5-2018

Secondary Traumatic Stress Among Emergency Department Nurses

Melissa Machado
mmachado0732@yahoo.com

SECONDARY TRAUMATIC STRESS AMONG EMERGENCY

DEPARTMENT NURSES

by

Melissa Machado

A Major Paper Submitted in Partial Fulfillment

of the Requirements for the Degree of

Master of Science in Nursing

in

The School of Nursing

Rhode Island College

2018

Abstract

Individuals employed in healthcare services are exposed daily to a variety of health and safety hazards which include psychosocial risks, such as those associated with work-related stress. Nursing is the largest group of health professionals in the healthcare system. Work-related stress has been associated with substandard quality and safety of care, poor health status, decreased quality of life and compromised safety among staff members (Christodoulou-Fella, Middleton, Papathanassoglou, & Karanikola, 2017).

Secondary traumatic stress (STS) is exacerbated in health professionals who are continuously confronted and care for patients suffering traumatic injuries and are critically ill, while experiencing emotional disruption themselves, thus becoming indirect victims of the trauma, they care for (Christodoulou-Fella et al.). The purpose of this study was to explore the prevalence and severity of traumatic symptoms experienced by nurses working in the emergency department (ED) secondary to repetitive exposure of distressing events. The author utilized a 17-item survey to measure symptoms associated with indirect exposure to traumatic events due to profession. Two open-ended questions were added to better understand nurses' views on STS. Results indicated that nurses in the ED are experiencing little to moderate symptoms of STS. Majority of participants indicated they have experienced more than one item asked in the questionnaire at least occasionally or often. A response rate of over 50% of participants specified staff debriefing shortly after being exposed to a traumatic event to be beneficial to reduce symptoms of STS. Replication of this project on a larger scale could serve as the foundation for establishing new policies regarding STS and the need for staff support services or programs.

Table of Contents

Secondary Traumatic Stress among Emergency Department Nurses

Background/Statement of the Problem

Nurses working in the Emergency Department (ED) care for critically ill and trauma-injured patients. Nurses are subject to traumatic stressors regardless if care is being provided in resuscitation, critical care, intermediate or acute care areas (Von Rueden et al., 2010). Repeated exposure to traumatic stressors increases the risk of developing posttraumatic stress disorder (PTSD) symptoms. In individuals who care for patients who endure distressing events, PTSD is referred to as Secondary Traumatic Stress (STS).

According to the Center of Disease Control and Prevention (2016), trauma due to unintentional injury is the leading cause of death for individuals up to 46 years of age. A traumatic injury is the result of a blunt or penetrating force; sports injuries, falls, explosions, sharp objects, bullets, impalement and transportation accidents. The trauma nurse must be prepared for the patients' arrival, quickly and competently assess airway with cervical spine control; breathing, ventilation, and circulation with hemorrhage management if applicable. Utilizing a standardized approach with the primary assessment will promptly address the most life-threatening injuries first. The ED is a predominant place for sudden unforeseen incidences. Unexpected death or trauma of an individual is tragic despite the source of injury. Trauma nurses are regularly subjected to stress working in a high acuity setting such as the ED.

Stress is specific to the individual; one nurse may work in a setting with calmness while another nurse may exhibit stress in the same setting. Psychological stress results when the individual determines their environment to be of significant stress surpassing coping resources available. Failure to identify ones' triggers in an environment may

contribute to interpersonal conflict, depression, burnout, and task failure (Hinderer et al., 2014).

Enduring, a caring concept applied in nursing practice meaning "to last" and refers to the different ways an individual can "get through" unexpected stressful physical or psychological conditions and remain intact (Houghtaling, 2012). Enduring is not a response that can be practiced or learned and individuals do not know what they are capable of enduring until they are confronted with the stressor. Trauma nurses perceive enduring as "being strong" and necessary in order to maintain a cultural norm within the ED. Trauma nurses consciously suppress emotions to maintain control and when witnessing traumatic events (Houghtaling).

Nurses may struggle to process powerful feelings of frustration and hopelessness experienced when a patient does not survive. As the stress levels increase, avoidance behaviors may be exhibited, such as avoid patient contact. When trauma is masked and hidden as a defense against feeling overwhelmed, it may unconsciously provoke confrontational behaviors toward the patient or family by the professional (Missouridou, 2017). A different emotional response experienced by the trauma nurse is referred to as the "savior syndrome", when a nurse attempts to rescue a patient or family member from tragic suffering (Missouridou). Nurses who become over involved in a specific case and demonstrate self-sacrificing behaviors are at increased risk for compassion fatigue.

The European Union spent 20 billion dollars in one year to lost working time and healthcare bills due to worker related stress (Healy & Tyrrell, 2011). Stress related loss of work time statistics are expected to rise annually, making stress one of the highest reported work-related health problems (Healy & Tyrrell, 2011). Work-related stress is

also attributable to workplace absence, effecting healthcare organizations. Witnessing a death of a patient or participating in resuscitation can be mentally and physically demanding. The effects of such stressful incidences can be profound for staff working in these environments.

The purpose of this study was to explore the prevalence and severity of traumatic symptoms experienced by nurses working in the emergency department (ED) secondary to repetitive exposure of distressing events.

Review of relevant literature is presented next.

Literature Review

A comprehensive review of relevant literature from 2004-2017 was performed using Cumulative Index to Nursing and Allied Health Literature (CINAHL) and PubMed databases. Keywords used included emergency room, emergency department, emergency room nurses, trauma, psychological impact, secondary traumatic stress, and nurses in emergency trauma. Articles written in another language aside from English were excluded.

The Trauma Nursing Role

According to Boyd (2011) a major revolution in the delivery of acute medical care occurred in the United States starting in the early 1970's. A new model described as "a systems approach" was developed to improve trauma and cardiac care in emergency care systems. Expanded roles were instituted for nurses in the emergency department. "Trauma nursing" was launched as a specialty role anticipating improved care of critical and complex injured patients in degrees not previously seen in majority of hospitals. The trauma unit in the ED was instituted due to a rising number of critically injured patients admitted to Cook County Hospital in Chicago (Boyd). The increased patient demand became challenging to provide adequate care to individuals critically injured in the existing system.

The trauma unit model was organized into distinct divisions. The first segment was a receiving triage vicinity for adequate evaluation and resuscitation if necessary, dividing these individuals from the large volumes of patients in the ED. A critical care unit would be connected to this segment for patients requiring close monitoring due to multisystem injuries. A laboratory and imaging unit was developed into this model where standard or specific results could be obtained. A trauma program was also created in

order to educate nurses on the latest clinical practices of trauma (Boyd, 2011). The trauma nurse was trained, qualified and permitted to assess and initiate interventions (Boyd, 2011). All trauma nurses were expected to be proficient in resuscitation, hemorrhagic shock, airway stabilization and preoperative critical care.

The Emergency Care Nurse (ECN) role was instituted in London in 2006 (Jarman, 2007). The role was implemented to enhance the skills and knowledge of the emergency care nurse in addition to providing care to patients in a timely manner. The ECN is expected to act as a role model and resource specialist to team members. A survey was distributed six months after the implementation of the ECN role to evaluate staff satisfaction. Out of 122 staff members, fifty-five percent participated in the study. The majority of the respondents (60%) identified the ECN role had a positive impact on patient care (Jarman). Forty-six percent of respondents identified a positive response on the impact of the nursing role in the resuscitation room, while thirty-seven percent gave a neutral response (Jarman). Negative responses were determined to represent a lack of experience among ECN's and deficiencies in the functioning role such as reluctance in performing certain tasks (Jarman). The overall thoughts of the ECN role from participating staff members were positive. In conclusion, improvement in some areas of the role will be vital for its influence on improving patient care.

Expanding evidence reveals a relationship between the quality of care nurses provide, patient outcomes and the nurses' level of qualification and proficiency (Schroeter, 2015). It can be challenging to measure how a patient or patient's family member feels when a nurse is providing care during all segments of treatment. The feelings of those who are on the receiving end of care are often immeasurable; resulting

in the concern that it is difficult to measure (Schroeter, 2015). Traumatic events typically ensue suddenly and without warning. Trauma is the result of serious or complex injuries impeded by heavy machinery, falls or acts of violence. Trauma care is not thinking about the rewards of a hero but providing the care needed for that patient during a crucial time (Schroeter). The trauma nurse is assumed to be an ethical provider, promoting and advocating for the rights, health and safety of nurses and patients (Schroeter). It takes a special type of person to become a nurse as well as a special type of person to work in the domain of trauma.

Trauma nurses are expected to witness their patients' personal crisis, encounter death, handle chaos; all while retaining emotional control and performing proficiently. For instance, a trauma flight nurse caring for a stab wound victim must insert a finger into the wound in order to gauge the depth, with limited time this action is essential to understand anatomy involved and whether surgery is necessary (Houghtaling, 2012). Trauma nurses are confronted daily with their own emotional matters while providing emergency care. An inconceivable amount of stress is placed upon the trauma nurse to perform competently in strenuous situations in attempt to save a patient's life. When seconds are all trauma nurses have, time is limited to premeditate; they must perform whether or not they approve of the care practices that are carried out (Houghtaling).

In the last 20 years, the number of deaths due to injury has climbed 24% along with the rate of death by nearly 1% worldwide (Walter & Curtis, 2015). A significant contributor to this rise in deaths is due to road traffic injuries and falls. It is estimated for every death following injury there are nine who survive with major injuries requiring complex, multidisciplinary care rendering the trauma nurse role to be pivotal (Walter &

Curtis, 2015). The origin of the trauma nurse developed in wartime experiences involving Florence Nightingale in the Crimean War in 1854. In one integrative review, the scope and context of practice of the trauma nurse and their impact and health service outcomes on patients was examined in 56 articles (Walter & Curtis). The literature review revealed the impact of the trauma nurse on the patient and their outcomes showed extensive benefit. The review also mentioned the compelling evidence supporting the implementation of the trauma nurse specialist and its significant progress in patient outcomes (Walter & Curtis).

Secondary Traumatic Stress Disorder

Secondary traumatic stress (STS) is explained as the emotions and consequent behaviors an individual experiences as a result of being exposed to another individuals traumatic experience (Von Rueden et al., 2010). The undesirable effects of secondary exposure to distressing events are equal to those primarily exposed to the traumatic event. The syndrome of symptoms defining STS include; avoidant responses, physiological arousal, distressing emotions and functional impairment (Bride, Robinson, Yegidis & Figley, 2004). The symptoms are comparable to those of posttraumatic stress disorder (PTSD).

Missouridou (2017) noted the perception of PTSD evolved in the wake of the Vietnam War while its formal introduction in the third edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-III)* occurred in the 1980's and has since thrived within the last three decades. Secondary PTSD and its significance remain unclear primarily due to research designs and limitations. According to Missouridou, when trauma is masked as a defense against being overwhelmed, it may induce

confrontational behaviors by the professional towards the patient or family. Stress levels exceeding nurses limitations may trigger avoidance and emotional numbing mechanisms which regulate the intrusive feelings experienced. Absenteeism or avoiding patients who may be reminiscent of a previous traumatic patient encounter are examples of intrusion. Professionals at risk for secondary PTSD can develop distrustful, suspicious and cynical behaviors resulting in diminished esteem of other individuals (Missouridou, 2017).

Secondary traumatic stress is also described as the development of PTSD in healthcare workers (Hinderer et al., 2014). A demographic, behavioral survey and Penn Inventory at a level one trauma center was performed to determine the prevalence of STS in nurses predominantly providing care to critically ill and injured patients. The study utilized a cross-sectional descriptive design. The response rate was 49% (n = 128) out of 262 eligible nurses (Von Rueden et al., 2010). Symptoms of STS were examined in relation to the individuals coping strategies, personal and environmental characteristics and years of experience. Coping mechanisms utilized in response to stress influenced progression of STS. Recognizing one's own level of stress can determine appropriate coping strategies to be utilized to avoid or conquer STS. The researchers learned participants who experienced STS had no differences in personal and environmental characteristics including age, ethnicity, gender, education and marital status in comparison to those showing no present signs of STS (Von Rueden et al.). Nurses revealing STS had fewer years of trauma experience than those with no STS. Potential theories considered experienced nurses use coping mechanisms, greater support systems and possible desensitization following frequent exposure to trauma.

According to Adriaenssens, de Gucht & Maes (2012), the incidence of PTSD symptoms is found to be higher in Emergency Nurses than in other nursing specialties. Nurses working in the ED regularly experience patient death, suicide, traumatic injuries as well as verbal and physical aggression promoting STS. A cross-sectional study conducted in Belgium, surveyed emergency nurses from 15 Emergency Departments. The study investigated the frequency and nature of traumatic events, the percentage of nurses to report symptoms of STS and perceived social support (Adriaenssens et al.). A total of 248 emergency nurses completed the questionnaire of the eligible 302 (Adriaenssens et al.). In the last six months 32% of participants reported confronting two to three traumatic events and 23% reported four or five events with the most distressing event chosen as, "dealing with the sudden unexpected death of a young person" (Adriaenssens et al.). The study concluded nearly a third of the participants exceeded a sub-clinical level of PTSD, anxiety, depression and somatic complaints. One out of seven emergency nurses indicated presence of symptoms related to PTSD (Adriaenssens et al.). The findings are concerning for psychological consequences resulting in absenteeism from work, decreased motivation, change in attitude and quality of nursing care performance.

Compassion fatigue "CF", is a term proposed by Dr. Charles Figley (1995), who explains this also being a reaction from indirect exposure to a traumatic event. Compassion fatigue is characterized as the nurse losing the ability to care for patients. Compassion fatigue is a result from direct exposure of secondary trauma, unlike the development of burnout which can result without repetitive exposure to patients involved in trauma. Compassion satisfaction is used to describe a positive outcome experienced

when working with trauma victims; feeling a sense of accomplishment. A study

performed at a large urban trauma center explored how compassion fatigue, burnout and

compassion satisfaction contributes to the development of STS. The survey had a

response of 128 nurses. Majority of the participants were white (84.4%), female (62.5%),

married (53.9%) with most holding bachelor degrees (72.7%) (Hinderer et al., 2014).

35.9% of participants demonstrated scores suggestive of burnout and 27.3% were

indicative of compassion fatigue (Hinderer et al.). The study findings revealed nurses

working in the ED had higher levels of compassion fatigue whereas burnout levels were

found to be higher in ICU nurses. Compassion fatigue and burnout had the closest

relationship; increased scores projected increased risk of developing STS. Nurses with

high scores of compassion satisfaction were at less risk of STS. Burnout scores were

influenced by negative relationships with coworkers and lack of peer support. An

imperative finding was the high incidence of compassion satisfaction among trauma

nurses who reported strong support systems, positive relationships at work and exercise

(Hinderer et al.).

Stress in the Emergency Department

Emergency departments are predominantly high stress work environments

ensuing distressing effects to healthcare staff. Some stress can motivate staff; however

recurrent exposure to distressing experiences can affect their physical, psychological and

emotional health. Stress negatively influences sleep patterns, appetite and has been

connected to excessive alcohol intake and absenteeism from work.

A descriptive survey performed in Ireland studied nurses' and doctors' attitudes

to, and experiences of stress in the workplace (Healy & Tyrrell, 2011). The study

surveyed three separate Emergency Departments in Ireland. The sample consisted of 90 nurses and 13 doctors (Healy & Tyrrell, 2011). Fifty-one percent of the participants reported "frequently" or "very frequently" experiencing stress while at work and thirty seven percent suggested "occasionally" feeling stressed (Healy & Tyrrell). Stressors frequently identified by respondents included; workload, traumatic events, overcrowding, aggression and violence. The death or resuscitation of a young adult or child was viewed as the third most stressful experience by the participants. The researchers justified this may have been due to a greater part of the sample were female respondents can equate with mothers whose offspring deceased at a young age due to a traumatic event. A large number of participants (76%) specified receiving no support or assistance from employers in dealing with stress (Healy & Tyrrell). The participants who did receive assistance rated it as inadequate. The support services referenced consisted of employee assistance programs, assistance from management or informal assistance from colleagues or family.

The unpredictable environment of the ED also adds to a health care workers stress. Patient safety becomes more challenging when dealing with more than one critically ill patient at a time. Working under heightened high stress in an environment that is emotional or disturbing contributes to patient welfare. Majority of patient safety research is constrained to error reporting systems; particularly when medication related (Ali, Thomson, Graham, Rickard & Stang, 2017). This is an approach that disregards the effects of stress on the healthcare provider as a source of error, limiting the ability to learn from the event and prevent future occurrences (Ali et al.). One commentary discussed emergency care to be further exemplified as a "high-stakes" environment (Ali

et al.). Providing care to a patient in an emergent situation is emotionally stressful. Most of these patients are accompanied by a friend or family member who is also experiencing a considerable amount of anxiety and stress. Healthcare staff who felt accountable and responsible for the emergency treatment being provided to the injured patient classified this heightened state as a "high-stake" circumstance (Ali et al., 2017). Emotional reactions to a patient can lead to adverse clinical outcomes. High stress situations most likely contribute to error in comparison to errors made in less emergent circumstances, and is rarely addressed in healthcare education and trainings.

Nurses are particularly at risk for work related stress, resulting from increased workloads and responsibilities. In Belgium, cross-sectional research explored stress-health outcomes in 254 emergency nurses in comparison to general hospital nursing. Emergency nurses conveyed higher work demands, reduced decision making and less reward than a general hospital nurse (Adriaenssens, De Gucht, Van Der Doef & Maes, 2010). Implications suggested systematic screening of work conditions to prevent stress health predicaments in emergency nurses. Occupational stress can lead to multiple health complications; coronary heart disease, migraines, hypertension, anxiety, depression, or insomnia (Adriaenssens et al.).

Work related stress in the emergency department has been linked to depression and burnout (Laposa, Alden & Fullerton, 2003). Work related stress increases the probability of developing PTSD. Symptoms of PTSD and sources of workplace stress were studied to uncover if a relationship existed and how emergency personnel reacted to workplace stress or trauma (Laposa et al.). The sample for this survey consisted of 51 ED personnel from a large Canadian urban center (Laposa et al.). 20% of staff members were

found to have decreased their hours and considered changing work environment due to stress. A significant number of participants (67%) felt they had not received adequate support from hospital management following a traumatic incident (Laposa et al.). Regardless, very few respondents attended stress debriefings provided after traumatic incidences and none pursued assistance for stress symptoms. Data from this research suggested changes to be made in the interpersonal environment and advancing administrative support to improve PTSD symptoms among staff (Laposa et al.).

Professional burnout has been associated with both work-related and non-work-related elements. Sociodemographic research has shown mixed results of its influencing degrees of burnout amongst emergency healthcare professionals. Previous studies have explored levels of burnout and stress or prevalence between emergency professionals and intensive care providers. Studies have suggested higher levels of burnout in emergency department workers in comparison to other healthcare professions. One study compared the level of burnout in different emergency professional roles across one emergency care system (Schooley, Hikmet, Tarcan & Yorgancioglu, 2016). Emergency occupations studied included; physicians, nurses, technicians and health information technicians. The instrument utilized measured the effects of emotional exhaustion, depersonalization and reduced perception of personal accomplishment. Physicians were found to have the highest scores of emotional exhaustion and the lowest scores of reduced personal accomplishments. Concurrently, results implied all emergency department occupations experience moderate to high levels of burnout (Schooley et al.). The research revealed nurses to have scored high in all three classes of emotional exhaustion, depersonalization and reduced personal accomplishment. Understanding the various factors associated with

burnout can facilitate in the development of programs for training, employee retention and reconsideration of the different employee roles (Schooley et al., 2016). Recognizing burnout and how it individually affects employees as it is an essential component to care as they interact and depend on one another to complete the expected goals of the ED.

Perceptions of Emergency Trauma

Nurses bring to work their own history, experiences and emotions from their life separate of the ED. A professional's emotional response to a critically injured patient or family member can be a result of their own personal history. Self-awareness, acknowledging history of personal loss and unresolved matters along with accepting personal limitations are fundamental tools needed in a setting of suffering. Nurses take on the responsibility of simultaneously caring and providing emotional support to family members of a trauma victim.

Research examining the prevalence of secondary traumatic stress among emergency nurses revealed seventy-five percent (n = 80) of the participants sampled reported at least one STS symptom in the last week (Morrison & Joy, 2016). Symptoms of STS include, intrusive imagery related to a patient, avoidant reactions, physiological arousal, distressing emotions and functional impairment. The research showed thirty-nine percent of participants met full criteria for a diagnosis of STS (Morrison & Joy). The results represent a considerable portion of the emergency nurses sampled indicating STS is significantly prevalent in this professional group. Traumatic events such as resuscitation and death were reported as general factors contributing to the occurrence of STS.

Storytelling allows individuals to maintain some of the greatest and most trivial life events (Donaldson-Anderson, 2017). Humans are effortlessly compelled in sharing personal stories and experiences. Stories are powerful and influential in how we learn, how we teach and the choices we make. In a process of crisis and coping, nurses have the opportunity to involve patients and families to share their stories and provide support to their circumstances as well.

Donaldson-Anderson share her own personal experience. While working in a trauma department as a nurse, she received a phone call from her husband in a state of panic unable to speak and difficulty forming words. She is unable to state what was even said in this conversation but describes the phone call as "life changing". She headed to the radio room of the ED where the paramedic reported: "Father found male infant floating in backyard Jacuzzi," "approximately 5 min," "pupils fixed and dilated," "upper extremity posturing," "assisting respirations with bag-valve mask." (Donaldson-Anderson). She was about to be the nurse for her 14-month old son who was a few minutes out and a trauma code. The resuscitation was depicted as a smooth process and the boy was admitted to an intensive care unit. Unsure of the ultimate prognosis she explained feeling overwhelmed, vulnerable and scared. As the morning arrived she was approached by colleagues, family members and news reporters began to leave voicemails. Donaldson-Anderson explained feeling scared, overwhelmed and declining to speak to anyone about what had happened. Ultimately her son's condition improved, he recovered and was discharged home. Upon arriving home, she was faced again with the media eager to hear the story. She expressed feeling mortified and wanting to run as well as sensing the positive outcomes of sharing her story. She quickly realized that if the

story was going to be told it should come from the primary source and sharing her personal experience in some way may make a difference. Donaldson-Anderson (2017) rationalizes, nurses are typically in a position of educating and providing information as patient and families struggle to make real life decisions on their own. Nurses may feel wary to encourage or motivate conversation during this time, unaware that this is just what the family needs.

Trauma nurses are genuinely drawn to care for those during the most critical moments of human experience. Right before a trauma patient arrives, the nurse will stop to pause and reflect; at the same time experience a sensation of pins and needles in their chest or a pit in their stomach, a feeling instantly forgotten and rarely discussed (Donaldson-Anderson). Minimal research has been conducted in the ED on trauma patients' perceptions of nursing care. A descriptive study of moderately to severely injured patients was conducted in a level I trauma center. Seventy participants were interviewed by researchers on their perception of nurses' caring behaviors prior to being discharged. Patients expressed an overall positive perception of caring from the nursing staff while receiving trauma care (Hayes & Tyler-Ball, 2007). The nursing staff providing care was a diverse group with gender and ethnicity having no effect on perceived nurses' caring behaviors. Results suggested an area of improvement by nursing staff would be the need to spend time with the patient. The study mentions that during the personal interviews patients discussed wanting to talk beyond the related injury and speak about topics of importance to them; family, sports, present news and previous vacations. Additional information gathered found patients to have difficulty separating their care into different stages such as care provided in the ED, intensive care unit (ICU) or step

down. Patients shared their experiences as one big picture. (Hayes & Tyler-Ball, 2007).

The item scoring the highest by patients were that nurses *Always* treated the patient

information confidentially (Hayes & Tyler-Ball).

Moral distress is explained as a psychological disequilibrium of a negative feeling

experienced when the nurse makes a moral decision and then does not follow through by

performing the moral choice indicated (Houghtaling, 2012). Moral distress is also

portrayed as a certain type of grief affecting the function of the nurse's mind and body as

well as their relationships with coworkers and patients. Nurses involved in patient care

troubles, often experience moral and ethical dilemmas which affect both conscious and

unconscious cognitive coping behaviors and the ability to provide patient care.

Houghtaling uses a case study to recognize situations of moral distress. In the context of

the literature a young man arrived to the ED with a gunshot wound to the back of the

neck. The patient exhibited extensive cerebral damage with no chance of survival. The

physician assumed the patient to be a possible organ donor and began to order aggressive

resuscitation and medical procedures. Mary, the primary nurse for the young patient

identified without these measures the patient would die and his organs would no longer

be salvageable for harvesting. It is imperative for all nurses to be able to recognize moral

distress and its destructive effects. Acknowledging and understanding moral distress is

the first step towards taking action. Subsequently, practicing in an ethical environment

supporting nurses and providing resources' centering moral distress is essential.

The theoretical framework is presented next.

Theoretical Framework

The Theory of Unpleasant Symptoms (TOUS) (1997), a model founded in clinical research and practice is centralized around the multifaceted reality comprising the symptom experience. TOUS was established by four nurse researchers who shared a common interest in the experience of different symptoms and the procedure of concept and theory development (Lenz & Pugh, 2008). Symptom experience is perceived differently by each individual. The TOUS observes social, family and organizational systems as well as situational factors in the environment and community impacting the symptom experience (Lenz & Pugh). The model also considers the individuals performance and interaction with others throughout symptom experience.

The TOUS consists of three major concepts; symptoms, influencing factors and performance outcomes (Lenz & Pugh). Symptoms are the central concept measured in dimensions; intensity, distress, time and quality. In some incidences, a symptom occurs triggering a cluster of other symptoms to arise afflicting the individual's experience as deteriorating. The dimensions are influenced by physiologic factors, psychologic factors and situational factors. A symptom experience is impacted differently given the influencing factor alone as opposed to multiple factors involved. The final component of this theory is the outcome concept signifying performance. Unpleasant symptoms experienced by an individual will influence the performance and impact the individuals' outcome. The performance concept consists of multiple dimensions; physical activity and impairment; functional role performance and social interaction (Lenz & Pugh). The composition of the theory is depicted in Figure 1, supporting how physiologic, psychologic and situational factors affect a given symptom(s) and its disposition.
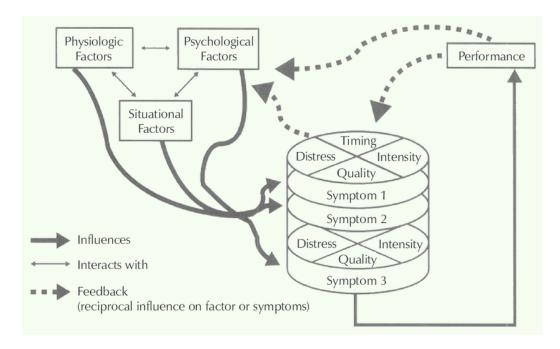
Figure 1. Theory of Unpleasant Symptoms (Lenz, E. R., Pugh, L. C., 2008).

The TOUS was designed to acknowledge symptom complexity and improve symptom management central to nursing practice. Emergency nurses are habitually exposed to traumatic events and chaotic work conditions. Repetitive exposure to such conditions can personally affect the individual and influence quality of care provided. Applying this framework to nurses providing care to patients in critical conditions is important to prevent or manage unpleasant symptoms (anxiety, depression, fatigue) as well as potential negative outcomes. The theory of unpleasant symptoms is designed to enhance understanding of the symptom experience in various contexts, identify factors producing symptoms in order to develop interventions that can be applied when symptoms occur (Lenz & Pugh).

Next, the methodology is presented.

Method

Purpose

The purpose of this study was to explore the prevalence and severity of traumatic symptoms experienced by nurses working in the emergency department (ED) secondary to repetitive exposure of distressing events.

Design

A mixed methods design utilizing a descriptive survey in addition to two open-ended questions was used for this study.

Sample and Site

Rhode Island hospital (RIH) is a 719-bed not for profit academic facility and the only Level 1 trauma center in the region. Convenience sampling was utilized for this study. There are approximately 150 registered nurses (RN) working in the adult ED at RIH. Participant inclusion criteria involved registered nurses currently working in the ED. Participant exclusion criteria included management and educational staff.

Measurement

Basic demographic data included gender, contracted shift and years worked in emergency nursing. The Secondary Traumatic Stress Scale (STSS) a previously validated instrument created by Brian E. Bride PhD, Director of the School of Social Work at Georgia State University granted permission to utilize the questionnaire for this study. The 17-item survey (Appendix A) was administered with a five point Likert response format. The Likert responses ranged from 0-4, with 0= never and 4= very often. The questionnaire was designed to measure symptoms associated with indirect exposure to traumatic events, such as symptoms of intrusion, avoidance and arousal. Data collected was used to examine preventative measures to decrease prevalence of these symptoms

among ED nurses. Two open-ended questions were added to better understand nurses'
views on secondary traumatic stress; What events do you consider to be most stressful at
work? What support services/programs do you feel would be most beneficial to you after
being exposed to a work related traumatic event?

Procedures

Permission to conduct this survey was obtained from the Chief Nursing Officer
(CNO). Lindsay McKeever the Clinical Manager in the ED provided this researcher with
verbal consent to conduct this research in the ED. A proposal was submitted and approval
obtained from the Lifespan and Rhode Island College IRB.

Two weeks prior to survey onset in February 2018 an informational email
(Appendix B) was sent to all eligible RN's, along with verbal announcements during
weekly roll call. At this time, a flyer (Appendix C) was also placed in the break room
with study start dates, explaining the survey and requesting staff participation. At the start
time of the survey February 2018 an email was sent to all eligible nurses with a link to
the anonymous questionnaire on Survey Monkey. Only surveys completed by stated
deadline were utilized. The survey was conducted for a minimum of two weeks. The
informational email (Appendix B) was sent out during the second week of the study and
an additional week was extended due to insufficient participation. Completed survey data
was stored electronically on Survey Monkey and only accessed by this investigator.
Responses are not linked to individual participants and were de-identified.

A raffle was offered to all RN participants in hopes of attracting involvement. A
$25.00 VISA gift certificate was awarded on Monday, April 9, 2018. The raffle winner

was contacted by email. Survey Monkey did not link responses to individual participants, but does identify participants to maintain anonymity.

Researcher contact information including phone number and email was provided on all informational flyers and emails sent. Information regarding counseling services for employees was provided on the informational flyer (Appendix C) in the event a participant experienced any feelings of distress.

Next, the results will be presented.

Results

The target population for this study was RNs who work in the ED at RIH. Fifty-nine nurses completed the survey, for an overall response rate of 39.3%. The gender distribution for the sample included 10 males (16.9%) and 42 females (71.2%), 7 respondents did not specify gender (11.9%). The majority of participants 45.8% (n=27) had less than five years of experience in emergency nursing. Participants working days and evenings comprised 41.4% (n=24) and 37.9% (n=22) of the sample respectively; those working nights represented 20.7% (n=12) of the sample.

The survey included a 17-item instrument designed to measure the psychological effects of indirect exposure to extreme and traumatic stressors. Respondents were asked to read each item and indicate how frequently the item was true for them using a five choice, Likert-type response format ranging from 0 (never) to 4 (very often). Appendix D, illustrates the survey questions and the number of participants who responded to each response category.

The actual mean score for the total scale was 1.51 out of 4; the mean score for the participant responses ranged from 0.96-2.10 out of a possible 4. The highest mean score of 2.10 was related to symptoms of avoidance (question 1). A total of 22 nurses, or 37.3% of participants occasionally felt emotionally numb. A total of 22 nurses, or 38.6% of participants were occasionally annoyed in the last week (question 15; mean = 2.05), demonstrating symptoms of arousal. The lowest mean score of 0.96 was assigned to the question that addressed symptoms of intrusion (question 13) with 25 nurses or 43.9% of respondents rarely experiencing disturbing dreams about their work with clients.

The STS scale questions were designed to measure symptoms of intrusion, avoidance and arousal associated with indirect exposure to traumatic events thru

professional relationships with traumatized clients. Scoring is obtained by summing the items assigned to each subscale; Intrusion (items 2,3,6,10,13), Avoidance (items 1,5,7, 9, 12, 14, 17), and Arousal (items 4, 8, 11, 15, 16). The STS scale differs from other available PTSD measures in that the wording of instructions and the stems of stressor-specific items were devised such that the traumatic stressor was identified as exposure to clients (Bride et al, 2004). Appendix E, illustrates the total mean score of participant responses in each category.

Examining the highest mean score by subscale, symptoms of arousal was the most prevalent amongst participants with a mean score of 1.66. A total of 36.84% or 21 nurses occasionally had trouble concentrating (question 11; mean=1.79). A response rate of 32.14% or 18 nurses occasionally had difficulty sleeping with 14 nurses or 25.0% implied that this occurred often (question 4; mean=1.79). Symptoms of avoidance had the second highest mean of 1.49. A sum of 22 nurses or 37.29% occasionally felt numb (question 1; mean 2.10). A total of 29 nurses or 49.15% occasionally wanted to avoid working with some clients while 16 nurses or 27.12% responded this rarely ensued (question 14; mean=1.86). Symptoms of intrusion resulted in a mean score of 1.39. A total of 19 nurses or 32.76% occasionally thought about work with clients when they didn't intend to whereas 13 nurses or 22.41% responded with often (question 10; mean=1.69). A complete 20 nurses or 33.90% occasionally felt upset by reminders of work with clients (question 6; mean=1.64).

Next participants were asked to answer two open-ended questions. The first question asked for nurses' opinion about what events were considered to be most

stressful at work. A total of 54 participants answered this question and eleven did not respond. The table (Appendix F), illustrates the responses to this question.

Participant responses were varied and ranged from key data that isn't presented on the Secondary Traumatic Stress Scale, like verbally stressful family members, increased patient acuity, lack of resources and supplies, or high patient influx levels. Although the responses were mixed, a common theme emerged when looking at the short answers collectively. Particular pieces of information, such as lack of support, resources, supplies, short staffing and pressure to perform tasks rapidly contributed to symptoms of stress when caring for a traumatically injured patient. The majority of participants considered cardiac arrests, traumas or unexpected deaths to be most stressful events at work.

The second open-ended question asked what support services/programs would be most beneficial after being exposed to a work related traumatic event. A total of 48 participants answered this question and 11 did not respond. Table 4 illustrates the responses to this question.

Table 1

Survey Responses: Beneficial support services and program (n=48)

Debriefing shortly after a traumatic event
Peer Support
Management follow up
In house/department Counseling
One to one with social work
Being provided a few minutes to step away after a traumatic event/ "Code Lavender"
Stress reduction training to staff members
Gym, yoga and meditation

Furthermore, 52% (n=25) of participants suggested debriefing shortly after a

traumatic event would be most beneficial in reducing symptoms secondary to traumatic

stress. As depicted in Table 1, results varied but a common theme emerged. Many

participants confirmed debriefing, peer support, department programs/counseling and

being given a few minutes to step away to collect thoughts after a traumatic event as

advantageous.

Next, summary and conclusions will be presented.

Summary and Conclusions

Nursing personnel make up one of the largest group of health professionals in healthcare systems. Nurses and work-related stress research has been linked to subnormal quality and safety of care, poor health status, decreased quality of life and compromised safety among personnel (Christodoulou-Fella et al., 2017). Secondary traumatic stress symptoms develop in health professionals who come into continuous and close contact with patients who have suffered traumatic injuries, while experiencing emotional disruption themselves, thus becoming indirect victims to the trauma they care for (Christodoulou-Fella et al.). Experiences of emotional exhaustion in nurses have been linked to STS, reduced productivity, low job satisfaction, increased nurse turnover rates, decreased patient safety standards and mental distress such as anxiety and depression.

Symptoms of anxiety and depression have been associated with opposing work behaviors such as avoidance, greater irritability and temper or negative attitude. Mental distress and psychological discomfort such as emotional exhaustion, STS symptoms and moral distress have been correlated with impersonal attitude towards patients, indifference and anger manifestations which negatively influence the quality of interaction with the consumers of health services and colleagues (Christodoulou-Fella et al.).

Secondary traumatic stress develops due to the secondary exposure to traumatic materials. The resulting secondary reactions and stress within the helping professionals are similar to primary traumatic stress reactions from direct exposure. Intrusive thoughts or images, avoidant behaviors and emotional numbing, psychological distress and physiological somatic troubles, hypervigilance, arousal as well as impairment in daily functioning are all common potential effects (Ting, Jacobson, Sanders, Bride, &

Harrington, 2004). The conception of secondary traumatic stress is familiar to researchers and clinicians, the ability to measure and delineate between the symptoms of post-traumatic stress as a result of direct exposure as opposed to indirect secondary exposure to trauma remains challenging (Ting et al.).

The purpose of this study was to explore the prevalence and severity of traumatic symptoms experienced by nurses working in the emergency department (ED) secondary to repetitive exposure of distressing events. In order to accomplish this, an anonymous survey was utilized. The Secondary Traumatic Stress Scale (STSS), a previously validated instrument created by Brain E. Bride. The survey was made available to 148 RNs working in the ED for a period of three weeks. IRB approved flyers and emails were distributed and announcements were made at the start of several shifts by this researcher to publicize the survey.

Participants were asked to complete a survey that included a 17-item survey using Likert responses to indicate how frequently the item was true for them. A total of 59 surveys were completed, which constituted 39.3% response rate. The sample included gender distribution of 16.9% males (n=10), 71.2% females (n=42) and 11.9% anonymous respondents (n=7). An overall 41.4% of nurses (n=24) worked days, 37.9% (n=22) worked evenings and 20.7% (n=12) worked the night shift. Majority of the participants had less than 10 years of experience working in the ED, 66.1% (n=39).

Overall most participants specified occasionally feeling each item to be true for them. Approximately 49.15% of nurses (n=29) occasionally wanted to avoid working with some clients and 42.37% of nurses (n=25) occasionally expected something bad to happen. The three items most prevalent to participants to experience often; feeling

emotionally numb, trouble sleeping and being easily annoyed. Avoiding people, places, or things that reminded one of work with clients was specified by most participants as never, 39.6% (n=23).

Participants were also asked to identify, in short answer form, what events they perceived to be most stressful at work. The 54 nurses who responded to this question mostly identified cardiac arrests and major traumas to be extremely stressful. Nurses were asked to indicate, in short answer form, what support services/programs would be most beneficial after being exposed to a work related traumatic event. Forty-eight nurses responded to this question and over 50% felt staff debriefing shortly after being exposed to a work related traumatic incident as most valuable.

There were several limitations to this study. The survey was based on self-report so the data collected can be inaccurate if nurses did not recall specifics or were not truthful. A convenience sampling method was used at one hospital ED, the results do not accurately represent the broader population. Not all participants responded to every question provided, this may also contribute to data inaccuracy. The demographic data collected was limited to years of experience, shift worked and sex. Further detailed information regarding educational background, age, or ethnicity may have served to evaluate the results more thoroughly and determine if findings were impacted by additional factors.

Based on the findings from this study, it can be concluded that nurses in the ED are experiencing little to moderate symptoms of secondary traumatic stress. The majority of participants indicated they have experienced more than one item asked in the questionnaire at least occasionally or often. All participants in this study have

experienced one or more symptoms of post trauma exposure while working in the ED; intrusion, avoidance and arousal. Nurses revealed that they most often experienced symptoms of arousal which include impaired concentration and memory, sleeping difficulties, physiological reactivity, exaggerated startle response and hyper-vigilance. Nurses similarly experienced symptoms of intrusion and avoidance. Individuals who experience intrusion often re-experience or live again some, or all, of the traumatic event through vivid or disturbing nightmares and flashbacks. The avoidance subscale measures avoidance of stimuli which include people, places or cognition that are correlated with the traumatic event. An overwhelming response rate of over 50% of respondents specified staff debriefing shortly after being exposed to a traumatic event to be beneficial to reduce symptoms of STS.

Recommendations and implications are presented next.

Recommendations and Implications for Advanced Nursing Practice

Virtually all ED nurses are confronted at some point in their careers by the unexpected death of a patient. It is important to be able to appropriately cope with mass casualties or resuscitation of patients' due to traumatic injury. These critical incidences can have devastating effects on the physical and mental health of the ED staff. One way to assist staff manage their reactions to such events is to introduce a debriefing gathering shortly after a stressful event. Implementing staff debriefing can help reduce potential stress responses among staff members.

The first step to reduce the impact of STS is to identify and eliminate barriers identified by nurses. Participants indicated lack of peer support, short staffing, increased patient ratios or acuity and lack of resources and supplies to be greatly stressful while at work. Management participation is essential and plays a vital role in creating a healthy ED work environment. Management will need to acknowledge STS and its impact on nursing staff and commit to interventions to reduce the psychosocial risk related to STS. Nursing leaders at every level, from clinical managers to nursing executives, need to embrace the seriousness of this issue and the ramifications of STS symptoms among nursing personnel that are often unrecognized. A culture of acceptance is necessary by nursing staff as well as other healthcare professionals involved. A mandatory follow-up by management shortly after exposure to a traumatic incident should be instituted. This will be beneficial for both parties as management can assess that debriefing took place and address any remaining concerns the affected nursing staff may have.

This research project established that nurses in this ED are experiencing some level of secondary traumatic stress symptoms. The limitations of this study described earlier make it difficult to make significant generalizations, but the findings of this study

indicate the need for further assessment. The data suggests that a majority of nurses "occasionally" to "often" experience symptoms of STS and feel debriefing as a valuable tool in alleviating symptoms of distress and should occur in a timely manner.

The Advanced Practice Registered Nurse (APRN), is uniquely prepared to lead a process to establish policies, procedures and guidelines to reduce work environment stressors and instituting a department support service or program. ED RNs, all levels of management and administration, and social work should be involved in this APRN led project. In addition, the APRN has the knowledge and skills required to design a larger scale research study to validate the findings of this project. The findings could serve as the foundation for new policies to address STS and staff support services and or programs.

The findings of this survey highlight several additional topics for future research. Replicating this study at other Level I hospital emergency departments in neighboring states might add validity to the findings of this study. If the findings are validated they would highlight the impact of STS on healthcare staff members and act as a catalyst for change. A qualitative study examining the knowledge of hospital management and administration regarding symptoms of STS amongst ED nursing staff could be used to establish baseline data related to the importance of psychological debriefing or support programs for staff working in these unpredictable environments.

Nurses are at an increased risk for work related stress resulting in intrusive thoughts, avoidant behaviors, emotional numbing, withdrawal, anger, anxiety and depression. STS has been linked to high staff turnover, increased sick leave and decreased job satisfaction. In order to reduce STS all healthcare staff as well as hospital

administrators and management as a whole need to be aware of the prevalence of STS. The APRN can assist by participating as a leader and a member of nursing organizations and taking an active role in educating all members of the healthcare facility through evidence based research.

Advanced Practice Registered Nurses are in an ideal role to educate staff about the psychosocial risks associated with work-related stress at staff meetings, public forums, focus groups, and posted written materials. The APRN has the knowledge to disseminate evidence based findings about STS and its negative impact on nurses regularly exposed to traumatic events while at work. Management and administration should be encouraged to actively support and participate in STS education and its consequences for staff and ultimately patient safety. This informational training includes not only nursing but all members of the healthcare team including physicians, residents, and ancillary staff. The APRN can lead the effort as educator, change agent and expert for this critical matter.

Quality improvement investigations through staff surveys and or meetings as well as patient satisfaction survey scores and comments can assist the APRN in understanding the success of the informational trainings/support initiatives and areas for further investigation or improvement. Using their clinical background, the APRN is able to fully understand anomalies and needs for optimization in the support programs and education provided to staff members. The APRN is able to bridge the gap between STS and the importance of reducing the impact of these symptoms among nurses to enhance both staff and patient satisfaction and safety. The APRN can guide healthcare workers to frequently perform self-assessments in order to identify areas of need and seek guidance. It is

important that the APRN be involved in every aspect of this policy implementation as well as ensuring the voices of registered nurses within the ED are heard and included in the decisions recommended and made by the department.

Debriefing would not only provide emotional and psychological support as well as endorsing team spirit. The APRN is optimally prepared to implement strategies to reinforce social support among nurses who experience acute or abnormal stress reactions secondary to traumatic events. Improving work environment stressors and identifying barriers to social support programs is an area for continued research by the APRN.

References

Adriaenssens, J., De Gucht, V., & Maes, S. (2012). The impact of traumatic events on emergency room nurses: Findings from a questionnaire survey. *International Journal of Nursing Studies, 49*, 1411-1422

Adriaenssens, J., De Gucht, V., Van Der Doef, M., & Maes, S. (2010). Exploring the burden of emergency care: Predictors of stress-health outcomes in emergency nurses. *Journal of Advanced Nursing, 67*(6), 1317-1328. doi:10.1111/j.1365-2648.2010.05599.x

Ali, S., Thomson, D., Graham, T., Rickard, S., & Stang, A. (2017). High stakes and high emotions: Providing safe care in Canadian emergency departments. *Open Access Emergency Medicine, 9*, 23-26.

Boyd, D. (2011). Trauma nurses. *Journal of Trauma Nursing, 18*(3), 187-191. doi:10.1097/JTN.0b013e31822bbe76

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), 27-25. doi:10.1177/1049731503254106

Centers for Disease Control and Prevention. (2016, September 19). Key injury and violence data. Retrieved July 10, 2017, from https://www.cdc.gov/injury/wisqars/overview/key_data.html

Christodoulou-Fella, M., Middelton, N., Papathanassoglou, E. E., & Karanikola, M. K. (2017). Exploration of the association between Nurses' moral distress and secondary traumatic stress syndrome: Implications for patient safety in mental health services. *Biomed Research International,* 1-19. Doi:10.1155/2017/1908712.

Donaldson-Andersen, J. (2017). The nurse's role in supporting patients and family in

    sharing personal accounts of traumatic events: A personal experience. *Journal of*

    Trauma Nursing, 24(2), 134-140. doi:10.1097/JTN.0000000000000276

Figley, C. R. (1995). Compassion fatigue: Toward a new understanding of the costs of

    caring.

Hayes, J. S., & Tyler-Ball, S. (2007). Perceptions of Nurses' Caring Behaviors by Trauma

    Patients. *Journal of Trauma Nursing,14*(4), 187-190.

Healy, S., & Tyrrell, M. (2011). Stress in emergency departments: experiences of nurses

    and doctors. *Emergency Nurse, 19*(4), 31-37.

Hinderer, K., VonRueden, K., Friedmann, E., McQuillan, K., Gilmore, R., Kramer, B., &

    Murray, M. (2014). Burnout, compassion fatigue, compassion satisfaction, and

    secondary traumatic stress in trauma nurses. *Journal of Trauma Nursing, 21*(4),

    160-169.

Houghtaling, D. (2012). Moral distress. *Journal of Trauma Nursing, 19*(4), 232-239.

Jarman, H. (2007). The emergency care nurse role: a clinical staff attitude

    survey, *Emergency Medicine. 14*(10), 26-32.

Lenz, E. R., & Pugh, L. C. (2008). Theory of unpleasant symptoms. In Liehr, P. (2nd ed.),

    Middle Range Theory for Nursing (159-182). New York: Springer Pub.

Laposa, J., & Fullerton, L. (2003). Work stress and posttraumatic stress disorder in ED

    nurses/personnel. *Journal of Emergency Nursing, 29*(1), 23-27.

Missouridou, E. (2017). Secondary posttraumatic stress and nurses' emotional responses

    to patient's trauma. *Journal of Trauma Nursing, 24*(2), 110-115.

    doi:10.1097/JTN.0000000000000274

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

Schooley, B., Hikmet, N., Tarcan, M., & Yorgancioglu, G. (2016). Comparing burnout across emergency physicians, nurses, technicians, and health information technicians working for the same organization. *Medicine, 95*(10), 1-6. doi:10.1097/MD.0000000000002856

Schroeter, K. (2015). Trauma nurses: making a difference. *Journal of Trauma Nursing, 22*(3), 120-121. doi:10.1097/JTN.0000000000000132

Ting, L., Jacobson, J., Sanders, S., Bride, B., & Harrington, D. (2005). The Secondary Traumatic Stress Scale (STSS): confirmatory factor analyses with a national sample of mental health Social workers. *Journal of Human Behavior in the Social Environment,* 11(3/4), 177-194.

Von Rueden, K., Hinderer, K., McQuillan, K., Murray, M., Logan, T., Kramer, B., Friedmann, E. (2010). Secondary traumatic stress in trauma nurses: prevalence and exposure, coping, and personal/environmental characteristics. *Journal of Trauma Nursing, 17*(4), 191-200.

Walter, E., & Curtis, K. (2015). The role and impact of the specialist trauma nurse: an integrative review. *Journal of Trauma Nursing, 22*(3), 153-169. doi:10.1097/JTN.0000000000000126

Appendix A

Questionnaire by Bride, E. B. (1999)

SA-8. Secondary Traumatic Stress Scale

The following is a list of statements made by persons who have been impacted by their work with traumatized clients. Read each statement then indicate how frequently the statement was true for you in the past **seven (7) days** by circling the corresponding number next to the statement.

NOTE: "Client" is used to indicate persons with whom you have been engaged in a helping relationship. You may substitute another noun that better represents your work such as consumer, patient, recipient, etc.

	0	1	2	3	4
	Never	Rarely	Occasionally	Often	Very Often
1. I felt emotionally numb					
2. My heart started pounding when I thought about my work with clients					
3. It seemed as if I was reliving the trauma(s) experienced by my client(s)					
4. I had trouble sleeping					
5. I felt discouraged about the future					
6. Reminders of my work with clients upset me					
7. I had little interest in being around others					
8. I felt jumpy					
9. I was less active than usual.					
10. I thought about my work with clients when I didn't intend to					
11. I had trouble concentrating					
12. I avoided people, places, or things that reminded me of my work with clients					
13. I had disturbing dreams about my work with clients					
14. I wanted to avoid working with some clients					
15. I was easily annoyed					
16. I expected something bad to happen					
17. I noticed gaps in my memory about client sessions					

Appendix B

Informational email to be sent to ED staff members.

From: Melissa Machado

To: (ED staff at RIH)

Subject: Secondary Traumatic Stress amongst Emergency Department Nurses

Hello, my name is Melissa Machado and I'm a graduate student at Rhode Island College and also a Lifespan employee. I am writing to invite you to participate in a quality improvement project that I am conducting. The purpose of this project is to explore the prevalence and severity of Secondary Traumatic Stress (STS) symptoms experienced by nurses' due to repetitive exposure of distressing events while working in the ED. Your participation in this project will provide insight and indicate if there is a need to implement essential services and education to reduce symptoms of STS amongst healthcare staff.

If you choose to be a participant in this project, you will be asked to complete an online survey via Survey Monkey, the link to the survey will be provided to you. Completing the survey will take approx. 10-12 minutes of your time and will be available for a two-week time period. Participation is voluntary; all participants will be entered into a drawing for a $25 VISA gift card.

Thank you for your time,

Melissa Machado RN, BSN

Rhode Island College

(401) 569-1297

mmachado1@lifespan.org

Appendix C

Informational Flyer

ED Quality Improvement Project Survey

Who is eligible: Registered Nurses currently employed in the ED at time of research.

What is the purpose of this project? The purpose of this project is to explore the prevalence and severity of Secondary Traumatic Stress (STS) symptoms experienced by nurses' due to repetitive exposure of distressing events while working in the ED.

When does this survey take place? February 2018

Why should I participate? Participation is voluntary; your participation will provide insight to determine if there is a need to implement essential services and education to reduce symptoms of STS amongst healthcare staff.

How can I participate? If you choose to be a participant in this project, you will be asked to complete an online survey via Survey Monkey; the link to the survey will be emailed to you. Completing the survey will take approximately 10-12 minutes of your time.

Coastline Employee Assistance Program
Employee Assistance from Coast to Coast
Participants who experience feelings of distress at any time throughout this survey may seek further support from this employee assistance program. A program designed to provide services to Lifespan employees to help reduce stress-related challenges resulting from natural disasters, accidents, suicides and deaths.
(800) 445-1195
(800) 833-0453

For more information in regard to the survey, contact:

Melissa Machado (401) 569-1297 or mmachado1@lifespan.org (Rhode Island College MSN Student and Registered Nurse at Rhode Island Hospital) or

Marie A. Wilks at (401) 456-6362 or mwilks@ric.edu or

Lifespan IRB contact/Faculty Cynthia Padula at cpadula@ric.edu

Appendix D

Survey Responses (n=59)

	Never	Rarely	Occasionally	Often	Very Often	Total	Mean Scores
1. I felt emotionally numb	4	13	22	13	7	59	2.10
2. My heart started pounding when I thought about my work with clients	11	19	20	8	1	59	1.47
3. It seemed as if I was reliving the trauma(s) experienced by my client(s)	15	24	14	6	0	59	1.19
4. I had trouble sleeping	8	14	18	14	2	56	1.79
5. I felt discouraged about the future	14	17	16	8	3	58	1.47
6. Reminders of my work with clients upset me	5	24	20	7	3	59	1.64
7. I had little interest in being around other	10	22	17	7	0	56	1.38
8. I felt jumpy	15	24	15	3	1	58	1.16
9. I was less active than usual	11	17	22	5	2	57	1.47
10. I thought about my	11	13	19	13	2	58	1.69

work with clients when I didn't intend to						
11. I had trouble concentrating	9	21	21	5	1	57	1.44
12. I avoid people, places, or things that reminded me of my work with clients	23	16	14	3	2	58	1.05
13. I had disturbing dreams about my work with clients	18	25	12	2	0	57	0.96
14. I wanted to avoid working with some clients	4	16	29	4	6	59	1.86
15. I was easily annoyed	2	15	22	14	4	57	2.05
16. I expected something bad to happen	4	16	25	11	3	59	1.88
17. I noticed gaps in my memory about client sessions	18	24	11	4	1	58	1.07

Appendix E

Total mean score of participant responses for each subscale

Subscale	Item numbers	Weighted Average for each item	Total Mean Score
Intrusion	2	1.47	1.39
	3	1.19	
	6	1.64	
	10	1.69	
	13	0.96	
Avoidance	1	2.10	1.49
	5	1.47	
	7	1.38	
	9	1.47	
	12	1.05	
	14	1.86	
	17	1.07	
Arousal	4	1.79	1.66
	8	1.16	
	11	1.44	
	15	2.05	
	16	1.88	

Appendix F

Survey Responses: Most stressful events at work (n=54)

Code Blue/CPR
Major trauma and or traumas
Unexpected deaths
Death of a young patient
Lack of support
Short staffing
Increased patient ratios or acuity
Verbally stressful family members
High patient influx
Lack of resources and supplies
Strokes/brain bleeds
Difficult patients
Pressure to perform tasks quickly
Potential of a friend or relative arriving as a trauma
"Nurse bullies"