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Research Article

Effect of Self-Care Skill Educational Intervention on Compassion Satisfaction and Fatigue Among Nurses: RCT Study Protocol

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ABSTRACT

Background: Nurses are essential members of the healthcare team, playing a critical role in patient care, treatment, and health promotion. They provide care for patients experiencing pain, disability, critical illness, and hospice needs. This demanding work can lead to significant fatigue and stress, impacting nurses' health, which is vital for delivering excellent patient care.

The American Nurses Association's Health Risk Appraisal Report (2017) found that 82% of nurses are at significant risk for illness due to workplace stress. The ANA suggests self-care interventions such as maintaining a healthy diet, exercising, getting sufficient rest, nurturing relationships, engaging in leisure activities, self-care activities and attending to spiritual needs.

Educational programs focused on self-care practices and skills, along with compassion fatigue awareness, recognition, and prevention, can help to develop coping mechanisms and resilience in healthcare providers, enhancing workplace satisfaction and the quality of patient care.

Research methodology: This randomized controlled trial will enroll 224 participants, with 112 in the experimental group and 112 in the control group. A baseline pretest will be conducted using demographic profile and Professional Quality of Life tool V-5. The study participants in the experiment group will receive a Self-care skill educational Intervention, whereas it will be withheld from control group subjects. Compassion satisfaction and compassion fatigue will be assessed before and after the intervention in both groups.

Results: Data analysis will be conducted using appropriate descriptive and inferential statistical methods.

Discussion: The primary outcome is expecting magnitude of increase of 3+/-7.4 in compassion satisfaction scores among study group subjects from preintervention and post- intervention, as assessed using the ProQOL-5.

Conclusion: Self-Care skill educational intervention will be a Cost- effective approach to increase compassion satisfaction and reducing the compassion fatigue the among clinical nurse, which strengthens the patient-provider relationship, enhance general wellbeing, workplace satisfaction, and boost the quality of patient care at HMC in the state of Qatar.

Key Words: Self-care Skills, Compassion Satisfaction, Compassion Fatigue

Professional Quality of Life, Clinical Nurse.

Introduction and Background

Historically, as well as in the current era, especially during the COVID-19 pandemic, nurses endure the stress of caring for dying patients, witnessing human suffering, and providing support for both patients and their families, coupled with tightened budgets, staffing shortages, increasingly complex patient needs, and lack of control (Smith, 2020). Additionally, younger nurses, who comprise 40% of the workforce, are particularly susceptible to burnout, stress, and compassion fatigue. These issues, compounded by rapid technological advancements impacting their development, threaten the well-being of nurses globally, with a projected shortfall of 7.6 million nurses by 2030 exacerbating the strain (ANA, 2017).

Due to escalating work-related obstacles, nurses are at risk of increased burnout, ineffective coping, decreased employee satisfaction, increased patient-related errors, and higher turnover rates. The ability to manage work-related stress and burnout is vital to patient care and the individual health of nursing staff (Brady et al., 2012). A study by Nashwan et al. (2021) comparing the impact of COVID-19 on nurses' turnover intention before and during the pandemic at HMC, Qatar, highlighted that nurses have a higher turnover intention, further noting that participant characteristics and stress levels play a major role in nurses' decisions.

Physical and mental exhaustion in nurses, as noted by Nejati et al., 2016, can significantly impair performance, heighten the risk of medication errors, lead to missed care tasks, and reduce patient attentiveness, thereby negatively impacting patient outcomes. Conversely, compassion satisfaction, which involves the positive emotions derived from helping others, can protect against compassion fatigue (Zhang et al., 2018).

A study by El-Menyar et al. (2020) on burnout predictors among healthcare professionals at HMC, Qatar, found that emotional exhaustion affects one-tenth of the staff, especially nurses. Similarly, Milligan and Almomani (2020) highlighted that critical care nurses from migrant backgrounds face unique stressors affecting their coping mechanisms, such as financial responsibilities and reasons for migration. Kestler et al. (2020) reported that 57% of nurses aged 20-35 experience compassion fatigue, while Omar et al. (2015) identified the highest burnout levels (26.7%) among ICU clinicians aged 25-44 at HMC, suggesting the need for targeted interventions, early recognition, and management of predisposing factors to prevent burnout.

To mitigate compassion fatigue and burnout among nurses and ensure the delivery of empathetic care, implementing effective coping techniques is essential. A study by Perihan Güner et al. (2020) demonstrated that a compassion fatigue resiliency program significantly improved nurses' compassion satisfaction scores over 6 and 12 months compared to a control group. Similarly, a study by Gülay Yılmaz et al. (2018) on a nurse-led intervention for oncology nurses showed decreases in compassion fatigue and burnout by post-mean scores of 4.54 and 4.06, respectively, alongside a 5.00 increase in compassion satisfaction, despite a 5.94 reduction in post-traumatic growth. Although this study lacked a control group, it highlighted the program's potential benefits. Furthermore, a randomized controlled trial by Neslihan et al. (2021) confirmed that nurse-led interventions significantly reduced post-mean score compassion fatigue by –3.925, suggesting such programs can enhance nurses' professional quality of life and reduce workplace stress. These findings recommend the importance of mental health interventions in units/hospitals to support nurse well-being and sustain high-quality patient care.

An extensive literature search reveals that most existing studies focus on risk predictors and prevalence rates, with no interventional studies conducted in Qatar on this prevalence rate. Internationally, numerous studies have recommended awareness of compassion fatigue combined with self-care practices as effective interventions (Barnett & Ruiz, 2018; Craigie et al., 2016; Cuartero & Campos-Vidal, 2019; Silver et al., 2018). However, these findings cannot be directly applied to Qatar due to cultural differences. In this context, the researcher is interested in conducting a study to answer the question: Does a self-care educational intervention increase compassion satisfaction?

Aim of the study:

The study aims to assess the effect of the developed self-care skill educational intervention on increasing compassion satisfaction and reducing compassion fatigue in terms of burnout, and secondary traumatic stress among clinical nurses.

Objectives

1. To assess the compassion satisfaction among the clinical nurses both in the study and control groups.
2. To assess the compassion fatigue in terms of burnout, and secondary traumatic stress among the clinicalnurses both in the study and control groups.
3. To develop self-care skills educational intervention
4. To evaluate the effectiveness of self-care skill educational intervention on compassion satisfaction among the clinical nurses both in the study and control groups.

Research Hypothesis

H1: There is compassion fatigue - burnout, and STS among clinical nurses.
H2: There will be a significant difference in compassion satisfaction among clinical nurses before and after the self-care skill educational intervention.
H3: There will be a significant association between compassion satisfaction and demographic variables of respondents.
H4: There will be a significant association between compassion fatigue and demographic variables of respondents.

Study Methodology

Research Design

This study uses a prospective, parallel-group, randomized control group design. The samples will be divided into study and control groups by simple random sampling assigning the subjects to study and control groups. The effect of intervention will be assessed by comparing pre and post-test Compassion satisfaction and compassion fatigue scores of study groups that received self-care skill educational intervention and the control group (no kind of intervention) among clinical nurses.

Pilot Study: A pilot study will be conducted for 24 clinical Nurses 1 month before the study for the purpose of testing the feasibility of conducting the study and testing the proficiency of the tools.

Setting: The study will be conducted among selected hospitals of Hamad Medical Corporation, Qatar.

Participants:

The study aims to develop self-care skill educational intervention for clinical nurses to increase compassionate satisfaction among the clinical nurses working at Hamad Medical Corporation. The accessible population for the present study consists of clinical nurses (all inpatient areas like Medical, surgical, ICU, pediatrics, Emergencies centers etc.) working in acute care hospital with a nursing workforce of more than 1000 in Hamad Medical Corporation.

Inclusion criteria:

- Licensed registered Clinical nurses working in all inpatient areas.
- The nurses who are involved in direct patient care.
- Anticipated availability for the complete program.

Exclusion criteria:

- New staff who are under preceptorship period.
- Clinical Nurses working in the outpatient department.
- Staff who are not willing to participate

Sampling: The sampling frame will be prepared to get an approximate number of subjects in a suitable timeframe. At 80% power and 5% significance level, the required sample size is 202 (101 in each group). Assuming a 10% dropout rate, the adjusted sample size required will be 224 i.e., 112 in each group. Additionally, for the pilot study, 24 non study samples selected will be 12 in the experiment group and 12 in the control Group. The total sample size in all is 248. (Sealed Envelope.com, 2012)

Tools/Instruments:

Section 1: Demographic Survey tool (English) consisted of socio demographic variables.
Demographic information collected included age, gender, nationality, level of academic education, years of experience, work area, marital status, and types of self-care skills practiced. Multiple choice options were provided for all demographic variables except for nationality, which was an open-ended question.

Section 2: The Professional Quality of Life Scale version 5 (Stamm -2010) (English) 5-point Likert scale to assess the compassion fatigue and compassion satisfaction.
The Professional Quality of Life Test (ProQOL) is a widely used self-report instrument designed to assess the impact of working with individuals experiencing significant stress. Developed by Dr. Beth Hudnall Stamm, the ProQOL measures three key components: compassion satisfaction (CS), burnout (BO), and compassion fatigue. The ProQOL consists of 30 self-report items on a 5-point Likert scale, divided into 3 subscales that represent distinct albeit related constructs: CS, BO, and STS.

Self-Care Skills Educational Intervention

An evidence-based, interactive self-care skill educational intervention supports clinical nurses in reducing

compassion fatigue and increasing compassion satisfaction. The intervention is an activity-based educational training program. The educational content is organized and consists of the following theoretical components: the concept of compassion fatigue, burnout awareness and recognition, eight dimensions of well-being, followed by a demonstration of seven evidence-based guided self-care skill activities. The seven guided self-care skills are the importance of practicing sleep hygiene, self-talk, gratitude practice, breathing exercises, heartful relaxation, heartful meditation, and journaling.

The intervention will be finalized after validation by various subject experts in different fields of nursing. The experts will validate the relevancy, objectivity, and appropriateness of the intervention using selected criteria. The scientific knowledge is supplemented with the views of subject experts in leadership and nursing education.

Study Procedure: The prospective study subjects will be invited to participate in the study through the organization's email. The principal investigator (P.I.) or a team member will meet the prospective subjects in their unit, distribute a research information sheet, and explain the study, its benefits, any inconveniences, and the expected duration of their participation. They will be provided with two weeks for decision-making. All follow-up emails will be sent by the P.I. and the research team to ensure their participation.

Participants willing to participate will be screened for eligibility during the information session using the eligibility checklist. Based on the inclusion criteria, participants will be enrolled in the study. Written informed consent and demographic details using the demographic survey tool will be obtained on the same day. Authorized research nurses will allocate a personal identification number (PIN) for each respondent. Subjects will be selected using a simple random technique based on the inclusion criteria and will be randomly assigned to the experimental group or the control group. Assurance of anonymity and confidentiality will be maintained throughout the study. After obtaining informed consent, the required samples will be enrolled in the study and informed via organizational email.

Description of Data collection

Data will be collected after obtaining informed consent from the participants. Written informed consent and demographic details using the demographic survey tool will be obtained on the same day.

The research team will schedule one-day interactive didactic training sessions in groups for all respondents in the experimental group. Each group will consist of 20-25 subjects. At the start of the educational intervention, participants in the experimental group will be administered the Professional Quality of Life tool by the P.I. or research team members. It will take 20-25 minutes to complete the questionnaire. Each questionnaire will have the same identification number, enabling us to track responders throughout the study.

Following the questionnaire, the self-care skill educational intervention will be delivered by the research team of experts over six hours. Post-intervention data will be collected four weeks after the educational activity using the same Professional Quality of Life tool via an online survey form utilizing Microsoft Forms through organizational email.

For the parallel control groups, each consisting of 20-25 participants, pre-intervention data will be collected using the Professional Quality of Life tool (ProQOL), and post-intervention data will be collected four weeks later using the same ProQOL tool as an online survey form through organizational email.

Data Analysis

Descriptive statistics mean and standard deviation and frequencies will be used to summarize and determine the sample characteristics like age, gender, work experience, etc and distribution of subject data. The remaining results were reported with median and inter-quartile ranges (IQR).

The compassion fatigue -burnout and STS, and compassion satisfaction scores will be calculated to sum of all the questions for different domains. Categorical data will be summarized using frequencies and proportions. Associations between two or more quantitative data variables will be assessed using Chi-square ($\chi 2$) test or Fisher Exact test as appropriate. Quantitative data between the two independent groups will be analyzed using unpaired t or Mann - Whitney U test as appropriate. Univariate and multivariate linear regression analysis (controlling and adjusted for predictors such as group, age, gender, education, etc. will be applied to determine and assess the associations and predictive values of predictors stated above with compassion fatigue-burnoutand STS, and compassion satisfaction scores. The results of linear regression analyses will be presented as Coefficients with corresponding 95% CI.

All P values presented were two-tailed, and P values <0.05 was considered as statistically significant. All Statistical analyses will be done using statistical packages STATA version 17.

Ethical Consideration

Before commencing this study, permission from the institutional review board of Hamad Medical Corporation

was obtained (MRC-01-22-581). The principal investigator affirms and states that the study will be conducted in full accordance with the Principles of Helsinki, Good Clinical Practice, and abiding by the Laws and Regulations of MoPH in Qatar.

The study started after explanations on the purpose, method, and expected effects of the study to potential participants and their written informed consent was obtained. All participants will be informed about their right to refuse or to participate or withdraw from the study at any time. Those participants data will not be utilized for the analysis. Instead, the number of dropouts / attrition rate will be mentioned in the results/ discussion of the study on completion

Adverse Event Reporting:

- Respondents will be informed before consenting that they do not have to answer all questions in the survey, particularly if they are likely to find discussing such issues distressing.
- Respondents will be provided with a list of resources that they can access if they become upset or distressed.
- If a respondent becomes distressed or reveals information that indicates they need some form of medical attention, the PI will refer them to a staff clinic and HMC mental health helpline. This referral will be discussed with the respondent before any contact with third parties is made. This allows the interviewer to fulfill their duty of care to the respondent, whilst also respecting their right to confidentiality. A protocol will be used to guide this process.
- Adverse events, as observed by the investigator or reported by the respondent, will be recorded in an adverse events log. The Respondent's ID, date of the event, nature of the event, and any action taken will be noted. Information about any serious adverse events will be promptly forwarded to the ethics office
- All infection control precautions will be undertaken during the education sessions.
- Respondent reports any health issues/ serious events during the educational sessions it will be managed as per the hospital research policy. A code blue will be activated in case of cardio-respiratory arrest, or the person will be managed according to the emergency activation system protocol. The Respondent will be transferred to the emergency department immediately.
- As per the hospital research policy the principal investigator/ research team will report the incident through the electronic incident reporting system.

Discussion and outcome

The expected outcomes of the study are presented below:

- The primary outcome will be enhancing increase in the compassionate satisfaction as assessed by using the ProQOL-5. The magnitude of increase 3+/- 7.4 in compassionate satisfaction will be expected betweenIntervention and control group after the self-care educational intervention.

The research findings of the study will be translated to the organizational level to augment the existing wellness program at HMC and on a larger scale, utilized as an education intervention to increase compassionate satisfaction among clinical nurse which strengthen the patient-provider- relationship, enhance general wellbeing, workplace satisfaction, and the quality of patient care at HMC and the state of Qatar.

CONCLUSION

Compassion fatigue presents a multifaceted challenge for nurses, stemming from the physical, mental, and emotional toll of delivering empathetic patient care, particularly in high-acuity settings. Given the critical nature of healthcare provision, addressing the development of fatigue and burnout remains paramount within this profession. The pervasive nature of these stressors poses a significant risk to nurses' well-being and performance. This randomized control trial is designed to evaluate the effectiveness of self-care educational intervention on compassion satisfaction and compassion fatigue will be a cost effective approach for enhancing the resilience among nurses to increase the work satisfaction.

Sponsor, Funding & Collaborator Information

No funds will be requested from HMC. The Research Team has no conflict of interest that influences the research study. Respective team members have signed the conflict of interest as per the requirement of a research protocol.

Discussion:

Consent for publication. Not applicable.

Competing interests

The authors declare that they have no competing interests.

References:

1. Abernathy, S., & Martin, R. (2019). Reducing compassion fatigue with self-care and mindfulness. Nursing Critical Care, 14(5), 38–44. https://doi.org/10.1097/01.ccn.0000578852.69314.be
2. Ana's risk appraisal: Improved wellness for Nurses.(n.d.). http://www.eagleson.org/content/confrences/TWH2014/Presentations/CS33B%20Carpenter.pdf
3. Barnett, M. D., & Ruiz, I. A. (2018). Psychological distress and compassion fatigue among hospice nurses: The mediating role of self-esteem and negative affect. Journal of Palliative Medicine, 21(10), 1504– 1506. https://doi.org/10.1089/jpm.2017.0662
4. Brady, S., O'Connor, N., Burgermeister, D., & Hanson, P. (2011). The impact of mindfulness meditation in promoting a culture of safety on an acute psychiatric unit. Perspectives in Psychiatric Care, 48(3), 129–137.https://doi.org/10.1111/j.1744-6163.2011.00315.x
5. Coetzee, S. K., & Klopper, H. C. (2010). Compassion Fatigue Within Nursing Practice: A concept analysis. Nursing & Health Sciences, 12(2), 235–243. https://doi.org/10.1111/j.1442-2018.2010.00526.x
6. Compassion fatigue: A heavy heart hurts. (2019). Compassion Fatigue and Burnout in Nursing. https://doi.org/10.1891/9780826155214.0006
7. Craigie, M., Osseiran-Moisson, R., Hemsworth, D., Aoun, S., Francis, K., Brown, J., Hegney, D., & Rees, C. (2016). The influence of trait-negative affect and compassion satisfaction on compassion fatigue in Australian nurses. Psychological Trauma: Theory, Research, Practice, and Policy, 8(1), 88–97. https://doi.org/10.1037/tra0000050
8. El-Menyar, A., Ibrahim, W. H., El Ansari, W., Gomaa, M., Sathian, B., Hssain, A. A., Wahlen, B., Nabir, S., & Al-Thani, H. (2020). Characteristics and predictors of burnout among healthcare professionals:A cross- sectional study in two tertiary hospitals. Postgraduate Medical Journal. https://doi.org/10.1136/postgradmedj-2020-137547
9. Figley, C. R. (2013). Compassion fatigue. https://doi.org/10.4324/9780203777381
10. He, S., & Smith, E. (2020). Review 2: "preprinting a pandemic: The role of preprints in the covid-19 pandemic". https://doi.org/10.21428/2e3983f5.716acfed
11. Healthy nurses. ANA. (2017, October 14). Retrieved September 13, 2022, from https://www.nursingworld.org/practice-policy/hnhn/
12. Heather, C. (n.d.). Millennial nurses connecting with patients in the 21st Century: A phenomenological study. DigitalCommons@Molloy. Retrieved September 13, 2022,from https://digitalcommons.molloy.edu/etd/69/
13. Kestler, S. A., Barnett, D., Kelly, M., Delgado, L. D., DePaul, D., Pontius, A., & Vidales, C. (2020). An education intervention to reduce compassion fatigue in a Community Medical Center. Nursing Management, 51(6), 30–37. https://doi.org/10.1097/01.numa.0000662660.75547.a3
14. Maresca, G., Corallo, F., Catanese, G., Formica, C., & Lo Buono, V. (2022, February 21). Coping strategies of healthcare professionals with Burnout Syndrome: A systematic review. MDPI. Retrieved September 13, 2022, from https://www.mdpi.com/1648-9144/58/2/327
15. Milligan, F., & Almomani, E. (2020). Death anxiety and compassion fatigue in Critical Care Nurses. British Journal of Nursing, 29(15), 874–879. https://doi.org/10.12968/bjon.2020.29.15.874
16. Minemyer, P. (2018, October 23). Press Ganey: Nurse burnout varies by generation, and shift. Fierce Healthcare. Retrieved September 13, 2022, from https://www.fiercehealthcare.com/hospitalshealth-systems/press-ganey-tailor-nurse-burnout-response-to-different-generations
17. National Health Strategy 2018-2022 - ministry of public health. (n.d.). Retrieved September 13,2022, from https://www.moph.gov.qa/Style%20Library/MOPH/Files/strategies/National%20Health%20Strategy%202 018%20-%202022/NHS%20EN.pdf
18. Nejati, A., Shepley, M., & Rodiek, S. (2016). A review of Design and policy interventions to promote nurses' restorative breaks in health care workplaces. Workplace Health & Safety, 64(2), 70–77. https://doi.org/10.1177/2165079915612097
19. P; P. T. G. (n.d.). Effect of a compassion fatigue resiliency program on nurses' professional quality of life, perceived stress, resilience: A randomized controlled trial. Journal of advanced nursing. Retrieved September 13, 2022, from https://pubmed.ncbi.nlm.nih.gov/33009840/
20. Partlak Günüşen, N., Şengün İnan, F., Üstün, B., Serttaş, M., Sayin, S., & Yaşaroğlu Toksoy, S. (2021). The effect of a nurse-led intervention program on Compassion Fatigue, Burnout, compassion satisfaction, and psychological distress in nurses: A randomized controlled trial. Perspectives in

Psychiatric Care. https://doi.org/10.1111/ppc.12965
21. Perregrini, M. (2019). Combating compassion fatigue. Nursing, 49(2), 50–54. https://doi.org/10.1097/01.nurse.0000552704.58125.fa
22. Proqol Manual | ProQOL. (n.d.). Retrieved September 13, 2022, from https://proqol.org/proqolmanual
23. Randomization and online databases for clinical trials. Sealed Envelope | Randomization Retrieved September 13, 2022, from https://www.sealedenvelope.com/
24. Review for "effect of a compassion fatigue resiliency program on nurses' professional quality of life, perceived stress, resilience: A randomized controlled trial".(2020). https://doi.org/10.1111/jan.14568/v1/review1
25. Yılmaz, G., Üstün, B., & Günüşen, N. P. (2018). Effect of a nurse-led intervention program on the professional quality of life and post-traumatic growth in oncology nurses. International Journal of Nursing Practice, 24(6). https://doi.org/10.1111/ijn.12687