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# Professional Quality of Life and Emergency Department Nurses' Communication Patterns

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# PROFESSIONAL QUALITY OF LIFE AND EMERGENCY DEPARTMENT NURSES' COMMUNICATION PATTERNS

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Abstract

The purpose of this mixed methods embedded design study was to examine relationships between compassion satisfaction, burnout, compassion fatigue/secondary trauma, and perceived levels of communication difficulty in emergency room nurses employed at a health care system. Quantitative data was collected from a purposive sample of 43 emergency room nurses using the Professional Quality of Life Scale (ProQOL), the Silencing Response Scale, and a demographic form. The study's embedded qualitative component was participants' experiences with traumatic cases in the emergency room. Qualitative data was collected via telephone interview with 10 emergency room nurses obtained from a subset of the original sample and snowball sampling.

The majority of participants reported low levels of compassion satisfaction on the ProQOL subscale (M = 38.63, SD 9.47), low levels of burnout and compassion fatigue/secondary trauma ($M$ =21.4, $SD$ 6.3 and $M$ = 21.1, $SD$ 5.2, respectively). Participants who worked in an urgent care setting scored highest ($M$ = 44.3, $SD$ 4.3) in perceived professional satisfaction in their ability as caregivers. The Silencing Response instrument yielded a mean score of 59.3, indicative of a moderate risk of communication difficulties for the entire sample.

A correlation matrix indicated significant positive relationships between subscales of compassion satisfaction, burnout, compassion fatigue/secondary trauma, and the Silencing scale. Multiple regressions were conducted to explore the accuracy of the independent variables of compassion satisfaction, resource availability, burnout, compassion fatigue/secondary trauma, and years of experience as predictors of silencing scores. Partial regression coefficients on three separate models indicate compassion

satisfaction, burnout, and compassion fatigue/secondary trauma significantly contribute to the models of predicting silencing response.

Telephone interviews themes included *pediatric traumas*, *discomfort, maintaining emotional control, obstructed communication*, and *deflection*. The related themes *potential support systems* and *available resources* also potentially addressed decreased professional quality of life in emergency department nurses.

This study contributes to the understanding of the relationship between professional quality of life and communication. The identification of relationships between the subscale items in concert with the participant interviews helped justify how coping strategies are implemented and is a first step in addressing deficiencies in communication.

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## Dedication

I would like to dedicate this work to the countless emergency room nurses who strive to give the best possible care in the most difficult situations, and particularly those who participated in this journey of self-exploration with me. Thank you.

I would also like to dedicate this work to the following individuals who made this journey possible with their unending love and support:

My dad, Jose, the hardest working man I know: thank you for all the sacrifices you made, and know that those sacrifices made will never be forgotten.

My mom, Socorro: you always encouraged me to dream and told me that nothing was unattainable, despite the worst circumstances. You were right.

My husband, Julian, who always believed in me and chose this journey with me since the beginning: thank you for your love, friendship, and the binge eating at 3am I could never do with anyone else. I love you always!

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# CHAPTER I

## BACKGROUND

Over a decade ago, in *Crossing the Quality Chasm: A New Health System for the 21st Century,* the Institute of Medicine (IOM; 2001) identified multiple objectives intended to improve health care delivery of care and address ongoing organizational safety concerns. Notably, the goal of organizing care was "a shared vision" with six specific areas of improvement identified including instituting *patient-centered care*, defined as "providing care that is respectful of and responsive to individual patient preferences, needs, values, and ensuring patient values guide all clinical decisions" (p. 3). The provision of patient-centered care is considered central to high-quality health care.

According to the National Patient Safety Foundation (NPSF, 2014), the implementation of patient-centered care as "a core value of an organization that guides its planning, delivery, and evaluation of health care and is grounded in mutually beneficial partnerships among health care providers, patients, and families" (p. 2). This implies communication between the nurse and patient is essential in both patient perception in satisfaction with care and improved patient outcomes. The literature is replete with evidence that verbal and nonverbal communication patterns make a difference in whether

patients are more knowledgeable, satisfied with their care, and ultimately more willing to adhere to recommendations. Tejero (2011) found a direct correlation with patient

satisfaction when communication with the nurse is perceived as "engaged" (p. 1000). This was accomplished by the nurse providing individualized attention in establishing a therapeutic patient relationship that improved both the patient's and the nurse's satisfaction with care. It is without question that patterns of communication make a difference, but with increased acceptance of the patient-centered ideal, many practical issues and questions arise.

## Problem Statement

Emergency departments (EDs) are challenged with timely and effective triage of patients, while providing a safe structure in which to provide this care. ED nurses are a very specialized, knowledgeable population poised to assume the care of all patients regardless of injury or disease. The emergency room nurse is expected to take all challenges in stride and continue to function even when he/she experiences the trauma of massive patient injuries, child abuse injuries, and sometimes the violent death of a patient. Expert communication skills are an expectation of the highly specialized ED nurse, yet he/she may be perceived as uncaring, reserved, or unfriendly.

Stress is part of the human experience. Stress related to the working environment can potentially cause negative outcomes for the health care provider's professional and personal life. The NPSF (2013) identified stress as a contributing mechanism in safety relating to health care systems. Vachon (1987) explored the phenomenological experience of occupational stress in health care providers, suggesting there is an inherent occupational risk for providers when exposed to patients and families who experienced or had been victims of some form of trauma. ED nurses are health care providers positioned in the center of activity, witnessing very significant moments in patients' lives. Witnessed

circumstances may range from the unanticipated birth of a child in triage to the traumatic death of a young mother resulting from a motor vehicle accident. Based upon this context several questions surface:

1. How do these experiences relate to the physical, emotional, and professional well-being of the emergency room nurse?
2. How do these experiences in turn influence the nurse's relationship with the patient?
3. Are communication and the development of a trusting nurse-patient relationship encumbered as a result of these experiences?

**Stress and the ED Nurse**

In exploring barriers to communication between ED nurses and patients, a question arises: What role does the nurse's stress framed around perceived professional quality of life contribute to the process? Stamm (2010) developed a conceptual framework addressing the positive (compassion satisfaction) and negative (compassion fatigue/burnout/secondary trauma) potential outcomes related to professional quality of life. *Compassion satisfaction* (CS) is a term used to identify positive emotions resulting from the nurse's work experience in caring for a patient (Stamm, 2002; 2010); in contrast, the more frequently-used term *compassion fatigue* (CF) describes the negative aspects or consequences of providing care that often result in burnout. *Burnout* is defined as a "syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment" (Maslach, 1982, p. 3). *Secondary traumatic stress* (STS) further describes the aftermath of stress experienced by health care providers when caring for traumatized patients and families. CF and STS are the natural conditions linked to the

presence of stressful events or as the result of helping, in conjunction with the empathy the nurse has for his/her patients (Figley, 1993; 1995). The presence of CF or STS may be a factor compromising the interactions between patient and nurse.

Over the past decade, the majority of studies examining the specific clinical areas where nurses are most likely to experience compassion fatigue or secondary traumatic stress were conducted in high-acuity areas. After studies that explore CF are parsed out, the terms *compassion fatigue* and *compassion satisfaction* are paired in the literature when discussing this phenomena. Compassion satisfaction is described as the "inspiration" nurses obtain when caring for patients, or the connection they establish in their interactions that make the care provided meaningful, regardless of the outcome (Young, Derr, Cicchillo, & Bressler, 2011). In attempting to measure the incidence of compassion fatigue, compassion satisfaction, and burnout, the body of research indicates there may be a relationship between the type of exposure (trauma versus chronic disease) and nurses' perceived levels of compassion fatigue, compassion satisfaction, and burnout.

Hooper, Craig, Janvrin, Wetsel, and Reimels (2010) investigated emergency room providers and found 24.5% of their sample scored low for compassion satisfaction. In contrast, 82% reported moderate to high levels of burnout and 86% reported moderate to high levels of compassion fatigue. Their findings must be viewed with caution based upon small sample size and because the study did not focus on emergency nurses specifically, but included other inpatient specialties such as intensive care, nephrology, and oncology.

When comparing nurses employed in different work environments, there can be differences between hospital units. In one study, researchers compared a high-acuity

intensive care unit (ICU) and a lower-acuity "step down" unit. The researchers found that despite high levels of compassion satisfaction and average to low levels of burnout and secondary traumatic stress for nurses in both units, there were significant differences when comparing the units' results. Compared to their "step down" unit counterparts, nurses working in the ICU (who experienced more patients deaths) had lower compassion satisfaction scores and higher burnout scores, but no significant difference when assessing STS (Young et al., 2011). This further supports the argument nurses exposed to traumatic events resulting in the death of a patient may have a greater propensity to develop CF or STS.

Maiden, Georges, and Connelly (2011) explored the combined relationship between the high-stress critical care environment and the potential for moral distress and compassion fatigue. The researchers focused specifically on the relationships between perceived medication errors, CF, and moral distress in certified critical care nurses (CCRNs). An interesting finding of the research was the higher the perceived moral distress, the higher the CF scores, implying the inclusion of some type of workplace constraint or barrier may contribute to the development of CF or STS. The study also explored the role external forces (power relationships) may play in the development of CF or STS. Nurses disclosed the primary reasons they did not report medication errors were fear and communication issues.

Based upon the literature review, no other published studies focused specifically on other patient safety issues linked to CF/STS. However, several recent studies exclusively examined the presence of STS in different acute care environments. Von Rueden et al. (2010) focused on the incidence of STS in nurses employed in a level 1

trauma center and then explored the potential correlation between STS and nurses' years of experience, coping strategies, and use of support systems. Utilizing a demographic/behavioral survey and the Penn Inventory (1992) to measure STS, they found few nurses (7%) scored high on the Penn Inventory and the majority of nurses in the sample reported the use of coping strategies, support systems, and stress relief strategies. The incidence of STS was more common in nurses with less experience than seasoned nurses. The authors discussed desensitization as a potential cause for decreased STS among seasoned nurses.

Dominguez-Gomez and Rutledge (2009) utilized the Secondary Traumatic Stress Scale (STSS; Bride, Robinson, Yegidis, & Figley, 2004) to examine the incidence of STS in ER nurses working in three EDs in a Southern California community hospital system. The STSS focuses on factors/symptoms necessary to diagnose Post-Traumatic Stress Disorder with the exception of actual exposure to the event (American Psychological Association [APA], 2000). The researchers found 85% of nurses reported at least one symptom of STS in the previous week and 33% met the criteria for the diagnosis of STS. Nurses who participated in stress management techniques and who had higher educational levels tended to have lower STS scores.

Quinal, Harford, and Rutledge (2009) utilized the STSS with nurses employed on an oncology unit and found 16% of oncology nurses met the criteria for STS. The researchers theorized possible reasons for a lower incidence of STS in oncology nurses compared to ED nurses include personality characteristics unique to ER and oncology nurses, ethnicity, and differing resources hospitals offer their nursing staff. The authors also pointed out that despite the low incidence of STS in this sample, factors potentially

contributing to STS may be completely different depending on the work environment. ED nurses may have more patient-driven events that contribute to the development of STS, while oncology nurses may have more institutional-driven events.

The existing knowledge regarding the incidence of compassion fatigue/secondary traumatic stress has advanced over the past ten years, but this continues to be an area requiring further investigation. Since Joinson (1992) defined *compassion fatigue* as "a unique form of burnout" (p.116) with the caregiving professions being most susceptible and Figley (1995) identified the term as the emotional stress experienced (nurse) from the trauma of another (patient), practicing nurses have known this to be an occupational hazard. For many nurses, compassion for others is the initial motivation to become a nurse. A gap in knowledge is the recognition CF and STS exist, especially in high-acuity care areas, and this occurrence may lead to the nurse having a decreased professional quality of life that affects his/her interactions with patients.

For Georges (2011), compassion is an integral part of identity; to continue to have compassion for others, individuals must begin with themselves. Part of the process is looking at nursing practice retrospectively and acknowledging that health care providers suffer losses with patients. As a result some may experience CF/STS, which in turn may affect communication styles and potentially impact patient care. Thus, there is the possibility patient satisfaction with care and patient-nurse relationships may be strained in the emergency room environment.

## Conceptual Framework

The conceptual model guiding the proposed study is derived from the literature and based on the concepts of *stress*, *professional quality of life*, and *nurse communication*

*in the emergency department* (Figure 1). The framework illustrates how the ER nurse manages a traumatic case in the ED and utilizes Lazarus and Folkman's (1984) theoretical model. In the model, the nurse is exposed to a stressful event that may or may not be perceived as a threat (primary appraisal). If the event is perceived as a threat, the nurse then evaluates his/her ability to deal with the event, which may involve the proactive approach of trying to change the situation (problem-focused strategy) or shifting the perceived meaning or feeling regarding the event (emotion-focused strategy). Resources may be required in an attempt to address the event, which will in turn impact the nurse's professional quality of life. The ER is often a chaotic, fast-paced, and unpredictable unit in the acute care arena. The physical environment of the ED, in conjunction with the nurse's frequent exposure to traumatic events experienced by their patients, can have detrimental effects on the nurse potentially resulting in consequences concerning communication.

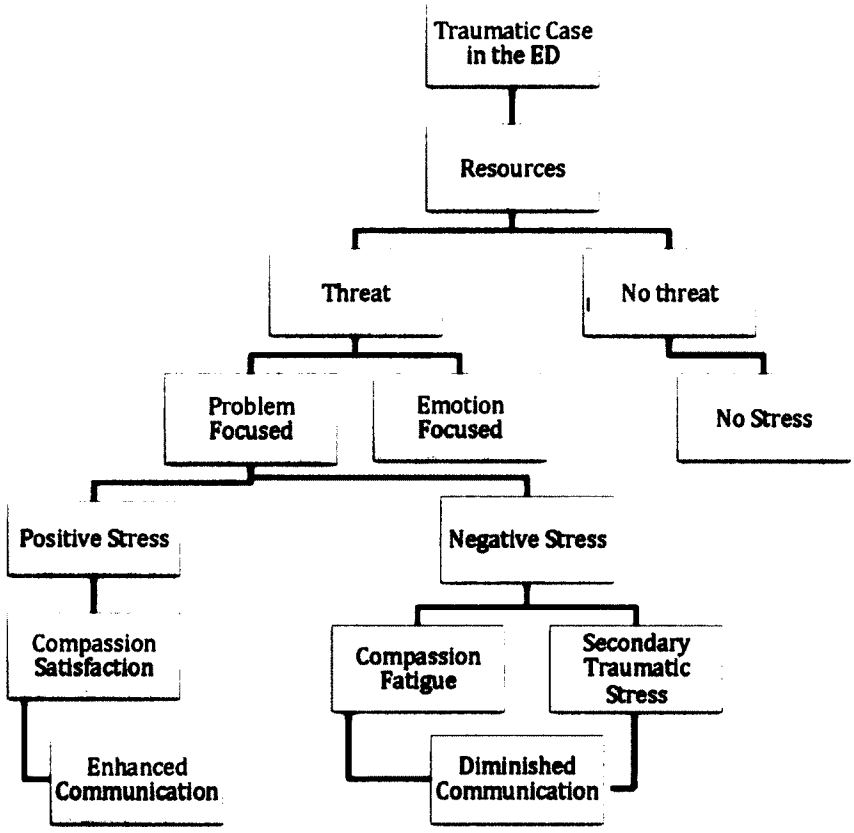


*Figure 1.* Professional quality of life and ED nurses' communication patterns conceptual model.

## Purpose Statement

The purpose of this project is to examine the occurrence of compassion satisfaction (CS), burnout (BO), compassion fatigue (CF)/ secondary trauma (ST) in emergency department nurses and their relationship to nurse-patient communication. The project is designed to answer three research questions:

1. Do emergency room nurses employed in a large health care system experience CS, BO, and CF/ST?
2. Is there a relationship between CS, CF/ST, communication, and workplace variables (resources) among ED nurses?

3. Based upon the nurses' perceptions, are communication and the development of a trusting nurse-patient relationship encumbered?

## Specific Aims

The research questions will be addressed through the following aims:

1. Describe CS, BO, and CF/ST in a sample of ED nurses working in a large urban health care system located in Southern California.
2. Examine the relationships between CS, BO, CF/ST, communication issues, selected workplace variables (resources), and selected nurse characteristics in a sample of ED nurses.
3. Develop a deeper understanding of how ER nurses experience the phenomena of perceived patient trauma and associated post-trauma experiences in their workplace.

## Concept Uses

### Trauma

The term *trauma* can encompass an actual physical event as well as a person's perception of the significance of the event. Merriam Webster Online (2014) further describes trauma as a physical injury to living tissue caused by an extrinsic agent or "a disordered psychic" or behavioral state resulting from severe mental or emotional stress or physical injury. In examining trauma from the focus of health professions, Myers and Kaemmerer (2009) describe trauma as the result of an abrupt or violent act causing physical injury or the introduction of a toxic substance into the body.

It is interesting to look at the evolution of the term in psychiatric domains to reflect on an experience or event that results in a lack of understanding in the mind of the

person affected—a psychic injury resulting from a severe emotional shock results in trauma (McEwen & Wills, 2002). Freud and Strachey (1977) described trauma as an experience "which within a short period of time presents the mind with an increase of stimulus too powerful to be dealt with or worked with in a normal way" (p. 340). The exposure of this particular event then causes turmoil within the psyche of the person, causing the mind to revisit the particular event over and over, consciously or subconsciously through dreams, flashbacks, or hallucinations (Trembinski, 2011). The American Psychiatric Association (2013) describes a trauma as an event that can either threaten or result in bodily injury while also causing shock, terror, or helplessness. Lang and Meaney (2011) discuss a type of trauma termed "mathematical trauma", where the student is incapacitated on some level by feelings of helplessness brought on by the lack of understanding of mathematics and the subsequent passive nature that results from this "trauma".

**Stress**

Merriam Webster Online (2014) defines *stress* as a constraining force or influence, a resultant deformation caused by such a force, or a physical, chemical, or emotional factor that causes bodily or mental tension. The term is also used in dialogue to indicate the intensity a word or phrase is given in a discussion. The use of stress in dialogue is theorized to be central in the development of language recognition, preference, and attainment in young children (Segala, Kishon-Rabina, Bacon, & Werner, 2012).

The American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5; 2013) defines *acute stress disorder* as a condition

resulting when a person is exposed to a traumatic event, either experienced or witnessed, that involves the death or serious injury of another individual. This includes encounters of first responders and police officers who may experience "repeated or extreme exposure to aversive details of a traumatic event" (p. 280). The person subsequently has a response to the event characterized as intense fear, helplessness, or horror. The DSM-5 further stipulates people who experience a stress disorder may also experience dissociative symptoms after the event, such as re-experiencing the event through thoughts or dreams, withdrawal, anxiety, increased arousal, poor concentration, and inability to sleep. These symptoms may persist from two days to four weeks after the event.

In exploring an established conceptual framework defining stress, there are several theorists who have also contributed to the understanding of the concept through focus on the physiological and psychosocial reactions to stress. In exploring the physiological response, Hans Selye (1956) developed the general adaptation syndrome to explain stress by organizing the response into three progressive stages. The first stage (alarm phase) begins after exposure to the stressor; initial physiological symptoms ensue, including increased heart, blood glucose, and respiratory rates—also known as the "fight or flight" response. In the second stage (resistance), the person attempts to adapt to the stressor and return to a normal state of functioning. In the final stage (exhaustion), the person exhausts all available resources and begins to suffer consequences or physiological deterioration in response to the stress—a cumulative deterioration of the person's health by the exposure. Resultant disease processes may include cardiovascular disorders, gastrointestinal disorders such as peptic ulcer disease, and exacerbation of

inflammatory disorders (Brydon, Magid, & Steptoe, 2006; Chandola et al., 2008; de Brouwer et al., 2010; Levenstein, Ackerman, Kiecolt-Glaser, & Dubois, 1999).

Within the psychosocial domain stress can be grouped into objective (physical) or subjective (psychological) elements (Vo & Park, 2008); both elements are described as threats to the person's well-being (Gunnar & Quevedo, 2007). An example of an objective element can be an actual event such as a financial loss or the death of a loved one, while a subjective example is a person's perception or vulnerability to the stress, which frequently can be reciprocal. Lazarus and Folkman (1984), who developed the theory of stress, coping, and adaptation, defined stress as "a particular relationship between the person and the environment that is appraised by the person as taxing, or exceeding his/her resources" (p.19). Other variables theorized to contribute to the psychological development of the stress response include gender, early socialization experiences, peers, high job strain, increased psychological demands, personal strain, and lack of personal resources such as self-care and recreational activities (Gunnar & Quevedo, 2007; McDougall & Drummond, 2010; Sotiriou, 2010; Vo & Park, 2008).

**Traumatic Stress**

Traumatic stress is a phenomena whereby an event is perceived as a threat affecting the physiological or psychological well-being of a person. If the event is never subsequently addressed effectively or a proper coping mechanism is not utilized, the person may have negative consequences with the potential to affect him/her over an extended period.

## Burnout

Burnout is defined as a "syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment"(Maslach, 1982, p. 3). A more contemporary definition is the loss of energy by consistently being overwhelmed, stress, exhaustion, loss of enthusiasm in the workplace, and loss of confidence and self-worth (Leiter & Maslach, 2005).

## Implications for Nursing

ED nurses are trained to assume the care of any patient regardless of injury or disease process with the expectation they will function and perform any necessary skill regardless of the underlying circumstance. However, ED nurses are perceived by some as uncaring, reserved, or unfriendly. Davenport and Hall (2011) explored nurses' choice to be emotionally engaged or emotionally detached in communication with patients. Could this be a protective mechanism utilized by the emergency room nurse in the presence of CF or STS? There is also a common perception that the ER nurse can handle any situation. The expertise required in the ER in concert with varied use of support systems and coping mechanisms may predispose nurses to STS and interfere with nurse-patient communication, thus compromising the nurse-patient relationship. The study proposed here is designed to identify the occurrence of CS, CF, and STS in ED nurses, explore resources, and investigate the relationship between professional quality of life and communication in the emergency room.

# CHAPTER II

# REVIEW OF THE LITERATURE

## Problem and Significance

The 2010 report of the Health Care Cost and Utilization Project Nationwide Emergency Department indicated over 22 million patients were treated in the emergency department for acute injuries, with patients under the age of 30 accounting for almost half of injury-related cases. Falls, being struck by an object, and motor vehicle accidents were the most common type of injury (Villaveces, Mutter, Owens, & Barrett, 2013). Emergency nurses frequently care for patients and families experiencing a variety of life-threatening illness/disease, and this exposure to high-stress situations, combined with limited or absent resources, may have positive (compassion satisfaction) and negative (compassion fatigue/burnout/secondary trauma) consequences that influence the nurse's communication with his/her patients and peers.

In this chapter the current literature and pertinent studies relating to professional stress and quality of life concepts of compassion satisfaction (CS), compassion fatigue (CF), and secondary traumatic stress (STS) is presented. The literature review includes all published research conducted within the last five years, based upon an exhaustive search of related the related primary search terms *emergency personnel, nurses,* and *health care*

*providers*, and secondary search terms *nursing stress, traumatic stress, moral distress, vicarious traumatization,* and *burnout.*

**Professional Quality of Life**

Professional Quality of Life is defined as the "quality one feels in relation to his/her work as a helper" (Stamm, 2010, p. 8). There are limited studies that assess nurses' professional quality of life and the potential consequences of both the positive and negative aspects. Mizuno, Kinefuchi, Kimura, and Tsuda (2013) explored the relationship between the provider's professional quality of life (within the subscales of compassion fatigue, compassion satisfaction, and burnout), and emotion work, with specific stress factors related to abortion care in obstetric and gynecological arenas. They found midwives overall had higher positive emotions regarding care in comparison to nurses. Specific factors were identified as emotional work, or experiences that may have been perceived as a negative outcome. Thinking the aborted fetus deserved to live and difficulty controlling emotions during abortion was associated with higher levels of compassion fatigue in both nurses and midwives. In addition, the researchers found with the increase in the number of abortions there was a positive correlation with burnout and a negative correlation with compassion satisfaction.

Elkonin and Van der Vyver (2011) were interested in examining perceived professional quality of life and its effect on nurses' communication. The researchers investigated the potential correlations between the presence of compassion fatigue and burnout in relation to the silencing or active avoidance response in intensive care unit nurses. The authors defined this response as one where providers become silent or avoid conversations that are perceived to be uncomfortable exchanges between themselves and

the patient—which the authors described as a form of "protective" response to trauma. Despite the small sample size (N =30), the researchers found a positive correlation between CF and the silencing response. This suggests the communication between nurse and patient may be compromised in the presence of compassion fatigue. Elkonin and Van der Vyver theorized the silencing response or avoidance may be the outcome of providers suffering with compassion fatigue or secondary traumatic stress in order to "end their own discomfort or pain" (p. 3).

Burtson and Stichler (2010) examined the relationship between professional quality of life in relation to the nurses' work environment and the nurse caring model, described by the researchers as the motivation or inspiration to care for others; this is very similar to compassion satisfaction. The authors focused compassion satisfaction, nurse job satisfaction, stress, burnout, and compassion fatigue related to nurse caring for nurses from nine medical surgical units, two emergency rooms, and two critical care units. Utilizing the Mueller McCloskey Satisfaction Scale (Mueller & McCloskey, 1990), Professional Quality of Life Scale (Stamm, 2005), Stress in General Scale (Stanton, Balzer, Smith, Parra, & Ironson, 2001), and the Caring Behaviors Inventory (Wu, Larrabee, & Putnam, 2006), the authors found the mean score for CF in the total sample was low. However, when examined by group, medical surgical group scores indicated they had a higher risk for CF (26.4%) compared to a previous study with hospice nurses (19%). Correlation analysis showed a statistically significant inverse correlation between CF and the Caring Behaviors Inventory and skill, suggesting CF may affect younger, less experienced nurses.

Smart et al. (2014) also studied the impact of environment in relation to professional quality of life by focusing on differences in unit types, types of health care providers (licensed versus non-licensed), and "regular" unit staff as opposed to "floating" staff. The researchers found that workers employed in non-critical general medical units scored higher on the burnout scale than their critical care counterparts. Variables such as sleep, exercise, and shift work were also associated as potential contributors to burnout.

In summary, Professional Quality of Life is described as the sense of value or reward a person experiences relative to his/her work as a health care provider (Stamm, 2010). Based upon the foregoing studies, the presence of specific variables related to the organizational environment (unit, shift, patient exposure) and the nurse's demographic characteristics, available support systems and health habits may play a significant role in the perception of a suitable or poor professional quality of life.

**Compassion Satisfaction (CS)**

Compassion satisfaction (CS) has been described as the "inspiration" nurses obtain when caring for patients or the connections established in their interactions that make the care provided meaningful regardless of the outcome (Young et al., 2011). In Young et al.'s study of nurses employed in a high-acuity ICU and a lower acuity "step down" unit the researchers found nurses working in the ICU, who experienced more patients deaths compared to their "step down" unit counterparts, had lower compassion satisfaction scores (M= 36.60; M=41.84) and higher burnout scores (M=24.82; M=19.48), and there was no significant difference when assessing STS (M=21.82; M=19.44, respectively).

In exploring the variable of patient demise, Slocum-Gori, Hemsworth, Chan, Carson, and Kazanjian (2011) examined the palliative care workforce (specifically practice status), professional affiliation, and institution to assess providers' levels of CS, compassion fatigue (CF), and burnout. They found full-time palliative care providers had high levels of CS but lower scores when compared to part-time providers, who also had lower levels of CF and burnout.

The results of Hooper et al.'s (2010) study of nurses employed in the ER, intensive care, nephrology, and oncology units indicated low levels of CS, CF, and burnout, but when examining levels by units, there were significant differences for the emergency room group. The researchers found 24.5% of the ER group scored low for compassion satisfaction, 82% reported moderate to high levels of burnout, and 86% reported moderate to high levels of compassion fatigue, although it was not a statistically significant finding.

**Compassion Fatigue (CF)**

An alternative approach in examining stress in nursing is by focusing on a specific event that may trigger symptoms of *moral distress*, described as the violation of core or ethical values, and/or *compassion fatigue,* described as the equivalent of STS including individual fatigue, hopelessness, and being overwhelmed, traits common in high-stress environments (Maiden et al., 2011). Maiden et al.'s mixed methods study of 205 critical care registered nurses involved in patient care utilized a survey comprised of three standardized measures (the Moral Distress Scale, the Professional Quality of Life Scale, and the Medication Administration Error Survey) and an investigator-developed demographic questionnaire . Findings indicated physician communication and medication

packaging were the most important reasons medication errors occurred, and fear, reporting effort, and administrative response were the main reasons medication errors were not reported. An examination of the correlations between the variables found nurses who reported increased moral distress also reported increased issues with physician communication. Nurse participants who had more years of practice experience attributed medications errors to medication packaging. Themes identified in qualitative analysis included the need for process and work practice changes and subsequent negative emotions (horror, devastation, fear) after the realization of a medication error. The authors did not present the specific scoring used for compassion fatigue/secondary trauma, which may provide greater insight into how the presence of compassion fatigue can contribute to these safety issues.

Limited interventions have examined the concept of compassion fatigue exclusively. Potter et al. (2013) conducted a repeated measures study to evaluate a two-week resiliency program addressing CF with 14 oncology nurses from an infusion center. The nurses participated in two five-week programs on compassion fatigue, potential causative factors, and possible "resiliency approaches" to "achieve relaxation and reduce negative arousal during times of perceived threat" (p. 182). Data were collected at four time points: before, immediately after, three months after, and six months after the intervention. The researchers utilized the Maslach Burnout Inventory Human Services Survey (Maslach & Jackson, 1981), the Professional Quality of Life: Compassion Satisfaction and Fatigue Subscales IV (Stamm, 2005), the Impact of Event Scale-Revised (Beck et al., 2008), and the Nurse Job Satisfaction Scale (Hinshaw & Atwood, 1983). The various instruments focused on both positive aspects (nurses' enjoyment of their job

and compassion satisfaction) and negative aspects in the workplace (compassion fatigue, secondary traumatic stress, and perceived distress after a traumatic event). The study found participants scored "high risk" for burnout and STS before the implementation of the program but this declined immediately after the program and continued to decline six months post intervention. The perception of quality of care provided initially increased.

**Secondary Traumatic Stress (STS)**

Several recent studies exclusively examined the presence of secondary traumatic stress (STS) in different acute care environments. In Von Rueden et al.'s (2010) study of the potential correlation between STS and nurses' years of experience, coping strategies, and use of support systems, the majority of nurses utilized coping strategies, support systems, and stress relief strategies. The incidence of STS was more common in less experienced nurses. The findings support the possibility that patient satisfaction with care and patient-nurse relationships may be strained in the trauma environment.

STS has been assessed with the Secondary Traumatic Stress Scale (STSS, 2004), which Dominguez-Gomez and Rutledge (2009) utilized the STSS to examine STS experienced by health care providers working in three emergency departments in a community hospital system. The researchers found 85% of the nurses reported at least one symptom of STS in the previous week and 33% met the criteria for the diagnosis of STS. Nurses who participated in stress management techniques and who had higher educational levels tended to have lower STS scores. Quinal et al.'s (2009) study utilized the STSS instrument with nurses employed on an oncology unit and found only 16% met the criteria for STS. The researchers discussed possible reasons for a lower incidence of STS in oncology nurses than ER nurses, including unique personality characteristics,

ethnicity, the use of resources (e.g., friends or mentors) in discussing work-related stress, and differing resources hospitals offer nursing staff. Missing from the list is the contribution that work environment may have on STS. ED nurses may have more patient-driven events that contribute to the development of STS, while oncology nurses may have more institutional-driven events that contribute to STS.

**Nursing Stress, Traumatic Stress, and Traumatic Experiences**

McGibbon, Peter, and Gallop (2010) investigated the nature of workplace stress by exploring the background of perceived stress with Pediatric ICU nurses. Using an ethnographic approach, the authors identified six main themes or forms of stress the nurses experienced: emotional distress, constancy of pressure, burden of responsibility, negotiating hierarchical power, engaging in bodily caring, and being mothers, daughters, aunts, and sisters. The authors illustrated these themes in their accounts of specific interviews. The more poignant themes such as emotional distress (from patients the nurses cared for as well as their own distress) were obvious. Participants shared cases that occurred years prior, such as children dying from accidents, children's lives being prolonged with catastrophic congenital issues, and grieving parents. One participant stated, "...when the child dies and you have people crying, wailing, and you know, the mother who cries from her belly...that to me is it..." (p. 1358). Other themes including constancy of presence (working 12 hour shifts), burden of responsibility (monitoring other disciplines), negotiating hierarchal power (negotiating with physicians), engaging in bodily caring (traumatic injuries), and being mothers, daughters, aunts, and sisters (equating their work experiences to other roles) were cohesive. Interestingly, the authors describe their results as a common background in nursing practice.

Buurman, Mank, Beijer, and Olf (2011) sought to identify the circumstances in which nurses may experience traumatic stress. This study focused on the nurses' perceived presence of various patient situations interpreted as "serious" and factors that may play into the situation being understood as a traumatic experience. Coping behaviors were evaluated utilizing the Utrecht Coping List, which includes active coping, avoidance, passive response, social support seeking, palliative response, expression of emotions, and comforting cognition subscale questions. The researchers found the most frequently reported events by nurses considered as "serious" were death of an elderly patient and emergency transfers of patients to a higher level of care. The authors emphasize the occurrence of events that "threaten the integrity of the nurse"; physical aggression and severe patient suffering were reported as the recurrent events perceived as traumatic (p. 326). Older nurses reported failed resuscitation and death of younger patients as causes of serious and traumatic stress.

It is crucial to examine the underlying origin of circumstances in nursing practice that contribute to the potential development of STS. Goldbort, Knepp, Mueller, and Pyron (2011) conducted a qualitative study to explore the experience of an "unexpected birthing process" for participants obtained from chapters of Indiana's Association of Women's Health, Obstetric and Neonatal Nurses. Content analysis of semi-structured audiotape interviews uncovered several themes directly tied to participants' duties as intrapartum nurses. Some of the most disconcerting themes were those that directly reflected the symptomology of STS. For example, one of the themes *"it's hard to forget"* directly related to cases where there was either maternal or fetal demise. Participants shared feelings of withdrawal, nightmares surrounding the event, difficulty sleeping,

avoidance, and reminders of the event. One participant whose patient experienced a prolapsed cord and subsequent emergency C-section reported that in her experience "it took me years of seeing that visualization over and over again before I could finally move on and not to think about it every minute of the day" (p. 377). Other themes indicated the significance of teamwork and the value of a supportive work environment. The theme of *"all hands on deck"* reflected how nurses aided each other during patient emergencies and collaborated to stabilize the patient. Although no formal debriefing procedure at the participants' clinical agency was discussed, one nurse reported after a bad outcome "...we could all talk together, cry together, debrief together, and get through it together" (p. 378).

## Conceptual Framework

The conceptual framework guiding this study is derived from the literature and comprised of the concepts of stress, professional quality of life, and communication patterns. The classical work of Lazarus and Folkman's Transactional Model of Stress and Coping (1984) and an adaptation of this model, The Professional Quality of Life and its Impact with Emergency Department conceptual model, are discussed.

### Lazarus and Folkman's Transactional Model of Stress and Coping

Lazarus and Folkman's Transactional Model of Stress and Coping (1984) attempts to examine the process of coping following an event perceived as being stressful. The theory views these stress experiences as interactions between the person and the environment subsequently judged as threatening or non-threatening (primary appraisal). If the event is interpreted as a threat then the person evaluates his/her ability or available resources to cope with the threat (secondary appraisal). The coping process

utilized by the individual can be either problem-focused (with the approach of changing the situation) or emotion-focused (with strategies aimed at changing the perceived feeling/meaning of the situation).

**Professional Quality of Life and Emergency Department Nurses' Communication Patterns Conceptual Model**

The Professional Quality of Life and Emergency Department Nurses' Communication Patterns Conceptual Model illustrates how the emergency room nurse manages a traumatic case in the emergency department utilizing Lazarus and Folkman's (1984) theoretical framework. In the model, if the nurse is exposed to a stressful event that is perceived as a threat (primary appraisal), the nurse evaluates his/her ability to deal with the event, which can involve the proactive approach of trying to change the situation (problem-focused strategy) or shifting the perceived meaning or feeling about the event (emotion-focused strategy). At this time, resources may be sought in an attempt to address the event which will in turn will have an influence on the nurse's professional quality of life.

When exploring professional quality of life in nursing, the focus is to assess the potential consequences of the positive and negative aspects of providing care. Terms utilized to describe different elements involved in evaluating professional quality of life are compassion satisfaction (CS), compassion fatigue (CF), burnout, and secondary traumatic stress (STS). As mentioned earlier, Stamm (2010) defines compassion satisfaction as the "pleasure" that comes from caring for another individual, the "portrayal of efficacy," or personal satisfaction with one's abilities as a caregiver (p. 107). Compassion fatigue is described as not feeling effective as a caregiver, the negative

emotion or responses the provider experiences as a result of caring for another person, or the consequences that develop as a result of caring for another individual experiencing "emotional pain" (p. 2). *Compassion fatigue* and *burnout* have been used interchangeably when describing the work environment, described as a loss of energy, being overwhelmed, stressed, exhausted, loss of enthusiasm in the workplace, and lost confidence and self-worth (Leiter & Maslach, 2005). Secondary traumatic stress differs in the exposure element, as the provider is exposed only to the aftermath of a traumatic event, as part of his/her workplace duties, and subsequently may experience negative symptomology after the event (Stamm, 2010). Secondary traumatic stress is implied as being a more severe form of compassion fatigue; the caregiver experiences problems that may range from fear and difficulty sleeping to recurring images/thoughts and avoidance after exposure to a traumatic event.

The physical environment of the emergency department, the staff, and the resources available all add to the environment. The lack of resources in this model demonstrates the nurse's progression to CF, STS, decreased professional quality of life, and potential issues with communication with patients and families.

## Research Gaps

There is limited research on the consequences of poor perceived quality of life in the workplace for nurses. Gates, Gillepsie, and Succop (2011) conducted a study with a focus on emergency nurses to examine the effect of workplace violence on stress and productivity. Utilizing the Impact of Events Scale-Revised (1997) and the Health care Productivity Survey (2010), they surveyed 230 emergency room nurses to evaluate the nurses' perceived response to a stressful or traumatic event and the changes in workplace

productivity following the event. The researchers found a positive correlation between stress symptoms and two areas of perceived workplace productivity: cognitive and demands (e.g., being able to "think clearly") and communication demands (e.g., "providing [patient] emotional support"). Thirty-seven percent of nurses reported having decreased cognitive demands after a stressful or traumatic event. This finding in conjunction with the fact intrusive and avoidance-type symptoms were the highest reported puts in question how therapeutic nurse-patient communication can occur in the background of negative "reminders" of a stressful or traumatic event or feelings of being "on guard" or "irritable and angry."

The existing knowledge regarding the incidence of compassion fatigue and secondary traumatic stress has advanced over the past ten years but requires further investigation. An ongoing gap in knowledge is recognizing providers' professional quality of life, specifically focusing on the influence of CF and STS, and especially in high-acuity care areas such as the emergency room. Acknowledging this provider experience exists may have consequences for establishing a therapeutic nurse-patient relationship and must be recognized.

Research that focuses specifically on the patient experience can shed light on the possible outcomes related to decreased professional quality of life in relation to communication. According to the Quality Care Commission's National Summary of the 2012 Accident and Emergency Survey in Britain, patient perception of communication in this environment continues to be inadequate, with increases found compared to the 2008 results (Tingle, 2013). In the report, 17% of patients reported providers did not discuss their medical condition fully and they were not provided the opportunity to discuss

anxieties or fears related to their medical condition. In addition, one third of patients reported the providers were "sometimes" available and responsive to their needs, and 8% were unable to find help from a provider in the accident and emergency department during their stay.

Elmqvist, Fridlund, and Ekebergh (2011) investigated the patient experience in the emergency room utilizing a qualitative approach and found communication-related deficiencies could be associated with time restraints and the focus on initiating prompt treatment. The authors mention "courtesy encounters" or fragmented communication encounters with various providers limit establishing any type of connectedness to the provider; this limited communication could be perceived as "uncaring" by patients. Wiman & Wikblad (2003) performed a content analysis focusing on perceived caring or caring or uncaring behaviors of five nurse-patient encounters in the ER environment that were videotaped and subsequently assessed utilizing Halldorsdottir's (1996) conceptual theory of caring and uncaring behaviors as the framework. The researchers found that the majority of observed behaviors were "uncaring" and a little more than half of the behaviors were categorized as "caring"; further, "instrumental" behavior (described as lack of emotional involvement, with the nurse focusing on the monitors/procedures) was the most commonly reported finding. This implies the environment may also contribute to or exacerbate communication gaps in the presence of poor professional quality of life in the nurse provider.

The relevant research findings utilized for this study are presented in an Evidence Summary Grid (Appendix A). Chapter III focuses on the conceptual and theoretical framework that formed the basis for the design of this study.

# CHAPTER III

# METHODOLOGY

The purpose of this project is to examine the occurrence of compassion satisfaction (CS), burnout (BO), and compassion fatigue (CF)/secondary trauma (ST) in emergency department nurses and their relationship to nurse-patient communication. The project is designed to answer three research questions:

1. Do emergency room nurses employed in a large health care system experience CS, BO, and CF/ST?
2. Is there a relationship between CS, CF/ST, communication, and workplace variables (resources) among ED nurses?
3. Based upon the nurses' perceptions, are communication and the development of a trusting nurse-patient relationship encumbered?

The research questions will be addressed through the following specific aims:

1. Describe CS, BO, and CF/ST in a sample of ED nurses working in a large urban health care system located in Southern California.
2. Examine the relationships between CS, BO, CF/ST, communication issues, selected workplace variables (resources), and selected nurse characteristics in a sample of ED nurses.

3. Develop a deeper understanding of how ER nurses experience the phenomena of perceived patient trauma and associated post-trauma experiences in their workplace.

## Design

The study employs a mixed methods embedded design: primarily quantitative data will be collected to examine relationships between CS, BO, and CF/STS, and the perceived levels of communication difficulty with an embedded qualitative component of participants sharing their experiences with traumatic cases (Polit & Beck, 2012). To gain a deeper understanding of CF/STS, RNs' lived experiences will be examined to evaluate a shared perceived traumatic experience, post trauma experience, and participants' recommendations to address their experiences in their organization. Polit and Beck (2012) define a mixed method approach as one where both quantitative and qualitative approaches are utilized to "analyze, integrate findings, and draw inferences" (p. 603) in a research study. CF/STS is a poorly understood experience in the emergency room population; this research design attempts to identify specific factors suggestive of CF/STS and its relationship to perceived communication issues, as well as provide insight on how these variables may be related. The study utilizes a nested technique; quantitative data relating to CS, CF, and STS will be collected utilizing the final version of the Professional Quality of Life Scale (2010), perceived communication issues items with the Silencing Response Scale (2013), and demographic items.

## Theoretical Definitions

Waltz, Strickland, and Lenz (2010) stress the importance of identifying the author's theoretical definition of concepts to ensure consistency in the interpretation of

the term by the reader. Professional Quality of Life is described as the sense of value or reward that a person experiences relative to his/her work as a health care provider (Stamm, 2010). The Professional Quality of Life instrument (2010) contains 3 subscales to evaluate professional quality of life: compassion satisfaction (CS), compassion fatigue (CF)/burnout, and secondary traumatic stress (STS).

Stamm (2010) defines *compassion satisfaction* as the pleasure that comes from caring for another individual. Young et al. (2011) describe it as the "inspiration" nurses obtain when caring for patients or the connection they establish in their interactions that make the care provided meaningful, regardless of the outcome. *Compassion fatigue* includes two components, one of which seems to reflect an outcome of "hopelessness" symptoms directly related to either work performance or ability within the work setting (burnout). Leiter and Maslach (2005) offer a more contemporary definition of *burnout* as the loss of energy by consistently being overwhelmed, stressed, exhausted, the loss of enthusiasm in the workplace, and lost confidence and self-worth.

*Secondary traumatic stress* differs in the exposure element, as the provider exposed to a traumatic event as part of their workplace duties may subsequently experience negative symptomology after the event (p. 12). Interestingly, the definition provided by Stamm (2010) mirrors the DSM-5 (APA, 2013) criterion for acute stress disorder when a person is exposed to a traumatic event, whether experienced or witnessed, that involves the death or serious injury of another individual. According to the criterion, individuals who experience stress disorder also experience dissociative symptoms after the event such as re-experiencing the event by thoughts or dreams,

withdrawal, anxiety, increased arousal, poor concentration, and inability to sleep. These symptoms may persist from two days to four weeks after the event.

## Operational Definitions

The approach utilized to measure a specific concept or variable is identified as its *operational definition* (Waltz et al., 2010). Stamm (2010) operationalizes CS, BO, and CF/STS with average scores (Table 1).

Table 1

*Operationalized Variables (Stamm, 2010)*

| Variable | Measurable Attributes | Scoring |
|---|---|---|
| Compassion Satisfaction | High Scores = greater professional satisfaction in your ability as a caregiver | Average Score=50<br><br>***Scores < 40***=low level of satisfaction |
| Burnout | High Scores = greater risk for burnout, possible link to work environment | Average Score=50<br><br>***Scores < 18***=positive feeling regarding work<br>***Scores > 57***=not feeling "effective" in your position |
| Compassion Fatigue Secondary Trauma | High Scores = experiencing problems (being afraid, difficulty sleeping, recurring images/thoughts, avoidance) due to exposure to a traumatic event | Average Score=50<br><br>***Scores > 57***=indicative that a work related issue may be frightening |

Stamm (2010) provides direction when interpreting individual variable scale scores and their significance. *Compassion satisfaction* is described as the experience of feeling satisfied, happy, and fulfilled in a job helping others. *Compassion fatigue* is defined as the negative experience of caring for a person who is experiencing an extremely stressful or traumatic time. Compassion fatigue is comprised of two burnout and secondary

traumatic stress. Burnout is the gradual onset of negative feelings (feeling overwhelmed, unhappy, "out of touch") relating to the work environment, and secondary traumatic stress is the exposure to a traumatic event that subsequently provokes fear and preoccupation with thoughts of the person the provider helped.

## Setting

The setting for the study was the emergency rooms of a large health care system (comprised of two general community hospitals and a Level II trauma center) located in Northern San Diego County. According to the Office of Statewide Health Planning and Development, the Trauma Center reported 67,290 emergency cases in 2012, with approximately 43,564 classified as "severe with/without threat," suggesting about 65% of the cases were classified as "severe" or higher-acuity type patient visits.

## Sample Description and Recruitment Plan

A purposive sample of emergency room nurses employed at the health care system was recruited, following approval by health system administration and the University of San Diego Institutional Review Board. The population of interest was actively employed emergency room registered nurses (RNs) with varying experience and educational backgrounds. Inclusion criteria for the study were that participants were actively employed RNs in the emergency department and had a minimum of six months' experience in the emergency department. The rationale for the inclusion criteria was to concentrate the study findings on the target population of actively employed emergency room RNs. Inexperienced emergency room RNs were excluded from the study because they may not yet have enough repeated exposure to traumatic events that contribute to the

development of compassion fatigue or STS. Novice emergency room RNs may not be able to contribute as much information due to their limited clinical experience.

In the recruitment phase, a self-administered survey was distributed via an online list serve of RNs employed in their respective emergency departments (EDs). Included in the email were an invitation to participate and an online link to the survey, which contained the Professional Quality of Life Scale (ProQoL), the Silencing Response Scale (2013), a demographic questionnaire, and a question asking whether they were willing to participate in a short telephone survey.

## Protection of Human Subjects

The subjects' rights were protected by obtaining IRB approval from Palomar Health (PH, Appendix C) and the University of San Diego (USD; Appendix B). At the time of recruitment, an online cover letter was distributed to participants ensuring they would be provided sufficient information about the research and research goals, types of data collected, procedures, the nature of the commitment, potential risks/benefits, alternatives, and confidentiality procedures (Appendix D). Participants were informed that participation in the online survey was voluntary and participants could withdraw at any time by exiting the online survey; additionally, if participants wished to withdraw from the telephone interview, they could do so verbally at any time.

## Quantitative Measures

### Professional Quality of Life Scale (ProQOL)

The Professional Quality of Life Scale (ProQOL; Appendix F) is a 30-item instrument intended to "measure the positive and negative effects of working with people who have experienced extremely stressful events" (Stamm, 2010, p. 12). The instrument

contains three subscales: compassion satisfaction (CS), burnout (BO), and compassion fatigue/secondary traumatic stress (CF/ST). The ProQOL has reported alpha scores of .88 for CS, alpha .75 for burnout, and an alpha of .81 for STS; which is categorized as a second component of CF (Stamm, 2010).

**Silencing Response Scale**

The Silencing Response Scale (Appendix G) is a 15-item instrument designed to measure the caregiver's perceived communication difficulties in the workplace. Responses are scored on a Likert scale of 1 ("rarely/never") to 10 ("always"), with total scores below 20 indicative of low risk for silencing response and scores 95 to 150 indicative of high risk for activation of the silencing response (Baranowsky, 2002).

**Demographic Form**

The demographic form created by the investigator collected information about the participants' gender, age, ethnicity, educational attainment, years of experience in trauma nursing, work shift, primary position and primary location, hours worked per week, and number of traumatic cases in the past year (Appendix E).

## Qualitative Measures

Qualitative data was obtained from a subset of the sample that agreed to participate in a telephone interview. The telephone questions focused on a narrative descriptive phenomenological approach in which participants expanded on everyday patient care experiences they perceived as traumatic (Appendix H). This approach was used in attempt to identify perceived work productivity following a stressful or traumatic event and identify relationships between the variables and the potential consequences of this experience for the nurse. The qualitative piece provided a between-method

triangulation to support some of the quantitative findings (Holloway & Wheeler, 2010). Responses were audiotaped for transcription purposes.

## Variables

The independent variables (IVs) identified in this study were: exposure or non-exposure to resources, gender, age, years in nursing, shift, hours per week, ethnicity, education, primary position, primary location, number of traumatic cases in the past year, and levels of CS, CF, and STS. The dependent variable identified was the silencing response, which was measured using the Silencing Response Scale evaluating the risk of communication difficulties in the workplace (activation of the silencing response).

Table 2

*Variable Measures*

| **Variables and Type (IV/DV)** | **Research Question** | **Level of Measurement** | **Statistical Analysis** |
|---|---|---|---|
| Demographic Variables (IV)<br>gender, age, years in nursing, shift, hours per week, ethnicity, education, and primary position. | N/A<br>explore the characteristics of ED | Varies | Descriptive Statistics<br>-frequency distributions |
| Levels of<br>• compassion satisfaction (IV)<br>• compassion fatigue (IV) secondary traumatic stress (IV)<br>• burnout (IV) | Do emergency room nurses employed in a large health care system experience CS, CF/STS? | Ordinal | Correlation and Linear Regression |
| Silencing Response levels (DV)<br>• 0-20 "minimal risk"<br>• 21-40 "some risk"<br>• 41-94 "moderate risk"<br>• 95-150 "high risk" | Is there a relationship between CS, CF, STS, communication issues, and selected workplace variables (resources) among a sample of ED nurses? | Interval | Correlation and Linear Regression |

## Power, Effect, and Sample Size

When developing a research study, it is important to implement strategies that reduce the occurrence of insignificant findings and increase the power of the study. One way to accomplish this task is with power analysis, defined as the attempt to "reduce Type II errors and strengthen the statistical conclusion validity by estimating in advance how big a sample is needed" (Polit & Beck, 2012, p. 422). The higher the determined power of a study, the lower the incidence of Type II error and the higher the validity given to the study results.

The process of power analysis incorporates several elements needed to either calculate or estimate the needed sample size: a) selection of a level of significance (probability of committing a Type I error, typically .05), b) identification of the desired effect size (magnitude of the relationship between the variables), and c) adoption of a level of power or sensitivity in rejecting the null hypothesis (typically given a .80 value; Plitcha, 2009). Utilizing a predictor power analysis table with a predicted R square of moderate size ($R^2$=0.13), a power of 0.80, and Cronbach's alpha of 0.05, the sample size needed was 77 participants (Polit & Beck, 2012).

## Procedures

### Data Management

In order to confidentiality, all participant data was coded; only the primary investigator and research team had access to information about the participants' identity, and this information was kept in a password-protected computer at the University of San Diego. All other hard copy study-related documentation and forms will be maintained in

a locked file cabinet in the office of the primary investigator for a minimum of two years and then shredded.

Participants who chose to participate in the qualitative phase of the study were assured at the start of the telephone interview that all identifying information disclosed in the interview would be removed and subsequent transcripts of the discussion would be analyzed anonymously. All interviews were conducted solely by the primary investigator and transcripts will be kept in a locked file cabinet in the office of the primary investigator for a minimum of two years and then shredded.

**Data Analysis**

Descriptive and inferential statistics were used for analysis. Each variable was examined using frequency distributions and visual representations. Descriptive statistics were used to describe the sample characteristic and included mean, mode, standard deviation, and range. The internal consistency and reliability measures were computed for standardized measures. Statistical Package for Social Sciences 20.0 (SPSS) was utilized in cross-tabulations for categorical, ANOVA for continuous variables, and correlational analysis to examine the relationships among professional quality of life variables (CF, CS, and STS), communication (silencing), and selected demographic variables.

The study then focused on participants whose scores potentially reflected CF/STS and the possible correlation between CF/STS, perceived communication difficulties, and the availability of agency resources post-traumatic event. Inferential statistics were computed to compare the STS scores from this sample to the original data from the

Dominguez-Gomez and Rutledge (2009) study, which exclusively utilized ED nurses from a specific geographical location.

Lastly, participants' telephone interview responses were evaluated using Giorgi's method of phenomenological analysis by focusing on extracting significant statements, formulating meaning of themes, and clustering data in order to identify structures necessary to the development of the phenomena (Holloway & Wheeler, 2010).

In the final evaluation of the data, interpretative integration or comparison of the quantitative and qualitative data was used to either reinforce the results or establish if any relationship exists between the results (Polit & Beck, 2012). In addition, the qualitative data was used to suggest improvements in the available resources for nurses exposed to traumatic events in the workplace.

# CHAPTER IV

# RESULTS

The purpose of this mixed methods embedded design study was to examine relationships between compassion satisfaction (CS), burnout (BO), compassion fatigue/secondary trauma (CF/ST), and perceived levels of communication difficulty in emergency room nurses employed at a health care system. Phase one of this study included the collection of quantitative data to examine relationships between CS, BO, CF/ST, and perceived levels of communication difficulty. In the second phase of the study, qualitative data was collected to gain a deeper understanding of professional quality of life and communication patterns to evaluate emergency room nurses' lived experiences through participant sharing of perceived traumatic experiences in the workplace, the post-trauma experiences, and recommendations.

Chapter III described the research methodology utilized in analyzing the data collected in this study. This chapter will discuss the findings specific to each of the research aims identified for this study.

## Quantitative Data

Quantitative data were collected from February 2014 to March 2014. Two hundred fifty surveys were distributed via an online list serve of registered nurses (RNs)

employed in an emergency department (ED). Of the surveys returned, 43 were completed but only 42 were processed, as one survey was submitted blank. Of the 42 completed surveys, 6 did not specify participants' gender or age, 8 did not specify ethnicity, and 6 did not specify participants' education; other omitted data included years of RN experience (7 surveys), work shift (5 surveys), and primary position (6 surveys).

**Participant Profile**

The majority of the participants were female (80%) and Caucasian (64%), with a mean age of 42 years (SD=9.9). Approximately one-half (45%) identified themselves as Bachelor degree-holding RNs and nearly three-quarters (72%) reported working in the primary position of direct patient care/staff. Average emergency room nursing experience was 12 years (SD=9.4), and participants worked an average of 34 hours per week (SD=9.1; Table 3).

Regarding the participants' primary employment location, 40% reported being employed at a community hospital, 31% were employed at a designated Level II trauma center, and 9% were employed at an urgent care-type facility (Figure 2). In answering a specific question regarding the accessibility of support or resources when dealing with a traumatic case in the ED, 64% reported that support or resources were accessible, 24% reported no support or resources were accessible, and 11.9% did not respond (Table 3).

Table 3

*Participant Demographics*

| | N | *M* | SD | % |
|---|---|---|---|---|
| **Sex** | | | | |
| Female | 29 | | | 80.6 |
| Male | 7 | | | 19.4 |
| **Age** | 36 | 42.2 | 9.9 | |
| **Ethnicity** | | | | |
| Asian | 4 | | | 9.5 |
| Hispanic/Latino | 2 | | | 4.8 |
| Native American | 1 | | | 2.4 |
| Caucasian | 27 | | | 64.3 |
| Missing | 8 | | | 16.7 |
| **Highest Degree Completed** | | | | |
| Associates Degree | 15 | | | 35.7 |
| Bachelors | 19 | | | 45.2 |
| Masters | 2 | | | 4.8 |
| Missing | 6 | | | 14.4 |
| **Years of Emergency Experience** | 35 | 11.9 | 9.4 | |
| **Work Shift** | | | | |
| Days | 17 | | | 40.5 |
| Nights | 10 | | | 23.8 |
| Overlap | 10 | | | 23.8 |
| Missing | 5 | | | 11.9 |
| **Hours per Week in ER** | 32 | 34.5 | 9.1 | |
| **Primary work position** | | | | |
| Direct Patient Care/Staff | 29 | | | 72.5 |
| Supervisor | 1 | | | 2.5 |
| Educator | 2 | | | 5 |
| Clinical Nurse Specialist | 1 | | | 2.5 |
| Director/Assistant Director | 1 | | | 2.5 |
| Missing | 6 | | | 15 |

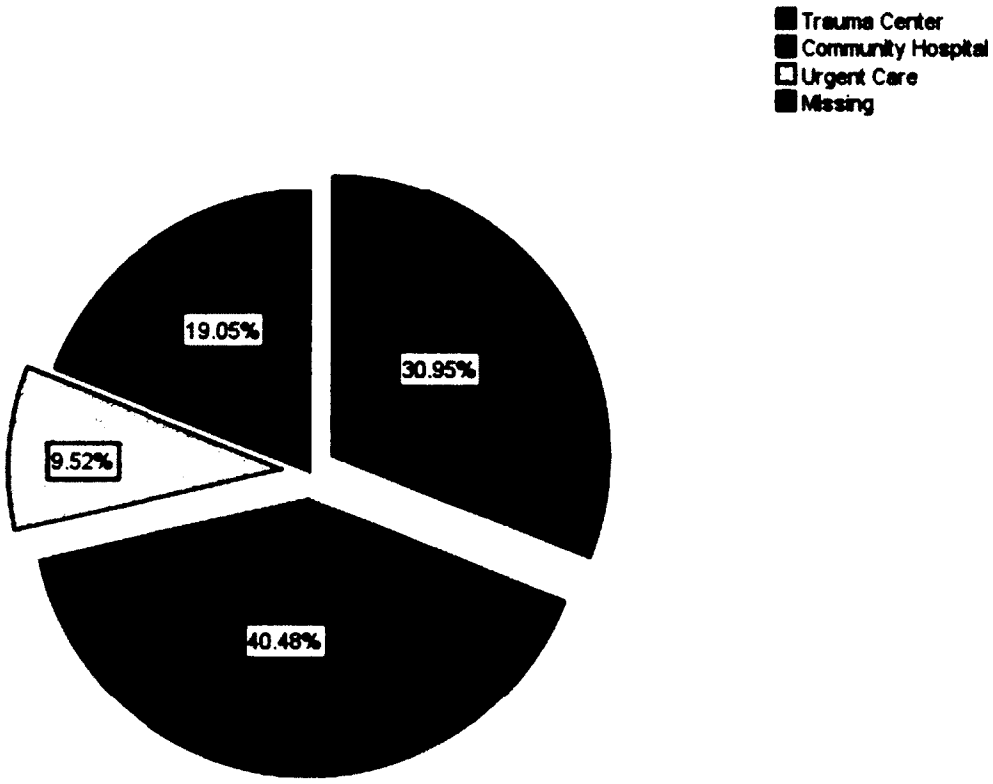


*Figure 2.* Participants' primary employment locations.

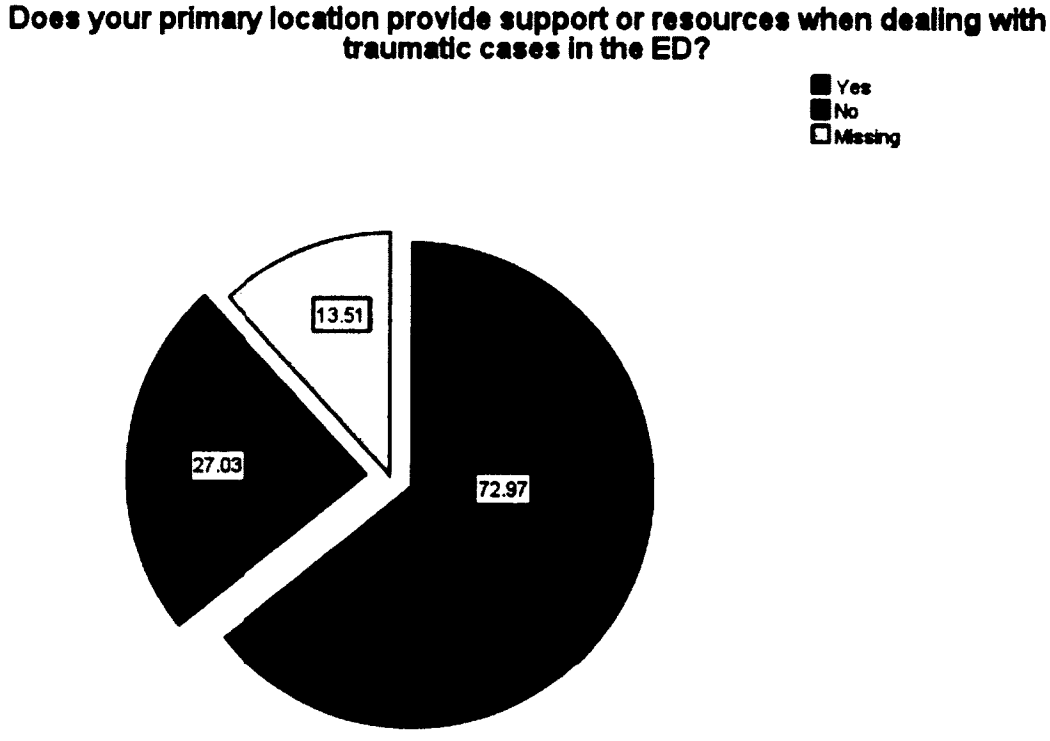


*Figure 3.* Participants'access to support and resources for traumatic cases.

**Descriptive Findings**

Specific Aim #1: *Describe compassion satisfaction, burnout, compassion fatigue / secondary trauma, and communication [Silencing Response] among a sample of emergency department nurses working in a large urban health care system located in Southern California.*

**The ProQOL and Silencing Response Scale were used to collect data for this aim. ProQOL.** The Professional Quality of Life Scale (ProQOL) is a 30-item instrument intended to "measure the positive and negative effects of working with people who have experienced extremely stressful events" (Stamm, 2010, p. 12). The instrument contains three subscales: compassion satisfaction (CS), burnout (BO), and compassion fatigue/secondary trauma (CF/ST).

Mean scores for the for the ProQOL subscales were as follows: compassion satisfaction 38.63 (SD = 9.47), burnout 21.44 (SD = 6.32), and compassion fatigue/secondary trauma 21.10 (SD = 5.23). Scoring is interpreted by the values, with higher scores indicative of the respective subscale. Utilizing Cronbach's alpha, reliabilities on the ProQOL instrument subcales were: compassion satisfaction ($\alpha$ = .92), burnout ($\alpha$ = .85), and compassion fatigue/secondary trauma ($\alpha$ = .79). These results are consistent with the original ProQOL measure (Stamm, 2010), which reported the following subscale reliabities: compassion satisfaction ($\alpha$ = .88), burnout ($\alpha$ = .75), and compassion fatigue/secondary trauma ($\alpha$ = .81).

**Silencing response scale.** The Silencing Response Scale is a 15-item instrument designed to measure the caregiver's perceived communication difficulties in the workplace. Responses are scored on a Likert scale of 1 ("rarely/never") to 10 ("always"),

with total scores below 20 indicative of low risk for silencing response and scores 95 to 150 indicative of high risk for activation of the silencing response (Baranowski, 2002). The Silencing Response mean score was 59.32 (SD = 20.6), indicative of a moderate risk of silencing. Utilizing Cronbach's alpha, reliability of this instrument was $\alpha = .93$, which was higher than in the original measure ($\alpha = .69$; split-half reliability of 0.63).

Table 4

*ProQOL/Silencing Response Mean Scores*

| **Subscale Mean Scores** | **Mean (SD)** | **Interpretation** | **Alpha** |
|---|---|---|---|
| Compassion Satisfaction | 38.63 (9.47) | > 50 = Highprofessional satisfaction<br>< 40= Problems in work environment | $\alpha = .92$ |
| Burnout | 21.44 (6.32) | <18= Positive feelings of being effective at work<br>>57 = Not feeling effective | $\alpha = .85$ |
| Compassion Fatigue Secondary Trauma | 21.10 (5.23) | >57 = something related to work environment is frightening | $\alpha = .79$ |
| Silencing Response | 59.32(20.6) | Risk Level<br>High = 95 -150<br>Moderate = 41-94<br>Some = 21-40<br>Minimal = 0-20 | $\alpha = .93$, |

Table 5

*ProQOL Frequencies*

| | Levels | | |
|---|---|---|---|
| **Subscale** | **Low < 22 n (%)** | **Average 23-41 n (%)** | **High > 42 n (%)** |
| **Compassion Satisfaction** | 3 (7) | 22(52.4) | 16 (38.5) |
| **Burnout** | 24(58.5) | 17 (41.5) | 0 (0) |
| **Compassion Fatigue/ Secondary Trauma** | 25 (59.5) | 16 (38.1) | 0 (0) |

Note: Missing = 1 (2.4)

Table 6

*Silencing Scale Frequencies*

| **Silencing Scale** | **n** | **%** |
|---|---|---|
| 21-40 Some Risk | 8 | 19 |
| 41-94 Moderate Risk | 25 | 59.5 |
| 95-150 High Risk | 2 | 4.8 |
| Total | 35 | 83.3 |
| Missing | 7 | 16.7 |

Table 7

*Silencing Response Descriptive Statistics*

| Instrument Question | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Repeating emotional issues that you feel were already addressed | 37 | 2 | 10 | 6.46 | 1.835 |
| Times you fake interest? | 37 | 1 | 8 | 5.24 | 2.178 |
| Unable to believe what people tell you because it seems overly traumatic | 36 | 1 | 9 | 5.28 | 2.237 |
| Times you feel numb avoidant, apathetic | 36 | 1 | 9 | 4.47 | 2.635 |
| Times when relating to those you help does not seem to be going well or treatment blocked? | 34 | 1 | 8 | 4.32 | 2.156 |
| You become angry, upset, or irritated when someone becomes angry with you? | 35 | 2 | 9 | 4.49 | 2.381 |

Specific Aim #2: *Examine the relationship between CS, BO, CF/STS, communication issues, selected workplace variables (resources), and nurse characteristics among a sample of ED nurses* (Table 8).

A correlation matrix was contructed to evaluate the relationships between the ProQOL subscales of CS, BO, CF/ST and the silencing scale. The inverse correlation between compassion satisfaction subscale and the silencing scale is moderate and statistically significant: $r$ (33)= -.42, p<.05. This suggests nurses who had lower compassion satisfaction had higher silencing response scores. The positive correlation between the burnout subscale and the silencing scale is large and statistically significant: $r$ (33)= .53, p<.05. This indicates individuals with a high total burnout score subsequently had a high total silencing score. Lastly, the correlation between the compassion fatigue/secondary trauma (CF/ST) subscale and the silencing scale is moderate to large and statistically significant, $r$ (33) = .48, p<.05. This indicates individuals who scored

high on the CF/ST subscale subsequently scored high on the silencing subscale, and those who scored low on the CF/ST subscale also scored low on the silencing scale.

Table 8

*ProQOL and Silencing Scale Correlations*

| Pearson Correlation | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variables** | | | | | | | | | | | | | | |
| (1) Sex | 1 | | | | | | | | | | | | | |
| (2) Age: | .084 | 1 | | | | | | | | | | | | |
| (3) Years in ED Nursing | .150 | .701** | 1 | | | | | | | | | | | |
| (4) Shift: | .136 | -.309 | -.206 | 1 | | | | | | | | | | |
| (5) Average Hours/Week | -.210 | .004 | -.079 | -.302 | 1 | | | | | | | | | |
| (6) Primary Location: | -.194 | -.085 | -.209 | .283 | -.113 | 1 | | | | | | | | |
| (7) Support Resources | -.322 | .092 | .157 | -.227 | .012 | .012 | 1 | | | | | | | |
| (8) Ethnic Group: | -.114 | .146 | .215 | -.352* | -.024 | .257 | .161 | 1 | | | | | | |
| (9) Highest Degree | -.049 | -.200 | -.073 | .105 | .230 | -.119 | -.302 | -.097 | 1 | | | | | |
| (10) Primary Position | -.105 | .055 | .153 | -.339* | .068 | .040 | -.023 | .189 | .299 | 1 | | | | |
| (11) CS | .231 | .028 | .218 | .029 | .301 | -.050 | -.345* | -.124 | .038 | .029 | 1 | | | |
| (12) BO | -.112 | -.008 | -.212 | .104 | -.304 | .212 | .279 | .151 | -.136 | -.051 | -.071 | 1 | | |
| (13) CFST | .082 | -.105 | -.462** | .092 | -.132 | -.091 | -.009 | -.037 | .036 | -.002 | .128 | .702** | 1 | |
| (14) Silencing Scale | -.168 | -.246 | -.307 | .261 | .115 | .005 | .314 | -.096 | -.009 | -.204 | -.424* | .534** | .481** | 1 |

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

Bivariate tests that examined the variables of age, years in ED nursing, and average hours worked per week indicated a statistically significant moderate correlation between years in the ED and secondary trauma $r$ (33) = .46, $p<.05$. This finding suggests nurses who have more years in the emergency department tend to score higher in the compassion fatigue/secondary trauma subscale. One-way ANOVAs of shift, facility, ethnicity, and education were also conducted but produced no statistically significant relationships. Nevertheless, it is interesting to note the reported means of each agency (Table 9).

Table 9

*ProQOL and Silencing Scale Descriptives by Agency/Acuity*

| **Total Scores Descriptive** | | **N** | **Mean** | **Std. Deviation** | **Std. Error** | **Minimum** | **Maximum** |
|---|---|---|---|---|---|---|---|
| Silencing Scale | | | | | | | |
| | Trauma Center | 12 | 58.9464 | 19.97315 | 5.76575 | 34.00 | 93.00 |
| | Community Hospital | 17 | 62.8824 | 22.30438 | 5.40961 | 22.00 | 97.00 |
| | Urgent Care | 4 | 56.1538 | 15.05689 | 7.52845 | 42.00 | 73.00 |
| | Total | 33 | 60.6355 | 20.33200 | 3.53935 | 22.00 | 97.00 |
| CFST | | | | | | | |
| | Trauma Center | 13 | 21.85 | 5.226 | 1.449 | 13 | 31 |
| | Community Hospital | 17 | 23.24 | 4.423 | 1.073 | 18 | 35 |
| | Urgent Care | 4 | 18.75 | 2.500 | 1.250 | 16 | 22 |
| | Total | 34 | 22.18 | 4.693 | .805 | 13 | 35 |
| BO | | | | | | | |
| | Trauma Center | 13 | 20.69 | 4.644 | 1.288 | 12 | 30 |
| | Community Hospital | 17 | 24.53 | 6.063 | 1.471 | 15 | 34 |
| | Urgent Care | 4 | 22.50 | 5.972 | 2.986 | 14 | 28 |
| | Total | 34 | 22.82 | 5.675 | .973 | 12 | 34 |
| CS | | | | | | | |
| | Trauma Center | 13 | 42.15 | 5.871 | 1.628 | 32 | 50 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Community Hospital | 17 | 38.29 | 6.049 | 1.467 | 31 | 48 |
| Urgent Care | 4 | 44.25 | 4.272 | 2.136 | 38 | 47 |
| Total | 34 | 40.47 | 6.101 | 1.046 | 31 | 50 |

**Multiple Regressions**

Multiple regression analysis was conducted to gain a better understanding of the phenomena of interest, specifically silencing, and to examine which of the independent variables in the regression equation are the most important in explaining the dependent variable. One of the practical matters in using multiple regression is whether the sample size is sufficiently large to support the analysis. Stevens (2001) argues a ratio of participants to independent variables of at least 15 to 1 is needed to provide a reliable regression equation. The small sample size in this study limited the number of predictor variables included in the models.

Multiple regression analysis was initially performed to evaluate how well the ProQOL subscales (compassion satisfaction, burnout, compassion fatigue/secondary trauma) are associated with the silencing scale. Examination of collinearity statistics suggests that collinearity was not a problem (all tolerance values >.1). All of the subscales accounted for a significant amount of variance in the perceived silencing response scores $R^2 = .31$, $R^2$ adj = .253, $F(3,31)=4.84$, $p<.05$, (refer to Table 10). A summary of regression coefficients are presented in Table 10 and indicate none of the subscale scores are significant predictors to the model. These results must be interpreted with caution as insufficient sample size can produce Type II errors, generating "misleading regression coefficients" (Polit & Beck, 2012, p.441).

Table 10

*Multiple Regression Results: ProQOL Subscales*

| | B | ß | *SE* | *t* | *p* |
|---|---|---|---|---|---|
| Constant | | 9.912 | 47.755 | .208 | .837 |
| CS | -.022 | -.073 | .758 | -.096 | .924 |
| BO | .365 | 1.303 | .934 | 1.396 | .173 |
| CFST | .238 | 1.052 | .848 | 1.241 | .224 |

*Note*: Multiple R = .56, $R^2$ adj = .253
$R^2$ = .319 $F$ (3, 12) = 4.84, $p$ = .007

Further multiple regression analysis was conducted to evaluate the accuracy of the variables of available resources and compassion satisfaction in predicting silencing. Examination of collinearity statistics suggests collinearity was not a problem (all tolerance values >.1). Regression results indicate the overall model significantly predicts silencing, $R^2$=.20, $R^2_{adj}$ =.15, F (2, 32) = 4.03, p<.05. The model accounts for a minimal (15%) amount of variance. A summary of regression coefficients are presented in Table 11 indicate compassion satisfaction significantly contributed to the model. The higher the silencing scale score, the lower the compassion satisfaction score.

Table 11

*Multiple Regression Results: CS and Resource Availability*

| | B | ß | *SE* | *t* | *p* |
|---|---|---|---|---|---|
| Constant | | 96.447 | 29.027 | 3.323 | .002 |
| Compassion Satisfaction | -.355 | -1.151 | .568 | 2.028 | .051 |
| Resource Availability | .160 | 7.442 | 8.134 | .915 | .367 |

*Note*: Multiple R = .44, $R^2$ adj = .151
$R^2$ = .201 $F$ (2, 32) = 4.03, $p$ = .028

In the third model (Table 12), standard multiple regression analysis was conducted to evaluate the accuracy of the variables of burnout and compassion fatigue/secondary trauma in predicting silencing. Examination of collinearity statistics suggests collinearity was not a problem (all tolerance values >.1). Regression results indicate the overall model significantly predict silencing, $R^2$=.32, $R^2_{adj}$ =.27, F (2, 32) = 7.49, p<.05. The model accounts for 32% of variance. A summary of regression coefficients are presented in Table 12 and indicate burnout approaches significance in contributing to the model.

Table 12

*Multiple Regression Results: Burnout and Compassion Fatigue/Secondary Trauma*

| | **B** | **ß** | ***SE*** | ***t*** | ***p*** |
|---|---|---|---|---|---|
| Constant | | 5.567 | 14.854 | .375 | .710 |
| Burnout | .382 | 1.364 | .673 | 2.026 | **.051** |
| Compassion Fatigue/Secondary Trauma | .238 | 1.054 | .834 | 1.263 | .216 |

*Note*: Multiple R = .56, $R^2$ adj = .276,
$R^2$ = .319, $F$ (2, 32) = 7.49, $p$ = .002

For the fourth model (Table 13), standard multiple regression analysis was conducted to evaluate the accuracy of the variables of years in the emergency department and compassion fatigue/secondary trauma in predicting silencing. Examination of collinearity statistics suggests collinearity was not a problem (all tolerance values >.1). Regression results indicate the overall model significantly predict silencing, $R^2$=.26, $R^2_{adj}$ =.21, F (2, 3) = 5.19, p<.05. The model accounts for 26% of variance. A summary of regression coefficients are presented in Table 13 and indicate compassion fatigue/secondary trauma significantly contribute to the model. Nurses who scored high

on the compassion fatigue/secondary trauma subscale also scored high on the silencing scale, and nurses who scored low on the burnout subscale also had lower silencing scores.

Table 13

*Multiple Regression Results: Years of Experience and CF/ST*

| | **B** | **ß** | ***SE*** | ***t*** | ***p*** |
|---|---|---|---|---|---|
| Constant | | 20.366 | 19.706 | 1.034 | .31 |
| Years of experience | -.120 | -.297 | .430 | -.692 | .494 |
| Compassion Fatigue/Secondary Trauma | .445 | 1.976 | .771 | 2.564 | **.016** |

*Note*: Multiple R = .507 $R^2$ adj = .207
$R^2$ = .257 $F(2, 30) = 5.19, p = .012$

## Qualitative Data

Specific Aim #3 outlined in Chapter I: *Develop a deeper understanding of how emergency room nurses experience the phenomena of perceived traumatic experiences, and associated post-trauma experience in their workplace.* Qualitative data was obtained from ten participants, selected from both a subset of the sample and snowball sampling, who agreed to participate in a telephone interview. The interview questions were guided by a narrative descriptive phenomenological approach and attempted to identify perceived stressful or traumatic events, relationships between the variables, and potential consequences of the traumatic events for nurses. Interviews were audiotaped and transcribed by the primary investigator to identify themes.

Table 14

*Qualitative Demographics*

| Demographics | N | % |
|---|---|---|
| **Sex** | | |
| Female | 8 | 80 |
| Male | 2 | 20 |
| **Years of Emergency Experience** | | |
| 1-4 years | 3 | 30 |
| 5-10 years | 4 | 40 |
| >20 years | 3 | 30 |
| **Primary work** | | |
| Trauma Center | 3 | 30 |
| Community Hospital | 7 | 70 |

**Responses to Question #1**

The first question posed in the telephone interviews was *Tell me of a time you felt "traumatized" in caring for a patient. What happened?* One theme that emerged from the data was *pediatric traumas*. Eight of ten participants responded to Question #1 by sharing a pediatric case, making pediatric trauma the most common type of patient scenario perceived as traumatic. The second very apparent theme was the focus on *maintaining emotional control* of the situation. Participants shared there was a need to control their own emotional responses and continue to function status quo. Their strategies to control emotional responses and attempt to avoid the emotional strain of the case included trying to "downplay" the trauma, suppress or block feelings, "separate" from what had happened, or use black humor.

> One participant related, "*You kinda learn to deal with it....how to 'bury it,' I guess.*" Another participant shared, "*We need to detach somewhat from our patients...or else we would be emotional wrecks all the time.*"

**Responses to Question #2**

Question #2 was *What did you do to cope with the situation?* The most commonly reported strategy utilized by participants was seeking out *support systems* after the event. The support systems included coworkers, supervisors, and home support, which was frequently provided by a spouse. Another predominant theme was *actively seeking self-preservation strategies* to manage the emotional aspect of the case. Participants frequently shared that some cases were percived as emotionally challenging, stressful, sad and they sought people to talk to who understood what it was like to be employed in the emergency room environment.

One participant described talking to coworkers as a form of therapy:

*"Anybody that is not in the medical field ....they can't really talk about it anyway....they wouldn't understand....its good therapy being able to talk to 'core people'...coworkers- they give really good advice. My husband is my shoulder to cry on-but my coworkers were the ones... they have been in that situation."*

**Responses to Question #3**

The third interview question was *Did you have trouble communicating with that particular patient/patient's family after the experience?* Participants shared they indeed had difficulty communicating with patients/patients families after the event. A common theme that emerged was participants' difficulty talking to patients frequently stemmed from a type of *discomfort* participants experienced right after the event—for instance, when there was an abrupt end to a "code"-type situation and participants were immediately expected to manage the "sociocultural or family dynamics" occurring at the

bedside. Participants described feeling as if they were fumbling, exhausted with the code, multi-tasking, and very emotional at times.

Interestingly, there was some confusion regarding who was responsible for talking to the family and when that duty took place. Some participants shared they usually took the initaitive to talk to the families, but a majority of the participants seemed unclear who, if anyone, ever spoke to the family after the event.

> One participant shared, *"...I don't think that they* [other nurses] *probably felt comfortable because they were not the primary nurse....that they didn't have that...um, responsibility...it's not my responsibility."*

**Responses to Question #4**

Question #4 asked, *Did you have trouble communicating with the other patients under your care after the experience?* The overwhelming majority of participants initially expressed no difficulty communicating with other patients but when evaluating the responses further, a common theme of *obstructed communication* with other patients was apparent. The circumstances ranged from a participant expressing difficulty *"...picking up where I left off....I had a really hard situation happen-and I really tried to mask it...and just keep going....that was probably one of the hardest things"* to participants managing disgruntled patients who now had longer wait times in the ED.

Participants shared being exasperated by some cases in which the patient in the next bed had a *"me, me, me"* attitude. Participants also shared they initially assumed their other ED patients would understand why all the resources were depleted during the event. One participant explained,

*"I told them that I had a patient that was critical...nevertheless, the patient said she didn't care what I was going through at all... all she cared about was that she was sitting there, and for how long she'd been sitting in triage...it was then that she began yelling and cussing at me...and that's when I realized how unfair this was."*

Participants shared these situations obstructed communication at times; one participant reported she *"...wasn't as caring as I should have been or whatever...you know...and then the walls go up."*

**Responses to Question #5**

The fifth question posed in the telephone interviews was *Does your facility have resources in place that are activated in situations as the one you described?* In general, the participants seemed to be unclear on the *available resources* in their work environment. When this question was first posed, many of the participants identified resources specific to the physiological needs of the patient whose case they had shared. Upon further discussion, many participants stated that fellow nurses, chaplains, ministers, administrative staff, and additional nursing staff were utilized in this circumstance; however, participants had no knowledge of a "formal" resource or plan.

Many participants verbalized a belief that limited staff and time prevented facility resources from being utilized. One participant described it as the nature of the emergency room environment:

*"The reality is that you don't have a whole lot of time to regroup before you go on to the next task because there's another guy out there having a heart attack,*

*and there's another baby out there that needs care...and so the ER reality is that you really don't have a whole lot of time...to regroup."*

**Responses to Question #6**

In Question #6 participants were asked, *Is there any resource you would you recommend for staff?* A theme that emerged from this particular question was *deflection.* While many of the participants shared that fellow nurses could possibly benefit from some type of debriefing, a multidisciplinary informal-type meeting, and grief counseling, when asked if they would access this resource themselves the majority responded they *"didn't need it."* Many attributed their resilience in not requiring their suggested resource to the support of peers and personal support systems but stated they felt some "less experienced" nurses might need this assistance. One participant stated,

*"...you should have a debriefing with the group that was involved with whatever it was, but I know that that's very hard to do because number one- you have time constraints and what you have going on top of this...you still have other patients...this and that... and I would probably be the same type of offender and say 'no... I'm fine, I just got to go'....but in a perfect world to be able to stop, sit down, breathe, and cry if you need to...that would be good."*

**Summary**

The themes emerging from the telephone interviews included *pediatric traumas* as one of the most commonly reported cases that may contribute to decreased professional quality of life (specifically compassion fatigue/secondary trauma) and *discomfort, maintaining emotional control, obstructed communication*, and *deflection.* As

related effects occurring after a perceived traumatic event in the workplace. The themes of *support systems* and *available resources* also potentially addressed decreased professional quality of life for emergency department nurses. These themes have broadened the understanding of how ER nurses perceive traumatic experiences and how the associated post-trauma experiences reinforce the quantitative findings related to this study.

# CHAPTER V

# DISCUSSION

The purpose of this study was to examine the occurrence of compassion satisfaction, burnout, compassion fatigue/secondary trauma in emergency department nurses and its relationship to nurse-patient communication. A conceptual model was developed utilizing Lazarus and Folkman's Transactional Model of Stress and Coping (1984). The Professional Quality of Life and Nurse Communication in the Emergency Department (Figure 1) model was developed to describe different characteristics relevant to professional quality of life: compassion satisfaction (CS), burnout (BO), compassion fatigue (CF)/secondary trauma (ST). These characteristics were explained within the emergency room setting. This chapter will discuss the importance and implications of the study findings, the study's strengths and limitations, and possible approaches for further research.

## Overview

Over the last fifteen years there has been an impetus to increase safety in health care systems. The Institute of Medicine (2001) and the National Patient Safety Foundation (NPSF, 2013) identified specific areas of improvement for increased patient safety—and more specifically, improved patient-centered care—in hospitals. Effective

nurse-patient communication is essential in this process, as the establishment of a therapeutic relationship is integral not only to patient satisfaction with care but also to nurses' professional satisfaction with the care provided.

A high-stress area such as the emergency department can be seen as a working environment that may not be as conducive for effective nurse-patient communication. Consequently, it is important to explore the incidence of compassion satisfaction, burnout, and compassion fatigue/secondary trauma and their relationship to communication in the ED setting. To date, the possible association between professional quality of life and communication for nurses in the ED setting has not been researched.

## Patient Safety

Nurses are commonly exposed to suffering in the emergency department. On any given day, a nurse is responsible for many patients who vary in age, injury, and disease process. Injuries sustained in motor vehicle accidents, assaults, rapes, gunshot wounds, and child abuse or injuries are common in any ED. In addition to witnessing the repercussions of these traumatic events (e.g., such as death or severe injury), nurses also bear the burden of consoling the families and survivors of the events. A noted gap in the current knowledge is exploration of the potential impact of CS, BO, and CF/ST on communication and ultimately on patient safety.

The NPSF (2013) stipulates health care providers must engage "patients and families as respected partners [who] can improve the safety of care" and who, if they are treated as "members of the care team," can effectively contribute to the prevention of errors and process failures (p. 2). The NPSF further describes specific strategies that promote engagement of patients and families and will in turn improve a) outcomes of

care, b) the experience of care, c) work experience for caregivers, and d) outcomes of care for patients system wide. This further underscores the importance of exploring the emergency room work environment, nurses' perceived professional quality of life, and potential influence on communication patterns.

## Demographics

A purposive sample of 42 emergency room nurses employed at a Southern California health care system was recruited for this study. The participants were primarily female (80%) and of Caucasian ethnicity (64%), with a mean age of 42 years (SD=9.9). They identified themselves as Bachelor degree-holding RNs (45%) with the primary position of direct patient care/staff (72%). Participants had an average of 12 years of emergency room nursing experience (SD=9.4) and worked an average of 34 hours per week (SD=9.1). Forty percent reported being employed at a community hospital, 31% were employed at a designated Level II trauma center, and 9% were employed in an urgent care-type setting. When asked whether they had access to support or resources when dealing with a traumatic case in the ED, 64% of participants reported "yes," while 24% reported "no."

## Professional Quality of Life (ProQOL)

The majority of the sample reported low levels of compassion satisfaction (M = 38.63, SD 9.47), as evidenced by the mean scores of this subscale of the ProQOL, possibly indicating problems in the work environment. On the burnout and compassion fatigue/secondary trauma subscales, the sample scored above the low range burnout, *M* =21.4, *SD* 6.3 and compassion fatigue/secondary trauma *M* = 21.1, *SD* 5.2, indicating that

although burnout may not be an issue, there may be a lack of positive feelings about being effective in the work environment.

Regarding the work environment, although not statistically significant there were interesting differences in scoring when comparing mean scores of the compassion satisfaction, burnout, and compassion fatigue/secondary trauma subscales. On the subscale of compassion satisfaction, the urgent care setting scored highest ($M = 44.3$, $SD$ 4.3) in participants' perceived professional satisfaction in their ability as caregivers. Participants employed in the community hospital setting scored highest in both the burnout and compassion fatigue/secondary trauma subscales (burnout $M = 24.5$, $SD$ 6.0; compassion fatigue/secondary trauma $M = 23.2$, $SD$ 4.4) and therefore had greater risk for burnout or experiencing problems (e.g., fear, difficulty sleeping, recurring images/thoughts, avoidance) after a traumatic event. This finding is supportive of past research that has found a relationship between CF/ST in lower acuity settings in contrast to the higher acuity settings of critical care and emergency services (Burtson & Stichler, 2010; Smart et al., 2013; Young et al., 2011). Although the agencies did score within normal range for these subscales. These current findings support past research findings of low CS scores in emergency department nurses and low risk for BO and CF/ST (Hooper et al., 2010), although there is limited research specific to this population.

Bivariate tests that examined the variables of age, years in ED nursing, and average hours worked per week produced no significant correlations, with the exception of years in ED nursing and secondary trauma, which demonstrated a significant correlation of $r\ (33) = .46$, $p<.05$. This finding suggests that nurses with more experience in the emergency department tend to score higher on the secondary trauma subscale.

## Silencing Response Scale

The mean score on Baranowski's (2002) Silencing Response instrument was 59.3, indicative of a moderate risk of communication difficulties for the entire sample. An examination of specific questions on the instrument revealed some of the higher scored items were repeating emotional issues were already addressed, faking interest, being unable to believe what people say, and feeling numb, avoidant, and apathetic—all of which may be factors affecting communication.

Within the theme of *obstructed communication*, during telephone interviews participants expressed difficulty communicating with other patients. This finding reflected the findings of Gates et al. (2011), participants reported decreased performance and inability to meet communication demands after a traumatic event. The theme of *discomfort* identified in the interview data mirrors findings relating to difficulty controlling emotions, pressure, and the chaotic nature of some patient care experiences (Goldbort et al., 2011; McGibbon et al., 2010; Mizuno et al., 2013).

A correlation matrix was constructed to evaluate the relationship between the CS, BO and CF/ST subscales, and the silencing scale. The correlation between the compassion satisfaction subscale and the silencing scale is moderate and statistically significant ($r$ [33] = -.42, $p<.05$), suggesting nurses who feel less satisfied in their caregiver ability tend to have higher perceived communication difficulties in their workplace. This finding is logical considering the concept of compassion satisfaction has been described as the motivation derived from the work of helping others (Stamm, 2002) and silencing response is described as the blocking of the ability to listen and therefore help (Baranowski, 2001). Correlations were also completed on the burnout and

compassion fatigue/secondary trauma subscales and the silencing scale. The correlation between burnout and silencing is large and statistically significant ($r$ [33]= .53, p<.05), indicating that individuals with high total burnout scores also had high total silencing scores. Lastly, the correlation between compassion fatigue/secondary trauma (CF/ST) scores and silencing scores is moderate and statistically significant ($r$ [33] = .48, p<.05), indicating that individuals with high CF/ST scores also had high silencing scores and individuals with low CF/ST scores also had low silencing scores. Elkonin and Van derVyer (2011) found similar results with ICU nurses, with respondents scoring low in compassion satisfaction ($M$ =36.7, $SD$ 8.14), low on compassion fatigue/secondary trauma ($M$ = 18.10, $SD$ 7.44), and low on burnout $M$ =24.8, $SD$ 6.38) with moderate risk on the silencing scale ($M$ = 46.8, $SD$ 20.77), although respondents had slightly lower scores than participants in this study. In addition, Elkonin and Van derVyer (2011) found positive correlations between the compassion fatigue and burnout subscales and the silencing scale.

Multiple regression analysis was also conducted to evaluate the ProQOL subscales (compassion satisfaction, burnout, compassion fatigue/secondary trauma) with the silencing scale. Despite the fact that all of the subscales accounted for a significant amount of variance in the perceived silencing response scores $R^2$ = .31, $R^2$ adj = .253, F(3,31)=4.84, p<.05, none of the subscale scores significantly contributed to the model. This finding may be due to the small sample size in utilizing all the subscales in addition to the possible similarities among some of the subscale attributes.

Multiple regressions were conducted to explore the suitability of the independent variables of compassion satisfaction and resource availability as predictors of silencing

scores, and 15% of the variability explained in the silencing scale was attributed to the variables. The partial regression coefficient, relating to available support resources and silencing response, revealed the relationship between compassion satisfaction and silencing response was the only statistically significant variable; the higher the silencing scale score, the lower the compassion satisfaction score. This result may reflect the reported accessibility of resources but also may be the result of the *support systems* shared in the telephone interviews. One of the predominant themes was one of *actively seeking self-preservation strategies* to manage the emotional aspect of the case. Participants shared that some cases were perceived as emotionally challenging, stressful, sad, and they sought to talk to others who understood what it was like to be employed in the ER environment. One participant described talking to coworkers as a form of therapy, which parallels previous studies exploring coping techniques in high-acuity areas (Von Rueden et al., 2011).

Regression on the relationship of the burnout and compassion fatigue/secondary trauma subscales was also conducted and demonstrated 28% of the variability in the model, indicating the presence of burnout and compassion fatigue/secondary trauma may be a potential predictor of silencing. Partial regression coefficient relating to burnout score and silencing score was statistically significant, whereas the partial regression coefficient relating to compassion fatigue/secondary trauma and silencing response was not. Only elevated burnout scores can be predictive of elevated silencing scores. This finding appears logical considering the conceptual meaning of burnout as a "syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment" (Maslach, 1982, p. 3) or the loss of energy by consistently being overwhelmed, stressed,

or exhausted, loss of enthusiasm in the workplace, and lost confidence and self-worth (Leiter & Maslach, 2005).

Lastly, regression with the variables of years in the ED and compassion fatigue/ST was conducted to evaluate whether their presence was a predictor of silencing, and 20% of the variability explained in the silencing scale scores was attributed to these variables. The partial regression coefficient relating to the compassion fatigue/secondary trauma score and the silencing score was statistically significant, but the partial regression coefficient relating to years in the ED and silencing response was not statistically significant; nurses who scored high on the compassion fatigue/secondary trauma subscale may have also scored high on the silencing scale. This finding is in contrast to previous findings suggesting age and years in practice may predispose providers to compassion fatigue/secondary trauma (Burtson & Stichler, 2010).

## Summary

This study adds to the current body of evidence that examines the occurrence of compassion satisfaction, burnout, and compassion fatigue/secondary trauma in emergency department nurses and their relationship to communication. The implementation of a mixed method approach facilitated understanding of nurses' lived experiences as an emergency room provider by exploring challenges common in the workplace. Overall, participants scored low in the compassion satisfaction, burnout, and compassion fatigue/secondary trauma subscales and had a mean score reflecting a moderate risk for silencing. Those employed in the urgent care setting scored highest in compassion satisfaction, while those employed in the community hospital setting scored highest in burnout and compassion fatigue/secondary trauma. Bivariate tests examined

demographic variables and found the only significant correlation-was years in the ED and secondary trauma.

A correlation matrix indicated several statistically significant relationships between the compassion satisfaction subscale and the silencing scale, between the burnout subscale and the silencing scale, and between the compassion fatigue/secondary trauma (CF/ST) subscale and the silencing scale. The themes discovered in the telephone interviews further fostered the understanding of the background of these relationships.

## Research Strengths and Limitations

The goal of this study was to identify circumstances in the ER environment that may impact health care providers and thus affect the establishment of effective engagement or communication patterns between nurses and patients. This study attempted to identify the occurrence of compassion satisfaction, burnout, compassion fatigue/secondary traumatic stress, and communication difficulties (silencing response) in a sample of emergency department nurses. In order to understand coping strategies of emergency department nurses, the positive effect of compassion satisfaction and the potential negative effects of burnout, compassion fatigue/secondary trauma, and the silencing response were evaluated. Currently, there are limited studies that explore all four phenomena in emergency room nurses and no qualitative studies that explore emergency rooms nurses' lived experiences of trauma in the workplace.

This study had several limitations that restricted the generalizability of the results. A non-experimental correlational design was utilized in an attempt to demonstrate an interaction between the variables, a distinct cause-and-effect relationship was not possible due to the cross-sectional design. Participants in the sample originated from the

same geographical location and may not be representative of the population of emergency room nurses. The results are also limited by the self-selection of responses by ER nurses in both the quantitative and qualitative phases of the study. In addition, the nature of the questions along with the responses of non-respondents may reflect differences in the subscale results. The participants may be more—or less—likely to have responded because of poor professional quality of life experiences. While a low response rate was anticipated, as most internet questionnaires produce response rates of less than 50% (Polit & Beck, 2012) the 17% response rate was too low to establish power among all the variables. This situation also limited the implementation of regression analysis among all the subscales, tenure, and resources due to the insufficient sample. Additional research is warranted to explore these limitations.

Despite the limitations identified in this study, various strengths also surfaced. This study is the first to examine the occurrence of compassion satisfaction, burnout, and compassion fatigue/secondary trauma and their relationship to communication in emergency room nurses. The implementation of a mixed methods embedded design facilitated the understanding of nurses' lived experiences as an emergency room provider, exploring challenges common in the workplace. Establishing the presence of low compassion satisfaction scores and low burnout and compassion fatigue/secondary trauma scores creates a starting point for evaluating the use or non-use of coping mechanisms unique to ED nurses and department acuity. The identification of relationships between compassion satisfaction, burnout, and compassion fatigue/secondary trauma subscale items and communication (silencing) in concert with

the participants' perceptions shared through interviews helped rationalize how coping strategies are implemented to deal with traumatic cases in the workplace.

## Conclusions

Communication between the nurse and patient is essential, and the need for engagement or an "active partnership" established by good communication patterns ensures patient safety (NPSF, 2013). It is important to consider the role of compassion satisfaction, burnout, and compassion fatigue/secondary trauma, and their possible contribution to obstructive communication patterns. Specifically, this study indicates a relationship exists between the CS, BO, and CF/ST subscales and the silencing scale. This suggests nurses who had lower compassion satisfaction scores had higher silencing response scores, and nurses who had high total burnout and compassion fatigue/secondary trauma scores also had high total silencing scores. Acknowledging the lack of compassion satisfaction in the workplace, along with focusing on specific areas of the hospital that may experience burnout and compassion fatigue/secondary trauma is the first step in addressing deficiencies in communication.

## Implications for Nursing Practice

The nurses' accounts of communication with patients post-traumatic case must be recognized. Common reported themes were *obstructed communication,* described by participants as "hard, trying to mask it, wasn't as caring as I should have been or whatever," and *discomfort,* in which participants described their attempts at communicating with patients as "fumbling, exhausted, emotional, and uncomfortable." The conceptual model and theoretical model (Lazarus & Folkman, 1984) guiding the study both support nurses may be at risk for communication difficulties merely due to

exposure to traumatic cases in the emergency room. Additional organizational resources may be required in an attempt to address traumatic events, which in turn may influence nurses' professional quality of life and improve communication.

Another factor needing further exploration is training. Nurses need continuing education that focuses on the risks of their job, specifically of burnout and compassion fatigue/secondary trauma. This resonates with the theme of *deflection* in the interviews, in which many of the participants felt nurses besides themselves could benefit from some type of debriefing, multidisciplinary informal meeting, and grief counseling. This may be the culture of the emergency department nurse, or due to time constraints. Elmqvist et al. (2011) found communication difficulty could be associated with initiating prompt treatment and time constraints as well. They noted a theme of "courtesy encounters" or fragmented communication encounters with various providers limited any type of "connectedness" to the provider.

Another potential impediment could be the presence of "instrumental behavior" (Wiman & Wikblad, 2003), whereby nurses may be so focused on patient monitoring and care procedures that they are perceived by patients as being too busy to initiate a conversation. This implies the environment may also contribute to or exacerbate communication gaps in the presence of the nurse provider's poor professional quality of life.

## Future Research

The concept of professional quality of life and its relation to communication in the emergency department setting is relatively new and requires further research. With the nuance of improving communication as a form of nurse-patient engagement to

promote safer care (IOM, 2001;NPSF, 2013) further studies are needed to evaluate other contributing factors to professional quality of life and possible organizational resources to address this need. Although the majority of participants scored low on the compassion satisfaction, burnout, and compassion fatigue/secondary trauma scales, further research on a larger sample is needed to elucidate the contributing factors and how these affect communication.

Nurses with poor professional quality of life may not be as effective with their patients, as their own coping mechanisms may disable optimal communication. Nurse managers should also be aware that emergency nurses may suffer from low compassion satisfaction, burnout, and/or compassion fatigue/secondary trauma and may require additional resources.

Emergency nurses work at the entry point to health care for many patients, and thus play a critical role in ensuring safe care. There is a need for increased understanding of compassion satisfaction, burnout, and compassion fatigue/secondary trauma, including identifying symptoms, potential coping strategies, and organizational interventions that may increase nurses' abilities to manage or prevent poor professional quality of life. This in turn may prevent emotional exhaustion and communication difficulties that may hinder nurse-patient engagement and patient safety in emergency room settings.

References

American Psychiatric Association (APA). (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: APA.

Baranowsky, A. B. (2002). The silencing response in clinical practice: On the road to dialogue. In C.R. Figley (Ed.), *Treating compassion fatigue* (pp. 155–170), New York: Brunner-Routledge.

Beck, J. G., Grant, D. M., Read, J. P., Clapp, J. D., Coffey, S. F., Miller, L. M., & Palyo, S. A. (2008). The impact of events scale-revised: Psychometric properties in a sample of motor vehicle accident survivors. *Journal of Anxiety Disorders, 22,* 187-198. doi: 10.1016/j.janxdis.2007.02.007

Bride, B. E., Robinson, M, M., Yegidis, B., & Figley, C. R. (2004). Development and validation of the secondary traumatic stress scale. *Research on Social Work Practice, 14*(1), 27-35.

Brydon, L., Magid, K., & Steptoe, A. (2006). Platelets, coronary heart disease, and stress. *Brain, Behavior, and Immunity*, *20*(2), 113-119. doi:10.1016/j.bbi.2005.08.002.

Burtson, P. L., & Stichler, J. F. (2010). Nursing work environment and nurse caring: Relationship among motivational factors. *Journal of Advanced Nursing, 66*(8), 1819-1831. doi: 101111/j.1365-2648.201005336.x

Buurman, B. M., Mank, A. P. M., Beijer, H. J. M., & Olf, M. (2011). Coping with serious events at work: A study of traumatic stress among nurses. *Journal of the American Psychiatric Association 17*(5), 321-329. doi: 10.1177/1078390311418651

Chandola, T., Britton, A., Brunner, E., Hemingway, H., Malik, M., Kumari, M., Badrick,

E., Kivimaki, M., & Marmot, M. (2008). Work stress and coronary heart disease: What are the mechanisms? *European Heart Journal*, *29*(5), 640-648. doi:10.1093/eurheartj/ehm584

Davenport, L. A., & Hall, J.M. (2011). Analyzing the dimensions of professional vulnerability. *Journal of Holistic Nursing 29*(3), 180-188. doi: 10.1177/08980110110393356

de Brouwer, S., Kraaimaat, F. W., Sweep, C. J., Marjonne, F., Creemers, C.W., Radstake, T., van Laarhoven, A., van Riel, P., & and Evers, W. M. (2010). Experimental stress in inflammatory rheumatic diseases: A review of psychophysiological stress responses. *Arthritis Research & Therapy*, *12*(3), 89. doi:10.1016/j.jen2009.11.027

Dominguez-Gomez, E. & Rutledge, D. (2009). Prevalence of secondary traumatic stress among emergency nursing. *Journal of Emergency Nursing, 35*(3), 199-204. doi: 10.1016/j.jen.2008.05.003

Elmqvist, C., Fridlund, B., & Ekebergh, M. (2011). On a hidden game board: The patient's first encounter with emergency care at the emergency department. *Journal of Clinical Nursing, 21*, 2609-2616. doi: 10.1111/j.1365-2702.2011.03929.x

Elkonin, D., & Van der Vyver, L. (2011). Positive and negative emotional responses to work-related trauma of intensive care nurses in private health care facilities. *Health SA Gesondheid, 16*(1). doi: 104102/hsagv16i1.436

Figley, C.R. (Ed.). (1995). *Compassion fatigue: Coping with secondary traumatic stress disorder.* New York: Brunner/Mazel.

Figley, C.R. (Ed.). (1993). *Introduction: Treating compassion fatigue.* New York: Brunner-Routledge.

Freud, S., & Strachey, J. (1977). *Introductory lectures on psychoanalysis: The standard edition.* New York: W. W. Norton.

Gates, D. M., Gillespie, G. L., & Succop, P. (2011). Violence against nurses and its impact on stress and productivity. *Nursing Economics*, *29*(2), 59-67.

Georges, J. M. (2011). Evidence of the unspeakable. *Advances in Nursing Science*, *34*(2), 1-7. doi: 10.1097/ANS.0b013e3182186cd8

Goldbort, J., Knepp, A., Mueller, C., & Pyron, M. (2011). Intrapartum nurses' lived experience in a traumatic birthing process. *The American Journal of Maternal Child Nursing, 36*(6), 373-380. doi: 10.1097/NMC.0b013e31822de535

Gunnar, M., & Quevedo, K. (2007). The neurobiology of stress and development. *The Annals Review of Psychology*, 58, 145-73.

doi:10.1146/annurev.psych.58.110405.085605

Halldorsdottir, S. (1996). *Caring and uncaring encounters in nursing and health care: Developing a theory.* (Doctoral dissertation). Linkoping University, Linkoping.

Hinshaw, A. S., & Atwood, J. R. (1983). Nursing staff turnover, stress, and satisfaction: Models, measures, and management. *Annual Review of Nursing Research, 1*, 133-153.

Holloway, I., & Wheeler, S. (2010). *Qualitative Research in Nursing and Health Care,* (3rd ed.). Oxford, UK: Wiley-Blackwell.

Hooper, C., Craig, J., Janvrin, D. R., Wetsel, M. A. & Reimels, E. (2010). Compassion satisfaction, burnout, and compassion fatigue among emergency nurses

compared with nurses in other selected inpatient specialties. *Journal of Emergency Nursing, 36*(5), 420-427. doi:10.1016/j.jen2009.11.027

Institute of Medicine (IOM). (2001). *Crossing the quality chasm: A new health system for the 21st century.* National Academy of Sciences. Retrieved from http://www.iom.edu/~/media/Files/Report%20Files/2001/Crossing-the-Quality-Chasm/Quality%20Chasm%202001%20%20report%20brief.pdf

Joinson, C. (1992). Coping with compassion fatigue: Burned out and burned up: Has caring for others made you too tired to care for yourself? *Nursing 92, 22*(1), 116-121.

Lange, T., & Meaney, T. (2011). I actually started to scream: Emotional and mathematical trauma from doing mathematics homework. *Educational Studies in Mathematics, 77*, 35-51. doi: 10.1007/s10649-011-9298-1

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

Levenstein S., Ackerman S., Kiecolt-Glaser, J. K., & Dubois A. (1999). Stress and peptic ulcer disease. *Journal of the American Medical Association, 281*(1), 10-11. doi:10.1001/jama.281.1.10

Leiter, M. P., & Maslach, C. (2005). *Banishing burnout: Six strategies for improving your relationship with work.* San Francisco, CA: Jossey-Bass.

Maiden, J., Georges, J. M. & Connelly, C. D. (2011). Moral distress, compassion fatigue, and perceptions about medication errors in certified critical care nurses. *Dimensions of Critical Care Nursing, 30*(6), 339-345. doi: 10.1097/DCC.0b013e31822fab2a

Maslach, C. (1982). *Burnout- The cost of caring.* New York: Prentice-Hall Inc.

Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior, 2,* 99-113.

Maytum, J. C., Bielski Heiman, M, & Garwick, A. W. (2004). Compassion fatigue and burnout in nurses who work with children with chronic conditions and their families. *Journal of Pediatric Health Care, 18*(4), 171-179.

McDougall, L., & Drummond, P. (2010). Personal resources moderate the relationship between work stress and psychological strain of submariners. *Military Psychology, 22*(4), 385-398. doi:10.1080/08995605.2010.513231.

McGibbon, E., Peter, E., Gallop, R. (2010). An institutional ethnography of nurses' stress. *Qualitative Health Research, 20*(10), 1358-1378. doi: 10.1177/1049732310375435

McEwen, M., & Wills, E. (2002). *Theoretical basis for nursing.* Philadelphia: Lippincott, Williams & Wilkins.

Merriam Webster Online. (2014). Stress, trauma. Retrieved from http://www.merriam-webster.com/dictionary/

Mizuno, M., Kinefuchi, E., Kimura, R., & Tsuda, A. (2013). Professional quality of life Japanese nurse/midwives providing abortion/childbirth care. *Nursing Ethics, 20*(5), 539-50. doi: 10.1177/0969733012463723

Mueller, C. W., & McCloskey, J. C. (1990). Nurses' job satisfaction: A proposed measure. *Nursing Research, 39*(2), 113–117.

Myers, T., & Kaemmerer, T. (Eds.). (2009). *Mosby's dictionary of medicine, nursing & health professions* (8th ed.). St. Louis, MO: Mosby/Elsevier.

National Patient Safety Foundation (NPSF). (2014). Report of the Roundtable on

Consumer Engagement in Patient Safety. *Safety Is Personal:Partnering with Patients and Families for the Safest Care.* Retrieved from http://www.npsf.org/wp-content/uploads/2014/03/Safety_Is_Personal.pdf

National Patient Safety Foundation (NPSF). (2013). *Mission and vision.* Retrieved from http://www.npsf.org/about-us/mission-and-vision/

Plichta, S. B., & Garzon, L. S. (2009). *Statistics for nursing and allied health.* Philadelphia, PA: Wolters Kluwer/Lippencott, Williams & Wilkins.

Polit, D. F., & Beck, C. T. (2012). *Nursing research: Generating and assessing evidence for nursing practice* (9th ed.). Philadelphia, PA: Wolters Kluwer/Lippencott, Williams & Wilkins.

Potter, P., Deshields, T., Berger, J.A.,Clarke, M., Olsen, S., & Chen, L. (2013). Evaluation of compassion fatigue resiliency program for oncology nurses. *Oncology Nursing Forum, 40*(2), 180-187.

Quinal, L., Harford, S., & Rutledge, D. (2009). Secondary trauma stress in oncology staff. *Cancer Nursing, 32*(4), 1-7.

Segala, O., Kishon-Rabina, L., Bacon, S., & Werner, L. (2012). Evidence for language: Specific influence on the preference of stress patterns in infants learning an iambic language (Hebrew). *Journal of Speech, Language & Hearing Research, 55*(5), 1329-1341. doi:10.1044/1092-4388(2012/11-0087)

Selye, H. (1956). *The stress of life.* St Louis: McGraw-Hill.

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. doi: 101177/0269216311431211

Smart, D., English, A, James, J., Wilson, M., Daratha, K. B., Childers, B., & Magera, C. (2013). Compassion Fatigue and Satisfaction: A Cross-sectional survey among health care workers. *Nursing and Health Sciences,* (16), 3-10. doi: 10.1111/nhs12068

Sotiriou, M. (2010). Stress in special groups. *Annals of General Psychiatry*, (Suppl 1), S40.

Stamm, B. H. (2010). *The concise proqol mannual* (2nd ed.). Retrieved from http://www.proqol.org/uploads/ProQOL_Concise_2ndEd_12-2010.pdf

Stamm, B. H. (2005). The professional quality of life scale: Compassion satisfaction, burnout and compassion fatigue/secondary trauma scales, 1–24. Retrieved from http://www.isu.edu/~bhstamm/documents/proqol/ProQOL_Manual_

Stamm, B. H. (2002). Measuring compassion satisfaction as well as fatigue: Developmental history of compassion satisfaction and fatigue test. In C.R. Figley (Ed.), *Treating Compassion Fatigue,* (pp.107-119). New York: Brunner-Routledge.

Stanton, J., Balzer, W., Smith, P., Parra, L., & Ironson, G. (2001). A general measure of work stress: The stress in general scale. *Educational and Psychological Measurement, 61*(5), 866–888.

Stevens, J. (2001). *Applied Multivariate Statistics for the Social Sciences (4th ed.). Hillsdale, NJ:* Lawrence Erlbaum Associates.

Tejero, L. M. S. (2011). The mediating role of the nurse-patient dyad bonding in bringing about patient satisfaction. *Journal of Advanced Nursing, 68*(5), 997-1002. doi:

101111/j1365-2648.2011.05795.x

Tingle, J. (2013). Assessing the patient experience while attending the A & E. *British Journal of Nursing*, *22*(1), 56-57.

Trembinski, D. (2011). Comparing premodern melancholy/mania and modern trauma: An argument in favor of historical experiences of trauma. *History of Psychology, 14*(1), 80–99.

Vachon, M. L. S. (1987). *Occupational stress in the care of the critically ill, the dying, and the bereaved.* Washington, DC: Hemisphere.

Villaveces, A., Mutter, R., Owens, P. L., & Barrett, M. L. (2013). *Causes of injuries treated in the emergency department, 2010.* HCUP Statistical Brief #156. Rockville, MD: Agency for Health Care Research and Quality, Rockville, MD.

Von Rueden, K. T., Hinderer, K. A., McQuillan, K. A., Murray, M., Logan, T., Kramer, B., Gilmore, R. & Friedmann, E. (2011). Secondary traumatic stress in trauma nurses: Prevalence and exposure, coping, and personal/environmental characteristics. *Journal of Trauma Nursing, 17*(4), 191-200. doi: 10.1097/JTN0b013e3181ff2607

Vo, D. X. & Park, M. J. (2008). Stress and stress management among youth and young men. *American Journal of Men's Health, 2*(4), 353-356. doi:10.1177/1557988308325069

Waltz, C.F., Strickland, O.L., & Lenz, E.R. (2010). Measurement in Nursing and Health Research (4th ed.). New York, NY: Springer Publishing.

Wiman, E., & Wikblad, K. (2004). Caring and uncaring encounters in nursing in an emergency department. *Journal of Clinical Nursing, 13*, 422-29.

Wu, Y., Larrabee, J. H., & Putnam, H. P. (2006). Caring behaviors inventory: A reduction of the 42-item instrument. Nursing Research, *55*(1), 18–25.

Young, J. L., Derr, D. M., Cicchillo, V. J. & Bresseler, S. (2011). Compassion satisfaction, burnout and secondary traumatic stress in heart and vascular nurses. *Critical Care Nursing Quarterly, 34*(3), 227-234. doi: 10.1097/CNQ.0b013e31821c67d5

Young, J. L., Derr, D. M., Cicchillo, V. J., & Bresseler, S. (2011). Compassion satisfaction, burnout, and secondary traumatic stress in heart and vascular nurses. *Critical Care Nursing Quarterly, 34*(3), 227-234. doi: 10.1097/CNQ.0b013e31821c67d

# Appendix A

## Evidence Summary Grid

| Authors | Dependent Variables | Independent Variables | Study Design | Sample Method and Size | Data Collection | Findings |
|---|---|---|---|---|---|---|
| Hooper, C., Craig, J., Janvrin, D.R., Wetsel, M.A., & Reimels, E. (2010) | Professional Quality of Life: Compassion Satisfaction and Fatigue Subscales, R-IV (ProQOL R-IV) variables | Gender, shift, ethnicity, educational degree, years of experience as a registered nurse (RN), years of experience in specialty area (ER, intensive care, nephrology, and oncology) | Exploratory Cross-sectional | Convenience<br><br>114 Full and Part time RN with >1 year experience | The Professional Quality of Life: Compassion Satisfaction and Fatigue Subscales (2007) | Demographics:<br>90% white<br>61% worked Days<br>62% ADN<br><br>No significant differences between the subscale scores, except females had a higher incidence of CF.<br><br>Aggregate sample results:<br>20.0% scored low CS<br>26.6% risk of BO<br>28.4% risk CF<br><br>ER nurses:<br>24.5% scored low CS<br>82.2% risk of BO<br>86.% risk CF |
| Mizuno, M., Kinefuchi, E., Kimura, R., & Tsuda, A. (2013) | Professional Quality of Life Scale (ProQoL) variables, Frankfurt Emotional Work Scale (FEWS), and eight possible stress factors experienced while providing abortion care. | Age, gender, educational degree, years of experience as a provider, years of experience in obstetrics/gynecology, number of children, religion, and number of childbirth and abortion cases. | Cross-sectional Correlational with Registered Nurses (RN), licensed practical nurses (LPN) and Midwives (MW) | Purposive Sample<br><br>341 Japanese hospitals with 255 nurses and midwives | ProQoL Scale (2010)<br><br>FEWS Scale (Japanese Version) | Sample Characteristics:<br>-Female<br>-RN/LPN 66.3%<br>-MW 33.7%<br>-70% specified no religion<br>-Yrs in Abortion Services ( M=13.8 years)<br><br>Midwives had higher positive emotions<br><br>No significant difference between ProQol Scale scores between the MW, RN, and LVNs.<br><br>Both nurses and midwives reported highest stress factors of "thinking that the aborted fetus deserved to live "and "difficulty in controlling emotions during abortion" as associated with CF. |

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| | | | | | | The increased number of abortions positively correlated with burnout and negatively correlated to CS.<br>The number of childbirth cases handled was positively correlated with CS. |
| Elkonin, D. & Van derVyer, L. (2011) | Professional Quality of Life: Compassion Satisfaction and Fatigue Subscales, R-IV (ProQOL R-IV) variables and Silencing Reponse Scale | Age, gender, language, educational degree, years of experience as a provider, years of experience in intensive care | Quantitative exploratory - descriptive, self-report | Non-probability Convenience Sampling<br><br>30 registered nurses from (3) intensive care units in South Africa | ProQOL Scale (2010)<br><br>Silencing Response Scale (2002) | Female 93.3%<br>Mean Age: 38.7<br>English first language: 70%<br>Diploma Nurse: 86%<br>Four Year degree: 13.3%<br>Mean Yrs. Nursing Experience: 18.6<br>Mean Years in Intensive Care: 8.28<br><br>CS Subscale: moderate to high (73.34%)<br><br>CF Subscale: Average to high risk<br>BO Subscale: Moderate to high (89.9%)<br><br>Silencing Subscale: Moderate risk (93.3%)<br><br>Positive Correlation between CF and silencing response |
| Burtson, P.L., & Stichler, J.F. (2010) | Six variables-compassion satisfaction, nurse job satisfaction, stress, burnout, and compassion fatigue related to nurse caring | Demographics-age, nursing experience, years at the hospital, years on current unit (sample from nine medical surgical units, two emergency rooms, two critical care units) | Cross-Sectional Correlational | Convenience<br><br>126 nurses | Mueller McCloskey Satisfaction Scale(1990),<br><br>Professional Quality of Life Scale (2005),<br><br>Stress in General Scale (2001),<br><br>The Caring Behaviors Inventory (2006) | Demographics:<br>Age M=40.15<br>Female=88.3%<br>Ethnicity Asian=43.4%<br>BSN=65%<br><br>Work Full-time=92%<br>Years at hospital M=14.61<br>Years on unit M= 6<br>worked in Med-Surg unit=72.2%<br><br>Monthly exposure to patient death 51.7%<br><br>Isolated Med-Surge group has a higher risk for CF (19% vs. |

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|---|---|---|---|---|---|---|
| | | | | | | 26.4%) when compared to hospice nurses.<br><br>Correlation among variables showed a negative correlation between CF and the Caring Behaviors Inventory and skill (suggesting that CF affects nurses who are younger and have less experience. |
| MiGibbon, E., Peter, E., & Gallop, R. (2010) | N/A | N/A | Smiths critical sociological Institutional Ethnography | Convenience Sampling from Pediatric ICU<br><br>23 nurses (practice experience 2-24 years) | Tape recorded interviews, Observation, Focus groups | Thematic coding six forms of stress-emotional distress, constancy of pressure, burden of responsibility, negotiating hierchial power engaging in bodily caring, and being mothers, daughters, aunts and sisters. |
| Buurman, B.M., Mank, A.P.M., Beijer, H.J.M., & Olf, M. (2011) | Nurses perception of serious events (traumatic stress) cases in their daily practice and coping strategies | Nurses' age, gender, educational degree, years of experience | Nonexperiemntal survey | Convenience sampling from Academic Medical Center in Amsterdam (internal Medicine)<br><br>69 nurses | (1) self constructed list on serious events (2) Utrecht Coping List (UCL) | Most frequently reported **serious events-**<br>95.7% death<br>95.7% emergency transfer to ICU/CCU<br>Frequency Traumatic stress -<br>86.6% physical aggression<br>83.6% pt suffering |
| Goldbort, J., Knepp, A., Mueller, C., & Pyron, M. (2011) | N/A | N/A | Husserl's (1964) descriptive phenomenology to explore the experience of an "unexpected birthing process" | Convenience sample Indiana Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) Chapter members<br><br>9 participants | Semi structured audiotape interviews of 30-60 minutes over a study period of 9 months.<br><br>Utilized Colaaizzi's (1978) method for data analysis | Several themes:<br><br>-Feeling the chaos<br>-Expect the unexpected<br>-It's hard to forget<br>-All hands on deck<br>-Becoming<br>-For the love of OB<br><br>Interesting to note that some themes directly reflect the symptomology of STS- nightmares around the event, difficulty sleeping, re-experiencing the event weeks to years after |
| Von Rueden, K.T., Hinderer, K.A., | Presence and severity of traumatic stress using the Penn | Nurses' years of experience, support systems, and coping strategies | Cross-Sectional Correlational | Urban 100 bed-all trauma hospital | Self-report demographic / behavioral survey, Penn | Sample Characteristics:<br>- 62.5% female<br>- 72.7% bachelor's degree |

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|---|---|---|---|---|---|---|
| McQuillan, K.A., Murray, M., Logan, T., Kramer, B., Gilmore, R. & Friedmann, E. (2011) | Inventory (used to measure PTSD symptoms) | | | 128 nurses, those who worked in various areas within the Level I trauma center | Inventory | Largest response rate:<br>- from critical care unit<br><br>Coping strategies:<br>- family<br>- Friends<br>- Coworkers<br><br>Stress relief strategies:<br>- Hobbies<br>- exercise |
| Dominguez -Gomez, E. & Rutledge, D. (2009) | Prevalence of STS utilizing the STSS (1999) | Nurses' demographic and professional characteristics, use of assistance for work related stress, participation in activities that promote stress management/ self-care | Cross-Sectional Correlational | Convenience sampling from a health care system comprised of (3) general community hospitals ERs<br><br>67 nurses currently employed in the ER | Self-report demographic / survey, Secondary Traumatic Stress Scale (1999) | Sample Characteristics:<br>- Women<br>- White Ethnicity<br>- ADN<br>- Direct Pt care<br><br>92% denied seeking assistance for work related stress<br><br>52% participating activities that promote stress management and self care.<br><br>85% reported at least one symptom of STS in the past week with **33%** meeting the criterion for diagnosis of STS.<br><br>Frequently reported individual symptoms- irritability, avoidance, difficulty sleeping, intrusive thoughts, diminished activity level, emotional numbing. |
| Quinal, L., Harford, S., Rutledge, D. (2009) | Prevalence of STS utilizing the STSS (1999) | Nurses' demographic and professional characteristics, use of assistance for work related stress, participation in activities that promote stress management/ self-care<br>help from a spiritual leader and assistance of a best friend or | Cross-Sectional Correlational | Convenience sampling from one inpatient Magnet facility in CA<br><br>42 oncology staff RNs | Self-report demographic / survey, Secondary Traumatic Stress Scale (1999) | Sample Characteristics:<br>- Women<br>- mixed ethnicity<br><br>76% acknowledged a best friend/mentor at work & that they were helpful in discussing work related stress (81%).<br><br>16% meeting the criterion for diagnosis of STS. |

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| | | mentor also explored | | | | Frequently reported individual symptoms-difficulty sleeping, intrusive thoughts, irritability, foreshortened future, activity level. |
| Maiden, J., Georges, J.M. & Connelly, C.D. (2011) | Perception of moral distress & compassion fatigue, in relation to medication errors | Demographics-sex, age, employment status, marital status, religious affiliation, unit tenure, nursing tenure, intent to leave position | Mixed methods with several Quantitative instruments followed by<br><br>A small subset of (5) CCRNs interviewed in a one-time focus group. | Convenience<br><br>205 Critical Care Registered Nurses (CCRN), members of American Association of Critical Care Nurses (AACN) | Self Report of (4) instruments<br>- Nurse Characteristics<br>- Moral Distress Scale<br>- Professional Quality of Life Scale<br>- Medication Administration Survey | Female (90%)<br>Married (73.6%)<br>Full time (74.4%)<br><br>Top perceived reasons for med errors:<br>- Med packaging<br>- physician Communication<br><br>Top perceived reasons for med errors not being reported:<br>- Fear<br>- reporting effort<br>- administrative response<br><br>Correlations-<br>- Increased moral distress>physician communication<br><br>- med packaging >years in practice<br><br>Qualitative findings-"horror, frustration" |
| Young, J.L., Derr, D.M., Cicchillo, V.J. & Bresseler, S. (2011) | Prevalence of compassion satisfaction (CS), burnout (BO), secondary traumatic Stress (STS) | No Demographics collected-only Nurses' employed in either the IMC or ICU | Cross-sectional, Correlational | Convenience<br><br>25 nurses from IMC<br><br>45 nurses from ICU | Professional Quality of Life Scale Compassion Satisfaction and Compassion Fatigue Ver. 5 (2009) | **IMC:** average had high CS, low levels of BO and STS.<br>CS Score: 42<br>BO Score: 19<br>STS: 19<br><br>**ICU**: average levels of CS, and low to average BO, Low to average scores in STS.<br>CS Score: 37<br>BO Score: 25<br>STS: 22 |
| Potter, P., Deshields, T., Berger, J.A., Clarke, M., Olsen, S., & Chen, L. (2013) | Scores on the Maslach Burnout Inventory (MBI) Human Services Survey (1981), Professional | Demographics-age, race, gender, education, marital status, yrs. in nursing, years in oncology nursing, home support, and work support. | Descriptive Pilot-repeated measures study evaluating a two-week "resiliency program" | Purposive, Self-Selected<br><br>14 Oncology Nurses from an infusion center | Maslach Burnout Inventory (MBI) Human Services Survey (1981)-evaluating 3 | 14 nurses participated in (2) five week programs<br><br>Demographics: White, female, bachelor's degree and married. |

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| | Quality of Life: Compassion Satisfaction and Fatigue Subscales, R-IV (ProQOL R-IV) variables, The Impact of Event Scale Revised (2008) and the Nurse Job Satisfaction Scale (1983) | | focused on addressing CF. Data collected at four different points in time. | | levels of burnout in the workplace<br><br>Professional Quality of Life: Compassion Satisfaction and Fatigue Subscales, R-IV (2005) - Addresses CS, STS, and Burnout.<br><br>The Impact of Event Scale Revised (2008)- measures participant's "distress" after a traumatic event.<br><br>Nurse Job Satisfaction Scale (1983) Assessment of the nurses' enjoyment of their job | Before Compassion Fatigue Resiliency Program:<br>**MBI**: below high risk<br>**ProQOL IV** (burnout & STS): high risk<br><br>**IES-R:** low<br><br>ProQOL IV scores- specifically relating to STS declined after the program and continued to decline at the final 6-month post training mark.<br><br>The perception of quality of care provided increased initially but then returned to close to baseline values at the 6 months. |
| Gates, D.M., Gillepsie, G.L., & Succop, P. (2011) | Narrative Description of a traumatic event<br><br>Impact of Events Scale-Revised (1997)<br><br>The Health care Productivity Survey (2010)<br><br>Demographic Instrument | Demographic Variables: age, gender, race, education, care population, "urbanicity" of their emergency room, availability of violence prevention training or critical incident debriefing | Cross-sectional, members of the Emergency Nurses Association | Purposive<br><br>230 emergency room nurses | Narrative Description of an event perceived to be "violent or stressful" in the workplace.<br><br>Impact of Events Scale-Revised (IES)- person's response to "trauma" up to 1 week after the event.<br><br>The Health care Productivity | Female= 86%<br>Male= 14%<br>Non-Hispanic White 91%<br><br>**HPS**- 37% had scores reflecting decreased performance after a stressful or traumatic event. Cognitive demands that reflect "thinking clearly" and communication demands "provide emotional support" were common themes (p.62).<br><br>**IES**- 94% had at least one stress symptom reported after the event. The intrusion subscale had the |

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| | | | | | Survey (HPS) - measure to assess perceived work change productivity after a traumatic or stressful event.<br><br>Demographic Instrument | highest number of symptoms- "reminders" of the event brought about feelings, and thoughts...the Avoidance followed with the participants expressing feeling s of being "on guard" or "irritable and angry"<br><br>Positive correlation between stress symptoms and the two areas (Intrusion and Avoidance) of perceived workplace productivity. |
| Slocum-Gori, S., Hemsworth, D., WY Chan, W., Carson, A., & Kazanjian, A. (2011) | Professional Quality of Life Scale (ProQoL) variables of compassion satisfaction score, compassion fatigue score, and Burnout score | Demographic Variables- age, sex, marital status, education<br><br>Practice characteristics, professional affiliation, principal institution, and type of palliative care provided | Exploratory Cross-sectional | Convenience sample from The Canadian Hospice Palliative Care Association members<br><br>630 Hospice Palliative Care workers (clinical, administrative, allied health workers and volunteers. | Professional Quality of Life: Compassion Satisfaction and Fatigue Subscales, R-IV (ProQOL R-IV) | Demographics: Female=82.4% Mean Age= 52.34 Married=67.2%<br><br>CS negatively correlated with CF and Burnout<br><br>Positive association between burnout and CF<br><br>Respondents had -high levels of CS (43.9) -slightly elevated levels of CF (18.6) -average levels of Burnout (20.8)<br><br>Part-time providers had higher levels of CS compared to full time providers |
| Smart, D., English, A, James, J., Wilson, M., Daratha, K.B., Childers, B & Magera, C. (2014) | Professional Quality of Life Scale (ProQoL V) variables of compassion satisfaction score, burnout, compassion fatigue score, and secondary trauma Score. | Demographic Variables, health behavior, environmental items (sleep habits, shift rotations, years in the profession, marital staus, and educational level). | Exploratory Cross sectional | Convenience from a Community Hospital (Identified as Magnet).<br><br>139 Providers RNs 63% Physicians 10% CNA 21% | Professional Quality of Life:Compassion Satisfaction and Compassion Fatigue (ProQoL) version 5 (2009) and a demograhic questionaire. | Demographics: Worked <40hrs wk 85.5% Partner at home 77%<br><br>Primarily from ED 31% and resource team 30.6% Mean years of experience 12.2<br><br>77% reported engaging in some type of aerobic activity at least once a week |

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| | | | | | | Sleep 6.5-7 hrs a night 43%<br><br>Burnout Scores higher in general medical workers No differences in disciplines, or "stationary" employees<br><br>Negative Correlation between CS and BO and CS and STS.<br><br>Positive Correlation between STS and BO<br><br>Correlation between Sleep and BO and STS |
| Wiman, E., & Wikblad, K. (2003) | Caring or Uncaring Behaviors in emergency care | Type of patient injury | Content analysis | Convenience<br><br>5 patient nurse "episodes" which were videotaped with 10 nurses studied | Utilizing Halldorsdottir's conceptual theory of caring and uncaring behaviors as the framework | Aspects of both caring and uncaring found; with 61 aspects of uncaring (instrumental, disinterest, insensitivity coldness and inhumanity), and 36 aspects of caring (open and perceptive, genuinely concerned, morally responsible, being truly present, and dedication) found.<br><br>"Instrumental" behavior (lack of emotional involvement -focus on the monitors/procedures was a the most commonly reported finding. |

Appendix C

**PH IRB Approval**

PALOMAR HEALTH
Medical Staff Services

January 10, 2014

Elvira Dominguez-Gomez, PhD(c), MSN, RN
43890 Margarita Road
Temecula, CA 92592

**RE: Professional Quality of Life and Emergency Department Nurses' Communication Patterns**

Dear Ms. Dominguez-Gomez:

The Palomar Health Investigational Review Committee, in its meeting of January 9, 2014, reviewed and approved the protocol and informed consent for the above-mentioned study. The study was approved to be conducted at Palomar Medical Center (which includes Palomar Health Downtown Campus) and Pomerado Hospital.

Prior to initiation of the study, approval must also be obtained from the Administration of the Hospital(s) involved. Studies approved by the Investigational Review Committee may not proceed until after administrative approval is obtained. Please contact Melissa Wallace at (760) 480-7988 or Danny Delosantos at (760) 480-7939 for information on the administrative review process. Study specific laboratory and imaging studies that will be performed as part of the study are required to be ordered on the appropriate form.

The Palomar Health Investigational Review Committee is in compliance with Federal Rules and Regulations and operates in accordance with Good Clinical Practices. Approval of this protocol and informed consent is effective for one (1) year from the initial approval and may not proceed past January 9, 2015 without reapproval by the Palomar Pomerado Investigational Review Committee.

Sincerely,

Richard G. Just, M.D.
Chairman, Investigational Review Committee

Appendix D

**Cover Letter**

12/01/13

Dear Fellow RN,

This is an invitation to participate in an important emergency nursing study investigating the effect professional quality of life may have on communication in the emergency room environment. By taking the time to complete the online survey you will be contributing to the body of research that looks at understanding our experience as emergency room nurses.

Enclosed are three items: a demographic questionnaire, the Professional Quality of Life Scale (2010), and the Silencing Response Scale (2002). The demographic questionnaire will provide information about you and your practice setting. The Professional Quality of Life Scale (ProQOL) and the Silencing Response Scale will provide information on your experiences in the emergency department. Your completion of the survey indicates you fully understand the use of the information you are providing. Please note your responses will be known only to the research team by way of a coding system secured in a password protected data file. The stored data will not be associated with any participants.

I recognize that this may be one more thing to do today but keep in mind that **your participation is voluntary - but if you decide to participate, you will provide us with much needed information to help our colleagues and ourselves**. The total time to participate should only be 15 minutes. Please send in your questionnaire no later than January 1, 2014. I thank you in advance for taking the time from your extremely busy schedule to advance nursing practice by completing this very worthwhile survey.

Elvira Dominguez-Gomez, MSN, RN
University of San Diego
Hahn School of Nursing

Appendix E

## Demographic Tool

1. Gender: ____Female ____Male

2. Age: _____

3. Years in ED/Trauma Nursing:_____

4. Shift: ____Days ____Nights
____Overlap

5. Average hours worked per week: _____

6. Primary Location: (Check one only)
____Palomar
____Pomerado
____PHDC Standby ED

7. Number of traumatic cases in the past year _____

8. Does your primary location provide support systems or resources when dealing with traumatic cases in the ED? _____Yes
_____No

9. Ethnic Group:
___African American
___Hispanic/Latino
___Caucasian
___Asian
___Native American
___Other

10. Highest Degree Completed:
___Diploma
___Associates
___Bachelor's
___Master's
___Doctorate
___Post Doctorate

11. Primary Position: (Check one only)
____ Direct Patient Care/Staff
____ Supervisor
____ Nurse Manager
____ Educator
____ Clinical Nurse Specialist
____ Director/Assistant Director/ VP

12. Would you be willing to participate in a short telephone interview to share your experience? If so, please provide your telephone number and a convenient day and time. Thank you.

_____

_____

_____

Appendix F

## The Professional Quality of Life Scale (Stamm, 2009)

*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.

Appendix G

## The Silencing Response Scale (Baranowski, 1996; 2013)

**INSTRUCTIONS:** This scale was developed to assist helping professionals identify specific communication struggles in their work. Choose the number that best reflects your experience using the following rating system, where 1 signifies rarely or never and 10 means very often. Answer all items to the best of your ability.

---

**1=Rarely/Never ——2——3——4——5——6——7——8——9—— 10=Always**
**Sometimes**

---

(1)____ Are there times when you believe a person you are helping is repeating emotional issues you feel were already addressed?

(2)____ Do you get angry with those you help?

(3)____ Are there times when you react with sarcasm toward those you help?

(4)____ Are there times when you fake interest?

(5)____ Do you feel that listening to certain experiences of your client(s) will not help them?

(6)____ Do you feel that talking about the trauma will be harmful to those you help?

(7)____ Do you feel that listening to the experiences of people you help will hurt you?

(8)____ Are there times that you blame the people you help for the bad things that have happened to them?

(9)____ Are there times when you are unable to believe what people tell you (while in your work role) because what they are describing seems overly traumatic?

(10)____ Are there times when you feel numb, avoidant or apathetic before meeting with certain individuals in your helping role?

(11)____ Do you consistently support certain people to avoid speaking about traumatic memories despite ample time to address their concerns?

(12)____ Are there times when relating to those you help does not seem to be going well or that their treatment progress seems to be blocked?

(13)____ Do you become angry, upset or irritated when someone you are trying to help becomes angry with you?

(14)____ Are there times when you cannot remember what a person you are helping has just said?

(15)____ Are there times when you cannot focus on what a person you are helping is saying?

**TOTAL = _____**

**Scoring**

- To score total all response scores to arrive at the sum of scores.
- High risk = 95 -150; Moderate risk = 41-94; Some risk = 21-40; Minimal risk = 0-20

# Appendix H

## Professional Quality of Life Interview Guide:

Do you give your consent to participate in this study?

Will it be OK to tape record this interview?

Do you have any questions I can answer at this time?

Great, then let's get started:

The first group of questions relates to your emergency room experience.

1. Tell me of a time you felt "traumatized" in caring for a patient. What happened?
   What aspect of this event made it "traumatizing" to you?
   How did this event make you feel?
   Did this event affect your coworkers in any way?
   Can you provide any insight on how the event may/may not have affected your coworkers?

2. What did you do to cope with the situation?
   Do you feel that you were successful in your coping strategy? Why or why not?

3. Did you have trouble communicating with that particular patient after the experience?
   Did you have trouble communicating with the patients family?
   Did you have trouble communicating with the other patients under your care after the experience?

4. Does your facility have resources in place that are activated in situation as the one you described?
   What does that resource entail?
   Do you feel that the resource is helpful?
   What would you recommend?

Ok, that is the end of my prepared questions. Do you have any further comments you would like to make?

Thank you very much for your time. Your passion and dedication for emergency room nursing really shows and we appreciate your feedback. Have a great day.