

# WITHDRAWN: Prevention and Management of Compassion Fatigue (CF) in Clinical Nurses: a Qualitative Content Analysis

azade safa

Kashan University of Medical Sciences

Farzaneh Sabery

Kashan University of Medical Sciences

Mahdiah Sabery

[dsabery@yahoo.com](mailto:dsabery@yahoo.com)

Kashan University of Medical Sciences <https://orcid.org/0000-0002-5702-0657>

---

## Research article

**Keywords:** compassion fatigue, nursing, qualitative

**Posted Date:** December 3rd, 2020

**DOI:** <https://doi.org/10.21203/rs.3.rs-116196/v1>

**License:**   This work is licensed under a Creative Commons Attribution 4.0 International License.

[Read Full License](#)

---

## EDITORIAL NOTE:

The full text of this preprint has been withdrawn by the authors while they make corrections to the work. Therefore, the authors do not wish this work to be cited as a reference. Questions should be directed to the corresponding author.

# Abstract

## Background

Prevention and management of compassion fatigue (CF) is one of the most serious issues facing the nursing profession today because CF is a complex phenomenon with many negative and destructive consequences. Given that cultural, religious, and socioeconomic differences can affect nurses' perception about preventive strategies of CF; this study was conducted to obtain greater understanding about prevention and management strategies of CF among Iranian nurses.

## Methods

Inductive content analysis study was conducted by the method proposed by Elo and Kyngäs. It includes three steps of open coding, creating classes and abstracting it. Purposive sampling was used to select the nurses in Tehran and Kashan (two cities in the center of Iran). Data was gathered by semi-structured interviews from June to October 2020.

## Results

The following two main themes, 5 categories and 13 subcategories were extracted. The labels of themes included "self-care strategies" and "social support strategies ". Self-care strategies consisted of 2 main categories of problem-based strategies and escape/ avoidance strategies. Social support strategies included 3 main categories of family support, organizational support and community support.

## Conclusion

The results showed that Iranian nurses use self-care strategies and social support strategies to prevent and manage CF; nevertheless, it seemed social support strategies outweighed self-care strategies. As a result, in addition to the importance of family and organizational support, the governmental support is also noticeable, thus, appropriate policy- making and culture-building activities to promote nursing dignity are necessary.

## Background

Compassion fatigue (CF) refers to the accumulative negative feelings that may result during continuous exposure to the traumatic and stressful situations (1, 2). CF is a state of emotional and physical exhaustion due to the dynamics of a caring relationship with an individual who has suffered from a sudden or severe loss. It is a progressive process of absorption of a patient's pain and suffering created owing to caring interactions between nurses and patients and also their families. Nurses experiences CF because of caring for patients with different levels of illnesses and becoming close to them and their families (2). Nurses are at high risk of CF by prolonged and repeated exposure to patients' pain and suffering, stressful environments, and caregiving activities (3).

CF is a complex phenomenon with many negative and destructive consequences. It may affect the nurses, patients, organization, and even community (2-4). Nurses gradually lose their feelings of self-efficacy, competency, and satisfaction. Finally, they are affected by numerous physical, emotional, social and spiritual complication, which menace the existential integrity of them (2, 5). CF increase rates of absenteeism, burnout, turnover, stress, depression, insomnia, nightmares, headaches, gastrointestinal complaints and anxiety disorders. It is associated with a regular decrease in empathy and compassionate care, an increase in clinical errors, and consequently a decline in quality of care (1, 5).

Multiple studies have identified that 20–40% of nurses are challenged by CF (6), so that 21.6% of oncology nurses (7), 27.3% of trauma nurses (8), 30% of neonatal nurses (9), 39.9% of emergency nurses (10), and 40% of ICU nurses (11) are at high risk of CF.

Prevention and management of CF is one of the most serious issues facing the nursing profession today because although CF has negative consequences, it is a predictable and preventable phenomenon (12). If nurses are aware of the preventive strategies of CF, they will be able to protect themselves from these destructive outcomes. On the other hand, awareness from this issue is also necessary for nursing managers and organizations because they face with the challenges of CF such as absenteeism, burnout and turnover. If managers design and implement effective interventions to prevent and manage CF, they will be able to protect their staff and ultimately improve patient care and organizational outcomes (4, 13).

Given that the CF is a context based concept (1) and has been influenced by religious and sociocultural factors, there may be a different understanding of this concept and its preventive strategies in different cultures. Although some studies have been conducted about this issue (8, 10, 14), the Iranian nurses' understanding with different cultural, religious, and socioeconomic backgrounds has not yet been studied. Thus, the present study was aimed to obtain greater understanding of prevention and management strategies of CF among Iranian nurses.

## Methods

### Design

In this study, qualitative content analysis was used to explore and explain the nurses' understanding of prevention and management strategies of CF.

### Participants

Purposive sampling was performed to select nurses who were working in educational and public hospitals in Tehran and Kashan. Data gathering lasted from June to October 2020. Inclusion criteria included being employed in one of the hospital departments, having at least a *bachelor's* degree in *nursing*, and two years of work experience. Due to the fact that Tehran is the capital and the nurses from different cities with various cultures are working there, it seems that the maximum cultural diversities and perspectives have been achieved.

## Data collection

Data were collected through semi-structured in-depth interviews from June to October 2020. Totally, 13 face-to-face interviews with nurses were conducted. Each interview lasted between 30 and 60 minutes and all the interviews were conducted in a private room. The interview guide consisted of open-ended questions to permit participants to explain their own experiences completely. To start with, the participants explained their individual experiences about caring for patients and then the questions of interview guide were asked in order "Have you ever experienced mental and emotional fatigue while caring for patients? Describe it. "Do you take any special measures when you experience such fatigue? ", "What are you doing to alleviate this fatigue?", "What are you doing to prevent this fatigue?" Then the interviews continued with exploratory questions ("Explain more?" "What do you mean by that?"), to get in-depth data. All interviews were recorded on mp3 recorder. Data saturation occurred on the 10th interview which did not yield a new category however, in order to increase accuracy researcher also conducted three more interviews.

## Data analysis

In the qualitative approach, data collection and analysis are performed simultaneously. Inductive content analysis was performed by the method proposed by Elo and Kyngäs (2008)(15). It includes three steps of open coding, creating classes and abstracting it. At first, the interviews were transcribed verbatim and read several times to reach an overall understanding of nurses' understanding of preventive strategies of CF. Then important statements were underlined to identify the meaning units. Meaning units including words, sentences or paragraphs relevant to nurse's perceptions about this subject were extracted and labeled with codes. Then, the codes were sorted into clusters of themes and sub-themes based on their similarities and differences. Lastly, themes of latent content were attained. Table 1 showed data analysis in details.

## Trustworthiness

In order to increase the transferability and credibility of the data, the participants were selected with maximum diversity in terms of age, work experience, employment location, and different levels of education. Furthermore, the credibility of the data was assured through peer check and member check. Peer checking was conducted by two expert supervisors from Kashan University of Medical Sciences to verify analyzing process and increase the conformability. For member checking, some interview drafts were returned to the participants to confirm the correct perceptions. In addition, to enhance the transferability, the researchers focused on reflexivity and clarification and the demographic characteristics of participants were described in details.

# Results

The participants included 13 nurses (4 men and 9 women). Eleven of whom had bachelor's degree and two had Master of Science in nursing. Median ages of participants were 27-42. Minimum and maximum

of work experience for nurses were 2 and 15, respectively. Mean of work experience was 10 years. At first, 350 codes were derived and then after reducing, deleting and merging the codes in analysis phases, all codes decreased to 180. Finally, 13 sub subcategories, 5 categories and 2 themes were achieved. The labels of themes included "self-care strategies" and "social support strategies ". Self-care strategies including 2 main category of problem-based strategies and escape/ avoidance strategies. Social support strategies including 3 main categories of family support, organizational support and community support.

### Self-care strategies

Majority of participants stated that CF among nurses is inevitable due to caring nature of nursing profession and considered self-care strategies as a one of the most important of the preventive strategies of CF. Self-care strategies are activities that control and repel the source of stress, distract the person from the stressful environment and keep them away from the stressful situation.

### Problem-based strategies

Based on of participants' statements, this category can be classified into 4 subcategories including acceptance, adaptation, alteration and energy recovery.

Acceptance: There are some topics in this subcategory that nurses mentioned such as accepting existing conditions, accepting inability to change, accepting the behaviors of others, accepting one's own and others' mistakes, learning how to forget them, being responsible, and having a positive attitude.

Adaptation: This subcategory consisted of rebuilding issues and problems, gaining a sense of self-control, time management, prioritizing affairs, creating a work-life balance, separating personal and professional life, setting reasonable standards, and suppressing idealism. Nurses considered idealism annoying. If a nurse is an idealistic person and wants to provide high quality care, it will damage him/her. What is more, the participants emphasize that the ability to balance work-life activities is an important adaptive skill. One participant said: "We have to learn to separate work and life issues to get less hurt" (a nurse with 15 years of experience).

Change: This subcategory includes changing positions, changing perspectives, changing patterns and communicational behaviors (expressing emotions, talking about existing problems, dealing with issues). Some nurses even considered that facing with major challenges are opportunities for personal growth. "After 14 years working, I've learned that I shouldn't run away from problems, I must face with them. Sometimes exposures to painful and suffering circumstances of the patients get me closer to God, and it makes me grow spiritually. "

The participants mentioned some activities such as regular exercise, healthy recreation, adequate time for work and rest, and traveling as measures for restoring energy and enhancing the strength of nurses. One participant added: "I think, nurses cannot take care of themselves, they don't exercise regularly, they don't have eat healthy food, and they do not have any planned entertainment. Many of them don't have enough rest; they just go to hospital and come back home"(A nurse with 10 years of experience).

The participants showed defensive strategies are one of the most significant strategies in the prevention of CF. This main category consisted of distracting and escape/ avoidance. Distracting included distancing oneself from others, preferring to be alone, being unwilling to crowded situation. Furthermore, nurses are also using escape/ avoidance strategies as effective way to protect themselves. The escape / avoidance strategy included being absent in the workplace, staying away from colleagues, ignoring patients, considering the patients as object, too many delays, a desire to quit their jobs. One participant stated: "Some days, I'm so tired emotionally that I can't work. I don't want to go to the hospital and care patients. I don't want to listen to my patients. I don't have the usual compassion and empathy. I've become apathetic and indifferent. I think I want to escape from my situation". (A nurse with eight years of experience)

### Social support strategies

Social support strategies are the most noticeable preventive ways that have been repeatedly stated by the participants. This category includes three subcategories: family support, organizational support, and community support.

Family support includes support of parents, spouse, children, and friends. The family is a fundamental principle in supporting nurses in family and professional life. An Iranian societies, like many Asian countries, are family-oriented and they have traditional views and values about working of women, especially in the nursing profession and especially in the evening and night shifts, and this is while clinical nurses have to work in all shifts(morning, afternoon and evening). Based on Iranian culture in some areas, it is not desirable for a family, especially for the man of the family, therefore the lack of family support was emphasized in the statements of some participants. One of the nurses with 13 years of experience stated in this regard: "family support is very important, my husband does not like my job because of night shifts and working with male colleague and male patients and I do not receive support from my husband at all. If he supports me, I will be less mentally tired. In fact, I go home exhausted and come back to work more tired without any recovery".

### Organizational support

Based on the experiences of the participants, organizational support was another strategy of social support. This category is rather large and includes three sub-categories of the financial and human resources management, educational support and creating a supportive environment.

The financial and human resources management: lack of funding, lack of nursing staff, lack of resources and lack of adequate financial resources for nurses were considerable issues that were stated by almost all nurses. In this respect, one of the nurses in the intensive care unit said: "Our work pressure is very high. The number of nurses is very low. "If the number of staff is so large that we do not have to work overtime, both our mental and physical fatigue will be reduced." with 10 years of experience in nursing.

**Educational support:** the participants mentioned training as one of the most significant approaches to prevent and manage CF. Awareness of this phenomenon, causes, risk factors and effective interventions is essential because many nurses and nursing managers are not aware of the nature of this phenomenon and even they equate it with burnout. Many participants acknowledged the need to integrate adaptive skills training programs, stress management, crisis management, and communication skills in the nursing curriculum, and even constant education. A participant with 7 years of experience said: "Since working with patients creates a very stressful situation, I have to be trained all kinds of methods of adaptation, stress management, crisis management to be able to use them in sensitive situations."

**Creation of supportive environment:** The participants considered that the creation of a supportive environment can be another approach for prevention and management of CF. They added, to achieve this goal, the managers' support, the peers' support (colleagues), the doctors' support and inter-professional cooperation are very effective. A participant with 8 years of experience stated: "We have a lot of shifts and limited resources in transplant department, but the personnel have created a friendly environment. We all work together with cooperation. Both the head nurse and the doctors support us. "It relieves a lot of our stress." Another nurse added, "We talk to our colleagues about the pain and suffering of patients and even mourn and cry together. These conversations make us mentally calm".

The government and the nation's support

The nurses also mentioned the key role of the government and the nation in preventing of CF. Governmental support included adequate funding, the development of policies for supporting nurses, the creation of an appropriate culture to enhance nurses' dignity, and the promotion of social positions. One participant added: "The nurse should be supported by the government, when the policies of government are supportive and nurses feel supported, they are less likely to suffer from mental and emotional fatigue."

Table 1: the data analysis process

Sub sub-category	Sub- category	category
Acceptance	Problem-solving strategy	Self-care strategies
Adaptation		
change		
energy restoration		
escape/avoidance	Avoidance strategy	
Distancing		
family support	Family support	Social support strategies
significant others support		
The financial and human resources management	Organizational support	
Create of educational support		
Government support		
Nation support	The government and the nation's support	

## Discussion

This study was conducted to explore the understanding of Iranian nurses of the prevention and management of CF. The findings showed that the participants used personal and social strategies to prevent them from CF. According to Iranian nurses, self-care strategies are the most important personal strategies to prevent the CF. According to the evidence, self-care is a cornerstone and an integral part of preventive programs of CF (16-18).

Sorenson et al (2016) and Shepherd (2019) concluded that self-care interventions are the most significant preventive measures for decreasing the chance of developing CF among nurses (12, 19). Nolte et al. and Wang et al also indicated problem solving strategy as an approach of self-care strategies were negatively associated with CF (16, 20).

According to *Watson's Theory* of Human Caring, if nurses are unable to provide compassionate care from themselves, they will not be able to provide "valid care" for others (William Rosa). Because nurses are often trained to take care of others and are not accustomed to taking care of themselves. As a result, they become emotionally exhausted. If nurses neglect self-care, they lose the ability of caring (21) .

The participants repeatedly mentioned the role of social support in preventing CF. Social support includes family support, organizational support and community based support. Based on "Systems theory", social support as a key resource in the environment promotes mental health and physical outcomes. Social support can reduce feelings of loneliness and hopelessness and help a person assess stressors, identify

solutions, and cope with stress (22) . In line with this finding, Lim et al. considered that social support from colleagues, family and friends are the most imperative and useful form of adaptive strategy(23). Arianpooran stated that nurses who have the support from friends and family members are healthier than those who have less support, because they provide credibility, confidence, attention in addition to emotional support that play an important role in preventing and even reducing CF in nurses(10).

Organizational support as part of social support is a significant and broad topic that has been repeatedly stated by nurses. Nurses in this study mentioned that managers' support, co-workers' support, promoting a friendly atmosphere in the organization, promoting a culture of inter-professional cooperation and developing respectful communication are the important factors in creating a supportive environment in the organization and preventing CF. Duffy et al considered managers' support as an effective approach in reducing CF(24), and Garlek et al and Bourassa found colleagues' support to be very effective in reducing burnout and CF(22, 25). They even considered the colleagues' support more effective than the managers' support.

Branch & Klinkenberg (2015) believed that providing a supportive environment for nurses in organizations is essential so that they can talk freely about their feelings and concerns (26). Shepard (2016) added that nurses who work in a supportive environment may experience less stress and, as a result, they may be less likely to experience CF(17). Shepherd (2019) stated unhealthy work environment and lack of leadership are identified causes for CF. Therefore, nurses are fundamentally required and leaders have recognized causes of CF and improved teamwork to create supportive and positive environment for nurses. Evidence has shown that strategies such as self-care, collegial support, management support, debriefing, psychological support and supportive environment are useful strategies in prevention and management of CF (18, 19). Moreover, Baek et al, (2020) concluded that creating supportive work environment and improving the organizational support for adequate human resources could be effective ways to prevent CF among nurses (27). In line with this study, Pergol- Metko & Czyżewski stated managers should pay special attention to the number of working hours of nurses because overtime work is an important predictor of CF (28). Jarrad and Hammad (2020) recommended that health managers must care about nurses with a holistic approach and services such as support, comfort, leisure activity, consultation must be provided for nurses in work environment (5).

Another important topic based on the participants' views was educational support. Educational support stands as an effective measure in preventing CF. In alignment with our finding, Dreher et al concluded that educational programs addressing CF awareness and self-care skill strategies are beneficial as well as cost-effective for CF prevention among nurses(29).

Yu et al.(2016) and Shepherd, (2019) stated identified educational and organizational support are significant protectors of CF(19, 30). Educational awareness is one of the most valuable behaviors and practices for nurses that it could decrease risk factors and symptoms of CF(4).

An important finding that emerged in this study was the inappropriate and poor impression toward nurses in the society and in turn physician-centeredness in the health care systems and consequently they

showed that it could be a factor in creating mental fatigue. Barmawi et al. (2019) also mentioned low to moderate levels of social support in their study(31). Nurses complained about the poor impression and inappropriate appreciation of society towards nursing profession and physician-centered issue in the organization and even society, and both of them were considered to be effective in creating CF from the nurses' point of view. In line with this, Barmawi et al noticed that level of social support among nurses is low to medium and must to be improved(31). Barr(2017) concluded that perceived social support had important direct and indirect relationships with CF in nurses(32).

Participants believed that people do not recognize nursing as a profession. They consider nurses as assistants of physicians and not as a care specialist. Our finding and similar findings in other Iranian studies show the effect of social, political and cultural factors on developing CF(1), Therefore, accurate and long-term policies for modifying and alteration of cultural and social values are imperative to prevent and manage the CF among Iranian nurses. In addition, it is recommended that Health Ministry modify a hierarchical structure of physician-nurse in Iran and try to introduce nursing profession for Iranian people and eliminate the wrong imagination of nursing in the public mind.

Participants in the present study tried to use avoidance approach and protect themselves by using avoidance strategies instead of solving problems and controlling workplace stress. Of course, there are many conflicting opinions whether these strategies protect nurses. Some researchers have identified avoidance coping strategies as maladaptive coping mechanisms and ineffective coping techniques that are associated with poorer adaptation and much more consequences (23, 33, 34). On the other hand, some researchers believed that the avoidance coping strategies may enhance people's mental health because it provides time for reflection on the real situation (34, 35). On the other hand, some believed that although the effectiveness of avoidance coping strategies are not the same as problems focused on coping strategies, it may be helpful for some nurses in managing stress (35) (23).

Hee concluded that CF was negatively associated with emotion-focused coping strategies such as avoidance coping strategies and positively associated with problem-focused coping strategies. It means the use of emotion-focused coping strategies is more often associated with more CF than use of problem-focused coping in nurses (36). Therefore, problem-focused coping skills should be taught to nurses to be able to overcome CF in the workplace.

#### Limitation of study

Despite the efforts of the present study to increase the rigor of the study, the data generalizability is limited due to the qualitative nature of the study and the low number of nurses. Therefore, further studies are needed to examine nurses' perceptions of different societies and cultures.

## Conclusion

The results showed that Iranian nurses are using a variety of problem-focused and emotion-focused coping strategies to prevent CF. Since emotion-focused coping strategies is less effective than problem-

focused coping strategies, it is better for nurses to learn to use more problem-focused coping strategies to better adapt to stressful workplace. Of course, this requires the support of the government, the organization, and the family.

#### Relevance to clinical practice

The findings of this study increase the knowledge and understanding of nurses and managers about effective measures to prevent CF. With this awareness, nurses will be able to provide compassionate care for patients without harming themselves. In this regard, the organizational managers can provide comprehensive support for nurses and protect them against CF by designing effective preventive measures in the self-care, financial and resource management, educational support and creating a supportive environment.

## Declarations

#### Ethics approval and consent to participate

The Institutional Review Board and the Research Ethics Committee of Kashan University of Medical Sciences (SBMU2.REC.1394.46) approved the study protocol. Permissions were also obtained from authorities of the hospital. The participants were informed about the aims and the importance of the study. They were also assured about the confidentiality of the provided data and the withdrawal from the study at any time. All participants signed an informed written consent before participating in the study.

#### Consent for publication

Not applicable.

#### Availability of data and materials

The complete dataset supporting the conclusions of this article is available from the corresponding author and can be accessed upon a reasonable request.

#### Competing interests

The authors declare that they have no competing interests.

#### Funding

This study was supported by the Deputy of Research, Kashan University.

#### Authors' contributions

Mahdiah Sabery was responsible for the study conception and design and, made critically revisions to the paper, participated in data analysis and supervised the study. Azade Safa participated in the study

conception, performed the data collection and Farzaneh Saberi literature search and prepared the first draft of the manuscript.

## Acknowledgements

The authors would like to appreciate the nurses and nursing managers who participated in the study. We are also grateful to the research deputy of Kashan University of Medical Sciences that supported us in conducting this study.

## References

1. Sabery M, Tafreshi MZ, Mohtashami J, Ebadi A. Development and Psychometric Evaluation of the Nurses' Compassion Fatigue Inventory. *J Nurs Meas*. 2017;25(3):E185-E201
2. Alharbi J, Jackson D, Usher K. Compassion fatigue in critical care nurses and its impact on nurse-sensitive indicators in Saudi Arabian hospitals. *Aust Crit Care*. 2020.<https://doi.org/10.1016/j.aucc.2020.02.002>
3. Peters E, editor *Compassion fatigue in nursing: A concept analysis*. Nurs Forum; 2018: Wiley Online Library.
4. Cross LA. Compassion Fatigue in Palliative Care Nursing: A Concept Analysis. *J Hosp Palliat Nurs*. 2019;21(1):21-8.[10.1097/njh.0000000000000477](https://doi.org/10.1097/njh.0000000000000477)
5. Jarrad RA, Hammad S. Oncology nurses' compassion fatigue, burn out and compassion satisfaction. *Annals of general psychiatry*. 2020;19:1-8
6. Sinclair S, Raffin-Bouchal S, Venturato L, Mijovic-Kondejewski J, Smith-MacDonald L. Compassion fatigue: A meta-narrative review of the healthcare literature. *International Journal of Nursing Studies*. 2017;69:9-24.<https://doi.org/10.1016/j.ijnurstu.2017.01.003>
7. Cho HJ, Jung MS. Effect of empathy, resilience, self-care on compassion fatigue in oncology nurses. *Journal of Korean Academy of Nursing Administration*. 2014;20(4):373-82
8. Hinderer KA, VonRueden KT, Friedmann E, McQuillan KA, Gilmore R, Kramer B, et al. Burnout, Compassion Fatigue, Compassion Satisfaction, and Secondary Traumatic Stress in Trauma Nurses. *Journal of Trauma Nursing | JTN*. 2014;21(4):160-9.[10.1097/jtn.0000000000000055](https://doi.org/10.1097/jtn.0000000000000055)
9. Sacco TL, Ciurzynski SM, Harvey ME, Ingersoll GL. Compassion satisfaction and compassion fatigue among critical care nurses. *Crit Care Nurse*. 2015;35(4):32-42
10. Ariapooran s. The prevalence of secondary traumatic stress among nurses in Iran, Malayer: the predicting Role of mindfulness and social social and social support. *International Journal of community based nursing and midwifery*. 2013;1(3):-
11. Elkonin D, Van der Vyver L. Positive and negative emotional responses to work-related trauma of intensive care nurses in private health care facilities. *Health SA Gesondheid*. 2011;16(1).[10.4102/hsag.v16i1.436](https://doi.org/10.4102/hsag.v16i1.436)

12. Sorenson C, Bolick B, Wright K, Hamilton R. An evolutionary concept analysis of compassion fatigue. *J Nurs Scholarsh.* 2017;49(5):557-63.<https://doi.org/10.1111/jnu.12312>
13. Arimon-Pagès E, Torres-Puig-Gros J, Fernández-Ortega P, Canela-Soler J. Emotional impact and compassion fatigue in oncology nurses: Results of a multicentre study. *Eur J Oncol Nurs.* 2019;43:101666.<https://doi.org/10.1016/j.ejon.2019.09.007>
14. Thompson A. How Schwartz rounds can be used to combat compassion fatigue. *Nurs Manage.* 2013;20(4). 10.7748/nm2013.07.20.4.16.e1102
15. Elo S, Kyngäs H. The qualitative content analysis process. *J Adv Nurs.* 2008;62(1):107-15
16. Nolte AG, Downing C, Temane A, Hastings-Tolsma M. Compassion fatigue in nurses: A metasynthesis. *J Clin Nurs.* 2017;26(23-24):4364-78.<https://doi.org/10.1111/jocn.13766>
17. Sheppard K. Compassion fatigue: Are you at risk. *American Nurse Today.* 2016;11(1):53-5
18. Tellie MJ, Leech R, van Wyk N. Strategies for nurses in antiretroviral clinics to mitigate symptoms of compassion fatigue. . *Africa Journal of Nursing and Midwifery,* . 2019;21(1):1-18.10.25159/2520-5293/4907
19. Shepherd TD. Investigating Compassion Fatigue in Medical-Surgical Nurses. 2019
20. Wang J, Okoli CTC, He H, Feng F, Li J, Zhuang L, et al. Factors associated with compassion satisfaction, burnout, and secondary traumatic stress among Chinese nurses in tertiary hospitals: A cross-sectional study. *International Journal of Nursing Studies.* 2020;102:103472.<https://doi.org/10.1016/j.ijnurstu.2019.103472>
21. Adimando A. Preventing and Alleviating Compassion Fatigue Through Self-Care: An Educational Workshop for Nurses. *Journal of Holistic Nursing.* 2018;36(4):304-17.10.1177/0898010117721581
22. Galek K, Flannelly KJ, Greene PB, Kudler T. Burnout, secondary traumatic stress, and social support. *Pastoral Psychol.* 2011;60(5):633-49.DOI 10.1007/s11089-011-0346-7
23. Lim J, Bogossian F, Ahern K. Stress and coping in Australian nurses: a systematic review. *Int Nurs Rev.* 2010;57(1):22-31
24. Duffy E, Avalos G, Dowling M. Secondary traumatic stress among emergency nurses: a cross-sectional study. *Int Emerg Nurs.* 2015;23(2):53-8
25. Bourassa DB. Compassion Fatigue and the Adult Protective Services Social Worker. *Journal of Gerontological Social Work.* 2009;52(3):215-29.10.1080/01634370802609296
26. Branch C, Klinkenberg D. Compassion Fatigue Among Pediatric Healthcare Providers. *MCN: The American Journal of Maternal/Child Nursing.* 2015;40(3):160-6.10.1097/nmc.000000000000133
27. Baek J, Cho H, Han K, Lee H. Association between nursing work environment and compassion satisfaction among clinical nurses. *Journal of Nursing Management.* 2020;28(2):368-76.  
<https://doi.org/10.1111/jonm.12937>
28. Pergol-Metko P, Czyżewski L. Compassion Fatigue and Perceived of Social Support Among Polish Nurses.

29. Dreher MM, Hughes RG, Handley PA, Tavakoli AS. Improving Retention Among Certified Nursing Assistants Through Compassion Fatigue Awareness and Self-Care Skills Education. *Journal of Holistic Nursing*. 2019;37(3):296-308.10.1177/0898010119834180
30. Yu H, Jiang A, Shen J. Prevalence and predictors of compassion fatigue, burnout and compassion satisfaction among oncology nurses: A cross-sectional survey. *International Journal of Nursing Studies*. 2016;57:28-38.<https://doi.org/10.1016/j.ijnurstu.2016.01.012>
31. Al Barmawi MA, Subih M, Salameh O, Sayyah Yousef Sayyah N, Shoqirat N, Abdel-Azeez Eid Abu Jebbeh R. Coping strategies as moderating factors to compassion fatigue among critical care nurses. *Brain and behavior*. 2019;9(4):e01264. <https://doi.org/10.1002/brb3.1264>
32. Barr P. Compassion fatigue and compassion satisfaction in neonatal intensive care unit nurses: Relationships with work stress and perceived social support. *Traumatology*. 2017;23(2):214
33. Leary MR, Allen AB. Personality and persona: Personality processes in self-presentation. *J Pers*. 2011;79(6):1191-218.<https://doi.org/10.1111/j.1467-6494.2010.00704.x>
34. Lambert VA, Lambert CE, Ito M. Workplace stressors, ways of coping and demographic characteristics as predictors of physical and mental health of Japanese hospital nurses. *International journal of nursing studies*. 2004;41(1):85-97
35. Chang EM, Daly JW, Hancock KM, Bidewell J, Johnson A, Lambert VA, et al. The relationships among workplace stressors, coping methods, demographic characteristics, and health in Australian nurses. *J Prof Nurs*. 2006;22(1):30-8
36. Hee YY. Factors Influencing Turnover Intention in Clinical Nurses: Compassion Fatigue, Coping, Social Support, and Job Satisfaction. . 2016;22(5):562-9