Reflection of the Pandemic on the Attıtudes for Caregiving Roles of Surgıcal and Intensive Care Nurses: A Cross-Sectional Study

Pandeminin Cerrahi ve Yoğun Bakım Hemşirelerinin Bakım Verici Rollerine Yönelik Tutumlarına Yansıması: Kesitsel Bir Çalışma

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ABSTRACT

Aim: This study aimed to examine the relationship between the attitudes of nurses working in surgical and intensive care settings towards their care roles and their coronavirus-related anxiety.

Method: This descriptive and correlational study includes 111 nurses working in the surgical and intensive care units. The Nurse Information Form, Attitude Scale for Nurses in Caregiving Roles, and Coronavirus Anxiety Scale Short Form were used for data collection.

Results: The mean score of the Attitude Scale for Nurses in Caregiving Roles was 4.35±0.48. Intensive care nurses' attitude scores related to roles in "meeting self-care needs and counseling" and " protecting individuals and respecting their rights" were higher than surgical nurses. The mean anxiety score of the nurses regarding coronavirus was 3.27±3.68, and surgical nurses had higher scores. There was no statistically significant relationship between the nurses' attitudes toward caregiving roles and their coronavirus anxiety.

Conclusion: Attitudes toward the caregiving roles of the nurses working in surgical and intensive care settings were highly positive and they had low coronavirus anxiety. While performing their professional roles, it was seen that the nurses did not reflect the effects of their mood on the care they provide and maintained their professionalism.

Keywords: Anxiety, Caregiving Roles, Coronavirus, Pandemic, Surgical Nursing.

ÖZET

Amaç: Bu çalışmada, cerrahi ve yoğun bakım ortamlarında çalışan hemşirelerin bakım rollerine yönelik tutumları ile koronavirüsle ilişkili yaşadıkları kaygı arasındaki ilişkinin incelemesi amaçlandı.

Yöntem: Tanımlayıcı ve ilişki arayıcı nitelikteki çalışmaya cerrahi ve yoğun bakım ünitelerinde çalışan 111 hemşire katıldı. Veriler Hemşire Bilgi Formu, Hemşirelerin Bakım Verme Rollerine Yönelik Tutum Ölçeği ve Koronavirüs Kaygı Ölçeği Kısa Formu ile toplandı.

Bulgular: Hemşirelerin Bakım Verme Rollerine Yönelik Tutum Ölçeği puan ortalaması 4,35±0,48 idi. Yoğun bakım hemşirelerinin "öz bakım ihtiyaçlarını karşılama ve danışmanlık" ve "bireyleri koruma ve haklarına saygı gösterme" rollerine ilişkin tutum puanları cerrahi hemşirelerine göre daha yüksekti. Hemşirelerin koronavirüse ilişkin ortalama kaygı puanı 3,27±3,68 olup, cerrahi hemşirelerinin puanları daha yüksekti. Hemşirelerin bakım rollerine yönelik tutumları ile koronavirüs kaygıları arasında istatistiksel olarak anlamlı bir ilişki bulunmadı.

Sonuç: Cerrahi ve yoğun bakım ortamlarında çalışan hemşirelerin bakım verme rollerine yönelik tutumları oldukça olumluydu ve koronavirüse ilişkin kaygıları düşüktü. Hemşirelerin mesleki rollerini yerine getirirken ruh hallerinin etkilerini verdikleri bakıma yansıtmadıkları ve profesyonelliklerini korudukları görüldü.

Anahtar Kelimeler: Bakım Verici Roller, Cerrahi Hemşireliği, Kaygı, Koronavirüs, Pandemi.

INTRODUCTION

In the pandemic, which emerged in 2019 and has become a global problem, all health workers have been adversely affected both physiologically and psychologically (Atay, 2020; Newby et al., 2020; Wagner et al., 2022). Nurses, especially those who take an active role in patient care, have experienced psychological problems such as anxiety and depression due to the fear of infection and death from coronavirus. And currently, they continue to experience many infectious diseases, as well as the rare coronavirus in current (Lauet al., 2008; Leet al., 2020; Newby et al., 2020; Yang&Jung, 2020). In the report published by the International Council of Nursing in 2021, it was also reported that many nurses experienced problems such as being infected, fear of death, burnout, and leaving their jobs due to coronavirus (ICN, 2020). These negative emotions such as those experienced by nurses during the pandemic period may lead to a conflict between their professional responsibilities and their sense of security by causing ethical dilemmas and causing nurses to change their perspectives in maintaining their professional roles (Kackin et al., 2021; Kaplan et al., 2021).

The caregiver role, which is the most important professional role of nurses and contributes to the development of modern nursing, forms the basis of traditional nursing practices (Karadağ et al., 2007; Karagözoğlu, 2006). This role also reveals the value and responsibilities of nurses in shortening the length of hospital stays of patients, preventing complications, and reducing treatment costs (Yildizeli Topcu, 2021). A strong caregiving role is associated with a sense of being a professionalism, job satisfaction, and pleasure (Karadağ et al., 2007; Karadağ&Tascı, 2003). For this reason, it is important for the nursing profession to examine the problems in maintaining nursing roles. Determining the factors that cause nurses to change their attitudes towards their roles and responsibilities in global problems such as pandemics is an important issue in providing quality nursing care. However, it is noteworthy that a limited number of studies have examined nurses' caregiving roles and attitudes during and after the coronavirus pandemic, which greatly affects nurses in terms of individual and professional practice (Kaplan et al., 2021; Karadağ&Tascı, 2003; Yıldırım et al., 2022).

Aim

This study aims to examine the effect of anxiety experienced by the nurses working in surgical and intensive care settings regarding coronavirus on their attitudes toward their caregiving roles.

Research questions

• Is there a difference between the anxiety levels experienced by the nurses working in surgical and intensive care settings regarding coronavirus?

• Is there a difference between the attitudes of nurses working in surgical and intensive care settings towards caregiving roles?

• Is there a relationship between the anxiety levels experienced by nurses working in surgical units regarding the coronavirus and their attitudes toward their caregiving roles?

• Is there a relationship between the anxiety levels experienced by nurses working in intensive care units regarding the coronavirus and their attitudes towards their caregiving roles?

MATERIAL AND METHODS

Research Design

The study is a descriptive and correlational, cross-sectional study.

Sample of the Study

The study universe consisted of nurses (N=131) working in surgical and intensive care units of a university hospital located in the southwest (SW) of Turkey. No sampling method was used to determine the sample of the study. Due to the limited number of nurses in the population, no sampling method was used to determine the study sample, and the aim was to reach the entire population. At the end of the survey, 85% of the population was reached. A total of 111 nurses who worked in the units where the study was conducted and volunteered to participate constituted the study sample.

The inclusion criteria for the sample were that

participants must volunteer to participate in the study, have worked on the unit for at least one month, and hold a position where they were directly involved in patient care. Clinical nurse managers were excluded from the sample.

Instruments and Data Collection

The data of the study were collected online between April and September 2021. Data were collected using the "Nurse Information Form" developed by the researchers (Chen et al., 2020; Ünver&Yeniğün, 2021; Yildizeli Topcu, 2021), "Attitude Scale for Nurses in Caregiving Roles (ASCRNs)", and "Coronavirus Anxiety Scale Short Form (CAS)".

Nurse Information Form

The form developed by the researchers consists of 6 (six) questions about the introductory characteristics of nurses including age, gender, marital status, educational level, and duration of work in the profession and the unit.

Attitude Scale for Nurses in Caregiving Roles (ASNCR)

ASNCR was developed by Koçak et al. (2014). The scale measures the nurses' level of fulfilling their caregiver roles with a five-point Likert-type rating. The scale has sixteen (16) items and three (3) sub-dimensions. Subscales of the scale are "Attitude subscale related to nurses' roles in meeting self-care needs and counseling", "Attitude subscale related to nurses' roles in protecting individuals and respecting their rights" and "Attitude subscale related to nurses' roles in the treatment process". In assessing of the level of carrying out the caregiver role, the arithmetic means of the scale and subscales are used. According to the arithmetic mean, the level of attitudes related to the caregiver role classifies as very poor (0,00 - 2,50), poor (2,51 - 3,50), good (3,51 - 4,50), and very good (4,51 - 5,00). As the score on the scale increases, the level of attitudes related to the caregiver role increases. The Cronbach Alpha value of the scale is 0.91. In this study, Cronbach's alpha value of the scale was found to be 0.845.

Coronavirus Anxiety Scale Short Form (CAS)

The CAS is a mental health screener designed by Lee (2020) to identify probable cases of dysfunctional anxiety associated with the coronavirus crisis. CAS is a 5-point Likert-type scale. The scale consists of five (5) items and one (1) dimension. A high score on the scale indicates a high level of anxiety. The Turkish validity and reliability study of the scale was carried out by Bicer et al.16 The Cronbach Alpha value of the scale is 0.83. In this study, the Cronbach's alpha value of the scale was found to be 0.845.

Data collection

Data collection forms were prepared online and data were collected via Google Forms. The link to the data collection forms was shared with the participants via e-mail. Before they started answering the survey, information about the study was included in the form for the participants. The nurses who agreed to participate in the study could answer the form after permitting for participating to the survey.

Data Analysis

Data analysis was analyzed using the IBM SPSS Statistics for Windows, Version 25.0 (IBM Corp., Armonk, NY, USA) software package. Descriptive data were expressed as numbers and percentages. Mann-Witney U and chi-square tests were used to compare variables between groups, and Mann-Witney U, Kruskal Wallis and Pearson correlation analyses were used to analyze the factors affecting nurses' coronavirus anxiety and caring role attitudes. The relationship between coronavirus anxiety and attitudes toward caregiving roles was evaluated with Pearson correlation analysis. Statistical significance was accepted as $p<0.05$.

Ethical Aspects of the Research

The principles of the Declaration of Helsinki were followed in the study (General Assembly of the World Medical Association, 2014). To conduct the research, ethical approval was obtained from the Board of Ethics of Pamukkale University Medical Faculty (Date: 24/03/2021, Number: E.35786) and written permission was taken from the hospital where the research was carried out. Participating nurses provided verbal consent stating their willingness and voluntariness to take part in the research. The nurses were informed about the study before commencement.

RESULTS

It was determined that the mean age of intensive care and surgical nurses was 31.60±8.15 years. It was found that 90.1% of the nurses participating in the study were female, 57.7% were married and 58.6% had a bachelor's degree. When the professional experiences of nurses were examined, it was determined that the participants' mean working year in the profession was 10.26±7.82 years, and the mean working year in the intensive surgical care unit was 6.73±5.28 years (Table 1).

Table 1. Nurses' personal and professional features and scores of CAS and ASNCR

	All Nurses	Surgical Nurses	ICU Nurses	
[a]**Age** [X±SD]	31.60±8.15	34.50±8.61	29.05±6.84	Z=-3.344 **p=0.001**
[b]**Gender** [n (%)] Female Male	 100 (90.1) 11 (9.9)	 49 (94.2) 3 (5.8)	 51 (86.4) 8 (13.6)	 p=0.213
[b]**Marital status** [n (%)] Single Married	 47 (42.3) 64 (57.7)	 33 (63.5) 19 (36.5)	 31 (52.5) 28 (47.5)	 p=0.256
[c]**Level of education** [n (%)] Medical career college Associate degree Undergraduate Graduate	 18 (16.2) 18 (16.2) 65 (58.6) 10 (9.0)	 8 (15.4) 3 (5.8) 35 (67.3) 6 (11.5)	 10 (16.9) 14 (23.7) 31 (52.5) 4 (6.8)	X^2=7.571 p=0.056
[a]**Duration of work (years)** [X±SD]	10.26±7.82	12.61±8.90	8.16±6.06	Z=-2.537 **p=0.011**
[a]**Duration of work in unit** [X±SD]	6.73±5.28	7.46±5.20	6.08±5.31	Z= -1.637 p=0.102
[a]**CAS** [X±SD]	3.27± 3.68	4.20±4.34	2.46±2.77	Z=2.107 **p=0.035**
[a]**Attitudes related to nurses' roles in meeting the self-care needs and counseling** [X±SD]	4.32±0.56	4.18±0.62	4.45±0.47	Z=-2.124 **p=0.034**
[a]**Attitudes related to nurses' roles in protecting individuals and respecting their rights** [X±SD]	4.55±0.52	4.41±0.62	4.68±0.39	Z=-2.325 **p=0.020**
[a]**Attitudes related to nurses' roles in the treatment process** [X±SD]	4.23±0.58	4.18±0.60	4.28±0.56	Z=-0.806 p=0.420
[a]**ASNCR** [X±SD]	4.35±0.48	4.24±0.54	4.46±0.41	Z=-1.962 p= 0.050

ICU: intensive care unit, CAS: Coronavirus Anxiety Scale Short Form, ASNCR: The Attitude Scale for Nurses in Caregiving Roles, a: Mann-Whitney U test, b: Fisher's Exact Test, c: Pearson Chi-Square test

The mean CAS score of the nurses was found to be 3.27±3.68 and surgical nurses was higher scores than intensive care nurses (p<0.05). It was determined that the nurses' mean ASCRNs score was 4.35±0.48 points and the mean scores of the sub-dimensions of "Attitudes related to nurses' roles in meeting the self-care needs and counseling" score was 4.32±0.56, "Attitudes related to nurses' roles in protecting individuals and respecting their rights" was 4.55±0.52 and "Attitudes related to nurses' roles in the treatment process" was 4.23±0.58. ICU nurse's mean scores of the sub-dimensions of "Attitudes related to nurses' roles in meeting the self-care needs and counseling" and "Attitudes related to nurses' roles in protecting individuals and respecting their rights" were higher than surgical nurses (p<0.05) (Table 1).

Table 2. Scores of CAS according to nurses' personal and professional features

	All Nurses	Surgical Nurses	ICU Nurses
[a]**Age**	**r=0.271**	r=0.075	**r= 0.378**
	p=0.004	p=0.600	**p=0.003**
[b]**Gender**			
Female	3.47±3.72	4.27±4.37	2.70±2.81
Male	1.54±2.80	3.00±4.35	1.00±2.14
	Z=-2.281	Z=-0.066	**Z= -2.083**
	p=0.023	p=0.505	**p= 0.037**
[b]**Marital status**			
Single	3.72±3.50	4.52±5.16	3.43±3.13
Married	2.68±3.86	4.00±3.84	1.43±1.89
	Z= -2.182	Z=-0.128	**Z=-2.603**
	p= 0.029	p=0.898	**p=0.009**
[c]**Level of education**			
Nursing college	2.39±3.66	4.87±4.36	0.40±0.84
Associate degree	3.06±3.19	4.67±6.43	2.71±2.33
Undergraduate	3.47±3.51	3.59±3.89	3.33±3.08
Graduate	4.00±5.50	5.96±2.43	0.25±0.50
	KW=3.544	KW=2.651	**KW=15.030**
	p=0.315	p=0.449	**p=0.002**
[a]**Duration of work (years)**	**r=0.264**	r= 0.143	**r= 0.333**
	p=0.006	p=0.317	**p=0.011**
[d]**Duration of work in unit**	**r=0.255**	r= 0.014	r=0.226
	p=0.007	p=0.923	p=0.088

CAS: Coronavirus Anxiety Scale Short Form, [a]: Spearman's Correlation, [b]: Mann-Whitney U test, [c]: Kruskal-Wallis Test, [d]: Pearson Correlation

It was determined that the CAS scores of the nurses participating in the study varied according to age, gender, marital status, and length of service in the profession and unit. While there was no difference between the CAS scores of surgical nurses in terms of these characteristics, in the intensive care nurses, the CAS score was found to differ statistically significantly according to gender ($p<0.05$), marital status ($p<0.01$), educational level($p<0.01$) and correlated to age ($p<0.01$) and professional time ($p<0.05$). It was determined that the CAS score of female, single, having bachelor's degrees and more professional experience intensive care nurses was higher (Table 2). There was no statistically significant difference in the ASNCR mean score of nurses working in intensive care and surgical units according to sociodemographic variables ($p>0.05$). In addition, no statistically significant correlation was found between the nurses' mean ASCRNs scores and their mean CAS scores ($p>0.05$) (Table 3).

DISCUSSION

Since the day COVID-19 emerged, it has created a fear of the unknown in nurses and brought psychological problems (Chen et al., 2020). Alnazy et al. (2021), reported that health workers experience high levels of fear during the coronavirus pandemic. Troisi et al.(2021) reported that nurses experienced high levels of fear and anxiety during the pandemic. Similarly, Labrague et al. (2021) reported that nurses who were at the forefront during the pandemic experienced moderate coronavirus fear and anxiety. In the national literature, it is stated that nurses have high coronavirus fear levels (Dığın et al., 2022; Ünver&Yeniğün, 2021).

Saracoglu et al. (2020) stated that fear and anxiety were experienced at the highest level among nurses working in intensive surgical care units. However, in this study, it is seen that the coronavirus anxiety levels of nurses working in operating rooms and intensive surgical care

Table 3. Scores of ASNCR according to nurses' personal and professional features

	Attitudes related to nurses' roles in meeting the self-care needs and counseling			Attitudes related to nurses' roles in protecting individuals and respecting their rights			Attitudes related to nurses' roles in the treatment process			ASCRN		
	All Nurses	Surgical Nurses	ICU Nurses	All Nurses	Surgical Nurses	ICU Nurses	All Nurses	Surgical Nurses	ICU Nurses	All Nurses	Surgical Nurses	ICU Nurses
[a]**Age**	r=-0.095 p=0.323	r=0.026 p=0.853	r=-0.082 p=0.538	r=-0.078 p=0.415	r=0.069 p=0.629	r=-0.076 p=0.567	r=-0.062 p=0.520	r=-0.001 p=0.994	r=-0.072 p=0.588	r=-0.062 p=0.518	r=0.046 p=0.748	r=-0.067 p=0.615
[b]**Gender**												
Female	4.30±0.56	4.18±0.63	4.42±0.46	4.54±0.54	4.41±0.63	4.66±0.40	4.23±0.57	4.18±0.61	4.28±0.54	4.34±0.49	4.24±0.55	4.44±0.40
Male	4.53±0.55	4.24±0.66	4.64±0.51	4.73±0.36	4.50±0.50	4.81±0.29	4.22±0.69	4.07±0.46	4.27±0.78	4.48±0.49	4.25±0.54	4.57±0.47
	Z=-1.361 p=0.173	Z=-0.099 p=0.921	Z=-1.368 p=0.171	Z=-1.099 p= 0.272	Z=-0.020 p=0.984	Z=-1.034 p=0.301	Z=-0.005 p=0.996	Z=-0.533 p=0.594	Z=-0.280 p=0.780	Z=0.904 p=0.366	Z=-0.236 p=0.814	Z=-0.976 p=0.329
[b]**Marital status**												
Single	4.32±0.59	4.26±0.61	4.38±0.45	4.56±0.56	4.43±0.56	4.63±0.43	4.25±0.57	4.14±0.62	4.24±0.60	4.36±0.50	4.27±0.53	4.40±0.41
Married	4.33±0.52	4.14±0.63	4.51±0.48	4.55±0.49	4.40±0.66	4.72±0.35	4.20±0.60	4.19±0.59	4.32±0.54	4.34±0.47	4.22±0.56	4.50±0.40
	Z=-0.267 p=0.789	Z=-0.506 p=0.613	Z=-1.292 p=0.196	Z=-0.368 p=0.713	Z=-0.077 p=0.938	Z=-0.741 p=0.459	Z=-0.406 p=0.685	Z=-0.258 p=0.796	Z=-0.406 p=0.684	Z=-0.460 p=0.645	Z=-0.209 p=0.7834	Z=-1.111 p=0.267
[c]**Education**												
Nursing college	4.37±0.58	4.05±0.62	4.63±0.41	4.65±0.55	4.40±0.69	4.85±0.32	4.41±0.56	4.42±0.54	4.40±0.60	4.46±0.47	4.26±0.54	4.61±0.34
Associate degree	4.33±0.44	4.14±0.51	4.37±0.43	4.47±0.53	4.16±0.80	4.53±0.47	4.22±0.68	3.80±1.03	4.31±0.59	4.33±0.48	4.04±0.71	4.39±0.42
Undergraduate	4.30±0.56	4.22±0.61	4.38±0.51	4.56±0.51	4.47±0.60	4.66±0.37	4.16±0.57	4.14±0.58	4.18±0.55	4.32±0.48	4.26±0.53	4.39±0.42
Graduate	4.41±0.74	4.14±0.86	4.82±0.21	4.50±0.62	4.21±0.66	4.94±0.12	4.42±0.50	4.26±0.56	4.65±0.34	4.44±0.60	4.20±0.67	4.79±0.13
	KW=1.380 p=0.710	KW=1.027 p=0.795	KW=4.866 p=0.182	KW=2.942 p=0.401	KW=1.661 p=0.646	KW=7.599 p=0.055	KW=4.632 p=0.201	KW=2.090 p=0.554	KW=3.737 p=0.291	KW=2.173 p=0.537	KW=1.380 p=0.710	KW=5.532 p=0.137
[a]**Duration of work (years)**	r=-0.087 p=0.369	r=-0.084 p=0.556	r=0.0922 p=0.867	r=-0.073 p=0.447	r=-0.003 p=0.985	r=-0.028 p=0.835	r=-0.045 p=0.643	r=-0.026 p=0.855	r=-0.014 p=0.914	r=-0.056 p=0.560	r=-0.043 p=0.764	r=0.016 p=0.907
[d]**Duration of work in unit**	r=-0.120 p=0.209	r=-0.189 p=0.179	r=-0.016 p=0.904	r=-0.098 p=0.304	r=-0.149 p=0.293	r=-0.016 p=0.905	r=-0.002 p=0.986	r=-0.011 p=0.939	r=-0.011 p=0.934	r=-0.079 p=0.412	r=-0.141 p=0.319	r=-0.017 p=0.901
[a]**CAS**	r=-0.042 p=0.658	r=-0.073 p=0.610	r=-0.131 p=0.327	r=-0.106 p=0.269	r=-0.096 p=0.504	r=-0.135 p=0.314	r=-0.074 p=0.441	r=0.002 p=0.986	r=-0.141 p=0.292	r=-0.078 p=0.419	r=-0.076 p=0.598	r=-0.159 p=0.233

ASNCR: Attitude Scale for Nurses in Caregiving Roles, CAS: Coronavirus Anxiety Scale Short Form, a: Spearman's Correlation, b: Mann-Whitney U test, c: Kruskal-Wallis Test, d: Pearson Correlation

units are lower than the literature (Alnazy et al., 2021; Dığın et al., 2022; Ünver&Yeniğün, 2021; Saracoglu et al., 2020; Troisi et al., 2021), and it is thought that the reduced prevalence of coronavirus, as well as the fact that they have now recognized the virus and learned the interventions to prevent infection, has reduced the anxiety of nurses.

In the early stages of the pandemic, changing institutional conditions such as postponing the planned surgeries, rearranging the institutional policies and working in pandemic clinics have increased coronavirus anxiety among nurses as well as also changed nurses' caregiving attitudes (Lancaster et al., 2020; Ünver&Yeniğün, 2021). According to the findings of this study, which was carried out during the period of the pandemic, it is considered that nurses adapt to the pandemic and the change in institutional policies. Therefore their coronavirus anxiety levels decrease.

Fear and anxiety experienced during crisis periods can affect nurses' roles and quality of care (Kackin et al., 2021; Kaplan et al., 2021). The basic and independent role of nursing is the role of caregiving. The caregiving role includes the provision of personalized care in line with the needs of the patient (Yıldırım et al.2022). Good care provided to patients prevents complications, reduces hospital stay and treatment costs, and increases the quality of life of patients (Yildizeli Topcu., 2021). In this study, attitudes of nurses towards the caregiving roles were evaluated using ASNCR and the mean score was found as 69.66±7.79 points. This score indicates that nurses have a positive attitude toward caregiving roles. Yıldırım et al. (2022) examined the caregiving roles of nurses during the pandemic and found that nurses have a positive attitude. Kaplan et al. (2021) also found that nurses have high positive attitudes toward the caregiving role. The findings of the current study are similar to the literature and show that nurses continue their care roles with self-sacrifice despite the stress and difficulties they experience during the coronavirus pandemic period.

The caregiving role of nurses is associated with commitment to the profession, job satisfaction, and gratification (Karadağ&Tascı, 2003; Karagözoğlu, 2006). It was observed that the nurses participating in this study have been working as nurses for an average of 10 years and continue their working lives in the same unit for a long time. These study findings of the study suggest that the nurses participating in the survey may have high compliance with institutional policies and professional commitment and, accordingly, positive attitudes towards their caregiving roles. Although in this study, nurses' knowledge levels were not investigated, it is stated in the literature that nurses who have received training on coronavirus have higher positive attitudes towards the caregiving role than other nurses (Mason&Friese, 2020; Yıldırım et al.2022). In this study, the coronavirus knowledge levels of nurses were not evaluated. However, it should be thought that the information accumulated from the beginning of the pandemic to the present could have impact on the attitudes toward caregiving role scores.

In this study, the relationship between nurses' anxiety regarding the coronavirus and their attitudes toward caregiving roles was examined, and it was found that the level of coronavirus anxiety did not affect the attitudes toward caregiving roles. Similar to the current study, Kaplan et al. (2021) stated that coronavirus fear level did not affect nursing caregiving role attitudes. According to this result, it is considered that nurses' attitudes toward caregiving roles can be affected by different variables. Therefore, examining different variables such as choosing the profession willingly, the presence of another health worker in the family, mentoring, family support, and social support in future studies investigating nurses' attitudes toward caregiving roles is recommended.

Limitations

The study has some limitations. Since the survey was conducted in a single center, it cannot be generalized to all surgical and intensive care nurses working in other hospitals

in the country. Another limitation of the study is the difficulty in reaching a larger sample due to the online data collection. Since the link was sent to the nurses only once via e-mail, the sample size could not be increased further.

CONCLUSION

Nurses working in surgical clinics and intensive care units have low levels of anxiety regarding the coronavirus and high positive attitudes towards caregiving roles at a time when the pandemic was no longer severe. The female nurses and the single nurses experienced higher anxiety regarding coronavirus than other nurses. Nurses' attitudes towards caregiving roles were not affected by their anxiety levels regarding coronavirus. In line with the results of the current study, it is recommended that further studies with larger samples be conducted to examine the variables that may affect nurses' attitudes towards their caregiving roles during and after crises that seriously affect healthcare services, such as the coronavirus pandemic.

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