

Determining the Relationship Between Compassion Fatigue and Emotion Regulation Skills in Nurses

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Abstract

Background: Preventing or reducing compassion fatigue in nurses is essential for ensuring high-quality care and enhancing nurses' professional satisfaction.

Aim: This study aimed to determine the relationship between compassion fatigue and emotion regulation skills in nurses.

Methods: This was a cross-sectional, correlational study. Participants included 106 nurses working at a training and research hospital. Data were collected using a self-reported Personal Information Questionnaire that included sociodemographic variables, the Compassion Fatigue Short Scale (CF-SS), and the Emotion Regulation Skills Questionnaire (ERSQ). Data were analyzed using one-way analysis of variance (ANOVA), independent samples t-test, and Pearson's correlation.

Results: The mean age of the nurses was 34.92 ± 8.63 years, and the average duration of professional experience was 12.3 ± 9.19 years. Significant differences were found in compassion fatigue based on marital status, love of the profession, and intention to change profession. A weak negative correlation was observed between age, years of experience, and compassion fatigue. Additionally, significant differences in emotion regulation skills were found based on love of the profession and intention to change profession. A strong negative correlation was identified between compassion fatigue and emotion regulation skills.

Conclusion: Given the negative relationship between compassion fatigue and emotion regulation skills, it can be concluded that enhancing nurses' emotion regulation abilities may help reduce compassion fatigue. It is essential to provide training programs focused on developing emotion regulation skills. In-service training programs should incorporate components that help reduce compassion fatigue, including the development of emotion regulation skills.

Keywords: Compassion fatigue, emotion regulation skills, nurses

Introduction

In patient care, nurses apply both their human emotions and their professional knowledge and skills. Patient care cannot be separated from human emotions, and compassion plays a critical role as nurses often approach patients with compassion. While compassion and empathy benefit both patients and healthcare providers, they can also become burdensome for caregivers.¹ This emotional burden is referred to as compassion fatigue, which arises when caring for patients who are experiencing intense emotional and physical distress. In nurses, compassion fatigue can result in physical, emotional, and spiritual exhaustion.² A qualitative study found that the majority of intensive care nurses experienced compassion fatigue and, as a coping mechanism, reduced their empathy toward patients and their families.³

It is critical to prevent or reduce compassion fatigue in nurses to ensure they can provide high-quality patient care while also enhancing their professional satisfaction. Compassion fatigue can be alleviated by developing emotion regulation skills. Emotion regulation is a concept that describes how individuals experience and express their emotions. It also refers to the active efforts individuals make to manage their emotional states, including attempts to influence the type of emotion experienced, its intensity, duration, and related psychological processes such as memory and social interaction.⁴ Emotions can be expressed both verbally or nonverbally, and effective emotion regulation improves both physical and psychological well-being. Emotion regulation skills are known to be important in maintaining mental health and fostering healthy interpersonal relationships.⁵ These skills are also essential for nurses, as they can have a considerable impact on nurses' mental health and the quality of patient care. Studies report that the emotion regulation skills of nurses and nursing students are generally at a moderate level. Although emotion regulation is an important skill for nurses, there appears to be a limited number of studies on nurses' emotion regulation skills in the national literature.^{6,7}

Compassion fatigue levels are known to be high among nurses and have negative effects on their well-being.^{2,3} To maintain the quality of care, it is essential to prevent or reduce the compassion fatigue experienced by nurses. At this point, emotion regulation skills are considered important in preventing the development of compassion fatigue. One of the first steps in managing compassion fatigue in nurses is to evaluate the relationship

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between compassion fatigue and emotion regulation skills. However, our review found no studies in the literature that examine this relationship in nurses. From this perspective, the present study is expected to contribute to the national literature and guide future research on the topic. The aim of the study was to determine the relationship between compassion fatigue and emotion regulation skills in nurses.

Study Question

1. Is there a relationship between compassion fatigue and emotion regulation skills in nurses?

Materials and Methods

Sample and Study Design

This study employed a descriptive, cross-sectional, correlational design. It included all nurses working at KARABÜK University Training and Research Hospital who met the sampling criteria. The sample size was determined using G*Power. The hospital employs a total of 475 nurses. The sample size was established through an a priori power analysis. According to the power analysis, a minimum of 164 nurses was required to achieve 80% power at a 5% margin of error. Nurses were eligible for the sample if they agreed to participate in the study, were employed as nurses at the specified hospital, were not on leave or under medical report during the study period, and completed the data collection tools fully and without errors. Participants were recruited between June and July 2021. The study was completed with 106 nurses. Since the data collection took place during the Coronavirus Disease 2019 (COVID-19) pandemic, participation was low due to nurses experiencing a busy and stressful period.

Data Collection Tools

Data were collected using a self-reported Personal Information Questionnaire, which included sociodemographic variables, the Compassion Fatigue Short Scale (CF-SS), and the Emotion Regulation Skills Questionnaire (ERSQ).

Personal Information Questionnaire

This form collected demographic information about participants, including age, gender, marital status, work unit, years of professional experience, and whether they reported enjoying the nursing profession.

Compassion Fatigue Short Scale (CF-SS)

The scale was developed by Adams et al.⁸ in 2006. It is a self-report assessment tool in which participants indicate how much each scale item reflects their experiences. The scale uses a 10-point Likert format ranging from 1 (rarely/never) to 10 (very often). The scale consists of two sub-dimensions: secondary trauma and occupational burnout. Items "c, e, h, j, l" assess secondary trauma, while items "a, b, d, f, g, i, k, m" measure occupational burnout. Cronbach's alpha coefficients for the subdimensions of the scale range from 0.80 to 0.90, indicating adequate internal reliability. The scale does not include a specific scoring algorithm or cut-off point. Total scores range from a minimum of 13 to a maximum of 130 points. Higher scores indicate higher levels of compassion fatigue.⁸

Dinç and Ekinçi⁹ in 2019 conducted the Turkish validity and reliability study of the scale, and the Turkish version was found to be a valid and reliable tool for assessing compassion fatigue. The Turkish version of the CF-SS was used in this study.⁹ The Cronbach's alpha value for the scale in the current study was 0.968.

Emotion Regulation Skills Questionnaire (ERSQ)

The questionnaire was developed by Berking and Znoj¹⁰ in 2008. It is a self-report assessment tool consisting of 27 items, measured on a five-point Likert scale (0=never to 4=almost always). The ERSQ includes nine subdimensions: awareness/attention, body sensations, clarity, understanding, acceptance, tolerance, confrontation preparation, self-support, and change. Additionally, the Difficulties in Emotion Regulation Behavior Scale (DDBS) can be compared with the overall mean score. The internal consistency coefficient (Cronbach's alpha) for the total score is 0.93, and for the subscales, it ranges from 0.62 to 0.83.¹⁰ Vatan and Oruçlular Kahya¹¹ in 2018 conducted the Turkish validity and reliability study of the questionnaire, and the Turkish version was found to be a valid and reliable assessment tool. The Turkish version of the ERSQ was used in the study. The scale's Cronbach's alpha value in this study was 0.981.

Data Collection Procedures

Data were collected between June and July 2021. The data were gathered online via Google Forms. The study link was shared in the nurses' WhatsApp group after they were informed about the study's goals and scope. All participants checked a box indicating their consent to participate in the study before answering the questions online.

Statistical Analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS) software (IBM Statistical Package for the Social Sciences Inc., version 23.0, PA, USA). Means and standard deviations were used to describe continuous variables, while frequencies and percentages were used for categorical variables. One-way analysis of variance (ANOVA) was used to assess differences in compassion fatigue and emotion regulation skills across groups with different characteristics (e.g., marital status). An independent samples t-test was used to compare means between two groups (e.g., gender). Pearson's correlation coefficient was used to evaluate the relationship between compassion fatigue and emotion regulation skills. The significance level was set at $p < 0.05$.

Ethical Considerations

This study was conducted in accordance with the Declaration of Helsinki. Ethical approval was obtained from Karabük University Non-interventional Clinical Research Ethics Committee [Approval Number: E-77192459-050.99-32628, Date: 01.06.2021]. All participants provided informed consent by checking the agreement box before completing the online questionnaire.

Results

Sociodemographic Variables

The mean age of the nurses was 34.92 ± 8.63 years (min: 23; max: 54), and the average number of working years was 12.3 ± 9.19 years (min: 1; max: 34). Most of the nurses were female (79.2%), married (58.5%), and working in shifts (83.0%). The proportion of those who chose their profession willingly was 59.4%. Among the participants, 43.4% reported that they did not like their profession, and 38.7% stated that they had considered changing it. Additionally, 93.4% of the nurses reported experiencing a negative life event, and 66.0% had encountered a traumatic event within the past two years.

Comparisons of Compassion Fatigue Across Different Variables

The nurses had an average compassion fatigue score of 91.89 [standard deviation, $SD = 24.01$]. According to ANOVA results, there were significant differences in compassion fatigue based on marital status, love for the profession, and thoughts about changing profession. Further analysis revealed that divorced nurses had higher levels of compassion fatigue ($p < 0.05$). Nurses who reported not loving their profession and those considering changing professions had significantly higher compassion fatigue scores ($p < 0.001$ and $p < 0.01$, respectively).

It was also determined that nurses who did not choose their profession voluntarily had a statistically significantly higher mean score for compassion fatigue than those who did ($p = 0.009$). However, there was no significant difference in compassion fatigue among nurses based on gender, work shift, clinical unit, or experiences of a negative life or traumatic life event in the past two years ($p > 0.05$) [Tables 1, 2].

A weak negative correlation was found between age ($r = -0.323$; $p = 0.001$), years of experience ($r = -0.332$; $p = 0.001$), and compassion fatigue [Table 3].

Comparisons of Emotion Regulation Skills Across Different Variables

The nurses had an average score of 50.49 [$SD = 20.28$] for emotion regulation skills. Nurses who did not choose their profession voluntarily had a statistically significantly lower mean score for emotion regulation skills compared to those who chose it voluntarily ($p = 0.001$). According to the ANOVA results, there were significant differences in emotion regulation skills based on participants' love for their profession and their consideration of changing it. Further analysis revealed that nurses who reported loving their profession had a statistically significantly higher mean score for emotion regulation skills ($p < 0.01$). Additionally nurses who had considered changing their profession had statistically significantly lower mean scores for emotion regula-

Table 1. Comparison of compassion fatigue and emotion regulation skills by demographic variables (n=106)

Variable	Compassion fatigue short scale (CF-SS)					Emotion regulation skills questionnaire (ERSQ)			
	n	Mean±SD	t	df	p	Mean±SD	t	df	p
Gender									
Female	84	91.11±24.01	-0.644	32.516	0.524	50.84±20.18	0.445	104	0.65
Male	22	94.86±24.35				48.77±21.04			
Work shift									
Daytime	18	82.50±23.62	-1.842	104	0.068	57.05±17.41	1.516	104	0.132
Night shift	88	93.81±23.77				49.14±20.65			
Chose nursing profession voluntarily									
Yes	63	86.90±19.99	-2.6464	104	0.009	55.71±18.43	3.363	104	0.001
No	43	99.20±27.55				42.83±20.63			
Experienced a negative life event in the past two years									
Yes	99	92.37±22.04	0.414	6.198	0.693	49.92±19.84	-1.072	104	0.286
No	7	85.14±45.82				58.42±26.28			
Experienced a traumatic event in the past two years									
Yes	70	90.42±22.84	-0.876	104	0.383	50.94±18.56	0.296	57.967	0.769
No	36	94.75±26.24				49.61±23.53			

SD: Standard deviation, df: Degrees of freedom.

Table 2. Comparison of compassion fatigue and emotion regulation skills across demographic variables (n=106)

Variable	Compassion fatigue short scale (CF-SS)				Emotion regulation skills questionnaire (ERSQ)		
	n	Mean±SD	F	p	Mean±SD	F	p
Marital status							
Married	62	86.32±23.45	4.386	0.01	52.11±18.47	0.608	0.546
Single	41	99.31±23.06			46.63±23.27		
Divorced	3	105.66±22.05			42.33±9.86		
Clinical unit							
Emergency	16	98.18±19.86	1.721	0.151	51.25±22.89	0.771	0.547
Internal medicine	27	99.14±16.91			47.81±20.88		
Surgical clinic	25	89.68±27.66			47.48±19.43		
Critical care unit	18	83.38±30.33			57.33±21.00		
Outpatient clinics	20	87.50±24.01			51.10±17.91		
Love for profession							
Yes	11	61.90±24.50	31.169	0.000	74.09±15.64	20.701	0.000
No	46	106.86±14.81			39.86±16.57		
Partially	49	84.57±21.33			55.16±18.25		
Consideration of changing profession							
Yes	41	104.02±20.44	12.180	0.000	42.02±18.88	9.542	0.000
No	17	75.52±24.85			65.05±17.70		
Partially	48	87.33±24.01			52.56±19.11		

tion skills ($p < 0.05$). However, no significant differences in emotion regulation skills were found based on gender, marital status, work shift, clinical unit, or experiences of a negative or traumatic event within the past two years ($p > 0.05$) (Tables 1, 2). Furthermore, no correlation was found between age, years of work experience, and emotion regulation skills ($p > 0.05$).

Correlation Between Compassion Fatigue and Emotion Regulation Skills

A strong negative correlation was found between compassion fatigue and emotion regulation skills ($r = -0.643$; $p = 0.000$) (Table 3).

Table 3. Correlation between age, years of experience, Emotion Regulation Skills Questionnaire (ERSQ), and Compassion Fatigue Short Scale (CF-SS)

Variable	CF-SS	
	r	p
Age	-0.323	0.001
Years of experience	-0.332	0.001
ERSQ	-0.643	0.000

Discussion

This study identified a significant, strong negative correlation between compassion fatigue and emotion regulation skills among nurses. Emotional regulation abilities are known to predict resilience, and there is a significant positive correlation between psychological resilience and emotional regulation characteristics.¹² Although the benefits of emotion regulation for mental health are well established, it is important to recognize that emotion regulation skills among healthcare workers are often not at the desired level, and they may struggle to manage their emotions effectively. Sarıkaya et al.¹³ in 2021 reported that nursing students were often unable to recognize their emotional reactions, and their emotion regulation skills were insufficient to mitigate the impact of painful emotions.¹³ Inadequate emotion regulation skills in healthcare professionals can lead to mental health issues such as compassion fatigue, burnout, stress, and anxiety. It has been reported that as levels of depression and burnout increase in healthcare workers, their cognitive emotion regulation decreases.¹⁴ Additionally, there is a strong positive correlation between compassion fatigue and burnout.¹⁵ Emotion regulation skills may play a critical role in the compassion fatigue experienced by healthcare professionals.¹⁶ Training in emotion regulation, along other interventions, appears essential for ensuring quality care and preventing the development of compassion fatigue.¹⁷ Emotional resilience, which enhances self-care, is also considered a protective factor against compassion fatigue.¹⁸ Kharatzadeh et al.¹⁹ in 2020 reported that although emotion regulation training did not result in a statistically significant reduction in compassion fatigue, it did improve cognitive coping strategies in the experimental group compared to the control group. The same study also found reductions in depression, anxiety, and stress.¹⁹ It is anticipated that nurses' mental health may be adversely affected, considering our research findings on high compassion fatigue and insufficient emotion regulation skills, when evaluated in the context of the literature.

Human emotions such as empathy and compassion play a central role in nurses' interactions with the patients they care for. Long-term exposure to patients' traumatic experiences and pain creates an emotional burden that can lead to significant emotional, behavioral, and cognitive symptoms in nurses. This burden, commonly referred to in the literature as compassion fatigue, is prevalent among nurses.^{20,21} When evaluating the average compassion fatigue scores of nurses in this study, it can be stated that they experience high levels of compassion fatigue. Similarly, Oktay and Öztürk²² in 2021 reported that nearly all nurses experienced low to moderate levels of compassion fatigue. A systematic review and meta-analysis also found that compassion fatigue among nurses is at a moderate level.²³ These findings are consistent with the existing literature.

According to the literature, marital status is not a significant predictor of compassion fatigue.^{24–27} However, in contrast to previous studies, this study found that divorced nurses experienced higher levels of compassion fatigue compared to other participants in the study. Individuals need access to social support systems to cope with the stressors in their lives. While these systems can act as a buffer against stress, divorced nurses may lack adequate support in this regard. Moreover, when occupational stress is compounded by the emotional challenges of divorce, one of life's major stressors, nurses may struggle to cope effectively. They may also have difficulty regulating their emotions. For all of these reasons, divorced nurses may be more vulnerable to compassion fatigue.

Choosing the nursing profession willingly, having a love for the profession, and thoughts about changing the profession were among the variables that influenced nurses' compassion fatigue and emotion regulation skills in this study. It was determined that those who did not choose the profession voluntarily, expressed dissatisfaction with their profession, and were considering changing it had significantly higher compassion fatigue mean scores and significantly lower emotion regulation mean scores compared to other groups. The fact that individuals choose a career they enjoy has the potential to enhance many aspects of their lives. However, various factors may prevent people from pursuing careers that align with their interests and aspirations.²⁸ The decision to voluntarily choose a profession also shapes one's attitude toward it. Zencir and Eşer²⁹ in 2016 reported that individuals who willingly choose the nursing profession tend to have a more positive attitude toward it. Nurses who did not choose the profession voluntarily or who hold negative attitudes toward it may struggle to use effective coping strategies when faced with professional difficulties. This may hinder their ability to regulate intense emotions they experience while providing patient care, ultimately contributing to higher levels of compassion fatigue.

In this study, a weak negative correlation was found between age, years of experience, and compassion fatigue. In another study of healthcare workers, age was identified as a significant variable: workers between the ages of 24–29 experienced significantly higher levels of compassion fatigue, while those with 21 or more years of experience also showed elevated levels of compassion fatigue.²⁴ Similarly, another study reported that nurses aged 20–25 years experienced significantly higher levels of compassion fatigue, and compassion fatigue was again found to be significantly higher among nurses with more than 21 years of experience.²² A study involving obstetricians and gynecologists found that compassion fatigue was significantly higher among those with 11–15 years of experience, although no significant relationship was found between age and compassion fatigue.²³ Other studies have also shown no significant relationship between age, years of experience, and the level of compassion fatigue.^{26–27,30} However, professional experience was identified as a protective factor against compassion fatigue and burnout in a qualitative study of pediatric emergency physicians.¹⁶ Overall, the literature presents varying results regarding the effect of age and years of professional experience on compassion fatigue. The sample group used in the studies may account for this discrepancy. Additionally, the results could be influenced by the institutional and cultural context in which the research was conducted. Older nurses and those who have been in the profession for a long time are likely to have cared for more patients over the course of their careers. Prolonged exposure to patients who have experienced traumatic events or pain may lead to the development of compassion fatigue. On the other hand, extended professional experience may also lead to the development of more effective coping strategies for managing difficulties and negative emotions. The negative correlation found in this study between age, year of experience, and compassion fatigue suggests that with more experience, nurses may develop stronger coping skills over time.

Based on the evaluation of the study results, it is believed that the pandemic process may be an important factor influencing nurses' levels of compassion fatigue and emotion regulation skills. Nurses, who strive to provide the best healthcare during difficult periods such as the pandemic, were significantly affected both physically and psychosocially. It is possible that the emotional burden caused by the pandemic made it more difficult for nurses to regulate their emotions. Therefore, the impact of the pandemic should be taken into account when interpreting the study's findings.

Limitations

This study has some limitations. It was conducted with nurses working at a single research and training hospital in KARABÜK, which limits the generalizability of the findings. The small sample size of the study should also be considered as a limitation. Additionally, the study was carried out during the COVID-19 pandemic, a period marked by high levels of stress, which may have affected the nurses' well-being.

Conclusion

In conclusion, given the negative relationship between compassion fatigue and emotion regulation skills, it can be inferred that improving nurses' emotion regulation skills can help reduce compassion fatigue. In this context, it is essential to provide training programs focused on developing emotion regulation skills. Interventions such as Emotion regulation training and mindfulness-based cognitive therapy may enhance emotion regulation while reducing emotional difficulties in nurses.^{6,31}

It is recommended that institutions periodically assess the levels of compassion fatigue experienced by nurses. In parallel, in-service training programs should incorporate components that help reduce compassion fatigue, including the development of emotion regulation skills.

Ethics Committee Approval: The study was approved by the Karabük University Non-interventional Clinical Research Ethics Committee [Approval Number: E-77192459-050.99-32628, Date: 01.06.2021].

Informed Consent: All participants provided informed consent by ticking the agreement box before completing the online questionnaire.

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