Strategies that reduce compassion fatigue and increase compassion satisfaction in nurses: a systematic review protocol

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Review question/objective: The objective of this quantitative systematic review is to determine effective strategies to reduce compassion fatigue and improve compassion satisfaction among nurses.

Keywords Compassion fatigue; compassion satisfaction; mindfulness; resilience; self-care


Background

A round the clock, front-line nurses interact with patients and families to provide nursing care evaluated by its quality, safety and engagement results. Yet when patients share experiences about the healthcare environment they often judge the care received on proxy measures, such as “the nurse was so caring” or “everyone seemed to take my concerns seriously”. An essential component to provide excellent customer service is the interpersonal exchange between the nurse and the patient/family.¹,² Ongoing positive interactions promote compassion satisfaction (CS) for the nurse. Compassion satisfaction is the energy the nurse experiences after meeting the needs of the patient.³

There is a dynamic tension between CS and the interaction with patients who are physically or psychologically hurting that can drain nurses. These demands of constant exposure to human suffering and the felt need to provide excellent care can lead to compassion fatigue (CF).⁴ Coetzee and Klopper⁵ define CF as “the final result of a progressive and cumulative process that is caused by prolonged, continuous and intense contact with patients, the use of self and the exposure to stress”.⁵(p.237) In nursing literature, authors tend to blur the distinctions between burnout (BO), secondary traumatic stress (STS) and CF, resulting in studies that overlap the conditions.

Joinson first described CF in nursing in 1992 as a unique form of BO.⁶ Figley⁷ wrote the seminal work on CF, describing it as a consequence of the emotional demands of constant exposure to human suffering. Stamm⁸ developed a model of professional quality of life (ProQOL) to encompass both CS and CF – the positive and negative aspects helpers can feel in relation to their work. Stamm proposed that CF has two parts: BO and STS. Both can occur concurrently or singularly. Although the syndromes of CF and BO are similar, the distinction is that BO does not stem from work-related fear, whereas STS, a component of CF, involves the experience of fear related to exposure to work-related trauma.⁸ Burnout stems from a work environment, not a patient care episode, that causes exhaustion, frustration and anger. Stamm used these conceptual definitions as the basis for the development of the ProQOL tool, one of the most commonly used tools for measuring CF and CS.

Compassion fatigue hampers a nurse’s ability to provide the highest quality of care and puts at risk the quality and safety valued by healthcare organizations and external regulators. Symptoms of CF can include: clinical errors, easy frustration with co-workers, absenteeism, poor patient and family communication, sarcasm, exhaustion, dread of going to work, poor patient engagement and reduced quality of care.⁹,¹⁰ Nurse leaders need practices grounded in evidence that will inform them on ways to care for the caregiver so nurses experience more CS than CF.
Practicing from a standpoint of CS improves nurse retention and quality indicators, both of which have significant financial implications. In examining patients’ perspectives of hospital care, McClelland and Vogus found that hospitals reporting employer compassion practices, such as tranquility rooms and reward, and recognition programs, had higher scores on Hospital Consumer Assessment of Healthcare Providers and Systems survey items that “rate the hospital” \( (B = 0.128, P < 0.05) \) and “recommend the hospital” \( (B = 0.141, P < 0.05) \). Leaders commonly recognize that employee engagement triggers patient satisfaction but perhaps are less likely to realize that nurse employee engagement may be hampered by rising rates of CF.

The incidence and prevalence of CF has only been evaluated on a relatively small scale, usually in specialty-based studies. Potter et al. found a higher than average score of CF in a study of 153 healthcare providers in an oncology setting. Kelly et al. provided a descriptive study of CF and CS in 491 nurses in a southwestern United States Magnet recognized hospital and found that there were no differences in the incidence of CF across units in the acute care setting but found that younger generations of nurses are experiencing higher levels of BO and STS. Kelly et al. also reported higher levels of BO and CF in the millennial generation and found that generation and intent to leave had a strong negative correlation with CS. Burton and Stichler examined the relationship of nurse caring and CS and nurse job satisfaction; and stress, BO and CF; and found that medical surgical nurses were at a higher risk for CF than hospice nurses (26.4% versus 19%). They also found a positive correlation between CS and job satisfaction and nurse caring, and a negative correlation between stress or BO and nurse caring. In the same study, age and experience were associated with lower Caring Behaviors Inventory scores, suggesting that younger, less experienced nurses were at a higher risk of CF.

Bao and Taliaferro published a study about Psychological Capital (PsyCap) reducing CF. Psychological Capital are characteristics that could reduce CF. Examples are self-efficacy, resilience, hope and optimism. These authors suggest that investing in interventions to bolster resilience could reduce CF. In this study, the PsyCap index was compared with the ProQOL score and a moderately strong negative correlation between PsyCap and BO \( (P < 0.01, r = -0.585) \) was reported. Further, a PsyCap score was moderately and negatively correlated with STS \( (P < 0.01, r = -0.300) \).

Burston and Stichler found that positive nurse social connections, outside of work, can improve the care at the bedside because of an increase in nurse caring. Internal support, in the form of mentoring, may also reduce CF and promote CS. The importance of self-care activities in reducing CF has been proposed. Potter et al. described adaption of the Accelerated Recovery Program established by Gentry in 1997 as a way to enhance resiliency to CF. This includes self-care as well as mindful-based stress reduction. Compassion resilience can be increased through a skill set that allows nonreactivity, even in the face of challenging and painful patient interactions, and is one way nurses can avoid CF. Similarly, a study of forensic nurses who participated in a modified CF Prevention and Resilience Program found an increase in CS scores on the ProQOL survey. This program focused on self-regulation, including relaxation techniques.

A search of the JBI Database of Systematic Reviews and Implementation Reports (JIBSRIR), The Cochrane Library, MEDLINE, CINAHL and Google Scholar revealed five systematic reviews and one systematic review protocol on CF. None addressed CS alone. Two reviews examined prevalence. Nimmo and Huggard summarized prevalence of CF, STS and vicarious traumatization on physicians. The prevalence of CF in junior doctors was reported at 54%, and there was an inverse relationship between age and CF. A second prevalence systematic review was published in 2015 and did not narrow the population to nursing exclusively; two studies in that review evaluated the prevalence of CF which was found to be between 7.3% and 40% in intensive care personnel. While this review also evaluated intervention studies, they were all in relation to the outcome of BO. Gillman et al. examined coping and resilience in palliative and oncology nurses caring for adult patients with malignancy spanning literature from 2007 to 2013. Although the topic did not specify CS or CF, CF was identified as a phenomenon of interest/outcome measure. Gillman et al.’s work revealed three intervention studies that found that peer support, a CF resiliency program and stress inoculation therapy may reduce CF. However, only one of the intervention studies measured CF and demonstrated that a five-week CF resiliency program had a statistically positive.
significant decrease, $P = 0.004$ six months following the intervention. Cocker and Joss's\textsuperscript{21} systematic review focused on CF among healthcare, emergency and community service workers and interventions and workplace strategies to reduce CF. They included 13 studies covering interventions, including expressing grief, rituals and resolution, music therapy, transcranial direct current stimulation, social connections with others experiencing similar problems and mindfulness education which showed mixed or no effects. Interactive group seminars, structured mediation, resilience education, self-efficacy and guided imagery were also examined and were shown to reduce BO and STS, and improve CS but not directly impact the CF measure. The reviewers called for more research to determine best approaches for protecting vulnerable workers from CF but concluded that promotion of resiliency and self-efficacy were promising. The authors did not search the gray literature, which has several interventional studies on CF. Beck\textsuperscript{22} used STS interchangeably with CF and reported two studies measuring CF. One found 25\% of forensic nurses experiencing STS, and the other found that 26.4\% of hospice nurses were at moderate risk of CF and 52.3\% at high risk of CF.\textsuperscript{22}

Conducting a systematic review of strategies that have an effect on reducing CF and increasing CS across all nursing specialties will provide structure for best practice guidelines for nurse leaders in a variety of practice areas. Similarly, understanding CF as experienced by nurses will provide insights for nurse leaders to identify and respond to nurses at risk of or experiencing CF. As a companion to this study, the same authors are undertaking a qualitative review of the subject.

A systematic review protocol in the JBISRIR submitted in 2013 addressed the topic of interventions to reduce CF.\textsuperscript{23} No completed review from this protocol has been found in the published literature. This protocol differs from our proposal in that it is limited to oncology acute care nurses and ends the literature review at July 2013 and this review will extend through 2016. Further, this protocol does not explore interventions that may increase CS.

**Inclusion criteria**

**Types of participants**
The current review will consider quantitative studies that address interventions used with nurses in any setting to reduce CF or to increase CS.

**Types of interventions**
The current review will consider studies that compare CF and/or CS following management interventions for nurses, such as resiliency programs, awareness programs, mentor/mentee relationships, mindful-based stress reduction and reward and recognition programs.

**Outcomes**
The current review will consider studies that measure CF or CS, such as the ProQOL. Studies that report the results of standardized measures will be included if there are before-and-after results following an intervention.

**Types of studies**
The current review will consider experimental studies, including randomized control trials, non-randomized control trials, quasi-experimental studies and before and after studies. In the absence of experimental studies, we will consider epidemiological studies, such as case series, individual case reports and descriptive cross-sectional studies, and prospective and retrospective cohort studies for inclusion. Expert opinion and text and qualitative studies will not be considered.

**Search strategy**
With the assistance of a research librarian trained in systematic review as recommended by the Institute of Medicine, English language studies since 1992 will be sought, as this was the year that Joinson\textsuperscript{6} first described CF in nurses.

The search strategy aims to find both published and unpublished studies. A three-step search strategy will be utilized in this review. An initial limited search of MEDLINE via OVID and CINAHL will be undertaken followed by an analysis of the text words contained in the title and abstract, and of the index terms used to describe the article.

Initial keywords to be used will be: reward and recognition, mindfulness, mentoring, self-care, compassion fatigue, secondary traumatic stress, compassion satisfaction, professional quality of life, resilience, psychological capital, quantitative research and nurses.

A second expanded search using all identified keywords and index terms will then be undertaken.
across all included databases. The databases to be searched are:

- MEDLINE via OVID
- CINAHL
- Academic Search Premier
- Scopus
- MEDNAR/Google Scholar
- JSTOR
- PsychInfo
- Web of Science
- Science Direct
- DARE
- ClinicalTrials.gov.

Third, the reference list of all identified reports and articles will be searched for additional studies. The search for unpublished studies will include searching conference proceedings over the last five years for the following:

- Magnet
- American Organization of Nurse Executives
- Sigma Theta Tau
- Press Ganey.

Unpublished studies will be sought through contact with key researchers on the topic and through search for dissertations through online library searches (Dissertation Abstracts International; ProQuest Dissertations and Theses and MedNAR/Google Scholar) and through a search of the Virginia Henderson International Nursing Library. A hand search of the last five years, 2012–2016 of the Journal of Nursing Administration and Critical Care Nursing will also be completed.

Assessment of methodological quality

Papers selected for retrieval will be assessed by two independent reviewers for methodological validity prior to inclusion in the review using standardized critical appraisal instruments from the Joanna Briggs Institute Meta-Analysis of Statistics Assessment and Review Instrument (JBI-MAStARI). All included studies will be appraised, and based on results, the authors will determine which studies represent the best quality evidence to include. Any disagreements that arise between the reviewers will be resolved through discussion or with a third reviewer.

Data extraction

Data extraction will be done utilizing a standardized critical appraisal instruments from JBI-MAStARI. The data extracted will include specific details about the interventions, populations, study methods and outcomes of significance to the review question and specific objectives. Authors of primary studies will be contacted for missing information.

Data synthesis

A meta-analysis of pooled data will be done using JBI-MAStARI. All results will be subject to double data entry. Effect sizes expressed as odds ratio (for categorical data) and weighted mean differences (for continuous data), and their 95% confidence intervals will be calculated for analysis as appropriate. Heterogeneity will be assessed statistically using the standard Chi-square and also explored using subgroup analyses based on the different quantitative study designs included in this review. Where statistical pooling is not possible, the findings will be presented in narrative form, including tables and figures to aid in data presentation where appropriate.

Acknowledgements

The review is conducted in partial fulfilment of the requirements for the degree of Doctor of Nursing Practice at Rutgers University, Newark, New Jersey, USA, and under the auspices of the Northeast Institute for Evidence Synthesis and Translation.

References

1. Doman A. Communication is customer service. Colo Nurs 2013;113(4):104.


