her to problem-solve when the patient may be faced with unfamiliar or new situations. (Swanson).

Maintaining Belief

Maintaining belief, is "sustaining faith in the other's capacity to get through an event or transition and face a future with meaning" (Swanson, 1991, p.165). Caring that reflects maintaining belief involves caring for the patient with respect. It is a positive attitude tempered with realistic optimism. In nursing, maintaining belief is an all-encompassing aspect of care. Nurses assist the patient to find meaning in their healthcare experiences within a realistic context (Swanson).

As a result of caring, Swanson (1991) described positive and negative outcomes that can affect both the patient and the nurse. Patients reported feelings of dignity, enhanced physical being, increased comfort and family support and an increase in trusting relationships when they felt they had experienced caring. (Swanson). However when patients felt they were involved in non-caring experiences, they described negative

feelings of humiliation, helplessness and vulnerability. Similarly when nurses practiced caring the following consequences were reported: emotional-spiritual sense of accomplishment, satisfaction and purpose; a sense of gratitude, fulfillment, self-esteem; greater respect for life and death; ability to be more reflective; a love of nursing; and a desire for increased knowledge (Swanson). Just as patients were negatively affected by what they perceived as non-caring experiences, nurses also reported being affected by what they perceived as not practicing caring interactions with their patents.

Review of the Literature

This section includes a comprehensive review of the literature related to compassion fatigue. In preparation for this literature review, Medline, Nursing Reference Center and CINAHL databases were searched using the keywords: burnout, nurse caring, secondary traumatic stress, and compassion fatigue and compassion satisfaction. Factors related to compassion fatigue are presented and include professional quality of life, compassion satisfaction, compassion fatigue, burnout, secondary traumatic stress, workplace and compassion fatigue and interventions for compassion fatigue.

Professional Quality of Life

Stamm (2010) defines professional quality of life as "the quality one feels in relation to their work as a helper" (p.8). Professional quality of life is the combination of both the positive quality (compassion satisfaction) and the negative quality (compassion fatigue). Compassion fatigue is further broken down into two main elements: burnout and secondary traumatic stress (Figley, 1995). The first element, burnout, consists of feelings such as frustration, anger and depression with the work environment. The second element, secondary traumatic stress, has been described as the behaviors and

emotions that develop in an individual caring for a patient who has experienced a traumatic event. Figley (1995) describes secondary traumatic stress as "the stress resulting from helping or wanting to help a traumatized or suffering person" (p.10).

The concepts of compassion fatigue, secondary traumatic stress and burnout, although not identical in meaning, are often used interchangeably. These definitions describe the adverse physical, emotional and psychological effects on nurses working regularly with patients who have experienced life-threatening, traumatic events (White & Reg, 2006).

Compassion Satisfaction

Compassion satisfaction is defined by Hooper, Craig, Janvrin, Wetsel & Remels (2010) as "the positive aspect of caring that helps to balance the negative effects of working with acutely ill or traumatized patients" (p. 422). The authors suggest those choosing nursing as a profession may have a "protective mechanism" in which the satisfaction of helping others may prevent those individuals from developing compassion fatigue (Hooper et al). Caring for patients allow nurses to feel a sense of well-being and fulfillment that energizes them and leads to retaining a high morale, thriving in the workplace, and the enthusiasm to continually meet patients' needs (Coetzee & Klopper, 2010). Compassion satisfaction is the motivation that a nurse receives from using his or her skills, knowledge and available resources to provide care to patients. The reward for the nurse is to see the patient improve both physically and emotionally (Coetzee & Klopper). Compassion satisfaction has been described as being "restorative and circular in nature" (Coetzee, p 239). The nurse derives satisfaction from caring for the patient as the patient finds fulfillment in being cared for by the nurse. This sequence creates a

positive cycle which supplies the nurse with the internal energy and motivation to continue caring for other patients and families.

Compassion Fatigue

Compassion fatigue is difficult to define and can create confusion. Two terms, secondary traumatic stress and burnout are often used interchangeably and contribute to the confusion of terms. Figley (1995) defined compassion fatigue as a state of exhaustion and dysfunction (biologically, psychologically, and socially) as a result of prolonged exposure to secondary trauma or a single intensive event. Figley suggested that compassion fatigue is an appropriate substitute and can be used interchangeably for the term secondary traumatic stress. Others have defined compassion fatigue as a combination of physical, emotional, and spiritual depletion associated with caring for patients in significant pain and emotional distress (Lombardo & Eyre, 2011). Deshields (2012) describes compassion fatigue as the combination of both secondary traumatic stress and burnout. For the purposes of this study, the term compassion fatigue is used and encompasses the concepts of burnout and secondary traumatic stress.

Workplace stressors that may negatively affect nurse's performance include patients' physical needs (pain, discomfort) and emotional needs (fear, anxiety). These stressors may contribute to negative nursing behaviors that may occur on a continuum from feeling tired to feeling apathetic and detached (Bush, 2009). Bush suggests that nurses may feel pulled in multiple directions, taking care of patients at work and at the end of their shift going home to care for children, husbands or other family members. As a result of compassion fatigue, nurses may develop physical complaints such as headaches, gastrointestinal disorders, muscle tension, sleep disturbances, fatigue, and

cardiac symptoms such as chest pain/pressure, palpitations and tachycardia. Emotional symptoms in the nurse may include mood swings, restlessness, irritability, oversensitivity, anxiety, excessive use of alcohol, anger and resentment, depression, memory issues, and poor concentration, focus and judgment (Lombardo & Eyre, 2010). If compassion fatigue is not addressed in its earliest phases, it can alter the ability of a caregiver to provide compassionate care (Boyle, 2011). Compassion fatigue develops gradually in the individual and is the culmination of the effects of workplace stress over time, ignoring their personal, physical and emotional symptoms and avoiding self-care behaviors (Bush, 2009).

There are 3.1 million registered nurses in the United States making nurses the largest group of healthcare workers in the country (Lombardo & Eyre, 2011). Within a healthcare system, nurses deliver the highest percentage of both preventative and curative care (Oulton, 2006). The demand for healthcare is expected to increase when an estimated 32 million additional Americans obtain health insurance coverage (Staigner, Auerbach, & Buerhaus, 2012). The Baby Boomers create an additional demand on the healthcare system as they age and require an increase in health care services (Zinn, Guglielmi, Davis & Moses, 2012). According to Staigner et al (2012) the decade long nursing shortage may appear to have ended due to the substantial increase in fulltime RN positions created in 2007-2008. At the same time, there is concern that the expected retirement of baby-boomer nurses, the withdrawal of nurses from the workforce due to the end of the recession, and the decrease in the numbers of those entering the nursing profession will all contribute to recreating the nursing shortage (Staigner et al, 2012).

Compassion fatigue not only affects nurses but also affects the workplace environment resulting in decreased productivity, increased sick days, and higher turnover (Meadors & Lamson, 2007). Healthcare systems must balance providing competent, safe, and compassionate care to the patients it serves with the financial viability of the healthcare system (Burston & Stichler, 2010). Nurse caring is one of the most influential measurements of patients' willingness to return to that healthcare system and is prognostic of patient satisfaction (Burston & Stichler). There is increased pressure on the nursing staff to always provide safe, compassionate care to every patient and family. Pediatric nursing involves unique challenges to the nurse who is continually exposed to both children who are seriously ill, in pain and possibly facing death and their families who are suffering as well (Zadeh, Gamba, Hudson, & Wiener, 2013). Constant exposure to children who are suffering in combination with work place stressors such as increased patient assignments, staff shortages, perceived lack of management support, and a paucity of resources to perform their job well eventually affects the nurses' emotional and personal health and ultimately their ability to provide safe, competent nursing care to patients (Zadeh et al.).

Any person working in a caring profession is at risk to develop compassion fatigue. The literature indicates that hurricane responders, emergency medical technicians, police, fireman, social workers, therapists, clergy, public school teachers, military personnel, and anyone who is constantly exposed to suffering is at risk to develop compassion fatigue (Beck, 2011; Boyle, 2011; Showalter, 2012; Stamm, 2010; Yoder, 2010). Nurses are at particular risk of developing compassion fatigue in that they

become partners with the patient rather than just an observer in the patient's health care experience (Boyle, 2011).

Prolonged exposure to trauma results in a variety of problematic symptoms that manifest in the workplace and at home. Compassion fatigue results when the nurse continually provides care to suffering patients without experiencing the positive benefits of seeing improvement in the patient's condition (Potter et al, 2010). Symptoms of compassion fatigue find the nurse to be chronically tired and irritable, repeatedly voices a lack of enthusiasm for taking care of patients' needs, lacks pleasure in everyday life, reports feeling trapped in their current position, participates in self-destructive behaviors such as increased alcohol consumption, overeating and use of recreational drugs. Those nurses suffering from compassion fatigue may experience an aggravation of existing physical ailments (Boyle, 2011, Stamm, 2010). Specific physical symptoms may include headaches, digestive problems, muscle tension, sleep disturbances and cardiac symptoms (Lombardo & Eyre, 2011).

Potter et al. (2010) studied the prevalence of compassion fatigue in oncology nurses within a large Midwestern hospital oncology unit. From the sample of 153 health care providers that included registered nurses, medical assistants, and radiology technicians, no statistical difference was found between those staff working in the outpatient and the inpatient settings in regard to scores for burnout and secondary traumatic stress. A trend was noted for increased risk of burnout and secondary traumatic stress among nurses with a higher education level, since those with a bachelor's degree had the highest percentage of high-risk scores for compassion fatigue (Potter et al.).

Pediatric nurses were described by Robins, Melter and Zelikovsky (2009) as at particular risk for developing compassion fatigue. Working with children who may have experienced trauma or may be facing death has been shown to increase a nurse's risk for experiencing secondary traumatic stress and eventually compassion fatigue (Robins et al.). Nurses may have uncomfortable feelings if the patients they care for are similar in age or gender to their own children. Circumstances surrounding the child's disease or family may be similar to the nurse's personal experiences which may also contribute to the development of compassion fatigue (Meadors & Lamson, 2008).

According to Meadors and Lamson (2008), 15 to 18 % of children in the United States have a chronic health condition. Having a chronic illness increases the number of time a child will have interactions with medical professionals and require repeated admissions to the hospital. With advances in medical technology, more children with chronic illnesses are surviving into adulthood and requiring ongoing nursing care. In a pilot study of 20 experienced nurses working with chronically ill children and their families, Maytum, Heiman, & Garwick (2004) found that compassion fatigue was experienced by those nurses participating in the study. Short and long term coping strategies identified by the nurses as helpful in reducing the effects of compassion fatigue were developed as a result of "insight" and "experience" (Maytum et al). Other studies have identified emergency room nurses, oncology nurses, intensive care nurses, and palliative care/hospice nurses at higher risk for developing compassion fatigue (Dominguez-Gomez & Rutledge, 2009; Hooper, Craig, Janvrin, Wetsel & Reimels, 2010; Showalter, 2010; Young, Cicchillo & Bressler, 2011; Potter et al, 2010, Abenddoth & Flannery, 2006

Burnout

Compassion fatigue is often linked with burnout. The two have been identified as related but separate concepts (Yoder, 2008). Beck (2011) defines burnout as a psychological syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment. Burnout develops gradually and has been identified as a subtle process during which a person is gradually caught in a state of mental fatigue and is drained of energy (Young, Derr, Cicchillo and Bressler (2011); Potter et al, 2010).

Burnout results not only from the stress of daily life but also the mental exhaustion caused by the inability of the person to cope with their work environment (Potter et al). Young et al. found that burnout may result in workplace relationship problems and lack of productivity which may contribute to compassion fatigue and secondary traumatic stress. Factors in the workplace environment that have been identified as contributing to burnout are increased nurse workloads, nurse staffing, complex patient assignments, managing time constraint and lack of control and reward (Young et al.). Burnout has also been described by Gentry, Baranowsky and Dunning (1997) as a chronic condition of perceived demands outweighing perceived resources.

Secondary Traumatic Stress

Secondary traumatic stress refers to the "distress and emotional disruption associated with continued contact with individuals who have experienced a primary traumatization" (Meadors, Lamson, Swanson, White & Sira, 2009, p.109). Symptoms of secondary stress develop not from personally experiencing a traumatic event, but from exposure to an individual who has actually experienced the trauma (Beck, 2011). Burnout tends to develop gradually while secondary traumatic stress can develop

suddenly and unexpectedly. Beck (2011) identifies symptoms of secondary traumatic stress as a person feeling helpless, confused and isolated from others who may be able to provide support to the affected individual. Gentry, Baranowsky, and Dunning (2002) have summarized from the literature the following symptoms of secondary traumatic stress: "increased negative arousal, intrusive thoughts/images of another's critical experiences, difficulty separating work from professional life, lowered frustration tolerance, increased outbursts of anger or rage, dread of working with certain individuals, depression, ineffective and/or self -destructive self- soothing behaviors, hyper-vigilance, decreased feelings of work competence, diminished sense of purpose/enjoyment with career lowered functioning in nonprofessional situations, and loss of hope" (p. 126).

All caregivers are at risk for emotional exhaustion from their work. Figley (1995) emphasized that compassion fatigue and secondary traumatic stress are the unpreventable outcomes of working with patients who are suffering and have experienced trauma. The effects can be profound and potentially impact both the staff's personal quality of life as well as the work environment (White & Reg, 2006). Compassion fatigue and secondary traumatic stress are often used interchangeably. For the purposes of this study, the term compassion fatigue is used to describe the combination of both burnout and secondary traumatic stress (Stamm, 2010).

Workplace and Compassion Fatigue

Compassion fatigue affects both the healthcare provider and the workplace environment causing decreased productivity, a negative effect on the bottom line, difficulty recruiting, high turnover and increased sick days (White & Reg, 2006). Compassion fatigue may result in mistakes which affect patient safety and cause a

decrease in patient satisfaction (Hooper et al., 2010). These behaviors could affect families' decisions to return to that particular hospital thus decreasing revenue.

In 2012, Kennedy, Nichols, Halamek and Arafeh described a common hospital turnover rate in nursing as approximately 21.3%. The authors quoted the national average salary of a medical-surgical nurse as $46,832. The authors of this study estimated the cost of replacing one nurse was approximately $92,442. Replacing a specialty nurse such as a critical care nurse could cost up to $145,000 (Kennedy et al.). For a large healthcare organization, given a turnover rate of 21.3% of nurses each year in a 1000-nurse hospital, the authors calculated the sum as close to $2 million (Kennedy et al.) spent to replace nurses that left the healthcare system.

Compassion fatigue can lead to increased accidents and poor quality of care (Slatten, Carson and Carson, 2011). The quality and effectiveness of a healthcare system's work can be compromised when its providers are suffering from stress and secondary traumatization. Nurses who do not manage their stress are more likely to struggle with providing compassionate care towards their patients and thus reduce effectiveness of care. If problems are allowed to continue without appropriate intervention, the result may be reflected by a decline in the quality of care provided to the patients or an increase in medical errors (Meadors & Lamson, 2008).   In a study of 205 certified critical nurses, Maiden, Georges, and Connelly (2011), found "statistically significant correlations between moral distress, compassion fatigue and perceptions about medication errors" (p. 339) among their study sample.

Bush (2009) noted chronic workplace stress, disillusionment, and frustration may lead to ineffective personal coping mechanisms. Other risk factors identified were

personal life stressors and experiences without adequate support systems, workload, younger nurses, organizational and environmental factors, inadequate resources, highly idealistic, and motivated and empathic workers (Bush). Rudolph, Stamm and Stamm (1997) list previous personal trauma as a risk factor and also a protective mechanism. Personal trauma may be a risk factor due to increased exposure to trauma. Abendoth and Flannery (2006) found over- identifying with patients, lack of self-care, personal health factors, and those individuals who sacrifice personal and psychological needs for the needs of their patients are at higher risk to develop compassion fatigue.

Interventions for Compassion Fatigue

In their article, Slatten et al (2011) suggest that healthcare systems may consider incorporating opportunities to manage the effects on staff working with patients. On-site counseling, support groups, debriefing sessions, art therapy, and assisting nurses to integrate self-care plans into goal setting in conjunction with annual performances have all been suggested interventions (Slatten et al). Boyle (2011) recommends helping nurses to find a work/life balance. Nurses should be encouraged to identify personal stressors such as marital discord and recognition of the additional stressors of care giving for young children and elderly parents which may contribute to the development of compassion fatigue (Boyle).

Bush (2009) noted that action oriented, problem-solving approaches such as adequate self-care, exercise, relaxation, adequate sleep, nutrition, and support from others are strategies that are known to help prevent compassion fatigue. Positive self-beliefs of the nurses, positive beliefs about families they care for, a healthy self-concept, and the capability to listen to and understand others are also protective mechanisms (Bush).

Strategies believed to be the most helpful to deal with compassion fatigue are those that reflect the same kind of self-care behaviors that health care providers recommend to patients. Self-care includes such practices as adequate amounts of sleep, good nutrition, regular exercise, and practicing relaxation techniques (Maytum et al., 2004; Rourke, 2007; Slatten et al., 2011). Yoder (2010) suggests that living a well-rounded life is a useful coping strategy that includes physical, emotional, and spiritual aspects of life. Rourke (2007) suggests recommendations for protecting individuals from the cumulative effects of compassion fatigue include three layers of strategies: personal strategies, professional strategies, and organizational strategies. An increased awareness of emotional demands facing today's nursing workforce is important. In their study, Meadors, Lamson & Sira (2008) surveyed 210 health care providers and staff who attended an educational seminar in raising awareness of compassion fatigue, reducing clinical stress levels, and overcoming related symptoms. Meadors et al results indicated that the educational seminar was successful in raising awareness of compassion fatigue and reducing clinical stress levels. Boyle (2012) suggests providing continuing education programs that supplement both knowledge and skill and reinforce basic emotional support competencies in the practice setting.

Experts in the field of compassion fatigue have begun to understand the potential use and effectiveness of group interventions in the field of nursing (Gentry, Baranowsky and Dunning 1997; Cohen-Katz et al., 2004). Results from the study by Potter et al (2010) described the success of specific approaches for developing coping and stress management skills. They reported the development and implementation of a hospital wide program to provide hospital personnel with self-care measure to prevent the

development of compassion fatigue as well as information necessary to recognize signs and symptoms of compassion fatigue. Results from a study evaluating a wellness program for pediatric nurses, (Zadeh, Gamba, Hudon & Wiener, 2012) indicated the majority of the staff attending the wellness program sessions believed the new information learned would enhance their work skills. More than 75% reported that the sessions would change the way they performed their jobs.

Methodology

A non-experimental descriptive survey research method design was used to (a) determine the prevalence of compassion fatigue, compassion satisfaction, burnout, and secondary traumatic stress among nurses and nursing staff that deliver direct patient care at a Midwest pediatric hospital and to (b) determine if there is a relationship between demographic data and the development of compassion fatigue, burnout, secondary traumatic stress, and compassion satisfaction among nurses and nursing staff that deliver direct patient care at a Midwest pediatric hospital.

Research questions

This study seeks to answer the following research questions:

1. What is the prevalence of compassion fatigue defined as burnout and secondary traumatic stress and compassion satisfaction among nurses and nursing staff who deliver direct patient care at the hospital?

2. What are the relationships among demographic variables (age, work category, level of education, work experience) and the presence of compassion satisfaction, burnout, and secondary traumatic stress?

Setting and Sample

      This project was conducted on the following units at a Midwest pediatric hospital: emergency unit, pediatric intensive care unit, cardiovascular intensive care unit, and hematology-oncology and cardiology units. Participants included health care employees involved in the bedside care of patients. Registered nurses, patient care technicians and advanced practice nurses were asked to participate. There was a potential of 402 participants resulting in a final sample of 202.

Protection of Human Subjects

      Institution Review Board (IRB) exempt review was obtained from both the Washington University School of Medicine and the University of Missouri-St Louis (UMSL). Survey data was obtained electronically via a secured internet connection and stored on a secured database. Only the research team was able to access the data online. All data were stored in a password-protected computer located within this researcher's locked office. Only the research team was able to access the data. The analytic team composed of this researcher, the bio-statistician, and the director of nursing research at the hospital has completed mandatory human subject's education. No provider names or other identifying data were linked with any of the variables. All data were collected and reported in the aggregate. Completion of the survey represented consent from the participant.

Data Collection

      A meeting with each department manager was scheduled to fully explain the purpose of the study and to share with them the length of time the employees may be spending on completing the survey if done at the workplace. Managers were made aware

that the information obtained in the study would be used to provide a basis for the development of a program to address compassion fatigue for to all hospital caregivers.

The department managers were asked for a listing of all health care providers meeting criteria for inclusion in the study. Eligible participants received an informational email consisting of a letter fully explaining the purpose of the study and a link to the electronic survey. The participants were informed that their participation was voluntary and all surveys were anonymous. They were also assured that participation or non-participation would not affect employment. The staff could choose to access the survey from the privacy of their homes or they could complete the survey in their work environment. Total time allowed for participation by completing the survey was three weeks and no further follow-up was conducted.

The study risks were minimal however there was concern that some individuals may feel uncomfortable as they reflect on their feelings about caring for patients. If an individual sought assistance with these feelings they would be directed to a website in which they could retake the survey and calculate their personal results. In addition, the individual would have been referred to the Employee Assistance Program for consultation. This researcher is not aware of any employee that sought a referral through the Employee Assistance Program.

Instrumentation

The instrument used for this study was the Professional Quality of Life Scale Compassion Satisfaction and Compassion Fatigue: Version 5 (ProQOL R-V). The instrument, originally developed by Figley in 1995, has been noted to be used frequently by researchers to identify the effects of working with patients who have experienced

stressful events (Young et al, 2011, Stamm, 2010). The scale has undergone extensive

psychometric evaluation since the original version was developed by Figley in the late

1980's (Potter et al 2010, Stamm, 2010). The ProQOL R-V includes three 10-item

subscales: compassion satisfaction, burnout and secondary traumatic stress. Construct

validity testing has verified that the subscales do measure different constructs. The scale

has been used by hundreds of researchers who have published their studies. At this time

there are over 100,000 articles indicating that the subscales accurately describe the three

constructs (Stamm, 2010). The reliability indexes were described by Stamm (2010) in

the instrument's manual. Compassion satisfaction ($\alpha = 0.891$) is defined as the "pleasure

derived from being able to do your work well" (Stamm, 2010, p.17) and is comprised of

10 items, (e.g., "I get satisfaction from being able to help people"). The compassion

fatigue scale is divided into two subscales of 10 items each: (*i*) burnout ($\alpha = 0.796$) is

regarded as "the feelings of hopelessness and difficulty dealing with work or doing a job

effectively" (Stamm, 2010, p13) (e.g. "I feel trapped by my job as a helper"; and (*ii*)

secondary traumatic stress ($\alpha = 0.814$) is regarded as a "fright response resulting from

extreme exposures by caregivers to traumatic events" (Stamm, 2010, p.13)(e.g., "I think

that I might have been affected by the traumatic stress of those I help"); (Smart, English,

James, Wilson, Daratha, Chidlers & Magera, 2013; Potter et al, 2010; Stamm, 2010).

     The ProQOL R-V survey uses 30 statements that reflect how frequently a person

experienced the situation in the last 30 days. Likert scale responses are used to measure

each statement ranging from one (never) to five (very often). For each subscale, the

items are summed together to give an average. Stamm (2010) reports "the average score

for compassion satisfaction, burnout, and secondary traumatic stress is 50. About 25% of

individuals score below 43 and approximately 25% score above 57" (p.17) on each scale. An individual scoring in the higher range on the compassion satisfaction scale obtains professional satisfaction from their work. Those with higher scores on the burnout and secondary traumatic stress scale may have feelings of being useless in their work environment as well as experiencing frightening feelings at work (secondary traumatic stress scale). Scores in the lower range indicate that they may encounter problems with their job (compassion satisfaction scale). Low scores on the burnout scale indicate they have positive feelings that they can be effective in their work (Young et al, 2011, Stamm, 2010).

Data Analysis

Prior to analysis, responses were examined for missing data and all were complete. Descriptive statistics were used to analyze demographic data including age, gender, years of healthcare experience, degree of education, and area of employment in the hospital (nursing unit). A series of cross tabs was calculated to show the relationship between demographics and total scores on each of the three subscales using Pearson Chi square analysis.

Bivariate summary measures (MANOVA) were created for background variables and sub-scale scores. The sub-scale score distributions are measurably normal. A series of non-parametric Wilcoxon-Mann-Whitney tests was used to compare sub-scale scores by binary background variables of interest. Cronbach's alpha was calculated for each sub-scale as a measure of reliability. Alpha was preset at $p = <.05$ for all testing significance. All analyses were performed using IBM SPSS Statistics for Windows version 20.0 (IBM Corporation, Somers, NY, USA).

Results

Email requests for survey completion were sent to 402 eligible participants. A total of 202 healthcare providers participated in the study for a response rate of 51%. The majority of respondents worked as RNs (n =165, 81.7%), were 40 years of age or younger (n = 142, 70.3%), female (n = 177, 87.6%), hold a Bachelor's degree or less (n = 133, 65.8%) and have 10 years or less of work experience (n = 121, 59.9%). The mean scores for each subscale among the study's participants were as follows: compassion satisfaction, 50.47 (SD = 9.719), burnout, 49.29 (SD= 9.925) and secondary traumatic stress, 49.25 (SD = 10.148). The scales were normally distributed demonstrating the prevalence of compassion fatigue throughout the sample. Compassion satisfaction, burnout and secondary traumatic stress scores did not differ significantly by age, work category, level of education and work experience.

There were statistically significant differences in compassion satisfaction scores as a function of nursing unit. Specifically, nursing staff who worked on the cardiology unit had higher compassion satisfaction than nursing staff who worked in the pediatric intensive care unit (p = .012), cardiothoracic intensive care unit (p = .026), and the emergency unit (p = .027). These results indicate that nursing staff in the cardiology unit feel more positively about their work in general than those who work in the pediatric intensive care unit, cardiothoracic intensive care unit and the emergency unit.

Likewise, there were also statistically significant differences among nursing units on the secondary traumatic stress scale where nursing staff in the pediatric intensive care unit had higher secondary traumatic stress scores than those nursing staff who worked in the emergency unit (p = .001) and the cardiology unit (p = .019). Additionally, nursing

staff who work on the hematology-oncology unit had statistically significant higher

secondary traumatic stress scores (p = .016) than nursing staff who worked in the

emergency unit. These results indicate that nursing staff working on the hematology-

oncology unit and the pediatric intensive care experience may experience negative

feelings related to the secondary traumatic stress exposure to patient suffering/trauma or

stressful events on the nursing unit than nurses working in either the emergency unit or

the cardiology unit.

Finally, there were also statistically significant differences in burnout scores

among nursing units. Nursing staff who worked in the pediatric intensive care unit had

statistically higher burnout scores among nursing units. Nursing staff who worked in the

pediatric intensive care unit had statistically higher burnout scores than nursing staff who

worked on the cardiology unit (p = .009) and the emergency unit (p = .014)

Discussion

Swanson's Caring Theory (1991) was used to guide this study. Caring has long

been recognized as central to nursing (Swanson, 1991). Swanson describes five

processes that define the concept of caring; knowing, being with, doing for, enabling and

maintaining belief. As a result of caring for patients, nurses may develop symptoms of

compassion fatigue as a result of repeated exposure to patient and family suffering

(Lombardo & Eyres, 2011; Coetzee & Klopper, 2010).

In this study, the nurses that work on the cardiology unit had statistically

significant higher compassion satisfaction scores than nurses in the pediatric intensive

care unit, the cardiothoracic intensive care unit and the emergency unit. This finding may

be a result of the nurses on this unit successfully selecting a nursing unit that matches

their personal style and interest (Hooper, Craig, Janvrin, Wetsel, & Reimels, (2010). The nurses on this unit have had long periods of stability with minimal staff and management turnover. Higher compassion satisfaction has been associated with a sense of community and support among healthcare workers as well as healthy coping mechanisms of the individuals working on the nursing unit. Smart et al (2013) describes compassion satisfaction as a result on seeing one's job as a "calling".

Nurses who work in the pediatric intensive care unit had statistically significant higher scores on the burnout scale than nurses in the emergency unit and the cardiology unit. Several studies (Maytum, Bielski, Heiman & Garwick, 2004; Hooper, Craig, Janvrin, Wetsel, & Remels, 2010; Meadors & Lawson, 2007) have shown that those nurses working in the pediatric intensive care unit, emergency unit and those that work with chronically ill children may be at greater risk to develop compassion fatigue. The pediatric intensive care unit had lower compassion satisfaction scores, higher burnout and secondary traumatic stress scores. Stamm (2010) identifies high secondary traumatic stress and high burnout scores in combination with low compassion satisfaction scores as the most worrisome combination of scores. Studies have shown nurses working in the intensive care unit have a high risk of developing compassion fatigue (Jenkins & Warren, 2012; Maiden, Georges & Connelly 2011; Young, Cicchillo & Bressler, 2011). The purpose of the study was not to identify factors that contributed to this finding; however the literature suggests that continual exposure to patients' and families' suffering contributes to the development of compassion fatigue (Potter et al, 2010; Robins, Melter & Zelikovsky, 2009; Meadors & Lamson, 2007). Healthcare providers that work in the

pediatric intensive care unit are constantly exposed to trauma, death, and grieving families.

Nurses who worked on the cardiology unit had higher compassion satisfaction scores as well as lower scores on the burnout and secondary traumatic stress scores as compared with nurses on the cardiothoracic intensive care unit. Patients on the cardiology unit have complex cardiovascular/lung transplant issues as well as complex technology such as ventricular assist devices and ventilator dependent patients. However, these staff members are not exposed to the numbers of patients dying and managing end-of life- care as nurses who work in the cardiothoracic or pediatric intensive care unit. Young, Cicchillo & Bressler (2011) reported similar findings in their study among nurses in the Heart and Vascular Intensive Care Unit and the Heart and Vascular Intermediate Unit. Their findings indicated that the nurses working on the Heart and Vascular Intermediate Unit had lower levels of burnout and higher levels of compassion satisfaction than those nurses working in the Heart and Vascular Intensive care Unit.

Nurses on the hematology-oncology unit had higher compassion satisfaction scores, lower secondary traumatic stress and burnout scores. Numerous stressors have been identified by Potter et al, (2010) as specific to the oncology workplace. The findings from this study seem to support a" protective mechanism" against developing compassion fatigue among the nurses that work on the hematology-oncology unit. Perry (2008) suggested that some oncology nurses were able to avoid compassion fatigue by connecting with patients through "meaningful interactions".

In this study, the emergency unit secondary traumatic stress scores were lower than those of the pediatric intensive care unit. The findings from this study are similar to

those by Hooper et al (2010) which showed emergency unit nurses were at less risk than nurses working on inpatient units to develop compassion fatigue. The staff in the emergency unit experiences the initial trauma and suffering of the patient and family however the exposure is brief as the patient is stabilized and then transferred to the nursing unit for further medical management and care (Hooper et al).

This study also explored the relationship between demographic variables and the scores on the compassion satisfaction, secondary traumatic stress, and burnout scores. No statistically significant differences were found among the demographic variables of age, gender, work category, education, or years of experience. These findings are similar to the results obtained by Potter et al (2010) who reported no statistical difference in scores on the compassion satisfaction, secondary traumatic stress and burnout scales based on years of healthcare experience, age and level of education.

This study's demographic variables were compared to those obtained by the 2008 National Sample Survey of Registered Nurses. In the national sample, the median age of nurses was 46 years of age. The number of men working as nurses was approximately 7%. Nurses in this study were younger (<40 years, n = 142) and included more men (n = 24, or 12% of the staff).

Conclusion

Results indicate prevalence is normally distributed which was congruent with other studies and with the ProQOL R-V manual. There was no difference in demographic data and the presence of compassion satisfaction, burnout, and secondary traumatic stress as noted in previous studies. There were differences in the subscales

which may indicate compassion fatigue is more prevalent in the pediatric intensive care unit.

Strengths and Limitations

Strengths of this project include a high survey response rate (51%) and a high percentage of male nurses (12%) that participated in the survey. There are several limitations to this study. The units surveyed have higher acuity patients than those patients on the general medical-surgical units which may lead to higher burnout and secondary traumatic stress scores in those nurses that participated in the survey. The instrument used is a self- report measure which may produce a response bias. Those that chose not to participate may have higher or lower risks for compassion satisfaction, compassion fatigue, burnout and secondary traumatic stress. The survey was distributed electronically. Although this method is expedient, the process may lack the personal touch of having a verbal explanation as one would receive with a traditional paper and pencil distribution. The study measured the presence of burnout, secondary traumatic stress, and compassion satisfaction at a single point in time. Participants' perceptions may change over time due to the changes in the individual and the work place environment.

Implications for Future Research

Further research will be needed to assess the effectiveness of the program modeled on Dr. Gentry's work. Future studies could be implemented to assess the pediatric intensive care unit environment to identify factors contributing to the unit's higher burnout and secondary traumatic stress scores and lower compassion satisfaction scores when compared to the other nursing units studied. Studies could be conducted on

nursing units in an attempt to discover a relationship between patient satisfaction scores and compassion fatigue scores. The results of this study reflect the prevalence of compassion fatigue among nursing staff in one pediatric institution. A more comprehensive study could include other pediatric health care workers and/or institutions across the country.

Accomplishment of DNP Essentials

In 2004, the American Association of Colleges of Nursing (AACN) published a position statement calling for nurses who are practicing at the highest level of nursing, to have a doctoral level education thus paving the way for the creation of the Doctor of Nursing Practice (DNP) terminal degree. The focus of the DNP is on clinical scholarship and advanced nursing practice that is patient centered for both individuals and populations as well as evidence-based. AACN (2006) has designated eight essential areas in which the DNP graduate is required to demonstrate upon graduation from an accredited DNP program. These essential areas include scientific basis of practice, organizational and systems leadership, clinical scholarship and evidence based practice, health informatics, health care policy, inter-professional collaboration to improve the health of individuals and populations, clinical prevention strategies focused on improving the health of the nation, and advanced nursing practice (AACN, 2006).

Accomplishment of the DNP Essentials has been achieved by both successful completion of the University of Missouri- St. Louis DNP program along with the Clinical Scholarship Project that identifies the prevalence of compassion fatigue among nurses at a Midwest pediatric hospital. Research findings discovered in an extensive review of the literature were used to develop the rationale and provide a basis for this study. The

planning and implementation of this study was done with the cooperation and approval of the organization's leadership including the Chief Nursing Officer and the managers of the nursing units. Analytical methods were used to determine the prevalence of compassion fatigue as well to explore the relationship of the development of compassion fatigue (secondary traumatic stress + burnout) and compassion satisfaction across nursing units and demographics. As a result of the collaboration with a multidisciplinary team, a plan for implementation of an educational program addressing compassion fatigue has been determined. Potter, DeShields, Berger, Clarke, Olsen & Chen (2013) demonstrated in their research that educational programs directed toward compassion fatigue help to reduce secondary traumatic stress which is a component of compassion fatigue. This project demonstrates how the advanced practice nurse through a multidisciplinary, collaborative approach can make a difference at the organizational level leading to the improvement of the well- being of health care providers. In doing so there will ultimately be an impact on the health care provided to pediatric patients and their families.

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Appendix 1

PROFESSIONAL QUALITY OF LIFE SCALE (PROQOL)

Compassion Satisfaction and 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.

Appendix 2

Logic Model

Inputs	Activities	Outputs	Short Term Outcomes	Mid-Term Outcomes	Long Term Outcomes
Completion of DNP project proposal

Myself

IRB approval

Nursing managers

"Champions" on the nursing units

Nursing staff

Survey Monkey

Incentives for participation | Attendance at staff meetings to promote participation

Survey conducted on-line per Survey Monkey

Reminders in mailboxes, bathrooms | Data produced by the analysis of the survey | Complete the administration of the Professional Quality of Life Scale version 5 (ProQOL-V)

Completion of the survey by the nursing staff | Analyze the results

Interpret the results of the survey

Disseminate findings to stakeholders | Development of a multidisciplinary program to address compassion fatigue among staff at SLCH |