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HOW THE AFTERMATH OF SECONDARY TRAUMATIC STRESS SHOW ITSELF IN NURSES

A LITERATURE REVIEW

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Background: Nurses face many challenges in the nursing profession. One challenge is the ability to handle patient trauma and at the same time, as a nurse, process their trauma. With more awareness about how secondary traumatic stress shows itself in nurses and its aftermath, the stress can be identified in earlier stages. **Aim**: The aim of this literature review is to map how the aftermath of secondary traumatic stress show itself in nurses, described by nurses. **Method**: This study has been designed as a qualitative literature review with searches carried out in the databases CINAHL and PubMed. The mapping resulted in ten articles that were reviewed for their quality. **Result**: The metasynthesis of the identified articles resulted in seven subthemes, desire to leave nursing, providing insufficient care, teamwork, depersonalization, emotional distress, lack of resources and knowledge deficit. **Conclusion**: When the secondary traumatic stress overpowers the nurse, it may result in the nurse leaving its profession. Future research should thereby focus on methods that support the nurses exposed to secondary traumatic stress and lessen their feeling of exhaustion. Methods that help not only the nurses but also the patients they care for.

Keywords: burnout, experiences, nurses, patient care, qualitative research, secondary traumatic stress,

HUR FÖLJDERNA AV SEKUNDÄR TRAUMATISK STRESS VISAR SIG HOS SJUKSKÖTERSKOR

EN LITTERATURESTUDIE

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Andersson, A & Persson, J. Hur följderna av sekundär traumatisk stress visar sig hos sjuksköterskor. En litteraturstudie. *Examensarbete i omvårdnad 15 högskolepoäng.* Malmö universitet: Fakulteten för hälsa och samhälle, Institutionen för Vårdvetenskap, 2020.

Bakgrund: Sjuksköterskan ställs inför många utmaningar inom sitt yrke. En av dessa utmaningar är att handskas med patienters trauma och samtidigt kunna bearbeta dess trauma. Med ökad kunskap om hur sekundär traumatisk stress visar sig och dess följder kan denna stress identifieras i ett tidigare skede. **Syfte**: Syftet med denna litteraturstudie är att kartlägga efterföljderna av sekundär traumatisk stress för sjuksköterskor, beskrivet av sjuksköterskor. **Metod**: Studien har designats som en kvalitativ litteraturstudie med genomförda sökningar i databaserna CINAHL och PubMed. Kartläggningen resulterade i tio artiklar som kvalitetsgranskades**. Resultat**: Metasyntesen av de identifierade artiklarna resulterade i sju underteman, viljan att lämna yrket, ge otillräcklig vård, lagarbete, depersonalisering, emotionell stress, brist på resurser och brist på kunskap. **Slutsats:** När den sekundära traumatiska stressen blir dem övermäktiga så kan det resultera i att sjuksköterskorna lämnar yrket. Framtida forskning bör därför fokusera på metoder som stöttar sjuksköterskor exponerade för sekundär traumatisk stress och lindrar deras känsla av utmattning. Metoder som ytterst är till gagn inte bara för sjuksköterskor utan även för patienterna de vårdar.

Nyckelord: Kvalitativ forskning, omvårdnad, sekundär traumatisk stress, sjuksköterskor, upplevelser, utbrändhet

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INTRODUCTION

Death, trauma and violence are examples of the stressors that nurses experience daily during the treatment and care of patients (Joy & Morrison 2016). The repercussions of these types of traumatic events are laid squarely on the shoulders of the nurse. It is the nurse who has the difficult task of working through the traumatic event with the patient (ibid.). The nurse also takes on the burden of comforting not only the patient but also the patient's family during their time of crisis (Dominguez-Gomes & Rutledge 2009). The consequence of emphatically demanding work can have a profoundly negative effect on the nurses' health. This can result in what is referred to as Secondary Traumatic Stress (STS) (ibid.). The nurses' constant exposure to patient trauma, lack of teamwork between colleagues and lack of resources to support the nurse are underlying catalysts for STS. Studies show that the daily stresses of patient care can break down a nurse's wellbeing (Joy & Morrison 2016). This combined with the stress of sudden patient trauma can trigger STS (ibid.).

BACKGROUND

Swanson (1993) describes that the goal of the practice of nursing is to reinforce the well-being of the patient. Nurses should focus on how patients are coping with their illness and not on the disease itself. A nurse should see the patient beyond their disease and connect with the patient on another level. To achieve this goal Swanson goes on to describe five components of caring that are essential for nursing when giving quality care. One vital component is Knowing: this is defined by the nurse's ability to center all caring around the patient. It involves the complete understanding of the patient's condition and total engagement on the part of the nurse while caring for the patient. It is not only experience that gives a nurse the ability to understand the patient. The nurses must also possess self-awareness if they truly want to participate in the patient's reality and center nursing care around the patient (ibid.). This close relationship that nurses are expected to possess while caring for a patient can create a vulnerability to STS. The combination of exposure to indirect trauma with a nurse who is already vulnerable, STS can be hard to avoid.

Studies show nurses experience STS through a different range of symptoms (Dominguez-Gomes & Rutledge 2009). Intrusion arises when the nurse has repeated recollections, flashbacks or nightmares of the traumatic patient event that was experienced. Avoidance occurs when the nurse subconsciously avoids any catalyst that can be associated with the traumatic event. This includes a disengagement and an avoidance of caring for a patient who might trigger the nurses' recollection of the traumatic event. There is also a failure to recall particular events of the trauma on the nurse's part. Arousal involves the nurse experiencing feelings of anxiety. The nurse becomes easily irritated and has difficulty concentrating on patient care. The nurse can also become hypervigilant when it comes to care of their patient and second guess their own methods and decisions with patients (ibid.).

Compassion Fatigue

Studies have shown that nurse engagement in meaningful connections with patients gives rise to nursing satisfaction, even under tragic circumstances (Ames et al., 2019). However, a disproportionate amount of patient loss accompanied by nursing over engagement can deplete empathy and create emotional strain (ibid.).

Swanson (1993) describes the necessity of nursing engagement in the caring component *Being with*. This is defined by the importance of the nurse being emotionally present. This can be achieved through the nurse sharing the feelings and experiences of the patient they are caring for. Being with underscores the willingness of the nurse to be present at all times not just physically but emotionally. The nurse should be giving of her time and of self in such a way that the patient feels and understands the nurses level of commitment to the care of the patient. The problem with this component of caring is there is a fine line between the nurse sharing the patient's reality and taking on that reality as the nurses own (ibid.). Compassion fatigue (CF) arises when the nurse crosses these boundaries all too often.

Compassion Fatigue can also occur after a nurse sustains prolonged and intense emotional contact with patients (Downing et al., 2017). This results in the nurse feeling emotionally overwhelmed (ibid.). These factors in combination with the expectation of giving of oneself, selfless commitment to the patient and commitment to the nursing profession creates a vulnerability to CF (Ames et al., 2019). Compassion fatigue takes away two essential characteristics of an effective nurse: empathy and caring, the nurse cannot build trust with patients. The loss of these important characteristics results in the nurse disengaging from the patient and concentrating only on the job at hand. Ultimately the nurse can feel a necessity to switch job rolls or leave the nursing profession (ibid.).

Nurses' disengagement from the patient clashes with Swanson caring component of Maintaining belief. According to Swanson (1993), Maintaining belief is a foundation to nursing care. Swanson underscores the importance of the nurse’s belief in their patient's own capacity to endure the setbacks and the unexpected events of illnesses. The nurse also maintains conviction in caring, with the expectation that patients have a future with meaning whatever health condition or developmental challenge their patient is facing. This mind-set fuels nursing and nurses to commit to serve their patients. Nurses are motivated to demand necessary changes for patient health care (ibid.). CF in nurses work against the component of maintaining belief. Nurses feel powerless to do what is right when caring for their patient. CF creates a desire for the nurse to distance themselves from any patient care that may cause further emotional stress. (Butler et al., 2014). This in turn affects the development of a relationship between the nurse and their patient (ibid.). The consequence of the nurses’ failure to maintain belief in their patient can cause the patient to lose faith in themselves.

Burnout

Swanson (1993) describes the caring component Doing for. This means the nurse performs the tasks of their patients that they cannot do for themselves that contributes to the patient’s well-being. The effect of these actions by the nurse help preserve the dignity of the patient. The nurse should anticipate the patient's needs, protect them from harm and preserve their feeling of independence. Doing for involves not only physical care of the patient, but also the psychological care

of the patient. The nurse should implement programs that promote and provide tools in which patients can contribute to their own healing (ibid.).

Expectations are high in the nursing profession, nurses need to provide empathetic, ethical, professional, and personal care to patients (Ahmadi et al., 2009). In addition to working long irregular hours, the nurse should be productive, responsible and efficient with the limited workplace resources they have at hand. These expectations and demands on the nursing profession can lead to burnout. Burnout is the result of emotionally demanding patient situations and the demands of the nursing profession over a long period of time. Burnout occurs when the nurse becomes not only physically exhausted, but mentally exhausted. This develops into the nurses' loss of concern and compassion for the patient and becoming drained emotionally. There is also an increase in the tendency to have cynical approach towards the patients they care for. The nurse also experiences feeling a decreased sense of personal accomplishment at work. The process of burnout develops slowly, the signs such as the decline of patient care and nurses own productivity can easily be overlooked until it is too late. The result can be the desire of the nurse to leave the nursing profession altogether (ibid.).

The caring component Enabling is defined by Swanson (1993) as: "The nurse's ability to guide the patient through the difficult and uncertain life events that they face during a serious illness." Enabling also includes allowing the patient to have their own experience and validating that reality. The nurse helps the patient to focus on what is important. As with Doing for, the goal of enabling is to guarantee the long-term wellbeing of the patient (ibid.). Studies have shown high levels of burnout in nurses can result in negative feelings towards patients, thus obstructing the implementation of the enabling component. All the mental, physical, and emotional support the nurse has for patient care is depleted (Ahmadi et al., 2009). The repercussions of nurse burnout are detrimental to patient care.

Safe care

The Swedish Nursing Association (Svenska Sjuksköterskeföreningen 2016) describes vital nursing core competencies a nurse must acquire in order to be a proficient and skilled nurse. To accomplish this the nurse must possess professional knowledge, which is the technical ability of nursing care. Professional knowledge is what a nurse obtains from education and working in the nursing profession. There is a non-technical element that is also an important factor that the nurse also must retain. This element is the nurses intellectual, mental and social abilities. The non-technical element includes problem solving and the ability of the nurse to have empathy for the patient's needs. Another important part is the nurses' ability to make decisions while under stress or fatigue. Together these nursing competences create safe care (ibid.).

The Swedish Nursing Association stresses the importance of nursing management to create optimal opportunities for continual nursing education (Svenska Sjuksköterskeföreningen 2016). The technical and non-technical developmental needs of nursing personnel should be regularly taken into consideration in order to maintain safe care (ibid.). There is inadequate support from the nursing management system to help nurses avoid or identify the stressors that can cause compassion fatigue (Ames et al., 2019). There was a significant absence of support from nursing management with concern to the nurse's ongoing stress. For example, the lack of addressing nurse understaffing, high workload and limited

time for patient care. Opportunities for nurses to unburden their worries and stress were also found to be inadequate (ibid.).

Similar management support inconsistencies were also found in STS studies (Joy & Morrison 2016). Strategies such as formal debriefing and social support were not always routinely offered due to time constraints and a lack of training. This created barriers in order to manage or avoid STS effectively and promote the health and well-being of nurses after treating patient trauma (ibid.). Studies for burnout found that nursing managers lacked knowledge and miscalculated the risks and consequences involved with burnout (Downing et al., 2019). Work absence and sick days increased, this in turn, had a directed correlation with medical errors and the decline in patient safety (ibid.). If the external influences become too big, the risk for STS in nurses increase.

PROBLEM FORMULATION

Secondary traumatic stress can be experienced in all areas of the nursing profession. Studies have shown the most susceptible to STS are nurses who work with a high volume of patient trauma or areas with high patient mortality (Joy & Morrison 2016). Swanson (1993) describes structures of caring that are essential components to nursing care: *Maintaining belief, Knowing, Being with, Doing for, Enabling.* If one wants to be a competent nurse, these component characteristics underscore that total nursing focus should be centered around patient care. In order for the nurse to achieve these components there must be empathy in care. Every patient must be treated by the nurse as an individual. The nurse should possess selflessness, no matter how difficult the patient situation, in order to connect and commit themselves fully to the patient (ibid.). There is no discussion on how this total patient commitment can affect the nurse's wellbeing. It is this expectation of total patient commitment that creates nurses' vulnerability to STS. Consequences of STS can lead to a loss of empathy in nursing care, the result is an absence of focus and interest in patient centered care. In order to prevent total disconnection from nursing care, it is important to know how STS directly affects nurses. How can the aftermath of secondary traumatic stress show itself in nurses? This study focuses on nurses' own encounters with STS, how it affects their nursing ability, and the possible consequences it can have for patient care. Although there has been an increase in studies on STS over the years, there still exists a lack of awareness, preventative strategies and handling plans from hospital employers, nursing managers and other professionals within the nursing profession.

PURPOSE

The purpose of this literature review is to map how the aftermath of secondary traumatic stress show itself in nurses, described by nurses.

METHOD

The chosen method for this study is a qualitative literature review with descriptive design. This method was chosen in consideration with the nature of the purpose, to map how the aftermath of secondary traumatic stress show itself in nurses. Scientific literature was systematically searched, reviewed and compiled. The articles that are included in the result were content analyzed accordingly to Forsberg and Wengström (2015). The desire of a qualitative literature review is to link experiences together and find characteristics and patterns between them (Bahtsevani et al., 2016). More precisely, describing experiences using words and descriptive, individual data and then studying the extensive result (ibid.).

Structure of question

POR stands for population, field and result. POR is a method to acquire structure in the question of choosing, in this case, how secondary stress can show itself in nurses. POR involves three different parts, population, field and result (Bahtsevani et al., 2016). By defining and constructing what the goal or purpose is the searches can be performed more efficiently and the proper inclusion criteria can be detected. The approach of breaking it down into bearing words also assists the process of finding correct search words (ibid.). With the POR method being used more relevant studies will be found and the less relevant ones avoided.

The POR method divided into its each component is shown in table 1.

Table 1.

The three components of the POR method		
Population	**Field**	**Result**
Registered nurse/General nurse	Secondary traumatic stress	Descriptions and perceptions of how the aftermath of secondary traumatic stress show itself in nurses

Literature Search

The databases CINAHL and PubMed were chosen for this paper due to their relevance and abundance of articles regarding medicine, care and health. Since the focus of this article is on the context of health and care, searches were carried out in CINAHL. To find studies of relevance free text words were combined with subject headings. Words used for the search were qualitative study, nurses, secondary traumatic stress and compassion fatigue (Appendix 1). These words were constructed primarily by using the POR method to break our purpose into bearing words (Table 1). Some words were constructed during the initial pilot search to find relevant studies using these terms, two of these terms were compassion fatigue and burnout. These articles also discussed the point of interest, secondary traumatic stress. By using a dictionary, synonyms were established and put together with the connecting words. A dictionary was used to gather more search terms that were relevant since there is more than one way to write a word. The search terms that belonged together were then attached to blocks. These blocks consisted of several free text words and subject headings combined with OR. The blocks were then combined with AND to finalize the search and give a list of possible and likely relative articles (Appendix 1). A

similar search was carried out in PubMed with the same words and blocks (Appendix 2). PubMed does not utilize subject headings so MeSH terms were applied to the search. The pilot searches prior to this final search showed there was a high possibility that enough material could be found.

Selection, Inclusion and exclusion criteria

To select what articles that were to be used, all the article titles were individually read through by both authors to discover relative articles. The titles that showed even the slightest relevance or fit the inclusion/exclusion criteria were saved in a separate document. When every article had been examined, each of the selected articles were read through by their abstract. The articles that showed a suitable level of importance to the purpose in the title and abstract description, were saved. The articles that proved to be inadequate to the purpose were discarded. The articles of relevance were then compiled into a single list with a small summary of the article, their population, field and result. Together the authors went through each of their lists by examining the articles for their applicability to the purpose. This was performed the same way for CINAHL first, followed by PubMed. Some articles were found in both search engines.

The articles were first skimmed over by title to look after potentially relevant articles, among the 451 hits in CINAHL 90 were picked out initially. The abstract of each article was read and further reduced to if the abstract did not meet the criteria's such as not being about nurses or not being a qualitative study. The same process was used for the PubMed search which yielded 464 hits. Out of these, 71 articles were picked out. In total the authors were considering a possible number of 161 hits for this paper. This number of articles exceeded what was required for this study. To further reduce these 161 articles, their abstracts were read, and 45 articles found to be relevant to the purpose. These 45 articles were thoroughly read and divided in that the articles that were study reviews were used in the background of this study. The articles that were found to be original studies were used in the result. The articles that did not fit in studies inclusion and exclusion criteria or were not relevant to our purpose were discarded. In the end, five of these articles were decided upon to be used for background and ten of them for results. Two articles that were found to be acceptable for our studies background, and two articles that were acceptable for results were kept as backup. None of these articles were used in our study.

To ease the finding of applicable and relevant studies, inclusion and exclusion criteria were used. The inclusion criteria that were established involved only ethically considered or approved studies and only original studies for the result. Only articles in English, published in scientific journals and peer reviewed were to be considered. The articles must be about nurses and be a qualitative study if they were to be included. Considering the aim of this paper is regarding nurses with basic education, exclusion criteria included any branch of nursing that required further specialized nursing education. In addition, any articles using the patient's own experience and perspective of nursing care were excluded since the aim of the thesis is to explore from the nurses' perspective.

Quality review

The first step in reviewing the quality was to ensure both authors understood the review template in the same way. This step was performed by choosing one article where each author reviewed it individually and then compared the results. The

template is constructed by Statens beredskap för medicinsk och social utvärdering (SBU), without any modifications, for reviewing the quality of qualitative articles (SBU 2020a). Additional help to understand and correctly judge the quality was taken from SBU's handbook of method for quality reviewing (SBU 2020b). The results showed the same outcome and verified both understood the form consensually. The second step included the authors individually scrutinizing the selected articles for the result part according to the template by SBU. The articles were then compared to the quality criteria's and defined by them. They were judged to be either high, middle-high or low. One article with medium-high quality had participants getting compensated in some sort of payment for their participation, another one had not showed how they randomly selected their participants, and the interviews were done a year prior to the study. The third article with middle-high quality had its analysis done by only one of the researchers, increasing their risk for bias. The articles with high quality all had a detailed method and analysis, researchers participating in every aspect of the study, reaching data saturation and controlling it by more interviews. Articles with low quality was discarded, these low qualities included criteria's such as not describing their selection of participants. Disagreements in quality of the articles were to be discussed until unity was achieved and a proper quality was assigned.

Analyze

Before analyzing the results, the authors pre-understanding was discussed in what ways it could affect the result. The importance of keeping a critical approach throughout the analytic process was also considered due to its significance. The articles that were selected and reviewed were scrutinized in accordance with the method for content analysis. To help understand how this method is used, it is divided up into five different steps (Forsberg & Wengström 2015). The articles were read in their entirety by both authors. The method was then used to find and identify similarities and differences that were noted in a document. Bearing units or sentences were then marked in the articles. Disparities and related units were then identified and divided into codes. The codes could then be put into subthemes and the codes that had identical subthemes were placed together. In this case, the different ways the aftermath of secondary traumatic stress could occur and what may precipitate it.

RESULT

The result of this literature review was built upon ten scientific, qualitative articles which are shown in appendix 3. Seven out of ten studies were judged as high quality and three were judged as middle-high, accordingly to the quality review template. Two studies were made in USA, two in UK, and one each from Greece, Canada, Australia, Turkey, Spain and Sweden. Every study had either individual interviews or focus groups. Semi structed interviews with mostly open questions were used to gather as much relevant information as possible. The selection of participants depended on how much experience the nurse had, who wanted to participate and were chosen from different sections of the hospital regarding the purpose of each article. In total 173 nurses were interviewed, 155 were females and 18 were males.

The final seven subthemes are presented in table 2.

Table 2.

The final seven subthemes							
Subthemes	Desire to leave nursing	Providing insufficient care	Teamwork	Depersonalization	Emotional distress	Lack of resources	Knowledge deficit

Desire to leave nursing

Nurses' constant exposure to patient trauma resulted in the nurse regretting their choice of nursing profession (Dalton et al., 2011; Damigos et al., 2009). One nurse expressed frustration that after 27 years of nursing, the adjustment to patient trauma continued to be difficult, and questioned why she continued to work in the nursing profession (Damigos et al., 2009). Another nurse completely changed to a different nursing profession where patient trauma could be avoided (Dalton et al., 2011).

Nurses expressed resentment and a disillusionment toward the nursing profession because of patient trauma (Jakimowicz et al., 2018; Olson et al., 2017). These feelings resulted in one questioning the possibility of not renewing their nursing license (Jakimowicz et al., 2018), while another nurse decided to leave the profession altogether (Olson et al., 2017).

Some of the nursing participants in a different study were already on sick leave because of nursing stressors or had recently been on sick leave when they took part in the study (Billeter-Koponen & Fredén 2005). The result of that study found that while many nurses attempted to return the job, only two out of ten of the nursing participants stayed at their original place of employment. In the end, most of the nurses felt leaving their nursing position was the only solution to avoid further STS and burnout (ibid.).

One nurse reflected on how she considered quitting because of the strain of patient care (Mackintosh 2007). She expressed the strong probability of no longer being in the nursing profession had she not found a way to handle those stressors (ibid.). Several nurses reported, because of the strain of patient trauma, they could no longer clearly remember their reason for choosing this profession and felt the desire to quit (Asai et al., 2018).

Providing insufficient care

Many nurses expressed a feeling of hopelessness and guilt for not having the ability to give the patient quality care they were once capable of providing (Asai et al., 2018; Mackintosh 2007; Fernández-Leyva et al., 2020; Besen et al., 2019). One nurse described feelings of difficulty building up a relationship and meeting the patients care needs (Mackintosh 2007). Another nurse felt because of her restricted ability, the patients were receiving inadequate nursing care, and this caused patients to suffer needlessly (Asai et al., 2018). The realities and stressors of the health care system compounded by nurse’s inability to live up to those expectations was another factor that contributed to the nurse providing inadequate care (Besen et al., 2019).

Another group of nurses felt that inability to meet job expectations, in addition to the pressure of time constraints, greatly affected the quality of patient care (Fernández-Leyva et al., 2020; Mackintosh 2007; Olson et al., 2017; Jakimowicz et al., 2018). One nurse discussed that even the simple things such as just talking to the patient was greatly limited (Fernández-Leyva et al., 2020). A nurse expressed the time pressure that hospitals put on the nurses, affected the nurse's ability to focus on the patient as an individual (Jakimowicz et al., 2018).

Some studies found that it was a complete depletion of mental energy to provide care on the nurses' part that resulted in insufficient care of the patient (Dalton et al., 2011; Billeter-Koponen & Fredén 2005). One nurse expressed a lack of overall motivation to engage with patients or any nursing obligations (Dalton et al., 2011). Another nurse described how careless their care of patients had become cascading in the nurses feeling overwhelmingly stressed (Billeter-Koponen & Fredén 2005).

Teamwork

Nurses express the need for support from nursing colleagues and management (Asai et al., 2018; Dalton et al., 2011; Damigos et al., 2009). They expressed the lack of teamwork in the aftermath of patient trauma was stressful and unhelpful (ibid.). The perceived lack of teamwork and a reluctance to share nursing experiences with other colleagues was identified as a big cause of stress and worry for nurses (Dalton et al., 2011; Damigos et al., 2009). While another nurse conveyed a desire to care for patients as a team. They felt by sharing patient information and their own nursing experiences with other colleagues, their own sense of suffering could be eased (Asai et al., 2018). A different nurse felt that her years of nursing expertise would be beneficial to other nursing colleagues and to patient care if they could improve teamwork on the ward. And in that way ease the stress the nurses are exposed to (ibid.).

Many nurses described the experiences of good teamwork between colleagues and management helped ease some of stress for the nurse (Besen et al., 2019; Jakimowicz et al., 2018). One nurse felt like no one outside of the nursing profession could understand their worries but having the ability to talk patient situations through with other colleagues felt beneficial (Jakimowicz et al., 2018). The same nurse also expressed that with good teamwork, there was always a nursing colleague available to share their expertise when the nurse felt uncertain about how to care for the patient (ibid.). It was teamwork that helped one nurse deal with her own sadness. The nurse felt that teamwork also helped create positive relationships with nursing colleagues. This in turn, lessened the nurses own stress and created a better environment where they were less likely to suffer from STS (Besen et al., 2019).

Depersonalization

Many nurses described a need to withdraw from interacting with patients on a personal level and emotionally disengaging when the stress of patient care became overwhelming (Mackintosh 2007; Fernández-Leyva et al., 2020; Dalton et al., 2011). Nurses described it as consciously distancing from the patient (Fernández-Leyva et al., 2020). The nurses "switched off" to not have any interactions with the patient that might bring up unwanted psychological pain on the nurses' part (Fernández-Leyva et al., 2020; Mackintosh 2007).

Other nurse solutions, to not get involved with patients personally, were to limit patient contact (Asai et al., 2018; Besen et al., 2019; Damigos et al., 2009). One nurse attempted to hand over responsibility of care to other nursing colleagues if a patient's condition was beginning to worsen (Asai et al., 2018). Another nurse who had returned from sick leave, avoided patient connection at all costs (Damigos et al., 2009). The nurses focus became getting the job done with as little patient communication as possible (ibid.). Similarly, a nurse described avoiding communicating with patients by going in the patient's room as little as possible (Besen et al., 2019). The nurse also referred any personal questions the patient had regarding their health to the attending doctor (ibid.).

Many nurses reacted to patient trauma and work stress by ignoring their feelings and pushing them to the side. They focused on nursing as a task and patient care became impersonal (McCall 2020; Olson et al., 2017; Billeter-Koponen & Fredén 2005; Damigos et al., 2009). One nurse described seeing the patient as an object rather than a person (Billeter-Koponen & Fredén 2005). Another nurse had reached a point of performing their nursing duties mechanically and counting down the hours until they could go home (Damigos et al., 2009). Forgetting about the patient as a person and seeing them as just a body in the bed is how another nurse described handling patient care (Jakimowicz et al., 2018).

Emotional distress

Many nurses described feeling defeated by the nursing profession especially when experiencing compassion fatigue and STS. They lost all energy and drive for patient care and experienced overwhelming physical and emotional fatigue (Asai et al., 2018; Billeter-Koponen & Fredén 2005; Besen et al., 2019; Dalton et al., 2011; Fernández-Leyva et al., 2020). Feeling like all compassion for patients was lost, followed by physical fatigue and isolation was how one nurse described her distress (Fernández-Leyva et al., 2020). A nurse described the inability to decompress because she was the emotional lifeline to many patients and their families. They continued to be dependent on her for emotional support even after the initial patient trauma was over. The nurse described these patient experiences as personally traumatizing (ibid.). Another nurse described a feeling of being alone and empty (Billeter-Koponen & Fredén 2005). There was no energy left to listen to patients. No energy for problem solving or energy for new problems that arose while caring for the patient (ibid.). In addition to overwhelming emotional fatigue one nurse constantly worried about the stress of the job and worried if her patients were going to get sicker (Besen et al., 2019). The nurse described having a constant stomachache because she could not stop worrying (ibid.). One nurse even described how they try to” bury” patient trauma as a coping mechanism in an attempt to deflect STS (McCall 2020).

The nurses feeling of powerlessness to affect the nursing profession and the inability to unplug after leaving work was common with nurses experiencing burnout (Damigos et al., 2009; Jakimowicz et al., 2018; Olson et al., 2017). This feeling of powerlessness caused agitation and an emotional breakdown for one nurse (Damigos et al., 2009). There was a constant feeling of guilt about the inability to care for the patient properly (ibid.). One nurse reached a level where nursing became too stressful to continue working (Jakimowicz et al., 2018). The nurse lost all desire to participate in nursing care or even having to think about the nursing profession (ibid.).

Lack of resources

Many nurses described that the heavy workload in the nursing profession combined with lack of personal and management organization was another contributing factor to nursing burnout and CF (Billeter-Koponen & Fredén 2005; Olson et al., 2017). Nurses described the duties of patient care were taken away because of staffing problems (Billeter-Koponen & Fredén 2005). They no longer had patient contact but spent more time trying to solve organization and staffing problems. They felt that they were no longer nurses. Skipping breaks and lunch was how one nurse tried to compensate for lack of staffing and the difficult working situation. They even came in earlier and worked longer shifts (ibid.). One nurse recounted the lack of support from the administration and feeling forced to pick up overtime because of staffing shortages that contributed to their burnout (Olson et al., 2017). Another nurse expressed her frustration with their heavy workload and having no support or help (ibid.).

Nurses experienced the negative effects of organizational changes, lack of resources to handle department and personal issues, and constant worry about staffing levels (McCall 2020; Dalton et al., 2011; Mackintosh 2007). These issues only compounded nursing stresses that were associated with CF and STS (ibid.). After difficult or traumatic patient experiences, one nurse lamented about the lack of debriefing and team leadership (Jakimowicz et al., 2018). This resulted in a loss of compassion on the nurse's part. The nurse felt that they could not continue working in nursing if they were involved emotionally or cared too much for the patients (ibid.). One nurse expressed feelings of guilt of not being enough (Besen et al., 2019). They felt drained from the inability to provide quality patient care which was a result of understaffing (ibid.).

Knowledge deficit

Nurses expressed a need for the nursing management and hospital leadership to support and continue to educate nurses (Damigos et al., 2009; Dalton et al., 2011). The nurses felt it would enable them to live up to the high expectations of the nursing profession. They felt with better support and education, they could better avoid STS, CF and burnout (ibid.). Another nurse felt that their nursing competence in relation to patient care was not improving because of lack of continuous education (Billeter-Koponen & Fredén 2005). In a case where there was support and education offered, one nurse felt that it only focused on the clinical side of nursing care and not the emotional effects that patient trauma could have on nurses (McCall 2020). One nurse expressed her frustration with nursing management's inability to understand how patient trauma and other work stressors negatively affected the nurses (Jakimowicz et al., 2018). One nurse also expressed limited knowledge about setting boundaries, handling stressful workloads, or handling patient trauma (Fernández-Leyva et al., 2020). There was a lack of awareness that they could be vulnerable to STS and its following components, CF and burnout (ibid.).

DISCUSSION

There are strengths and weaknesses with every study and this chapter will reflect on these qualities within the result and method sections, what was done and what could have been improved on.

Method discussion

A systematic qualitative literature review was the chosen approach for this paper. Because qualitative research characteristics are oriented around mapping peoples experience and events (Bahtsevani 2016), this approach was considered appropriate. This way the nurses' true perspective and experience can be understood because they are using their own words to describe their aftermath. A weakness in the method could be argued that every nurse has individual experiences and unique descriptions, so a consensus among the authors might be hard to achieve. This weakness can be minimized by doing a proper result analysis by following the guide and steps by Forsberg and Wenström (2015). A wide variety of differentiating results does not necessarily have to be seen as a method weakness while doing qualitative research because everyone's experience is unique. Hence broadening the methods focus on gathering complete sense of how the issue is experienced by the persons exposed to the problem.

Because all the information used in this paper is from already conducted studies, one can argue this to be a disadvantage. The reason being the data and results from the original studies has been analyzed by someone else. To counter this disadvantage, the author's analysis can be a secondary analysis. In doing a secondary analysis it is important not to stray too far away from the original analysis, but at the same time making it original to the new study. Because most of the information analyzed was gathered from the answers the participants gave in the interviews, it is important to not neglect any results and conclusion the authors came to in the original articles but to reflect on them. This in turn, helps the authors of this study find any new information that might have been missed in the original study. In qualitative studies, conclusions can be hard to establish because each study is dependent on their individual context (SBU 2020b).

Structuring the question

One of the attributes of strength in scientific studies is to have a clear, concise and properly structured question framework. The method used to structure the question in this paper is the POR method. This method was used to illustrate areas of interest, population, field and result, so more relevant studies can be found (Bahtsevani 2016). By specifying population, field and results the authors could narrow down the relevant articles and increase the article accuracy (ibid.). If the questions lack structure it would be harder to find relevant articles and even harder narrowing down which articles that were actually relevant.

Searching for articles

PubMed and CINAHL were chosen due to being care-based. Care-based databases were relevant and suitable for this purpose, mapping how the aftermath of STS show itself in nurses. Initial searches of these databases were found to be challenging. When proper boolean terms and search words were implemented the search became more productive. The final search yielded many relevant studies but also irrelevant studies. The authors discussed the possibility of faulty searches or if irrelevant hits would always appear. By adding more synonyms or removing search words the result did not change much for the relevant articles but only adding more irrelevant hits. The searches were carried out in the exact same way in both databases to acquire some sort of systematics, beside changing subject headings to mesh terms. This increased the likelihood of finding similar and relevant articles in both databases. In hindsight, the authors considered if

including a nurses' perspective in the search could have been beneficial to the search. A weakness of using free text words is that many keywords can easily be missed. By using a thesaurus and reading what keywords other articles were exploring, more relevant words were found. Broadening the searches with more databases can increase the strength (Bahtsevani 2016). By using CINAHL and PubMed a saturation of articles was reached to satisfy the purpose of the study, therefore other databases were not searched. This saturation was decided upon by the authors once enough information was gathered. To add further strength for the article search, a librarian could've been contacted for help to further refine the searches.

Selecting articles, inclusion and exclusion criteria

The method for article selection in this study could have been improved upon had the authors had more research experience. All ten of the final articles had written ethical reasoning behind their study and/or an approval from their respective ethical board.

Relevant and clear criteria for inclusion and exclusion increases the probability to find relevant articles (Bahtsevani 2016). Since the purpose was clear and the question was structured, forming inclusion and exclusion criteria came naturally. A main criteria was focusing on the nurse perspective in the articles. Another inclusion criteria was the articles must be in English. The exclusion of articles in other languages decreases the risk for misinterpretation and misinformation. A downfall of having articles only in English, important information from articles in other languages that could be useful for our research, is missed. This is not something we could affect, but it is important to be aware that there might be more information available.

Reviewing the quality

An important aspect of using other authors' articles is reviewing their article quality. Low quality articles risk compromising the result because it would be based on information that is not peer reviewed. By using the template by SBU, this provides the tools to help understand the process of how the quality of an article is assessed (SBU 2020a; SBU 2020b). Individual reviews by both authors were conducted to increase the trustworthiness. These determinations of quality were then compared with each other and discussed. In the early stage of quality reviewing two studies were found that did not meet the quality criteria. These two articles were discarded, and the rest were kept. The criteria include clear selection, how the collection of data was carried out, whether the authors discussed the trustworthiness etc. Since ten articles were found and to be useful for the result no further searching was needed. Because the template had not been used prior to this paper, by the authors, in reviewing quality of articles, this could be a weakness. There exists a weakness in quality control because of the research inexperience of the authors. The individual review and discussions to follow is one means to counter this weakness.

Analyzing the results

Even with instructions from Forsberg and Wengström (2015), the analysis of data was troublesome at points. Discussions were made throughout the whole process between the authors to ensure a reliable outcome. Deciding on subthemes was found to be challenging. No information in one subtheme can be applied to other subthemes (Forsberg & Wengström 2015). The subthemes were modified several

times until a consensus was achieved and both authors felt satisfied. All articles were in English and since this language is not the native language of Sweden interpretation difficulties could arise. Despite this perceived weakness, one author is American, and the other has taken several courses in English prior, thus lessening the risk of running into language barrier problems.

The articles used in the result spanned over fifteen years. This can be a weakness because science is always evolving and changes over time. The bearing words, CF, STS etc. can change in definition and or develop into a different understanding than what they were fifteen years ago. However, due to this time gap in articles it can also be a strength to this paper. The issue of STS is not something new but has been around for a while and is relevant in the nursing profession to this day (Billeter-Koponen & Fredén 2005; McCall 2020).

The style of environment in the nursing profession is not only different all over the world but also all over the country. The inclusion of studies from different countries can be problematic when making conclusions because of the contextual diversity and converting it to Swedish context (Bahtsevani 2016). The way the health and care system are implemented is unique in every country. The result of how STS, CF and burnout shows in nurses from all over the world were the same no matter what country they were from. Majority of the participants were female nurses. Because most of the nursing participants in the studies were female, there is a risk for generalization of the nursing profession and STS as a whole because of the lack of male participants. The disparities in gender are something to recognize but could also be a result of the nursing profession being overrepresented female. Thus, no conclusions of STS being different for male or female nurses could be made.

Result discussion

The result showed several factors affecting the aftermath of STS for nurses. Below are the most interesting pieces discussed in relation to patient care and the nurses' reaction and how they affect Swanson's core competencies and safe care.

Communication

STS arises from traumatic patient situations that nurses must deal with on a daily basis. The nurses identified with the emotional trauma of their patients, and in turn distanced themselves from patients' problems in order to cope with daily patient care. In these situations, nurses knew of the importance of understanding and communicating with the patient. But their capacity to do this was lacking, which only worsened their emotional distress.

When a nurse turns away from patient care and withdraws from engaging with patients, they are unconsciously going against an important attribute for patient care. *Being with*, the component by Swanson that was described earlier, is a nursing attribute needed to connect with patients for nurses to give good care (Swanson 1993). Because nurses were shutting down to avoid all emotional engagement and communication with patients, there were no shared experiences and feelings between nurse and patient. The nurse was negligent in giving good care, therefore, the caring component of *Being with* was not secured.

The safe care of the patient was also put at risk because of the nurse's lack of communication involving patient care. The nurses distancing themselves from the patients cannot only be seen by the nurse as a failure of patient care but also as a

failure for the nurse themselves. The nurse will constantly second guess themselves in their professional role. The nurse may question: If I am failing at patient care, how can I succeed in the nursing profession? One can conclude that prolonged avoidance of patient communication not only affects the nurse's quality of patient care, but all aspects of the nursing profession. Again, an important attribute is neglected in Swanson's theory (Swanson 1993). The nurses totally shut down all engagement in patient care. They lost all confidence in their nursing abilities and patient centered care was non-existent. Thus, the component of *Knowing* was completely abandoned.

Communication is vital to the nursing profession and even more so with patients. To minimize the risk for STS the nurse's well-being should be a priority. It is essential to discuss and train nurses to recognize symptoms of STS. Preventive efforts will secure patient centered care. The ability of nurses to empathetically engage with the patient without symptoms of STS will ultimately improve patient communication.

Teamwork

In the absence of debriefing and teamwork during patient trauma, nurses became vulnerable to STS and as a result many lost compassions for patient care. One can blame the absence of teamwork as a result of the lack of resources. Instead of working together as a team, the nurses feel obligated to compensate for the management failures. The focus is directed away from patient centered care. The non-technical abilities required in safe care are not met in situations where there is no teamwork (Svenska Sjuksköterskeföreningen 2016). Although the nurse has the desire to meet the patient's needs, the absence of team resources inhibits the nurse's ability to problem solve and handle the stressors of patient care. All opportunities for teamwork are neglected and the focus on patient care has been mismanaged.

In order to secure safe care for patients, The Swedish Nursing Association describes the ability of resilience as vital nursing quality (Svenska Sjuksköterskeföreningen 2016). Resilience is created on all levels of nursing, but an important aspect is resilience in teamwork. This helps the nursing team lie one step ahead and anticipate where patient care might be lacking. In turn the team can provide alternative solutions to avoid a lapse in safe care for the patient (ibid).

Nurses who experienced good teamwork between nursing colleagues and support from management were less stressed (Besen et al., 2019; Jakimowicz et al., 2018). They could discuss and share their expertise of handling traumatic situations with each other. Nurses really understood and supported each other during times of patient trauma. In times of uncertainty, nursing colleagues were always available to share their expertise. Potential strategies that promote teamwork and prevent STS can be routine debriefing after patient trauma and team building exercises that increase nursing awareness about STS.

Desire to leave

In order to implement safe care, all aspects of the healthcare system need to be working towards the common goal of good care for the patient (Svenska Sjuksköterskeföreningen 2016). The nurses desire to leave hinders their ability to work towards that common goal. One might argue, the desire to leave nursing is a failure of nursing management not attempting to understand the stress of patient trauma. In the instance of CF, STS and burnout, this can be blamed on the absence

of teamwork, insufficient administrative leadership and a lack of further education possibilities for the nurse. In cases where education was offered there was no focus on nursing care and coping with patient trauma. (McCall 2020; Jakimowicz et al., 2018).

Another consequence of a desire to leave nursing is an ambivalence to patient care and to the nursing profession itself. Swanson (1993) principals are grounded in the observed behaviors of accomplished nurses. When a nurse applies these five principles, they not only improve patient care but stimulate the nurse to excel at her profession (ibid.). When a nurse is ambivalent to patient care none of these principles of caring can be met. Which bodes the question are they still considered nurses when the definition of nursing is caring?

As discussed earlier, the Swedish Nursing Association discusses the necessity for continued development and education in the nursing profession (Svenska Sjuksköterskeföreningen 2016). The purpose of continuing education is to help the nurse become medically adept and confident in nursing care. The end goal ultimately being safe care for the patient (ibid.). The responsibility to help nurses reach this goal lies within nursing management and hospital leadership. In order to achieve this nursing management and leadership should provide education that is specific to handling patient trauma, implementing peer support groups, maintaining effective supervision and leadership, and providing resources to promote nurse's well-being.

CONCLUSION

Nurses understood the importance of patient support and care, but their capacity to care became impaired in the aftermath of STS. This deterioration of patient care only verified the nurse's feelings of inadequacy. STS broke down the nurse's ability to communicate effectively with patients, thus affecting the nurse's problem-solving abilities. Nurses were not capable of handling the patient's problems let alone handling any new problems that arose. Nurses were afraid of making mistakes with patient care and as a result avoided responsibility of all patient care when possible. Nurses felt that securing quality of care was no longer possible.

Nurses who suffered from burnout encountered unpredictable work environments. Because of lack of staffing and increased number of tasks the nurses could not catch up with the amount of work. Nurses were left with no time or any energy to engage with patients. They felt responsible to pick up the slack for the economic and organizational failures of nursing management. This in turn, caused the nurses to feel powerless and question if they were nursing any longer. Many nurses considered leaving the nursing profession.

Lack of teamwork and support from nursing colleagues contributed to STS, CF and burnout. The nurses were alone in-patient care. The lack of support from colleagues or team resources hindered their ability to problem solve and meet the patients care needs. Nurses shut down emotionally and suffered from STS where there was a lack of teamwork and debriefing after patient trauma. In cases where teamwork was present nurses had better ability to cope with patient trauma and

discuss their worries with other nursing colleagues. This helped alleviate some of the nurses' stress in the case of STS and in its aftermath, CF and burnout.

FUTURE RESEARCH AND RECOMMENDATIONS

One of the main and most important roles of the nursing profession is nurses assisting patients through the most traumatic experiences of their lives. What is often forgotten is how this patient trauma is affecting the nurses themselves. Although it has been established that the nursing profession is stressful for nurses, there is not enough discussion of how these stressors negatively affect nurses. The findings of this literature review indicated that emotional distress, insufficient care, depersonalization, teamwork, lack of resources and a knowledge deficit were the results of STS, CF and burnout. This study raises not only awareness of the effect of STS, CF and burnout, but provides insight on the mitigating circumstances in the nursing profession that can cause STS, CF and burnout. It also highlighted what consequences STS, CF and burnout can have on patient care.

The importance of patient care is underscored throughout the duration of nursing education. This study highlights a need for more discussion on the part of nursing educators of the possible negative effect patient care and trauma can have on nurses. This could include for example, role playing of traumatic patient situations in combination with theory discussion of how to best handle patient trauma from not only a patient care perspective, but from a nursing perspective. This could provide the possibility of newly educated nurses with better ability to deter CF, STS and burnout. It could also help newly educated nurses to recognize the symptoms before it could impact patient care negatively.

The study found that although teamwork was beneficial to easing STS, CF and burnout, it was lacking in most nursing environments. This underscores the fact more research is needed to explore how to implement better teamwork and cooperation between nursing colleagues. This study could also inspire health and care management to promote debriefing opportunities between colleagues and nursing management. This study also indicated the need for hospital administration and nursing management to better support nursing professionals with resources. Further research is needed to show how hospitals lack of resources is impacting patient care negatively.

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APPENDIX 1

Database search CINAHL

Search	CINAHL search	Number of hits
S1	Nurs*	889,410
S2	Nurses exposure	676
S3	Nurses experience	14,431
S4	(MH "Nurses+")	227,019
S5	S1 OR S2 OR S3 OR S4	893,664
S6	Qualitative	174,902
S7	"Qualitative study"	38,115
S8	"Qualitative research"	14,760
S9	(MH "Qualitative studies+")	151,752
S10	S6 OR S7 OR S8 OR S9	205,000
S11	"Secondary stress"	30
S12	"Secondary trauma"	155
S13	"Secondary traumatic stress"	402
S14	"Compassion fatigue"	1230
S15	(MH Compassion Fatigue")	585
S16	(MH "Burnout, Professional+")	11,532
S17	S11 OR S12 OR S13 OR S14 OR S15 OR S16	12,085
S18	S5 AND S10 AND S17	451

Thursday, November 12, 2020, 09.46

APPENDIX 2

Database search Pubmed

Search	PubMed search	Number of hits
S1	Nurs*	985,710
S2	Nurses exposure	7,361
S3	Nurses experience	44,683
S4	“Nurses”[Mesh]	89,056
S5	(((“Nurses”[Mesh]) OR (Nurs*)) OR (Nurses exposure)) OR (Nurses experience)	985,710
S6	Qualitative	303,171
S7	“Qualitative study”	41,567
S8	“Qualitative research”	72,324
S9	“Qualitative Research”[Mesh]	58,741
S10	(((Qualitative) OR (“Qualitative study”)) OR (“Qualitative research”)) OR (“Qualitative Research”[Mesh])	303,345
S11	“Secondary stress”	148
S12	“Secondary trauma”	260
S13	“Secondary traumatic stress”	434
S14	“Compassion fatigue”	1,045
S15	“Compassion Fatigue”[Mesh]	436
S16	“Burnout, Professional”[Mesh]	12,475
S17	(((((“Burnout, Professional”[Mesh]) OR (“Compassion Fatigue”[Mesh])) OR (“Compassion fatigue”)) OR (“Secondary traumatic stress”)) OR (“Secondary trauma”)) OR (“Secondary stress”)	13,540
S18	(((((((“Burnout, Professional”[Mesh]) OR (“Compassion Fatigue”[Mesh])) OR (“compassion fatigue”)) OR (“Secondary traumatic stress”)) OR (“Secondary trauma”)) OR (“Secondary stress”)) AND	464

	((((Qualitative) OR (“Qualitative study”)) OR (“Qualitative research”)) OR (“Qualitative Research[Mesh]))) AND ((((“Nurses”[Mesh]) OR (Nurs*)) OR (Nurses exposure)) OR (Nurses experience))	

Wednesday, November 11, 2020, 08.31

APPENDIX 3

Overview of study quality and subthemes

Subthemes ➡							
Study & Quality (**H**igh/**M**iddle-high) ⬇	*Desire to leave nursing*	*Providing insufficient care*	*Teamwork*	*Depersonalization*	*Emotional distress*	*Lack of resources*	*Knowledge deficit*
Dalton, J et al., (2011) (H)	x	x	x	x	x	x	x
McCall, T (2020) (M)				x	x	x	x
Asai, M et al., (2018) (H)	x	x	x	x	x		
Fernández-Leyva, A et al., (2020) (H)		x		x	x		x
Billeter-Koponen, S & Fredén, L (2005) (H)	x	x		x	x	x	x
Mackintosh, C (2007). (M)	x	x		x		x	
Olson, D et al., (2017) (M)	x	x		x	x	x	
Damigos, D et al., (2009) (H)	x		x	x	x		x
Jakimowicz, S, et al., (2018) (H)	x	x	x	x	x	x	x
Besen, B, D et al., (2019) (H)		x	x	x	x	x	

Appendix 4-13

Article matrix

Title, author, year, country	Aim	Study Design	Method	Number of participants	Main findings	Study quality
Cognitive reactions of nurses exposed to cancer patients' traumatic experience: A qualitative study to identify triggers of the onset of compassion fatigue. Asai, M; Fukumori, T; Miyazaki, A; Takaba, C; Taniguchi, S (2018) Japan	The aim of this study is to describe the nurses experience of CF and their reactions from being exposed to cancer patient's trauma as well as what can trigger CF.	Qualitative study, descriptive	Data was collected by semi structured interviews and analyzed using content analysis and the constant comparative method.	30 nurses 1 male 29 female 2 years minimum experience working in cancer care department; experienced CF before. Nurses worked at six different hospitals in Japan.	Eleven categories were identified. Categories that appeared with high frequency included "sense of professional inadequacy", "compassion for patients and their family", "sense of professional mission".	High quality. Interviewer is a psychologist trained in qualitative interviewing technique.

Title, author, year, country	Aim	Study Design	Method	Number of participants	Main findings	Study quality
Secondary traumatic stress experiences of nurses caring for cancer patients Besen, B, D; Günüşen, N, P; Ak, P, S; Üstün, B (2019) Turkey	The aim of this study is to explore secondary traumatic stress experiences of nurses caring for cancer patients.	Qualitative study, descriptive.	Data was collected with semi constructed in-depth interviews. Results analyzed via content analysis.	13 nurses All female, average age 31. Mean total length of work experience 9 years.	Three themes, cycle of desperation, coping and change. Nurses' having difficulties caring for cancer patients and experiencing fatigue. Nurses were suffering form STS and were needing support from the work environment and sharing positive experiences lessened STS.	High quality. All interviews conducted by the same researcher. Data analyzed independently; differences were discussed to reach a consensus.

Title, author, year, country	Aim	Study Design	Method	Number of participants	Main findings	Study quality
Long-term stress, burnout and patient-nurse relations: qualitative interview study about nurses' experience. Billeter-Koponen, S; Fredén, L (2005) Sweden	The aim of this study is to find a deeper understanding of the experience of nurses that are exposed to burnout and long-lasting stress.	Qualitative study, grounded theory.	Data was collected by face-to-face semi-structured open interviews that were tape-recorded. Data was analyzed according to grounded theory.	10 nurses 10 female Ages 30-61, had experienced burnout before. Work experience 1-31 years. Nurses worked in different wards of the hospital and in community care.	One core category, Powerlessness in influencing the valuation of the work of nurses. Nurses felt the patient care was one of the most important aspects of nursing but failed to give safe care and meet patients because of their experienced powerlessness.	High quality. Data saturation was reached and controlled by doing an additional three interviews that added nothing new.

Title, author, year, country	Aim	Study Design	Method	Number of participants	Main findings	Study quality
An exploration of the experience of compassion fatigue in clinical oncology nurses. Dalton, J; Merrick, T; Perry, B; Toffner, G (2011) Canada	The aim of this study is to explore what worsens or lessens compassion fatigue and what the nurses go through if they had CF.	Descriptive, exploratory, qualitative study	Data was collected by an online questionnaire and writing a narrative describing a time they experienced CF. IP addresses were removed and participants were anonymous. Data analyzed via content analysis.	19 nurses 19 female Ages 20-60. Nurses had a minimum of 2 years work experience in nursing.	Five main themes were identified, defining CF, causes of CF, factors that worsen CF, outcomes of CF and circumstances that lessen CF. Not enough is know about CF, nurses always feel there is more they can do, and promotion of teamwork/support lessens the risk of CF.	High quality. Very detailed data analysis.

Title, author, year, country	Aim	Study Design	Method	Number of participants	Main findings	Study quality
Understanding nurses's psychosomatic complications that relate to the practice of nursing. Damigos, D; Gouva, M; Mantzoukas, S; Mitona, E (2009) Greece	The aim of this study is to investigate nurses to understand their experience and effects on their health, psychological and physical.	Qualitative study, Van Manen's thematic analys approach to analyze collected data.	Data was collected by face-to-face interviews, with open questions, that were tape-recorded and transcribed into text.	9 nurses 7 females 2 males All had at least 5 years of experience, a bachelor's degree. Ages 30-49, work experiences 5-27 years. Working in adult-related wards among renal, oncology and medical.	Three essential themes were identified, a dissonance between the images and reality of nursing, emotional burnout and psychosomatic entanglement. A major find was nurses suffered from emotional burnout due to challenging environment and lack of coping.	High quality. Good method.

Title, author, year, country	Aim	Study Design	Method	Number of participants	Main findings	Study quality
Qualitative study on the causes and consequences of compassion fatigue from the perspective of nurses. Fernández-Leyva, A; Ibáñez-Masero, O; Ortega-Galán, M, A; Pérez-García, P, A; Ramos-Pichardo, D, J; Ruiz-Fernández (2020) Spain	The aim of this study is to understand why, from the nurses' perspective, CF exists and the consequences of it.	Qualitative study, hermeneutic phenomenology according to Van Manen's model.	Data was collected by having discussions with the participants and researchers in focus groups.	43 nurses 37 females 6 males mean age 50.79 Had experienced CF previously and were actively working during the study.	Two main themes were identified with 3 subthemes each, causes of compassion fatigue and consequences of compassion fatigue.	High quality. Data saturation reached. Detailed method.

Title, author, year, country	Aim	Study Design	Method	Number of participants	Main findings	Study quality
Insights on compassion and patient-centered nursing in intensive care: A constructivist grounded theory. Jakimowicz, S; Lewis, J; Perry, L (2018) Australia	The aim of this study is to gather information and explore compassion fatigue and satisfaction among nurses working in intensive care.	Qualitative study, Charmaz's grounded theory.	Data was collected by in-depth interviews, with open questions, that were recorded and transcribed.	21 nurses 4 males 17 females minimum 6 months experience of working in intensive care. Nurses from two departments in two different hospitals.	One core category was identified, expectations. Subcategories were also identified, life in the balance, passion and pressure, understanding and advocacy, tenacity and fragility	High quality. Detailed process, every researcher took part in interviewing, analyzing and method.

Title, author, year, country	Aim	Study Design	Method	Number of participants	Main findings	Study quality
Protecting the self: a descriptive qualitative exploration of how registered nurses cope with working in surgical areas Mackintosh, C (2007) UK	The aim of this study is to understand how nurses working in surgical areas work and cope with the experiences and exposure they are subject to everyday.	Descriptive qualitative study.	Data was collected from semi-structured interviews that were recorded on tape and transcribed. The Data was analyzed according to the four stages by Morse and Field.	16 nurses were randomly selected among 32 participants for the study. 14 females 2 males Ages 22-59 All were working in surgical areas of the hospital	Nurses could identify factors that made their work environment more difficult. Findings show that many nurses "switched off" to be able to continue work and at times it lead to a depersonalization of the patients and burnout.	Medium quality. Not defining how these 16 nurses were randomly selected. The interviews were done some year prior to the research paper which can mean the result may be different at this time.

Title, author, year, country	Aim	Study Design	Method	Number of participants	Main findings	Study quality
Caring for Patients From a School Shooting: A Qualitative Case Series in Emergency Nursing McCall, W, T (2020) USA	The aim of this study is to understand how nurses describe their experiences during trauma and understand them to translate the findings to improving the mental health and wellness of the nurses.	Qualitative case series study.	Data was collected by interviews that were recorded and transcribed. The data was analyzed to codes and themes with the NVivo 12 software.	7 nurses 6 females 1 male 30 – 41 years old All work experience in the emergency department and had witnessed trauma.	Findings show nurses in emergency departments are at risk for STS, CF and burnout as a result to witnessing trauma. Nurses should be encouraged to have positive coping skills and self-care routines to limit the damage from trauma and STS.	Medium quality. 5 nurses were paid to do the interview, 2 had left their position at the department but received gift cards instead. Limited saturation due to low number of participants.

Title, author, year, country	Aim	Study Design	Method	Number of participants	Main findings	Study quality
Situational Factors Associated With Burnout Among Emergency Department Nurses Olson, D, M; Rozo, J, A; Stutzman, S, E; Thu, H (2017) USA	The aim of this study is to understand the factors and experiences that lead to burnout amid nurses.	Prospective qualitative study, phenomenological approach.	Data was collected by one-on-one interviews; they were recorded and transcribed. The data was content analyzed.	5 nurses 2 males 3 females Nurses who reported stress related to work, above 18 years, spoke English and had emergency nursing experience.	Nurses experience burnout due to work environments that are stressful and unhealthy. There is a need and awareness to mitigate the risks of burnout and prevent it.	Medium quality. Saturation was met after 5 interviews. The data analysis was only made by one researcher – increased risk for bias.