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Impact of Compassion Fatigue on Care Behaviors in Intensive Care Nurses

Yoğun Bakım Hemşirelerinde Merhamet Yorgunluğunun Bakım Davranışlarına Etkisi

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ABSTRACT

Objective: The aim of the study was to examine the effect of compassion fatigue on care behaviors in intensive care unit (ICU) nurses.

Methods: The research was a cross-sectional type. It was conducted with 98 nurses working in adult ICUs of a university hospital. Nurses who had been working in the ICU for at least six months, were not diagnosed with a psychological disease, and agreed to participate in the study were included in the study. Data were collected to the Introductory characteristics form, Compassion Fatigue-Short Scale (CF-SS) and the Care Behaviors Scale-24 (CBS-24).

Results: The average age of the nurses was 31.23±5.81 years and 66.3% were women. The average working year of the nurses was 7.12±4.98, the average weekly working hours was 45.22±4.69, and the average number of patients they cared for in a day was 3.21±1.32. The total score of CF-SS of the participating in the study was 63.36±25.77 and the total score of CBS-24 was 5.19±0.55. A negative and weakly significant relationship was found between nurses' CBS-24 and CF-SS scales total scores ($p<0.05$). In addition, a statistically significant difference was found between the genders of the nurses and the mean score of CBS-24 ($p<0.05$). It was determined that female nurses had higher levels of perception of care behaviors than men.

ÖZ

Amaç: Bu araştırmada, yoğun bakım ünitesi (YBÜ) hemşirelerinde görülen merhamet yorgunluğunun hemşirelik bakım davranışına etkisini belirlemek amaçlandı.

Yöntemler: Tanımlayıcı tipteki bu araştırma, bir üniversite hastanesinin erişkin YBÜ'lerinde çalışan 98 hemşire ile gerçekleştirildi. Araştırmaya en az altı aydır YBÜ'de görev yapan, psikolojik hastalık tanısı olmayan ve araştırmaya katılmayı kabul eden hemşireler dahil edildi. Araştırma verileri, tanıtıcı özellikler formu, Merhamet Yorgunluğu Kısa Ölçeği (MY-KÖ) ve Bakım Davranışları Ölçeği-24 (BDÖ-24) ile toplandı.

Bulgular: Hemşirelerin yaş ortalamaları 31,23±5,81 yıl olup %66,3'ü kadındı. Hemşirelerin çalışma yılı ortalaması 7,12±4,98, haftalık çalışma saati ortalaması 45,22±4,69 ve bir günde bakım verdiği ortalama hasta sayısı 3,21±1,32 idi. Hemşirelerin MY-KÖ toplam puanı 63,36±25,77, BDÖ-24 toplam puanı ise 5,19±0,55 idi. Hemşirelerin BDÖ-24 ölçek toplam puanları ile MY-KÖ toplam puan ortalamaları arasında negatif yönlü zayıf anlamlı bir ilişki saptandı ($p<0,05$). Hemşirelerin cinsiyetleri ile BDÖ-24 puan ortalamaları arasında istatistiksel olarak anlamlı fark bulundu ($p<0,05$). Kadın hemşirelerin erkeklere göre bakım davranışlarını algılama düzeylerinin daha yüksek olduğu saptandı.

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ABSTRACT

Conclusion: In this study, it was found that ICU nurses experienced moderate compassion fatigue and their level of perception of care behaviors was high. The compassion fatigue experienced by ICU nurses has a negative effect on their care behaviors.

Keywords: Care, care behavior, compassion fatigue, intensive care nurse, nursing

ÖZ

Sonuç: YBÜ hemşirelerinin orta düzeyde merhamet yorgunluğu yaşadığı ve bakım davranışlarını algılama düzeylerinin yüksek olduğu tespit edildi. Araştırmada öne çıkan önemli bir bulgu da, YBÜ hemşirelerinin yaşadıkları merhamet yorgunluğunun bakım davranışlarını olumsuz yönde etkilemesiydi.

Anahtar Kelimeler: Bakım, bakım davranışı, merhamet yorgunluğu, yoğun bakım hemşiresi, hemşirelik

Introduction

Compassion is a sense of developing empathy for incidents experienced by other people and helping these people (1). Compassion fatigue is defined as inability to maintain empathy due to mental, physical and spiritual burnout (2,3). Joinson (4) introduced compassion fatigue for the first time in his study conducted with emergency service nurses. He expressed compassion fatigue as burnout of caregivers due to the internalization of stress experienced by patients to whom nurses gave care (4).

Intensive care units (ICU) are settings where patients require close follow-up and those with complex and life threatening issues receive treatment and care services via high technology equipment (5,6). The coronavirus disease 2019 (COVID-19) pandemic which has affected the world in recent years has once again revealed the need for ICUs. Intensive care nurse is the nurse responsible for diagnosing patients with complex and life-threatening problems, monitoring patients continuously, applying quality and advanced intensive care and treatment interventions, establishing therapeutic relationships with patients and their relatives, and implementing preventive, curative and rehabilitative interventions (7). In nurses who are employed in specific areas like ICUs, most factors such as being subjected to patients with complex and life threatening issues for a long time, experiencing traumatic memories and losses frequently, making ethical decisions, observing patients suffer for a long time, having communication problems with patients and their relatives, facing stressors in the workplace environment, having inefficient coping and problem solving skills and experiencing anxiety, stress and inadequate social support form a basis for compassion fatigue (8-11). Nurses who are employed in ICUs experience a moderate-high level of compassion fatigue (9,10,12-15). A study conducted to determine the prevalence of compassion fatigue among ICU nurses found that 60.1% of the nurses had high a risk for compassion fatigue (16).

"Care" plays a key role in nursing profession which is based on humans. The major quality separating nurses from other health occupational groups is their caregiver role (17,18). In nurses which is an occupational group giving uninterrupted care to patients, emergence of compassion fatigue may lead to problems such as indifference to the patient, higher possibility of making a mistake due to low concentration, inability to make a correct decision and inability to give necessary care to the patient (1,11). These problems that arise from compassion fatigue are directly correlated with decreased job satisfaction in nurses, decreased patient satisfaction and patient safety (12). The aforementioned problems that may be brought by compassion fatigue to nurses who are responsible for providing healthcare in a more quality and reliable way may lead to a decrease in performance and job quality and consequently in the quality of patient care (1,11). Determining the impact of compassion fatigue on care behaviors especially in nurses employed in units like ICUs where care is essential is significant in terms of burnout, professional development, patient safety, patient satisfaction and job satisfaction. Therefore, the current study sought to determine the impact of compassion fatigue on nursing care behaviors in ICU nurses.

Methods

Type of the Study

The study was planned the cross sectional study to determine the impact of compassion fatigue on nursing care behaviors in ICU nurses and reported it in accordance with the Strengthening the Reporting of Observational Studies in Epidemiology cross sectional reporting directives (19). The study was conducted with nurses employed in ICUs in a hospital between 15 April and 15 June 2022.

Target Population and Sample of the Study

The target population of the study comprised all nurses (n=150) employed in adult ICUs in the hospital where the study was conducted. Without sampling, the researchers aimed to reach all nurses employed in the ICUs between the aforementioned dates. The researchers carried out the study with 98 nurses who had been employed in hospital ICU for at least six months, had no specific psychological disorder and agreed to take part in the study. Rate of participation in the study was 65.3%.

Collection of the Study Data

The researchers collected the study data using the Introductory Characteristics Form, Compassion Fatigue-Short Scale (CF-SS) and the Care Behaviors Scale-24 (CBS-24).

Introductory Characteristics Form: The form had seven questions aimed at determining introductory characteristics of the nurses such as sociodemographic information about the participants, unit worked, years of employment, weekly working hours and average number of patients they gave care to (5,6,8).

Compassion Fatigue-Short Scale (CF-SS): Adams et al. (20) developed the scale. Dinç and Ekinci (21) adapted the scale into Turkish and conducted its validity and reliability study. The scale was a self-report assessment tool requiring the participants to specify the degree that each scale item reflected their experiences. The 10 point likert scale ranged from seldomly/never (1) to very often (10). The scale had two subscales as secondary trauma and occupational burnout. Items "c, e, h, j, l" in the scale measured secondary trauma and items "a, b, d, f, g, i, k, m" measured occupational burnout. The total Cronbach's alpha coefficient of the scale was 0.876. The lowest and highest possible scores obtainable from the scale were 13 and 130, respectively. As the scores obtained from the scale increased, the level of compassion fatigue experienced by the individuals increased (21). The present study found the Cronbach's alpha coefficient to be 0.89.

Care Behaviors Scale-24 (CBS-24): Wolf et al. (22) developed the scale for nurses to assess themselves in nursing care. Wu et al. (23) updated and shortened the scale. The likert scale had four subscales (assurance, knowledge and skill, respect and commitment) and 24 items. Kurşun and Kanan (24) conducted the Turkish validity and reliability study of the scale in 2012. The total Cronbach's alpha value of the scale was 0.96.

In calculation of the total scale score, a scale ranging from "1 to 6" (1= never, 2= almost never, 3= sometimes, 4= usually, 5= mostly, 6= always) was obtained by summing the scores of 24 items and then dividing them into 24. In assessment of each subscale, a subscale score ranging from 1 to 6 was obtained by summing the scores of items in the subscales and dividing the score obtained into item number. As the total scale score and subscale scores increased, the level of nurses to perceive the quality of care behaviors increased (24). The present study found the Cronbach's alpha coefficient to be 0.95.

The researchers collected the study data via face-to-face interviews within the scope of COVID-19 measures.

Ethical Committee

In order to conduct the research, written permission was obtained from Mersin University Hospital and ethics committee approval was obtained from Tarsus University Clinical Research Ethics Committee (approval no: 2022/27, date: 04.04.2022). Prior to the study, the researchers obtained informed consent form and written permission from the participants to take part in the study. The researchers conducted the study in accordance with the Helsinki Declaration.

Statistical Analysis

Research data were analyzed in computer environment. They presented the data via descriptive statistics such as number, percentage, mean and standard deviation. They evaluated the normal distribution of the data via the Shapiro-Wilk test. In analysis of the data, the researchers used the Mann-Whitney U test and Kruskal-Wallis test. The researchers used the Spearman's Rho Correlation Coefficient to examine the correlations between the variables. If the r value in the correlation was <0.20, it indicated no/very weak correlation. If the r value was between 0.20 and 0.39, it indicated a weak correlation. If the r value was between 0.40 and 0.59, it indicated a moderate correlation. If the r value was between 0.60 and 0.79, it indicated a high correlation. If the r value was between 0.80 and 1.00, it indicated a very high correlation (25). For the comparisons, the researchers set the statistical significance value at $p<0.05$.

Results

The mean age of the nurses was 31.23±5.81 years and 66.3% were women. Of them 81.6% were undergraduate graduates, 26.5% of them were working in the surgical ICU. The average working year of the nurses was 7.12±4.98, the average weekly working hour was 45.22±4.69, and the number of patients they cared for per day was 3.21±1.32 (Table 1).

Nurses' total score on CF-SS was 63.36±25.77, occupational burnout sub-dimension score on CF-SS was 40.59±16.93, and secondary trauma subscales score was 22.77±10.82. ICU nurses' CBS-24 total score was 5.19±0.55, CBS-24 assurance subscales score was 5.25±0.62, knowledge-skill subscales score was 5.38±0.54, respectful subscales score was 5.10±0.63, and commitment subscales score was 5.02±0.62 (Table 2).

A negative and weakly significant relationship was found between nurses' CBS-24 scale total scores and subscales and CF-SS total and occupational burnout subscales mean scores ($p<0.05$). A negative and weakly significant relationship was found between CF-SS secondary trauma subscales and CBS-24 knowledge-skill subscales ($p=0.022$) (Table 3).

Table 1. Descriptive characteristics of nurses (n=98)

Characteristics	x ± SD	Min.-max.
Age	31.23±5.81	23-48
Working year	7.12±4.98	1-26
Weekly working hours	45.22±4.69	40-60
Number of patients provided care/day	3.21±1.32	2-11
	n	%
Gender		
Female	65	66.3
Male	33	33.7
Educational status		
Associate's degree	10	10.2
Bachelor's degree	80	81.6
Postgraduate	8	8.2
Unit of assignment		
Surgical	26	26.5
Coronary	16	16.3
Medical	20	20.4
Reanimation	18	18.4
Emergency	10	10.2
Cardiovascular surgery	8	8.2

x: Mean, SD: Standard deviation, Min.-max.: Minimum-maximum

While there was no significant difference between the introductory characteristics of nurses in terms of age, education status, ICU, working year, weekly working hours, average number of patients they cared for per day, and total scores of CF-SS and CBS-24 (p>0.05), there was a statistically significant difference between their gender and CBS-24 score averages (p=0.017) (Table 4).

Table 2. Compassion fatigue short scale and caring behaviors scale-24 total and subscale mean scores (n=98)

Scales and subscale mean scores	x ± SD	Min.-max.
Compassion fatigue short scale total score	63.36±25.77	16-130
Occupational burnout	40.59±16.93	8-90
Secondary trauma	22.77±10.82	5-50
Caring behaviors scale-24 total score	5.19±0.55	3.63-6
Assurance	5.25±0.62	3.50-6
Knowledge and skill	5.38±0.54	3.40-6
Respect	5.10±0.63	3.67-6
Commitment	5.02±0.62	3.40-6

x: Mean, SD: Standart deviation, Min.-max.: Minimum-maximum

Table 3. The relationship between the nurses' compassion fatigue short scale and the caring behaviors scale-24 total and subscale mean scores (n=98)

Scales	Compassion fatigue short scale		Occupational burnout		Secondary trauma	
	p	r	p	r	p	r
Caring behaviors scale-24	0.005	-0.280	0.001	-0.319	0.097	-0.169
Assurance	0.032	-0.216	0.008	-0.267	0.338	-0.098
Knowledge and Skill	0.004	-0.289	0.004	-0.292	0.022	-0.231
Respect	0.005	-0.280	0.001	-0.320	0.106	-0.165
Commitment	0.011	-0.255	0.004	-0.286	0.115	-0.160

r: Spearman correlation analysis

Table 4. Comparison of nurses' descriptive characteristics and compassion fatigue short scale and caring behaviors scale-24 scores (n=98)

Characteristics Gender	Compassion Fatigue Short Scale [Q2(Q1-Q3)] or r	Test and p-value	Caring Behaviors Scale-24 [Q2(Q1-Q3)] or r	Test and p-value
Female	60 (47-83)	U=936.00	5.29 (5-5.79)	U=754.00
Male	60 (31-81)	p=0.305	5.04 (4.64-5.37)	p=0.017
Educational status				
Associate degree	66 (37-100)	KW=0.869	5.02 (4.75-5.60)	KW=0.599
Bachelor's degree	60 (44-83)	p=0.648	5.18 (4.84-5.73)	p=0.741
Postgraduate	53 (46-73)		5.20 (5.01-5.80)	
Unit of assignment				
Surgical	59 (46-84)	KW=2.777	5.12 (4.90-5.59)	KW=5.360
Coronary	59 (41-88)	p=0.734	5.22 (5.01-5.40)	
Medical	62 (45-85)		4.91 (4.48-5.68)	p=0.374
Reanimation	54 (36-71)		5.37 (4.98-5.87)	
Emergency	65 (49-82)		5.45 (4.62-5.76)	
Cardiovascular surgery	71 (44-92)		5.27 (5.01-5.67)	
Age	r=-0.034	p=0.743	r=-0.004	p=0.971
Working year	r=-0.056	p=0.582	r=0.127	p=0.214
Weekly working hours	r=0.163	p=0.110	r=-0.038	p=0.708
Number of patients Provided care/day	r=0.152	p=0.136	r=-0.194	p=0.055

U: Mann-Whitney U test, KW= Kruskal-Wallis test, r= Spearman correlation analysis, Q2= Median, Q1=25. Percent, Q3: 75. Percent

Discussion

The study which sought to determine the impact of compassion fatigue on care behaviors in ICU nurses giving care to critically ill patients found that the nurses had a moderate level of compassion fatigue and a higher perception of care quality. Also previous studies reported that ICU nurses had a moderate and high level of compassion fatigue, which was in agreement with the results of the current study (9,10,12-15,26). However, studies examining the impact of compassion fatigue on care behaviors in ICUs are not adequate in number (12,27). As the nurses' age, years of employment, working hours and number of patients they gave care to increased, their compassion fatigue increased (10,13). In addition, the nurses with a lower level of education experienced compassion fatigue at a higher level (11). Although the nurses worked in a busy unit like ICU, they had a lower level of compassion fatigue in the present study. It was probably because they had lower mean age, had relatively fewer years of employment and most of them had undergraduate education. Compassion fatigue might have also been caused by giving care to more patients compared to the recommended number of patients (two patients should receive care in tertiary ICU) (28).

The current study found that the ICU nurses had a higher perception of care quality. A study conducted by Efil et al. (29) with ICU nurses in Turkey similarly found that nurses had a higher perception of care quality (5.4±0.6). Based on these results, it is possible to state that the ICU nurses fulfilled their professional roles and responsibilities related to nursing care at an optimal level.

Although the current study found that the ICU nurses had a higher perception of care quality, as compassion fatigue increased, care perception quality of the nurses decreased. A study conducted by Dığın et al. (30) with surgical nurses obtained similar results. In contradistinction to the present study, a study conducted by Alharbi et al. (12) examined the impact of compassion fatigue on indicators sensitive to nursing care (pressure injuries, medication errors and patient falling), however, they found no significant correlation. It was probably because the number of indicators sensitive to nursing care was inadequate (12,30).

Compassion fatigue leads to a variety of physical and psychological problems in individuals and consequently causes nurses to face problems such as making a mistake, being unable to make the correct decision and being unable to give necessary care to patients due to indifference to patients and lower concentration (1,11). In addition, compassion fatigue has a negative impact on communication and serenity of healthcare professionals in the workplace environment (31). The present study similarly found a weakly significant correlation between the compassion fatigue scale occupational burnout subscale scores and the total care behavior and subscale scores of the nurses in a negative direction. It is possible to state that as occupational burnout in individuals increases, the state of perceiving care quality, using knowledge and skills in care applications and having assurance, commitment and respect may decrease, even if it is at a minumum level. A systematic compilation conducted by Kaçan and Örsal (32) reported that ICU nurses had a moderate-high level of burnout. A high level of burnout in a group will inevitably affect care behaviors (32). A study conducted by Hezer (33) reported a significant correlation between the total care behaviors scale score and burnout in a negative direction (33). In addition, some studies have reported that there is a significant correlation between burnout level and compassion fatigue in a positive direction (34,35). These studies demonstrate that burnout and compassion fatigue may cause a decrease in care quality perception of nurses. This may threaten patient safety in units like ICU where patients are dependent on nursing care, decrease the quality of care and increase possible complications. In this sense, it is significant to identify compassion fatigue and burnout in nurses and create relevant support mechanisms for patient safety and quality of care.

The present study found no statistically significant difference between the nurses' age, educational status, ICU worked, years of employment, weekly working hours, average number of patients they gave care to daily and total CF-SS and CBS-24 scores ($p>0.05$). However, the study found a statistically significant difference between the nurses' gender and mean CBS-24 scores ($p=0.017$) and determined that the male nurses had lower mean CBS-24 scores than the female nurses. Care behavior is an element which has socially been attributed to women for many years. One of the most important roles of nurses, caregiving has been identified with traditionalized female role (36). Although nursing profession had long been a woman's profession, the inclusion of men in the profession after a legal amendment conducted in 2007 began to resolve gender discrimination in nursing profession in our country (36). Even if nurses from both genders work with the same devotion in patient care, a study conducted by Saraç and Özyurda (37) expressed a negative opinion about male nurses, which was "being inadequate in caregiving and patient follow-up due to limiting nursing applications to receiving vital signs and treating" (37). A study conducted by Alharbi et al. (12) with nurses employed in ICU reported that male nurses experienced a higher level of stress and burnout than female nurses (12). The literature suggests that a higher level of stress and burnout may affect care behaviors in a negative direction (33). These factors might have been related with lower mean CBS-24 scores in the male nurses.

Study Limitations

The study was conducted in only one hospital and not all adult intensive care nurses could be reached. This is the limitation of the study. Multicenter and multinational studies are needed to generalize the results.

Conclusion

On the basis of the study results, the intensive care nurses experienced a moderate level of compassion fatigue and a higher perception of care behaviors. Compassion fatigue experienced by the intensive care nurses had a negative impact on their care behaviors. In order to decrease compassion fatigue perceived by intensive care nurses who have a higher risk of experiencing

compassion fatigue and consequently increase the quality of care behaviors, increase motivation and job satisfaction and decrease possible burnout in nurses, it is necessary to develop coping mechanisms, increase work motivations and make arrangements in the healthcare system.

Ethics

Ethics Committee Approval: In order to conduct the research, written permission was obtained from Mersin University Hospital and ethics committee approval was obtained from Tarsus University Clinical Research Ethics Committee (approval no: 2022/27, date: 04.04.2022).

Informed Consent: Prior to the study, the researchers obtained informed consent form and written permission from the participants to take part in the study.

Footnotes

Authorship Contributions

Concept: S.G.Y., G.B., G.A.U., Design: S.G.Y., G.B., G.A.U., Data Collection or Processing: H.D., H.F.K., Analysis or Interpretation: S.G.Y., G.B., G.A.U., Literature Search: S.G.Y., G.B., G.A.U., Writing: S.G.Y., G.B., G.A.U.

Conflict of Interest: No conflict of interest was declared by the authors.

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