

A Study on the Application of Compassion Fatigue Resilience Training among Nurses in the Hemato-Oncology Department

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Abstract: *Objective:* To explore the impact of compassion fatigue resilience training on the compassion and psychological resilience of nurses in the hemato-oncology department. *Methods:* Convenience sampling was used to select 24 nurses from the hemato-oncology department of our hospital as the intervention group and another 24 as the control group. The intervention group received compassion fatigue resilience training, while the control group received routine health education. *Results:* The compassion fatigue score of the intervention group was lower than that of the control group, and the psychological resilience score was higher, with statistically significant differences ($P < 0.05$). *Conclusion:* Compassion fatigue resilience training is beneficial for improving the compassion fatigue and psychological resilience of nurses in the hemato-oncology department.

Keywords: Compassion fatigue resilience training; Psychological impact

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1. Introduction

Compassion fatigue is an adverse emotional state characterized by feelings of helplessness, irritability, and a diminished capacity for emotional engagement and professional satisfaction, resulting from sustained exposure to a particular work environment^[1]. This phenomenon frequently impacts an individual's physical and mental well-being, compromises work quality, diminishes job satisfaction, and contributes to higher turnover rates^[2]. Research indicates that nurses specializing in hemato-oncology, who are deeply influenced by the condition of hemato-oncology patients, experience prolonged periods of significant stress, intense workloads, personal difficulties, and profound compassion fatigue^[3,4]. Consequently, it is imperative for these professionals to actively implement coping strategies, including professional psychological counseling and vocational training^[5]. The objective of this study was to assess the effectiveness of resilience training aimed at mitigating compassion fatigue among hemato-oncology nurses.

2. Materials and methods

2.1. Clinical materials

Employing a convenience sampling approach, a total of 48 nurses from the hemato-oncology department of the hospital were recruited between December 2024 and June 2025. These participants are randomly assigned to either the intervention group ($n = 24$) or the control group ($n = 24$) using a random number table. Inclusion criteria: (1) Working in the hemato-oncology department for ≥ 1 year; (2) Voluntarily participating in this research. Exclusion criteria: (1) Participants who withdrew from the study halfway; (2) those who were reassigned to different departments during the training period.

2.2. Methods

2.2.1. Control group

In the context of a weekly business study conducted within the department, nurses received instruction on standard professional practices and strategies for coping with psychological stress.

2.2.2. Intervention group

The researcher assumed the role of an intervener for the study participants. The specific interventions implemented included:

- (1) The development of a training program focused on compassion fatigue for nurses in the field of hemato-oncology, utilizing the compassion fatigue resiliency (CFR) framework established by Dr. Gentry as a reference ^[6].
- (2) In addition to the routine weekly business learning and stress management strategies, participants were granted access to a microblogging platform to facilitate their learning on stress management within the hemato-oncology department ^[7]. Furthermore, participants were provided with training materials on compassion fatigue resilience through a WeChat group platform, which encompassed an introduction to the theory of compassion fatigue, detailed learning methodologies pertaining to the five core concepts, and a tutorial on meditation relaxation, supplemented by relevant multimedia resources.

2.3. Evaluation indicators

2.3.1. General information questionnaire

A self-administered questionnaire was utilized to collect demographic data, including age, gender, educational background, and duration of employment in the hemato-oncology department.

2.3.2. Professional Quality of Life (PROQOL)

Developed by Dr. Stamm, this instrument assesses compassion fatigue among nurses, demonstrating a Cronbach's α coefficient of 0.71. It comprises three subscales, with respective Cronbach's α coefficients of 0.82, 0.73, and 0.76 ^[8,9].

2.3.3. Psychological Resilience Scale (Connor-Davidson Resilience Scale, CD-RISC)

This scale, developed by Connor and Davidson and introduced by Zhang *et al.*, consists of 21 items categorized into three dimensions: perseverance (13 items), self-improvement (8 items), and optimism (4 items) ^[10]. Each item is rated on a 5-point scale ranging from 1 (very inconsistent) to 5 (very consistent), with an overall Cronbach's α coefficient of 0.91. The individual coefficients for each dimension are 0.82, 0.75, and 0.70, respectively ^[11].

2.4. Statistical methods

The data collected were analyzed using the SPSS 19.0 statistical software. Descriptive statistics for measurement data were presented as means and standard deviations, while categorical data are expressed as frequencies and percentages. A t-test was employed for comparative analysis, with a significance threshold set at $P < 0.05$.

3. Results

3.1. General information

The participants in this study were exclusively female, and a comparative analysis of the baseline Quality of Life (Qi) between the two groups indicated no significant differences. The sample comprised 48 hemato-oncology nurses, aged between 22 and 48 years (mean age: 34.95 ± 13.05 years). The intervention group had a mean age of 34.96 ± 13.04 years, while the control group had a mean age of 34.95 ± 13.05 years, with no statistically significant age difference observed ($P > 0.05$). In terms of educational qualifications, 40 participants (83.33%) held a bachelor's degree or higher, while 8 participants (16.67%) had completed college. Specifically, in the intervention group, 19 participants had a bachelor's degree or higher, and 5 had completed college, whereas in the control group, 21 participants held a bachelor's degree or higher, and 3 had completed college. The difference in educational attainment between the two groups was not statistically significant ($P > 0.05$). Regarding work experience in the hemato-oncology department, 2 participants (4.17%) had less than 1 year of experience, 20 participants (41.67%) had 1 to 5 years, 22 participants (45.83%) had 6 to 10 years, and 4 participants (8.33%) had more than 10 years of experience. In the intervention group, the distribution of experience was as follows: less than 1 year (1 participant), 1 to 5 years (10 participants), 6 to 10 years (11 participants), and more than 10 years (2 participants). The control group exhibited a similar distribution. The differences in work experience between the two groups were not statistically significant ($P > 0.05$).

3.2. Compassion fatigue and psychological resilience scores of the two groups before and after the intervention

Post-intervention, the compassion fatigue scores for both groups were significantly lower than their pre-intervention scores, while the psychological resilience scores were significantly higher. A statistically significant difference was observed in the comparison of compassion fatigue and psychological resilience scores between the two groups before and after the intervention ($P < 0.05$), as shown in **Table 1** and **Table 2**.

Table 1. Comparison of compassion and psychological resilience scores between the two groups before the intervention (score, $\bar{x} \pm s$)

Item	Intervention group	Control group	<i>t</i>	<i>P</i>
Compassion fatigue	85.21 ± 5.33	87.71 ± 7.06	1.918	0.173
Psychological resilience	49.33 ± 5.59	49.12 ± 5.94	0.016	0.901

Table 2. Comparison of compassion and psychological resilience scores between the two groups after the intervention (score, $\bar{x} \pm s$)

Item	Intervention group	Control group	<i>t</i>	<i>P</i>
Compassion fatigue	77.79 ± 4.43	81.88 ± 6.82	6.053	0.018
Psychological resilience	53.50 ± 4.12	50.79 ± 4.12	5.205	0.027

3.3. Comparison of change values of compassion and psychological resilience between the two groups before and after the intervention

The differences in change values for compassion and psychological resilience between the two groups were statistically significant ($P < 0.05$), as shown in **Table 3**.

Table 3. Results of the change values of compassion and psychological resilience in the two groups before and after the intervention (score, $\bar{x} \pm s$)

Item	Intervention group	Control group	<i>t</i>	<i>P</i>
Compassion fatigue	7.42 ± 1.82	5.83 ± 2.85	5.258	0.026
Psychological resilience	4.17 ± 3.06	1.67 ± 3.61	6.703	0.013

4. Discussion

4.1. Status of compassion fatigue and psychological resilience among hemato-oncology nurses

The increasing clinical workload, combined with the stressors arising from interactions between healthcare providers and patients, has drawn significant attention to the psychological well-being of healthcare professionals. Numerous studies have indicated that the prevalence of compassion fatigue among oncology nurses is concerning, with factors such as mental strain, excessive workload, and stress contributing to this phenomenon^[12]. These issues have been shown to adversely affect nurses' job satisfaction and may lead to higher turnover rates^[13]. The findings of this study reveal that the compassion fatigue experienced by the participants is indeed troubling, and there is a need for improvement in their psychological resilience scores. This situation may be attributed to the challenging working environment and the intensified workload resulting from recent healthcare reforms.

4.2. Effectiveness of compassion fatigue training for hemato-oncology nurses

The compassion fatigue training program designed for hemato-oncology nurses has demonstrated efficacy in mitigating compassion fatigue and enhancing psychological resilience among these professionals. The results of this study indicate that the training program positively influences the levels of compassion fatigue and psychological resilience in hemato-oncology nurses, aligning with findings from research conducted by Wang *et al.*^[14]. This suggests that the program possesses a significant intervening effect on the compassion fatigue and psychological resilience of hemato-oncology nurses, thereby supporting its potential for broader clinical application. However, given the limited sample size of the current study, it is advisable to expand the sample in future research to more accurately assess the program's effectiveness.

5. Conclusion

Compassion fatigue resilience training demonstrates significant benefits in enhancing psychological resilience and

mitigating compassion fatigue among nurses in the hemato-oncology department. Implementing such programs can support nurses' mental well-being, improve their ability to cope with workplace stressors, and ultimately promote sustainable, high-quality patient care. Healthcare institutions should prioritize these interventions to safeguard both staff welfare and clinical outcomes.

Disclosure statement

The authors declare no conflict of interest.

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