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FACTORS CONTRIBUTING TO THE NEGATIVE AND UNHEALTHY
PSYCHOLOGICAL CONDITIONS IN THE ED RN

by

ARIANA M. NIEVES

A thesis submitted in partial fulfillment of the requirements
for the Honors in the Major Program in Nursing
in the College of Nursing
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Abstract

The emergency department is a stressful environment. Emergency department registered nurses (ED RNs) are at an increased risk of development of negative and unhealthy psychological conditions due to their frequent exposure to stress and traumatic events. These conditions include post-traumatic stress disorder, compassion fatigue, and burnout syndrome, which are already known to be common in the emergency department registered nurse population. It is important to understand the factors that influence the development of these psychological conditions in order to provide better education to nurses regarding prevention of the development of these psychological conditions. This literature review aimed to identify articles that examined the factors associated with post-traumatic stress disorder, compassion fatigue, and burnout syndrome. Databases searched included but were not limited to CINAHL, MEDLINE, and PsycINFO. The determinants discussed in this paper include personality traits, social support, coping style, workplace violence, work environment, internal perceptions held by the nurse, and external perceptions held by the patient. Limited research exists regarding the factors influencing the development of compassion fatigue in the ED RN.

Dedication

To my mother, my role model, my confidant, and my very best friend. Thank you for your endless and unwavering support and confidence in me. Without you, nothing I have accomplished would be possible. You are my reason for strength, bravery, and ambition.

To my fiancé, Jordan, thank you for your love, encouragement, and support. Thank you for sharing my victories as your own and for taking pride in everything I do. Thank you for being my partner in all things and for choosing to do life with me. I love you most.

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Background

The emergency department is an ever-changing, fast-paced, and stressful environment. Patients in the emergency department (ED) suffer from a vast array of injuries and ailments that are often severe and life-threatening. Registered nurses (RNs) who work in the emergency department may be subject to increased levels of stress due to their cumulative and frequent exposure to traumatic events, putting them at increased risk for the development of negative and unhealthy psychological conditions such as post-traumatic stress disorder, compassion fatigue, and burnout.

Post-Traumatic Stress Disorder

Post-traumatic stress disorder is a psychiatric disorder that develops after exposure to a traumatic event (Johnson, 2017). Traumatic events (TE) are defined as situations that are so extreme, so severe, and so powerful that they threaten to overwhelm a person's ability to cope, resulting in unusually strong emotional, cognitive, or behavioral reactions in the person experiencing the event (Adriaenssens, de Gucht, & Maes, 2012). Originally, post-traumatic stress disorder (PTSD) was referred to as "shell-shock" and associated with military combat veterans of World War I (Parekh, 2017). However, since the publication of the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) in 1994, both victims *and* witnesses of TEs beyond those of combat and war can be diagnosed with PTSD (Lavoie et al., 2016). This distinction remains the same in the current version of the Diagnostic and Statistical Manual of Mental Disorders, the DSM-V (American, 2013a).

The DSM-V lists PTSD under Trauma-and Stress-or-Related Disorders (Parekh, 2017). To receive a diagnosis of PTSD, an individual must be exposed to actual or threatened death, serious injury, or sexual violation in which the individual directly experiences or witnesses the TE, learns of the TE that occurred to a close family member or friend, or experiences first-hand repeated or extreme exposure to aversive details of the TE that is not through media, such as pictures, movies, or television, unless work-related (Parekh, 2017).

PTSD is further characterized by re-experiencing the TE through flashbacks, nightmares, intrusive thoughts, emotional distress or physical reactivity, and avoidance of trauma-related stimuli and negative thoughts surrounding the trauma (Johnson, 2017). In accordance with DSM-V diagnostic criteria, a diagnosis of PTSD can only be made if all of the aforementioned criteria exist as well as trauma-related arousal and reactivity that began or worsened after the trauma in the form of irritability or aggression, risky or destructive behavior, difficulty concentrating or sleeping, or heightened startle reactions or hyper-vigilance. These symptoms must be present for at least one month and create distress or functional disability for a diagnosis to be made (Johnson).

One US-based study of the prevalence of PTSD found that out of 9,282 participants over 12 months, 3.5% of individuals had PTSD (Lavoie et al, 2016). Studies specific to emergency department nurses have shown that the prevalence of PTSD is somewhere between 9% and 33% (Lavoie et al). The prevalence of PTSD is at least three times greater in ED RNs than among the general population. In the ED RN population, nurses can experience PTSD triggering events as either a witness (i.e. self-inflicted injuries or death) or as a victim (i.e. physical assault) (Lavoie et al). A systematic review conducted by Donnelly and Siebert in 2009 showed that 82-100% of

emergency personnel are frequently exposed to work related TEs (Adriaenssens et al, 2012). In this study, Adriaenssens et al similarly found that only 13% of ED RNs reported they had *not* experienced a TE in the previous six months.

Laposa, Alden and Fullerton (2003) discovered that 27% of emergency personnel, including nurses, physicians, technicians, housekeeping, and nursing unit clerks, reported that their PTSD symptoms interfered with their ability to perform their job tasks. PTSD also has the potential to lead to a decrease in job satisfaction and a loss of productivity (Adriaenssens et al, 2012). The negative experiences and symptoms associated with PTSD contribute to increased absenteeism and an increase in psychosomatic distress, sick leave and staff turnover (Adriaenssens et al, 2012).

Compassion Fatigue

Another result of exposure to traumatic events is secondary traumatic stress, more commonly known as compassion fatigue. Secondary traumatic stress syndrome (STSS) was first defined by Figley in 1995 as a probable result of the stress of ‘helping or wanting to help a traumatized or suffering person’ (Duffy, Avalos, & Dowling, 2014, p. 53). Later, STSS was further described as the emotional stress experienced (by the nurse) from the trauma or suffering of another (the patient) (Dominguez-Gomez & Rutledge, 2009). STSS and compassion fatigue (CF) are synonymous and can be used interchangeably. With the expansion of the criteria as to what makes up an event that may precipitate a diagnosis of PTSD in an individual, it can be difficult to distinguish what separates PTSD from CF. The symptoms of CF and PTSD are extremely similar, however, it is the *stress* of helping or wanting to help a traumatized or suffering individual that leads to the development of CF, rather than direct or secondary

exposure to a TE, as is the case with PTSD (Beck, 2011; Dominguez-Gomez & Rutledge, 2009). Additionally, CF can develop suddenly, without warning or previous symptoms, whereas PTSD symptoms must be present for a month before a diagnosis can be made (Beck, 2011; Johnson, 2017). The defining symptoms of CF are:

“increased negative arousal, intrusive thoughts/images of another’s critical experiences, difficulty separating work from personal life, lowered frustration tolerance, increased outbursts of anger or rage, dread of working with certain individuals, depression, ineffective and/or self-destructive self soothing behaviors, hypervigilance, decreased feelings of work competence, diminished sense of purpose/enjoyment with career, lowered functioning in nonprofessional situations, and loss of hope” (Beck, 2011, p. 3).

The ED RN’s job is to care for traumatized or suffering patients. With this in mind, it is not surprising that one study found that 85% of the 67 ED RNs surveyed had reported at least one symptom of compassion fatigue within the last week, and 33% met the diagnostic criteria for CF (Dominguez-Gomez & Rutledge, 2009). Another study found almost twice that level of CF, at 64% of ED RNs experiencing compassion fatigue (Duffy et al, 2014).

Compassion fatigue may lead to increased levels of job turnover and separation from nursing (Dominguez-Gomez & Rutledge, 2009). The study conducted by Duffy uncovered that 61% of the 105 nurses surveyed found alcohol helpful in reducing work-related stress (Duffy et al, 2014). Only 26% of nurses in this study who indicated they found alcohol helping in relieving work-related stress were *not* suffering from CF (Duffy et al, 2014).

Burnout Syndrome

Burnout syndrome (BOS) gradually develops as the result of interpersonal and/or emotional stressors and is characterized by three dimensions: emotional exhaustion, depersonalization, and lack of personal accomplishment (Mealer, Burnham, Goode, Rothbaum, & Moss, 2009). BOS can be distinguished from compassion fatigue because it is the result of the work environment, not from caring for people who are suffering (Dominguez-Gomez & Rutledge, 2009). Emotional exhaustion, which is considered to be the first stage of BOS, means being overwhelmed by work (Mealer et al., 2009). When an individual's 'emotional reserves are depleted', they begin to feel that they can no longer provide high quality care, leading to feelings of extreme exhaustion, and being completely drained of all physical and emotional energy and strength (Adriaenssens et al., 2015, p. 650). BOS continues to develop and next manifests in the individual as depersonalization, or detached, impersonal feelings towards the patients they are caring for (Mealer et al., 2009). This stage includes the development of feelings and behaviors of cynicism and negativism (Adriaenssens et al.). Lack of personal accomplishment, the third and final core concept in BOS, is defined as negative self-evaluation and a perception of reduced achievement in working with people (Mealer et al.). Individuals often fail to achieve goals (Adriaenssens et al.). The general consensus in the current literature is that emotional exhaustion is the key component of BOS (Adriaenssens et al, 2015).

The nursing profession as a whole is known to have significant levels of BOS, but it occurs at an even higher rate in ED RNs (Adriaenssens et al, 2015). Mealer et al., 2009, found that BOS and PTSD often occur simultaneously. Ninety-eight percent of nurses who met the DSM-IV diagnostic criteria for PTSD were also positive for BOS (Mealer et al). This study was published four years before the publication of the DSM-V in 2013 and as such, the language and

diagnostic criteria for PTSD has changed since the publication of Mealer et al's study. These changes include better defining the types of events that are considered traumatic, adding a fourth diagnostic cluster, and placing more emphasis on the behavioral symptoms of PTSD (American, 2013b). The language in the DSM-IV stating that an individual must exhibit intense fear, helplessness or horror has been deleted from the DSM-V, as it was determined that these criteria were not useful in predicting the onset of PTSD (American, 2013b). The nurses in this study on average worked as nurses 11.6 years fewer than nurses who did not have PTSD or BOS (Mealer et al).

Nurses, their patients, and the healthcare system as a whole are negatively impacted by BOS. Links have been found between individuals experiencing BOS and musculoskeletal disorders, depression, anxiety, stress disorders, obesity, insomnia, hypertension, and substance abuse (Rozo, Olson, Thu & Stutzman, 2017; Adriaenssens et al, 2015; and Abellanoza, Provenzano-Hass, & Gatchel, 2018). BOS can lead to a lack of empathy towards patients and an increase in medication errors, which both negatively impact the patient (Rozo et al). BOS also contributes to economic loss due to increased absenteeism, higher turnover rates, and a consequent rise in the cost of healthcare (Adriaenssens et al).

Significance

Repetitive exposure to traumatic events can result in the development of significant psychological disorders (Adriaenssens et al, 2012). ED RNs, who are consistently bombarded with TEs and tasked with caring for those who are suffering, are a highly vulnerable population that is at an increased risk of developing negative/unhealthy psychological conditions like PTSD, CF, and BOS. These conditions impact the physiologic well-being on the ED RN, leading to a variety of physical and psychological symptoms. When ED RNs are dealing with PTSD, CF, and/or BOS, it leads to a loss of productivity, an increase in absenteeism and an increase in turnover rates, which adds financial burden to the healthcare system and the growing shortage of nurses. This even impacts patient care and safety. Increased knowledge of the contributing factors can lead to a more proactive approach with these psychological conditions by both the nurse and the ED leadership.

Purpose

While there is a large body of research detailing the effects that PTSD, CF, and BOS have on nurses, patients, and the healthcare system as a whole, research on the precipitating factors to these conditions is less available and scattered. Knowledge of the minutia that contribute to the development of negative and unhealthy psychological conditions can help to improve identification of and education about these phenomena to aid ED RNs in coping with or protecting themselves against the traumatic events they experience. The purpose of this study is to summarize the current knowledge of factors that contribute to the development of negative and unhealthy psychological conditions the ED RN may experience and consolidate them into one paper.

Methods

An article search was conducted using multiple databases available via the UCF Library system including, but not limited to, CINAHL Plus with Full Text, MedLine and PsychInfo. The search terms that were used initially are "Emergency Service", "emergency room*", "emergency department*", "Emergency Nurs*", nurse*, stress*, "Burnout, Professional", "Compassion Fatigue", "Stress Disorder", "Post-Traumatic", "PTSD" and "Post-Traumatic Stress Disorder*". The inclusion criteria used were peer-reviewed publications available in full text and the English language with a focus on subject matter pertinent to the experience of stress by emergency room or department nurses. Exclusion criteria included editorials, non-peer reviewed publications and publications not available in full text English language publications.

The preliminary article search returned 168 results. A title review was completed and articles that were not related to emergency department nurses, and either PTSD, BOS, STSS, or CF were excluded, leaving 85 articles. Next, an abstract review was conducted. Articles that were not specific to ED RN's (such as those that also included ED physicians) were excluded. Finally, an article review was completed of the remaining 33 articles. At this stage, articles were only included if they discussed determinants of either PTSD, STSS, CF, and/or BOS in ED RNs. Following this process, the remaining seven articles were scrutinized for inclusion in this paper.

A second article search was conducted using the same databases as the previous search but using different search teams. These search terms were: "(MH "Compassion Fatigue"), (MH "Emergency Service") OR "emergency room*" OR "emergency department*" OR (MH "Emergency Nursing")", "nurs*", and "causes or factors or determinants or contributing factors or determining factors". This search initially yielded twelve results: one periodical, five articles that did not have the full text available, one article not specific to ED nurses, one article that

studied ED physicians, and two articles that did not examine factors influencing the development of CF were excluded. This left two articles to be examined.

Discussion

Post-traumatic stress disorder, compassion fatigue, and burnout are all the cumulative result of exposure to traumatic events and stress experienced by the emergency department nurse. The following sections discuss the risk factors associated with the development of PTSD, CF, and BOS in the ED RN. The factors discussed include personality traits, coping styles, and social support.

Post-Traumatic Stress Disorder

Several risk factors for the development of PTSD have already been identified, including the severity of the TE experienced, the perception of threat to one's life, peri-traumatic distress (the stress felt during and immediately after a TE), the presence of a subsequent stressful event and inadequate social support (Lavoie et al, 2016). These risk factors are not specific to the ED RN.

A cross-sectional descriptive correlational study conducted by Lavoie et al in 2016 aimed to describe the risk factors for PTSD in the ED RN. Lavoie et al examined pre-traumatic, peri-traumatic, and post-traumatic variables. The pre-traumatic variables included age, gender, work experience, personality, past exposure to a TE, and coping strategies. Personality was examined using the *Big Five Inventory Personality Test* that cites the five personality traits as extraversion, agreeableness, conscientiousness, neuroticism, and openness. Lavoie et al further describe these traits based on John and Srivastava's (1999) original definitions as:

‘Neuroticism represents a heightened propensity to experience negative affects and emotions such as anxiety, dysphoria, and irritability in response to environmental stressors. Extraversion represents a disposition to being energetic and positive, and a tendency to actively seek out social relations and strong sensations. Agreeableness

represents a propensity to display a prosocial, empathetic and conciliatory attitude toward others. Conscientiousness represents a propensity for organization, planning, self-control, and respect for social norms and conventions. Lastly, openness to experience represents a propensity for intellectual curiosity, imagination and the appreciation of new and cultural values or experiences.' (2016, p. 177).

The peri-traumatic variable was peri-traumatic distress (PD) and was measured using a 13-item French language questionnaire (Lavoie et al, 2016). Post-traumatic variables examined were PTSD symptoms and social support systems the individual had in place (Lavoie et al, 2016).

Lavoie et al found that of the pre-traumatic factors, nurses that identified with the personality trait of neuroticism were positively associated with the development of PTSD, while those identifying with the personality trait of extraversion were negatively associated with PTSD (2016). In other words, in this study neuroticism was a risk development of PTSD, extraversion was a protective factor against PTSD. Exposure to grief-type TEs was positively correlated with symptoms of PTSD. Grief-type TEs are described as events that could cause individuals to feel intense fear, helplessness, or horror such as the death of a colleague, intentional harm to a child, and the suicide of a patient (Lavoie et al).

Of the peri-traumatic and post-traumatic factors analyzed, a positive association was found between PD symptoms of feelings of intense fear, helplessness or horror in the first seven days after a TE and the PTSD symptoms of re-experiencing, avoidance and hyperactivity or a high overall PTSD score (Lavoie et al, 2016).

No association of statistical significance was seen between the post-traumatic factor of social support and PTSD symptoms (Lavoie et al, 2016). Despite the measure failing to meet statistical significance, Lavoie et al cite that their results suggest that seeking social support is negatively associated with PTSD. The study also points to two coping styles: problem-solving coping and avoidant-style coping. Problem-solving coping (also called problem focused or task oriented coping) is a coping mechanism in which the individual tries to reframe the problem or solve it, or alter the situation that is causing them distress (Adriaenssens et al, 2012). Avoidant-style coping involves efforts such as denial, mental disengagement, wishful thinking and emotional suppression that are largely unhelpful and may have a long-term impact on mental wellbeing (Adriaenssens et al, 2012). While no statistical significance was found in Lavoie et al's study between coping strategy and PTSD, the results indicated a negative relationship between problem-solving coping and PTSD while avoidant-style coping seemed to have a positive relationship (2016).

Although the study conducted by Lavoie et al (2016) did not show statistical significance in the correlation between social support, coping style, and PTSD, other studies have found a relationship of significance. Adriaenssens et al (2012) found that emotion-focused coping (blaming oneself for being too emotional, anger, tension, self pre-occupied and fantasizing) was significantly related to post-traumatic stress symptoms, psychological distress, somatic complaints, fatigue, and sleep problems, with the strongest associations for psychological distress and fatigue. Avoidant-style coping was associated with an increase in somatic complaints while problem-solving style coping was less related to psychological distress and fatigue (Adriaenssens et al). Social support was found to have a small but significant impact on

the presence of post-traumatic stress symptoms, psychological distress, somatic complaints, fatigue, and sleep problems in those surveyed (Adriaenssens et al). ED RNs who considered themselves to have qualitative support from their supervisor exhibited less post-traumatic stress symptoms, psychological distress, somatic complaints, and fatigue (Adriaenssens et al). This finding falls in line with existing research that shows individuals with access to social support in stressful situations have better outcomes than those without access to social support (Adriaenssens et al).

Certain qualities of the ED, like its fast-paced environment and its tendency towards overcrowding, force ED RNs to learn to prioritize their patients and their time (Gates, Gillespie, & Succop, 2011). Gates et al cite a growing body of knowledge suggesting that tasks like this are well-learned and are more resistant to the negative effects of stress. The study conducted by Gates et al examined how the relationship between productivity was impacted by workplace violence and PTSD symptoms and while the study found that exposure to violent events was related to a decrease in productivity, there was not a significant relationship between PTSD symptoms and a decrease in productivity (Gates et al). Gates et al lend this finding to the concept of cognitive resilience, which is defined as the “capacity to overcome the negative aspects of an event and the associated stress on cognitive function or performance” (p. 64). The routine patient care skills and procedures that ED RNs perform each shift become second nature and are often executed more automatically, requiring little cognitive processing (Gates et al).

However, when an unpredicted event occurs, like workplace violence, ED RNs may have more difficulty coping because it lacks the same familiar stress that comes with more routine events such as overcrowding (Gates et al, 2011). This negative reaction to stress and inability to

cope could lead to the development of negative and unhealthy psychological conditions. Ninety-four percent of ED RNs surveyed had experienced *at least* one PTSD symptom following a violent workplace event (Gates et al). Seventeen of those nurses had scores high enough on the Impact of Events Scale-Revised, which assess the magnitude and presence of PTSD symptoms, to be considered for a probable diagnosis of PTSD (Gates et al). Fifteen percent of the ED RNs surveyed had scores high enough to be associated with a probable diagnosis of PTSD *and* depressed immune functioning as a result of the severe psychological stress and trauma (Gates et al). These findings suggest that workplace violence is another factor that contributes to the development of PTSD in the ED RN.

Compassion Fatigue

Literature regarding the determinants of STSS or CF in the ED RN is not as prevalent. Two studies were identified that aimed to determine factors influencing the development of CF in the ED RN. The first study was conducted in Western Scotland and used an empirical research design. Researchers collected quantitative data, and then invited a random sample of study participants to participate in a focus group (Morrison & Joy, 2016). They found that the ED RNs associated acute stressors like resuscitation and death as factors influencing the development of CF. These acute stressors become aggravated by other stressors like workload and aggression, which “heightens the experience of” CF (p. 2903). This can be taken to mean that CF is worsened by compounding stressors. In this study, the ED RNs who expressed these feelings were younger than those who did not express these feelings as much. This study had a relatively low response rate: one entire emergency department dropped out of the study due to “an ongoing

departmental education programme”, leaving 150 remaining ED RNs that participated (p. 2899). Of these, only 53.3% of questionnaires were returned.

The second study conducted by Hunsaker, Chen, Maughan, and Heaston in the United States in 2015 relayed similar determinants influencing the development of CF. Older ED RNs in their study displayed higher levels of compassion satisfaction, and lower levels of compassion fatigue when compared to younger nurses. More years in the nursing profession and in the ED specifically were also related to lower levels of CF, along with higher levels of education, shorter shift length, and adequate manager support at work. This study also had a low response rate at only 28%, making these findings difficult to generalize to the greater population of ED RNs.

Burnout Syndrome

A systematic review of the determinants and prevalence of burnout in emergency nurses was conducted in 2015 by Adriaenssens et al and summarized 25 years of research about burnout. Seventeen studies were included in the review. The determinants of burnout were categorized into individual factors (demographic characteristics, personality characteristics, coping strategies, and job attitudes) and job-related factors (exposure to traumatic events, job characteristics, and organizational factors).

In the ED RN population, age was found to be related to burnout in two studies, although the results are conflicting. One study reported that increased age was associated with higher levels of personal achievement (burnout is characterized by low levels of personal achievement), while another study found that increased age was associated with lower levels of personal achievement (Adriaenssens et al, 2015). Neither study found any significant relationship between the other two dimensions of burnout, emotional exhaustion and depersonalization, and burnout

(Adriaenssens et al). No other studies found relationships between age and burnout (Adriaenssens et al). Seniority and gender were also examined as demographic factors, and neither had any statistical significance in any of the studies synthesized (Adriaenssens et al).

Personality factors were not frequently reported as determinants of burnout in the ED RN population and were only cited in two studies (Adriaenssens et al, 2015). The first of these studies suggested individuals with hardy personalities (involvement in daily activities, a sense of control over events, and openness to change) tend to view events as more meaningful (increasing their level of commitment), challenging, and under their control, which carried a strong negative correlation to emotional exhaustion (Adriaenssens et al). The same negative correlation was found between commitment and control for depersonalization, while personal achievement was positively correlated with commitment, control, and challenge (Adriaenssens et al). The second of these studies reported that lack of flexibility, stubbornness, judgmental behavior, and difficulty adapting as determinants of burnout (Adriaenssens et al).

Regarding coping strategies, significant positive correlations between avoidant behavior and emotional exhaustion and depersonalization were reported (Adriaenssens et al, 2015). In the same study, a negative correlation was found between avoidant behavior and personal achievement (Adriaenssens et al). These findings indicate that avoidant style coping is associated with the development of burnout. One study found that feelings of mastery mediated occupational stressors and depersonalization and provided for a negative relationship between the two (Adriaenssens et al). Increased feelings of mastery of skills and procedures led to lower levels of depersonalization (Adriaenssens et al).

While job attitudes and goal-setting have often been explored in the general population in relation to the development of burnout, the studies specific to the ED RN did not examine these factors as potential determinants of burnout in the ED RN.

Exposure to traumatic events was frequently investigated as a factor influencing the development of burnout among the included studies. One study found that ED RNs who reported exposure to a traumatic event within the previous six months has higher levels of emotional exhaustion and depersonalization than non-exposed ED RNs (Adriaenssens et al, 2015). No significant difference was found between exposed and non-exposed nurses in relationship to personal achievement (33% of exposed vs. 35% of non-exposed) (Adriaenssens et al). Sixty-nine percent of ED RNs exposed to traumatic events reported that they ‘never’ had enough time for emotional recovery following exposure to a traumatic event (Adriaenssens et al). Another study found that frequency of exposure to traumatic events was positively correlated with the presence of PTSD symptomology, emotional exhaustion, and depersonalization (Adriaenssens et al). A third study determined there was a positive correlation between the frequency of confrontations with patients who were suffering and patient death and emotional exhaustion (Adriaenssens et al). Yet another study reported that ED RNs with more frequent exposure to workplace violence such as threats and physical violence displayed higher levels of emotional exhaustion and depersonalization (Adriaenssens et al).

A common method of determining occupational stress in the studies included in the systematic review was the Job Demand Control Support Model (JDSCS), which identifies three dimensions of occupational stress: job demand (psychological work load and time pressures), job control, and social support (Adriaenssens et al, 2015).

Psychological demands of work time and pressure were found to be related to burnout (Adriaenssens et al, 2015). Work pressure and high psychological job demands were also found to be related to emotional exhaustion in the ED RN (Adriaenssens et al). Excessive workload was determined to be related to increased levels of emotional exhaustion and depersonalization as well (Adriaenssens et al). One study did show an inverse relationship between job demand and burnout: a higher job demand was related to lower levels of burnout, but this finding is an outlier among the rest (Adriaenssens et al). One study identified that there was no relationship between physical demands and burnout in ED RNs, while a longitudinal study reported that physical demands were related to higher levels of emotional exhaustion (Adriaenssens et al).

Job control was negatively related to emotional exhaustion and depersonalization, while it was positively related to personal achievement (Adriaenssens et al, 2015). When the amount of freedom that a worker has to control and plan their work activities was perceived as greater, less levels of emotional exhaustion and depersonalization were identified, while higher levels of personal achievement were reported (Adriaenssens et al). A longitudinal study indicated that low levels of job control at initiation of the study were associated with higher levels of emotional exhaustion and lower levels of personal accomplishment at follow-up (Adriaenssens et al). No significant relationship with job control and depersonalization was identified in this study (Adriaenssens et al).

Social support was examined from the standpoint of both supervisor support and colleague support in many of the included studies. Lack of social support in general was associated with increased depersonalization and decreased personal accomplishment (Adriaenssens et al, 2015). In one study, low supervisor support was related to higher emotional

exhaustion while no relationship was identified between co-worker support and emotional exhaustion (Adriaenssens et al). In another study, lack of social support from co-workers was positively related emotional exhaustion, and depersonalization and negatively related to personal achievement (Adriaenssens et al). Found to be positively related to burnout in ED RNs were conflicts between co-workers (Adriaenssens et al).

Fifty-three percent of ED RNs rated their work environment as unfavorable in one study, and a second study identified that this dissatisfaction was associated with increased levels of emotional exhaustion and depersonalization (Adriaenssens et al, 2015). The organizational factors often studied in association with burnout in the ED RN are communication and collaboration among other professional disciplines within the ED, and staffing (Adriaenssens et al). ED RN and physician collaboration was related to lower levels of emotional exhaustion and depersonalization (Adriaenssens et al). High levels of teamwork was also related to low levels of these two dimensions of burnout (Adriaenssens et al). One study found that the quality of communication between management and employees was predictive for lower levels of emotional exhaustion, while another study found that poor communication related to increased levels of burnout (Adriaenssens et al).

Staffing issues were considered in two studies and quality of staffing, adequacy of work schedules, and shift work were significantly related to fatigue and decreased concentration, which in turn correlated with higher levels of burnout (Adriaenssens et al, 2015). Understaffing was a significant predictive factor of burnout in the ED RN and nurses who had only ever worked night shift had a decreased level of personal achievement (Adriaenssens et al).

Other organizational and environmental factors examined were availability of material resources, organizational culture, and financial reward (Adriaenssens et al, 2015). Lack of available resources was related to increases in emotional exhaustion, and depersonalization (Adriaenssens et al). An innovative work culture was related to lower levels of emotional exhaustion, while lack of workplace initiatives to ensure quality and safety were related to high levels of emotional exhaustion (Adriaenssens et al). Perhaps counter intuitively, financial reward did not appear to be a contributing factor to burnout in general, nor to any of its three dimensions specifically (Adriaenssens et al).

Following the publication of Adriaenssens et al's systematic review in 2015, Rozo, Olson, Thu, and Stutzman conducted a phenomenological study in 2017 of the situational factors associated with burnout in hopes to capture the experiences of ED RNs who have had burnout syndrome. Their study produced more detailed, narrative answers from the five ED RNs interviewed. During the fourth and fifth interviews, they gathered no new information and it was determined that data saturation had been reached (Rozo et al, 2017). Overcrowding in the ED was found to be a main stressor and a significant source of BOS among the ED RNs interviewed (Rozo et al). Other factors that led to burnout were inadequate staffing because it led to extra responsibilities, longer shifts, picking up extra shifts to fill deficits, alarm fatigue, lack of supplies, and physical demands to be considered stressors and factors impacting BOS (Rozo et al). Internal perceptions, or those held by the ED RN, that were reported to affect burnout levels were feelings of being underappreciated, being forced to depersonalize patients as a result of increased work load, being unable to meet their job expectations, and lacking the time to properly perform their duties (Rozo et al). Negative patient attitudes toward nurses was also

associated with BOS (Rozo et al). Workplace violence, the constant fear of the unknown, and lack of administrative and managerial support in maintaining a safe environment in the ED were all reported to contribute to the development of BOS (Rozo et al). In this study, workplace violence instances mentioned were verbal violence, physical violence, and violence from coworkers in the form of hazing (Rozo et al). Finally, ED RNs participating in this study identified that the experiencing moral distress was a component of the burnout process (Rozo et al). They acknowledged that patient deaths, patient suicide attempts, and the lack of formal ways to decompress stressful situations contributed to BOS (Rozo et al). Three of the five nurses interviewed left the ED due to burnout (Rozo et al).

Limitations

Limitations to this study included the lack of information regarding factors influencing the development of compassion fatigue in the emergency department nurse and the lack of availability of the full text of several articles in the search results. Of the seven articles examined for this paper, three studies were conducted in the United States, two in the Netherlands, one in the West of Scotland, and the final study was conducted in Canada. These countries all have different healthcare systems and potentially different stressors. Therefore, the conclusions of this paper cannot be universally applied to the ED RN.

Recommendations for Current and Future Practice

Emergency department registered nurses are a population vulnerable to the development of negative and unhealthy psychological conditions as a direct result of the stress and repeated exposure to traumatic events in the ED. Some factors affecting the development of these conditions, such as TE exposure and personality cannot be changed. However, ED RNs should be educated on enhanced coping strategies that are appropriate for the ED, such as problem-solving coping styles. Individuals in positions of authority, such as assistant nurse managers and nurse managers can create an environment founded on support for the ED RN. This will encourage ED RNs to seek counseling within their department when faced with a traumatic event or negative feelings associated with compassion fatigue and/or burnout syndrome. Beyond administrative support, charge nurses can foster an environment of support for ED RNs by being attentive to the ED RN's workload and extending help when it is needed.

Recommendations for Future Research

Future research should focus on expanding the body of knowledge related to compassion fatigue in emergency department nurses, especially the factors influencing its development. Until it is known what factors lead to the development of compassion fatigue in the ED RN, departments will only be able to treat nurses impacted by this negative psychological condition, rather than attempt to prevent its development.

Additionally, nursing students should receive formal education on PTSD, CF, and BOS as they relate to the nursing profession. Nursing students would benefit from understanding what these negative and unhealthy psychological conditions are, how they develop in nurses, how they or their colleagues may be impacted, and how these conditions can be prevented or treated. Knowledge of these conditions from the beginning of a student's professional career may lessen the stigma surrounding the desire to seek counseling when dealing with negative and unhealthy psychological conditions. Student nurses would also benefit from being taught effective coping strategies, like problem-solving coping while in school. This allows time for the student nurse to adopt the coping style and master it before entering the work force. This may act as a protective factor against the development of negative and unhealthy psychological conditions later on in the student nurse's career.

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