

THE RELATIONSHIP BETWEEN SURGICAL NURSES' FEAR OF COVID-19 AND CARING BEHAVIOURS

CERRAHİ HEMŞİRELERİN COVID-19 KORKUSU İLE BAKIM DAVRANIŞLARI ARASINDAKİ İLİŞKİ

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ABSTRACT

Objective: This study aimed to determine the relationship between surgical nurses' fear of COVID-19 and caring behaviours.

Methods: The study population comprised 312 surgical nurses working in the surgical units of Sancaktepe Şehit Prof. Dr. İlhan Varank Training and Research Hospital and the study was completed with 261 surgical nurses. Data were collected through face-to-face interviews and the "Nurse Descriptive Information Form", the "Fear of COVID-19 Scale (FCV-19S)" and the "Caring Behaviors Inventory-24 (CBI-24)".

Results: It was found that nurses' mean CBI-24 total score was 4.95 ± 0.84 , and having a chronic disease, having COVID-19 themselves and in the person(s) they live with, receiving training on surgical patient care during the COVID-19 pandemic, and finding preventive measures for COVID-19 spread and the healthcare resources adequate affected the caring behaviours. In addition, the mean FCV-19S total score was 16.59 ± 6.88 , and it was determined that gender, finding the healthcare resources necessary for surgical patient care and the care provided during COVID-19 pandemic adequate affected the fear of COVID-19.

Conclusions: There was a significant and moderate negative correlation between the FCV-19S total score of the surgical nurses and the CBI-24 scale and subscale scores ($p < 0.05$). It was determined that fear of COVID-19 negatively affected caring behaviours at a moderate level. It is recommended to provide regular psychological support to surgical nurses for fear of COVID-19, to implement regular trainings for possible epidemics and disasters, and to improve the healthcare resources of nurses working in surgical units.

Keywords: COVID-19, Fear, Nursing Care, Surgical, Pandemic.

ÖZET

Amaç: Bu çalışma, cerrahi hemşirelerinin COVID-19 korkusu ile bakım verme davranışları arasındaki ilişkiyi belirlemek amacıyla yapılmıştır.

Yöntem: Çalışma evrenini Sancaktepe Şehit Prof. Dr. İlhan Varank eğitim ve araştırma hastanesinin cerrahi ünitelerinde çalışan 312 cerrahi hemşiresi oluşturmuş ve çalışma 261 cerrahi hemşiresi ile tamamlanmıştır. Veriler yüz yüze görüşme yöntemi ile, "Hemşire Tanımlayıcı Bilgi Formu", "COVID-19 Korku Ölçeği (FCV-19S)" ve "Bakım Verme Davranışları Envanteri-24 (BDÖ-24)" aracılığıyla toplanmıştır.

Bulgular: Hemşirelerin BDÖ-24 toplam puan ortalamasının $4,95 \pm 0,84$ olduğu, kronik hastalığı olanların, kendisinde ve birlikte yaşadığı kişi(ler)de COVID-19 olanların, COVID-19 sürecinde cerrahi hasta bakımı konusunda eğitim aldıkları saptandı. COVID-19 pandemisi, COVID-19 yayılımını önleyici tedbirlerin ve sağlık kaynaklarının yeterli bulunması bakım davranışlarını etkilemiştir. Ayrıca ortalama FCV-19S toplam puanı $16,59 \pm 6,88$ olup, cinsiyetin, cerrahi hasta bakımı için gerekli sağlık kaynaklarını bulmanın ve COVID-19 pandemisi süresince verilen bakımı yeterli bulmanın COVID-19 korkusunu etkilediği belirlendi.

Sonuç: Cerrahi hemşirelerinin FCV-19S toplam puanı ile BDÖ-24 ölçeği ve alt ölçek puanları arasında anlamlı ve orta düzeyde negatif korelasyon vardı ($p < 0.05$). COVID-19 korkusunun bakım davranışlarını orta düzeyde olumsuz etkilediği belirlendi. Cerrahi hemşirelere COVID-19 korkusu için düzenli psikolojik destek verilmesi, olası salgın ve afetlere karşı düzenli eğitimlerin uygulanması ve cerrahi birimlerde çalışan hemşirelerin sağlık kaynaklarının iyileştirilmesi önerilmektedir.

Anahtar Kelimeler: Cerrahi, COVID-19, Hemşirelik Bakımı, Korku, Pandemi

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**This article 'The Relationship Between Surgical Nurses' Fear of COVID-19 and Caring Behaviours' (Cerrahi Hemşirelerin COVID-19 Korkusu ile Bakım Davranışları Arasındaki İlişki), It is prepared from Rabia KOCA's 2022 master's thesis, where the advisor is Hatice ERDOĞAN.

INTRODUCTION

The COVID-19 pandemic has negatively affected the health systems in many countries and the need for healthcare resources has become more evident. The rapid spread of COVID-19 has demonstrated the importance of “care”, which is the primary role of a nurse (Jackson et al., 2020).

COVID-19 has different symptoms in each individual and it reveals the differences in care needs. Identifying the priorities of patient care is essential for a human-oriented, holistic and individualized nursing care (Cevirme and Kurt, 2020). In this regard, the nursing care provided to individuals diagnosed with COVID-19 should not only focus on the disease but also comprehensively address all aspects of life (Gok Metin, 2020). Healthcare workers have been at the forefront of the fight against the pandemic and have been among the groups most affected mentally and physically. The problems experienced by healthcare workers in this process are fatigue, insomnia, stress, and burnout as a result of the increasing workload, long-term use of personal protective equipment, witnessing the experiences of colleagues who got COVID-19, and being infected and stigmatized (Uyurdag, 2021; Moradi et al., 2021).

COVID-19 has become an extreme fear factor all over the world. It is believed that the intensity of the fear increases the behaviour change in people (Paksoy, 2020; Dogan et al., 2021).

Therefore, the difficulties nurses experienced in this crisis, the stress, the burden of burnout and fear can affect the quality of care and are likely to lead to negative clinical decisions and consequences (Moussa et al., 2021). Since nurses' fear of COVID-19 may affect their caring behaviours, it is important to determine the relationship between them. The aim of this study was to determine the relationship between surgical nurses' fear of COVID-19 and caring behaviors.

MATERIALS AND METHODS

Research Design

The research was conducted with surgical nurses working in a Sancaktepe Şehit Prof. Dr. İlhan Varank Training and Research Hospital between November 2021 and February 2022. It is a cross-sectional descriptive correlational study.

Research Questions

- What is the level of fear of COVID-19 among surgical nurses?
- Do surgical nurses' socio-demographic characteristics and data on COVID-19 affect the fear of COVID-19 and the caring behaviours?
- Is there a relationship between surgical nurses' fear of COVID-19 and their caring behaviours? What kind of a relationship is it?

Population and Sample

The population of the study consisted of 312 surgical nurses who worked in a Sancaktepe Şehit Prof. İlhan Varank Training and Research Hospital between November 2021 and February 2022. Entire population was aimed, and a total of 261 surgical nurses were included in the study. The sample reached represents 83.65% of the population.

Data Collection Tools

The “Nurse Descriptive Information Form”, the “Fear of COVID-19 Scale” and the “Caring Behaviors Inventory-24” were used as data collection tools.

The Nurse Descriptive Information Form

In this form created by the researcher, the sociodemographic characteristics of the nurses (gender, age, marital status, having children, education level, years of work in the profession, unit they work in, any chronic disease), and (he and his family have not received any training in the diagnosis of COVID 19, vaccination status, patient care during the COVID-19 pandemic process, measures taken in surgical clinics to prevent the spread of COVID-19, adequacy of facilities for the care of surgical patients in the period of COVID-19, effective care of surgical patients in the period of COVID-19) it contains 16 questions.

The Fear of COVID-19 Scale (FCV-19S)

The scale, developed by Ahorsu et al. (2020), aims to determine nurses' fear of COVID-19, and the Turkish validity and reliability study was conducted by Bakioglu et al. The scale consists of 7 questions, and high scores indicate a higher level of COVID-19 fear while low scores indicate a lower level of fear (Ahorsu et al., 2020; Bakioglu et al., 2020). Bakioglu et al. (2020). reported that the Cronbach alpha internal consistency coefficient of the scale was 0.84. In our study, the Cronbach alpha coefficient was found to be 0.91.

Caring Behaviors Inventory-24 (CBI-24)

The instrument is used to measure the nursing care process and the caring (Wu et al., 2006). Wu et al. (2006) created the tool as a short form of CBI-42 and the Turkish validity and reliability study was conducted by Kurşun and Kanan (2012). In the scoring method of the scale, the scores of the responses are added up, and higher scores indicate that nurses' perception levels of caring quality has increased. Cronbach's alpha for the total score of the scale was 0.96 in nurses; for the sub-dimensions, it was determined that it was between 0.81-0.94 in nurses (Kurşun and Kanan, 2012). In our study, Cronbach's alpha for the total score of the scale was determined to be 0.97 in nurses.

Data Collection

Data were collected through face-to-face interviews with surgical nurses who agreed to participate in the study between November 2021 and February 2022.

Data Analysis

IBM SPSS Statistics-22 program was used for the statistical analysis of the study. The conformity of the parameters to the normal distribution was assessed with the Kolmogorov-Smirnov test. In addition to descriptive statistical methods, Kruskal-Wallis and Dunn's tests were used to compare quantitative data. The Mann Whitney U test was used for the comparison of the parameters between two groups, and Spearman's rho correlation analysis was used to examine the relationship between parameters that are not normally distributed.

Ethical Considerations

The permissions for the use of the scales were obtained from Maltepe University Ethics Committee (Decision No: 2021/27-05), the institution where the study was conducted (Decision No: E-46059653-799), the Scientific Research Platform of the Ministry of Health (2021-09-26T23_17_00), and the consent of the nurses participating in the study was received.

RESULTS

Table 1. Sociodemographic Characteristics of Nurses (N=261)

	Min-Max (median)	M±SD	
Age (year)	21-43 (26)	26.59±3.58	
Years of work experience	1-25 (3)	3.92±3.60	
		n	%
Gender	Female	206	78.9
	Male	55	21.1
Marital Status	Married	85	32.6
	Single	176	67.4
Having Children	Yes	43	16.5
	No	218	83.5
Education Status	Health Vocational High School	28	10.7
	Associate Degree	15	5.7
	Bachelor's Degree	199	76.2
	Masters/Doctorate	19	7.3
Unit	Operating Room	68	26.2
	Surgical Service	132	50.5
	Surgical Intensive Care	61	23.3
Chronic Disease	Yes	42	16.1
	No	219	83.9
Chronic disease in person(s) you live with	Yes	58	22.2
	No	203	77.8

78.9% of the nurses were women, the mean age was 26.59 ± 3.58 years, the average working time in the field was 3.92 ± 3.60 years, 67.4% were single, 83.5% had no children. It was determined that 76.2% of them had a bachelor's degree and 50.5% of the nurses worked in surgical services. It was determined that 83.9% of the nurses did not have a chronic disease and 77.8% of them did not have a chronic disease in the person(s) they lived with (Table 1).

Table 2. Nurses' Responses to COVID-19 (N=261)

		n	%
Have you been diagnosed with COVID-19?	Yes	111	42.5
	No	150	57.5
Has the person(s) you live with been diagnosed with COVID-19?	Yes	108	41.4
	No	153	58.6
Have you been vaccinated against COVID-19?	Yes	245	93.9
	No	16	6.1
Have you received any training on surgical patient care during COVID-19 pandemic?	Yes	104	39.8
	No	157	60.2
Do you find the preventive measures for COVID-19 spread in surgical units adequate?	Adequate	57	21.8
	Somehow adequate	140	53.6
	Inadequate	64	24.5
How would you evaluate the adequacy of healthcare resources necessary for surgical patient care during COVID-19 pandemic?	Adequate	53	20.3
	Somehow adequate	148	56.7
	Inadequate	60	23
Do you find the care you provided to surgical patients during COVID-19 pandemic effective?	Yes	85	32.6
	Somewhat	144	55.2
	No	32	12.3

It was found that 42.5% of the nurses had COVID-19, 41.4% had person(s) in the household who got COVID-19, 93.9% were vaccinated against COVID-19, and 39.8% received training on surgical patient care during the COVID-19 pandemic. 21.8% of the nurses found the preventive measures for COVID-19 spread in surgical units adequate, 20.3% stated that the healthcare resources necessary for surgical patient care during the COVID-19 pandemic were adequate, and 32.6% believed that they provided effective care to surgical patients during the COVID-19 pandemic (Table 2).

No significant relationship was found between nurses' age, years of work experience in field, marital status, having children, education status, and unit, having a chronic disease in person they live with, being vaccinated against COVID-19 and the FCV-19S total score and the CBI-24 scale and subscale scores. There was no significant relationship between gender and the CBI-24 scale and subscale scores, and the FCV-19S total scores of female nurses were found to be significantly higher than male nurses. The assurance, knowledge-skill, respectfulness subscale scores and the CBI-24 scale scores of the nurses with a chronic disease were significantly lower than those who did not have a chronic illness, and no difference was found between the connectedness subscale and the FCV-19S total score. There was no significant difference between the assurance subscale and the FCV-19S total scores of the nurses who had and did not have COVID-19, and the knowledge-skill, respectfulness, connectedness subscale and CBI-24 scale scores of the nurses who had COVID-19 were found to be significantly higher. There was no difference between the assurance subscale and the FCV-19S total scores of the nurses who had or did not have COVID-19 in person(s) they lived with, but the knowledge-skill, respectfulness, connectedness subscale and the CBI-24 scale scores of the nurses living with person(s) who had COVID-19 were found to be significantly higher. The assurance subscale scores of the nurses who received training on surgical patient care during the COVID-19 pandemic were found to be significantly higher, but there was no difference between the FCV-19S total score, CBI-24 scale and subscale scores. The CBI-24 scale and subscale scores of the nurses who found preventive measures for COVID-19 spread in surgical units adequate were found to be significantly higher than the nurses who found the precautions somewhat adequate or inadequate. Nurses who found the healthcare resources adequate had

significantly higher CBI-24 scale and subscale scores, and the FCV-19S total scores of the nurses who responded as somewhat adequate were significantly higher than the nurses who found the resources adequate. Nurses who believed that they provided effective care to their patients had significantly higher CBI-24 scale and subscale scores. The FCV-19S total scores of the nurses who believed that the care they provided was somewhat effective were found to be significantly higher (Table 3).

Table 3. The FCV-19S and CBI-24 by Nurses' Sociodemographic Characteristics and Responses to COVID-19 (N=261)

	FCV-19S		CBI-24			
	Total M±SD (median)	Assurance M±SD (median)	Knowledge-Skill M±SD (median)	Respectfulness M±SD (median)	Connectedness M±SD (median)	CBI-24 Total M±SD (median)
Gender						
Female	17.16±6.4 (16)	4.93±0.9 (5)	5.22±0.75 (5.4)	4.95±0.89 (5)	4.82±0.93 (5)	4.97±0.83 (5.06)
Male	14.45±8.16 (12) p=0.003; p<0.05	4.83±0.94 (4.88)	5.17±0.83 (5.4)	4.82±0.93 (4.83)	4.73±1 (4.8)	4.88±0.87 (5)
Chronic Disease						
Yes	18.52±7.84 (18.5)	4.62±1.01 (4.88)	4.89±0.81 (5)	4.67±0.95 (4.83)	4.54±1.11 (4.9)	4.67±0.94 (4.92)
No	16.22±6.64 (16)	4.96±0.88 (5) p=0.036;	5.27±0.75 (5.4) P=0.004	4.97±0.88 (5) p=0.040	4.85±0.9 (5)	5.01±0.81 (5.08) p=0.024
Have you been diagnosed with COVID-19?						
Yes	16.3±6.74 (16)	5.01±0.91 (5.13)	5.38±0.7 (5.6)	5.1±0.89 (5.17)	4.97±0.94 (5)	5.1±0.83 (5.17)
No	16.81±7 (16)	4.83±0.9 (5)	5.09±0.79 (5.2) p=0.001	4.8±0.88 (4.83) p=0.002	4.68±0.93 (4.8) P=0.006	4.84±0.83 (5) P= 0.006
Has the person(s) you live with been diagnosed with COVID-19?						
Yes	16.01±6.67(15)	4.97±0.93 (5)	5.33±0.73 (5.6)	5.04±0.88 (5.08)	4.96±0.91 (5)	5.06±0.83 (5.13)
No	17±7.02 (16)	4.86±0.9 (5)	5.13±0.79 (5.4) P= 0.032	4.84±0.9 (5) P= 0.042	4.69±0.95 (4.8) P= 0.016	4.88±0.84 (5) P= 0.048
Have you received any training on surgical patient care during COVID-19 pandemic?						
Yes	16.35±6.52 (15)	5.06±0.8 (5)	5.22±0.75 (5.4)	5.01±0.83 (5)	4.94±0.83 (5)	5.06±0.76 (5.06)
No	16.75±7.13 (16)	4.8±0.97 (5) P=0.049	5.21±0.78 (5.4)	4.87±0.93 (5)	4.71±1 (4.8)	4.88±0.88 (5.04)
Do you find the preventive measures for COVID-19 spread in surgical units adequate?						
Adequate	15.16±6.06 (14)	5.23±0.69 (5.25)	5.42±0.66 (5.4)	5.33±0.72 (5.5)	5.26±0.68 (5.4)	5.3±0.65 (5.42)
Somewhat Adequate	16.74±6.77 (16.5)	4.87±0.89 (5)	5.15±0.79 (5.3)	4.87±0.84 (5)	4.75±0.9 (4.8)	4.9±0.81 (5)
Inadequate	17.55±7.67 (16.5)	4.69±1.05 (4.88) P=0.010	5.16±0.78 (5.4) P=0.048	4.68±1.02 (4.83) P=0.001	4.5±1.07 (4.6) P=0.001	4.75±0.95 (4.92) P=0.001
How would you evaluate the adequacy of healthcare resources necessary for surgical patient care during COVID-19 pandemic?						
Adequate	14.32±6 (14)	5.31±0.68 (5.38)	5.56±0.57 (6)	5.46±0.64 (5.67)	5.29±0.73 (5.4)	5.39±0.61 (5.54)
Somewhat Adequate	17.43±6.5 (17)	4.83±0.86 (5)	5.09±0.78 (5.2)	4.83±0.82 (4.92)	4.74±0.86 (4.8)	4.86±0.79 (5)
Inadequate	16.53±8.09 (14.5) P=0.015	4.74±1.09 (5) P=0.002	5.2±0.81 (5.4) P=0.001	4.69±1.07 (5) P=0.001	4.53±1.14 (4.8) P=0.001	4.78±1 (5.02) P=0.001
Do you find the care you provided to surgical patients during COVID-19 pandemic effective?						
Yes	14.61±6.01 (14)	5.2±0.72 (5.25)	5.43±0.66 (5.6)	5.22±0.75 (5.33)	5.15±0.78 (5.2)	5.24±0.67 (5.29)
Somewhat	17.51±6.77 (17)	4.82±0.91 (5)	5.15±0.79 (5.4)	4.85±0.87 (5)	4.71±0.9 (4.8)	4.88±0.83 (5.02)
No	17.69±8.47 (15.5) P=0.009	4.47±1.14 (4.69) P=0.001	4.91±0.8 (4.7) P=0.001	4.47±1.09 (4.75) P=0.001	4.3±1.17 (4.4) P=0.001	4.53±1.02 (4.56) P=0.001

Fear of COVID-19 Scale (FCV-19S), Caring Behaviors Inventory-24 (CBI-24).

Table 4. Comparison of Nurses' FCV-19S and CBI-24 Scores (N=261)

		CBI-24				CBI-24 Total
		Assurance	Knowledge-Skill	Respectfulness	Connectedness	
FCV-19S	r	-0.390	-0.374	-0.379	-0.430	-0.417
	p	0.001*	0.001*	0.001*	0.001*	0.001*

In our study, a significant and moderate negative correlation was found between the FCV-19S total score and the CBI-24 scale and subscale scores (Table 4).

DISCUSSION

In our study, the FCV-19S total scores of the female nurses were found to be higher. In the study of Nehir and Güngör Tavşanlı (2021) on the effect of the COVID-19 pandemic on nursing and midwifery students' perception of fear and control, the mean FCV-19S total scores of female students were reported to be higher (Nehir and Güngör Tavşanlı 2021). There are studies in the literature that support our study findings (Aslan and Dinç, 2022; Labrague and Los Santos, 2021; Oguz and Ozdemir 2021; Medina et al., 2021). Women are more emotional and sensitive individuals than men, so it is normal for fears of COVID-19 to be higher. In contrast to our study, there are studies that did not find a relationship between gender and FCV-19S score (Acar, 2021; Unver and Yenigun, 2021; Galanis et al., 2021; Dığın, 2021).

The assurance, knowledge-skill, respectfulness and CBI-24 total scores of the nurses with a chronic disease were found to be significantly lower. However, in the study of, no relationship was found between having a chronic disease and the CBI-24. Individuals who have chronic diseases are at higher risk during the pandemic, and the risk of complications increases when they become infected. The anxiety and fear experienced by nurses with chronic diseases may have negatively affected their caring behaviours. In our study, nurses who had COVID-19 themselves and/or in the person(s) they live with had significantly higher knowledge-skill, respectfulness, connectedness and CBI-24 total scores. Nurses' having the disease may have helped them to empathize with the patients and determine their care needs, and their caring behaviours may have been positively affected.

In this study, the assurance scores of the nurses who received training on surgical patient care during the COVID-19 pandemic were found to be significantly higher. Similar to our study, in the study of Durukan (2019), the caring scores of the nurses who thought that their institution supported them for education and development were higher, and in the study of Altın (2019), nurses who received caring training had higher perceptions of care behaviour. With COVID-19, many new interventions have been introduced in surgical fields, and it is clear that the trainings on how nurses will adapt to the new patient care needs with COVID-19, and what to pay attention to when providing surgical patient care, have a positive impact on care behaviour.

The CBI-24 scale and subscale scores of the nurses who found the preventive measures for COVID-19 spread in surgical units and the healthcare resources necessary for surgical patient care during COVID-19 pandemic adequate were found to be significantly higher. No studies supporting this finding were found in the literature. Adequate measures and resources to prevent the spread of COVID-19 have positively affected nurses' care behaviours by making them feel safe against the risk of COVID-19 transmission.

In our study, the CBI-24 scale and subscale scores of the nurses who believed that they provided effective care to surgical patients during COVID-19 pandemic were significantly higher, and the FCV-19S scores were lower. In the study of Yakıt (2020), it was determined that the nurses who found the nursing care inadequate had negative perception of care. In this process, nurses continued to work selflessly and provide care for patients despite the risk of infection. In this regard, nurses' thinking that they provided effective care may have reduced their fears of COVID-19.

A significant and moderate negative correlation was found between the FCV-19S total score of the nurses and the CBI-24 scale and subscale scores. It was determined that fear of COVID-19 had a moderate negative impact on caregiving behaviors.

Similarly, in the study of Poyraz (2021), a significant negative correlation was found between the fear of COVID-19 and the caring behaviours scale and subscale scores. In the study of Keskin Kızıltepe and Yılmaz conducted with nursing students, no statistically significant relationship was found between the FCV-19S total score and the CBI-24 scale and subscale scores. This may be because nursing

students do not interact and provide treatment and care to the patient diagnosed with COVID-19 (Keskin Kızıltepe and Yılmaz, 2021).

Nurses experienced fear of contracting COVID-19 at the beginning of the pandemic process due to the uncertainty about the course of the disease. In this process, nurses were afraid of infecting their relatives as much as they were afraid of catching COVID-19. This fear caused to minimize contact with infected patients and negatively affected their care behaviors. However, in our study, it is seen that the sub-dimensions of negatively affected care behaviors are not related to the basic life needs of the patient. The sub-dimension most affected by the fear of COVID-19 on CBI-24; It can be said that care behaviors related to the sub-dimension of commitment, which includes items such as educating or informing the patient, spending time with the patient, and being patient with the patient, are negatively affected.

CONCLUSION

To conclude, it was determined that the FCV-19S total scores of the surgical nurses were at a moderate level, the CBI-24 scale and subscale scores were above the average, and the fear of COVID-19 negatively affected caring behaviours at a moderate level. It is recommended to provide regular psychological support to surgical nurses for fear of COVID-19, to implement trainings, and to improve the healthcare resources of nurses working in surgical units.

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