

Özgün Araştırma

Hemşirelerin COVID-19'a Yönelik Duygu, Düşünce, Davranış ve Tedbirlerinin Bakım Verme Rollerine İlişkin Tutumlarına Etkisi

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Öz

Amaç: Bu çalışmada hemşirelerin COVID-19'a yönelik duygu, düşünce, davranış ve önlemlerinin bakım verme rollerine yönelik tutumları üzerindeki etkisi araştırılmıştır.

Gereç ve Yöntem: Bu çalışma, tanımlayıcı ve kesitsel bir çevrimiçi anketi benimsemiştir. Tanımlayıcı tipte olan bu çalışma, 1 Ağustos-1 Ekim 2021 tarihleri arasında yapılmıştır. Araştırma evrenini, bir ilde yaşayan ve en az bir yıl iş tecrübesi olan tüm hemşireler oluşturmuştur. Örneklem, rastgele kartopu örnekleme yöntemiyle seçilmiştir. Veriler kişisel bilgi formu, Çok Boyutlu COVID-19 Ölçeği ve Bakım Veren Hemşirelere Yönelik Tutum Ölçeği kullanılarak çevrimiçi olarak toplanmıştır. Çalışma verilerinin analizinde, Shapiro Wilk testi, parametrik testler, bağımsız örneklem t testi, Pearson korelasyon katsayısı, tek yönlü ANOVA ve çoklu doğrusal regresyon modelleri kullanılmıştır.

Bulgular: Katılımcıların ortalama yaşı 33.17 ± 8.14 idi. Katılımcıların çoğu kadındı (%85,6). Katılımcıların bakım verme rollerine yönelik tutumları, Çok Boyutlu COVID-19 Ölçeği ve alt ölçeklerinden etkilenmiştir. Çoklu regresyon modeli istatistiksel olarak anlamlıydı. Lise, ön lisans veya lisans mezunu olmak, katılımcıların Hemşirelere Bakım Verme Rollerine Yönelik Tutum Ölçeği puanlarını düşürmüştür. Hemşirelerin, "COVID-19 hakkındaki düşünceleri" ve "COVID-19 ile ilgili alınan önlemler" Hemşirelerin Bakım Rollerine Yönelik Tutum Ölçeği puanlarını yükseltmiştir.

Sonuç: Hemşirelerin pandemi süresince bakım verme rollerine yönelik tutumları ile COVID-19 pandemisine ilişkin duygu, düşünce, davranış ve önlemleri arasında pozitif yönde bir ilişki bulunmuştur.

Anahtar kelimeler: COVID-19, hemşireler, bakım verici roller, tutum, düşünceler, davranışlar

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Original Research

The Effect of Nurses' Feelings, Thoughts, Behaviors, and Measures for COVID-19 on Their Attitudes Toward Caregiving Roles

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Abstract

Aim: This study investigated the effect of nurses' feelings, thoughts, behaviors, and measures for COVID-19 on their attitudes toward caregiving roles.

Materials and Methods: This study adopted a descriptive and cross-sectional online survey. This descriptive study was conducted between August 1 and October 1, 2021. The study population consisted of all nurses living in a city with at least one year of work experience. The sample consisted of 306 nurses recruited using random snowball sampling. Data were collected online using a personal information form, the Multi-Dimensional COVID-19 Scale, and the Attitude Scale for Nurses in Caregiving Roles. In the study data analysis, Shapiro Wilk test, parametric tests, independent sample t-test, Pearson correlation coefficient, one-way ANOVA, and multiple linear regression models were used.

Results: Participants had a mean age of 33.17 ±8.14 years. Most participants were women (85.6%). Participants' attitudes toward caregiving roles were affected by Multi-Dimensional COVID-19 Scale and subscales. The multiple regression model was statistically significant. Having a high school, associate's, or bachelor's degree decreased the participants' Attitude Scale for Nurses in Caregiving Roles scores. Nurses' "thoughts about COVID-19" and "precautions taken regarding COVID-19" increased the Nurses' Attitude Scale Towards Care Roles scores.

Conclusion: There was a positive correlation between nurses' attitudes toward their caregiving roles during the pandemic and their feelings, thoughts, behaviors, and measures regarding the COVID-19 pandemic.

Keywords: *COVID-19, nurses, caregiving roles, attitude, thoughts, behaviors*

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Introduction

The COVID-19 pandemic has created unprecedented demand for healthcare services worldwide because the coronavirus is a highly contagious disease with high mortality and morbidity rates (Aktura & Özden, 2020). There has been an increased demand for healthcare professionals, especially nurses, as more and more patients in critical condition and with different health conditions receive treatment and care in hospitals (Adams & Walls, 2020). Nurses cared for many end-of-life patients and met all their needs because they were isolated from the outside world during the pandemic (Jackson et al., 2020).

Not only did nurses provide care, but they also dealt with the psychological, cognitive, and physical repercussions of the pandemic to ensure quality care (Irandoost et al., 2022). Nurses were responsible for helping patients and their family members develop coping strategies, performing triage in health centers and emergency departments, helping patients in test areas, informing staff and patients about infection control methods, training the public, safeguarding public health, providing personal protective resources, and protecting immunocompromised patients at risk and provide them with reassuring, compassionate and effective care (Treston, 2020). During the pandemic, nurses had to work day and night and adapt to new care protocols and norms (Billings et al., 2020).

The complex nature of care, the uncertainty surrounding the pandemic, and the multitude of new interventions were new stressors for nurses (Billings et al., 2020). Nurses faced numerous stressors during the pandemic. For example, they experienced physical and emotional exhaustion due to excessive workload. They feared getting infected with the coronavirus as they cared for thousands of COVID-19 patients for months despite little to no experience related to the pandemic and little to no protective equipment. They also suffered from inadequacy, anxiety, fear, and extreme physical fatigue because they were torn between care delivery and pollution as they cared for end-of-life COVID-19 patients. They experienced exclusion and psychological problems as they were completely isolated from their loved ones. They also had difficulty juggling work and family life (Galehdar et al., 2021; Irandoost et al., 2022; Leng et al., 2021). Wahyuningsih et al. (2020) conducted a descriptive qualitative study to investigate the experiences of nurses who cared for COVID-19 patients. The researchers reported two important results. First, nurses suffered from fatigue, anxiety, fear, and stress. Second, anxiety caused nurses to experience psychological problems, reducing the quality of healthcare services they provided during the pandemic.

Since care is the foundation of nursing, as the quality of care increases, nurses may become aware of their autonomy, experience job satisfaction, and increase their motivation to work. Fatigue, anxiety, fear, and stress brought on by COVID-19 may cause nurses to experience a decrease in the quality of care they provide and feel less autonomous, burnout may increase, and job satisfaction and work motivation may decrease (Koçak et al., 2014; Yılmaz et al., 2017). During the pandemic, many people were hospitalized and received intensive care, reminding us how vital care is (Duran et al., 2022). The more positive attitudes nurses develop toward care roles, the more professional approach they adopt toward them (Shohani & Zamanzadeh, 2017). According to Lydia Hall's theory, nursing is explained by three components: core, care, and cure (Korhan, 2019). Joyce Travelbee's Interpersonal Theory of Nursing emphasizes that both the nurse and the patient are human beings (Parola et al., 2020). In her Human Caring Theory, Jean Watson (1979) defines care as the interaction of two people physically, spiritually, and mentally (Gunawan et al., 2022).

Nurses fulfill their professional roles in times of crisis, such as the COVID-19 pandemic. Their experiences influence their caregiving roles in such situations. Nurses sometimes find themselves in situations where they witness death and risks; even then, they have to care for patients, fulfill their social responsibilities, and protect their loved ones from risks based on their nursing education. Attitude is a psychological construct that cannot be directly observed. Varying from person to person, attitude is associated with feelings, beliefs, and actions toward an object, situation, or person (Bahçecioğlu et al., 2021; Gül & Dinç, 2018). Attitude determines behavior. It consists of cognitive and emotional elements, such as thinking, feeling, and behaving towards different individuals, groups, and social issues, or, at a broader level, towards any event that occurs in an individual's environment (Bahçecioğlu et al., 2021; Shohani & Zamanzadeh, 2017). Attitude has three characteristics: (1) it is learned, (2) it can be associated with actions, and (3) it is bipolar (positive-negative) (Dickerson & Trodd, 2022). Nurses sometimes develop positive and negative attitudes toward situations (Bahçecioğlu et al., 2021). Depending on professional roles, attitudes are essential to nurses' success in their caregiving roles. Academic education, work experience, membership in professional organizations, professional position, gender, and working conditions and environments affect nurses' attitudes toward their professional roles (Shohani & Zamanzadeh, 2017). The pandemic and nurses' experiences with it also affect their attitudes toward their professional role Dickerson et al. (Bahçecioğlu et al., 2021).

Nurses are essential professional healthcare team members responsible for fulfilling their care roles even in many challenging conditions such as COVID-19. Nurses sometimes find themselves in situations where they witness death and risks; even then, they must care for patients, fulfill their social responsibilities, and protect people from risks based on their nursing roles. The study was planned considering that in these and similar situations, nurses' caring attitudes may be affected by their emotions, thoughts, behavior, precautions, and many other factors. The study results can guide and identify problems for nurses in these and similar situations. The present study was conducted to answer the following questions;

- 1) Do nurses' feelings, thoughts, behaviors, and precautions toward COVID-19 affect their caregiving roles?
- 2) Do nurses' demographic characteristics affect their caregiving roles?

Materials and Methods

Design and Sampling

This study adopted a descriptive research design. The study population consisted of all nurses with at least one year of work experience. A power analysis was performed (G Power 3.1.9.7) to determine the sample size (95% power, 0.15 effect size, 30 estimator parameters, and 5% margin of error). The results showed that a sample of 260 would be large enough to detect significant differences. Therefore, the sample consisted of 306 participants recruited using random snowball sampling.

Data Collection

The study was conducted between August 1 and October 1, 2021. The data were collected online (Google Docs) using a personal information form, the Multi-Dimensional COVID-19 Scale (MDCS), and the Attitude Scale for Nurses in Caregiving Roles (ASNCR). The inclusion criteria were (1) being 18 years of age and (2) having at least one year of work experience. When the research data were examined, those with less than one year of working experience and those under 18 were excluded from the study. One nurse from each hospital was sent the data collection forms through online communication channels (WhatsApp, e-mail, etc.). Those nurses were asked to send the forms to nurses they knew. It took each participant 15 minutes to fill out the forms. Sixty forms were excluded from the analysis due to missing data.

Personal Information Form

The personal information was based on a literature review conducted by the researcher. The form consisted of eight items on sociodemographic (age, gender, marital status, education, etc.) and occupational characteristics (unit of duty, work experience, working hours per week, etc.) (Galehdar et al., 2021; Irandoost et al., 2022; Wahyuningsih et al., 2020).

Multi-dimensional COVID-19 Scale (MDCS)

The Multi-Dimensional COVID-19 Scale (MDCS) was developed by Batıgün and Ertürk (2020). The instrument consists of 22 items rated on a five-point Likert-type scale. It has three subscales: (1) feelings and behaviors related to COVID-19” (nine items), (2) thoughts about COVID-19” (eight items), and (3) “precautions taken related to COVID-19” (five items). The first subscale assesses emotions (anxiety, fear, sadness, anger) and behaviors (checking for symptoms, following news about the pandemic, talking about the pandemic, etc.) related to the pandemic. The second subscale assesses people's perceptions of information about the severity and duration of the pandemic and its impact on their lives. The third subscale assesses preventive measures in response to the pandemic, such as washing hands frequently, wearing a mask, keeping social distance, going out very little, etc. The total score ranges from 22 to 110, with higher scores indicating more emotions, behaviors, thoughts, and measures related to the pandemic. The scale has a Cronbach's alpha of 0.90 (Batıgün & Ertürk, 2020), which was 0.91 in this study.

Attitude Scale for Nurses in Caregiving Roles (ASNCR)

The Attitude Scale for Nurses in Caregiving Roles (ASNCR) was developed by Koçak et al. (2014). It consists of 16 items rated on a five-point Likert-type scale. It has three subscales; “meeting the patient’s self-care needs and the nurse’s attitude towards the counseling role,” “the nurse’s attitude toward the role of protecting the individual and respecting their rights,” and “the nurse’s attitude towards the role in treatment.” The total score ranges from 16 to 80. The scale has a Cronbach's alpha of 0.91 (Koçak et al., 2014), which was 0.93 in this study.

Data Analysis

In the study data analysis, normality control of continuous variables was evaluated using the Shapiro Wilk test. Parametric tests were used since the data showed conformity to normal distribution. The Pearson Correlation coefficient was calculated to examine the linear relationship between continuous variables. Independent Sample t test was used for two independent group comparisons, and One-Way ANOVA was used for more than two independent group comparisons. Multiple Linear Regression models were created in the

evaluation of factors affecting nurses' attitudes toward their caregiver roles. The data were analyzed using the IBM Statistical Package for Social Sciences (SPSS, v 21.0) at a significance level of 0.05.

Ethical Considerations

The study was approved by a university ethics committee (No=28/11.06.2021/ 112). Authorization was obtained from the developers of the scales. Permission was obtained from the Turkish Ministry of Health (No: 2021-05-25T23_05_04). Informed consent was obtained from all participants via the acceptance button at the beginning of the online research form, where an explanation of the study was made. This study was carried out according to the principles of the Declaration of Helsinki (World Medical Association, 2018). The STROBE checklist was used to guide the submission.

Results

Participants had a mean age of 33.17 ± 8.14 years. Most participants were women (85.6%). More than half of the participants had bachelor's degrees (67.3) and were married (58.8%) with children (50.7%). More than a quarter of the participants had ≥ 15 years of work experience (32.6%). More than half of the participants worked 40 hours a week (52.9%). More than a quarter of the participants worked in internal clinics (32.7%) (Table 1).

Table 1. Findings on the sociodemographic and professional characteristics of nurses

Variables (N=306)	n	%
Age [$\bar{X} \pm S.S. \rightarrow 33.17 \pm 8.14$ (year)]		
≤25	65	21.2
26-32	93	30.4
33-39	67	21.9
≥40	81	26.5
Gender		
Women	262	85.6
Men	44	14.4
Graduation		
High school degree	28	9.2
Associates degree	24	7.8
Bachelor degree	206	67.3
Postgraduate degree	48	15.7
Marital status		
Married	180	58.8
Single	126	41.2
Children		
Yes	155	50.7
No	151	49.3

Work experience (years)		
[$\bar{X} \pm S.S. \rightarrow 11.29 \pm 8.47$ (year)]		
<5	84	27.5
5-9	70	22.9
10-14	52	17.0
≥ 15	100	32.6
Weekly working time (hours)		
40	162	52.9
45-48	76	24.8
48 \geq	68	22.3
Worked clinic		
Internal clinics	100	32.7
Surgical clinics	54	17.6
COVID-19 clinics	55	18.0
Polyclinics	20	6.5
Emergency	18	5.9
Intensive care	59	19.3

Participants had a total mean MDCS and ASNCR score of 85.79 ± 12.99 and 66.28 ± 9.51 , respectively (Table 2).

Table 2. Multi-Dimensional COVID-19 scale and attitude scale for nurses in caregiving roles scores

MDCS	Mean\pmSD	Min-Max	Cronbach's Alpha
1- Feelings and behaviors related to COVID-19	32.61 \pm 6.73	11-45	0.872
2- Thoughts about COVID-19	32.67 \pm 4.63	11-40	0.778
3- Precautions taken related to COVID-19	20.51 \pm 3.43	7-25	0.815
Total MDCS	85.79\pm12.99	35-110	0.916
ASNCR			
1- Meeting the patient's self-care needs and the nurse's attitude toward the counseling role	28.86 \pm 4.59	7-35	0.885
2- The nurse's attitude toward the role of protecting the individual and respecting their rights	17.37 \pm 2.33	4-20	0.782
3- The nurse's attitude towards the role in treatment	20.06 \pm 3.2	5-25	0.744
Total ASNCR	66.28\pm9.51	16-80	0.931

MDCS, Multi-Dimensional COVID-19 Scale; ASNCR, Attitude Scale for Nurses in Caregiving Roles; SD, Standard deviation; Min, Minimum; Max, Maximum.

There was a positive and very weak and weak linear relationship between MDCS and ASNCR total and subscale scores ($p < 0.001$) (Table 3).

Table 3. The relationship between the multidimensional COVID-19 scale and attitude scale for nurses in caregiving roles

MDCS and subscales		ASNCR and subscales				
		Meeting the patient’s self-care needs and the nurse’s attitude towards the counseling role	The nurse’s attitude toward the role of protecting the individual and respecting their rights	The nurse’s attitude towards the role in treatment	Total ASNCR	
MDCS	1. Feelings and behaviors related to COVID-19	r	0.191	0.224	0.235	0.247
		p	0.001	<0.001	<0.001	<0.001
	2. Thoughts about COVID-19	r	0.306	0.336	0.299	0.331
		p	<0.001	<0.001	<0.001	<0.001
	3. Precautions taken related to COVID-19	r	0.308	0.355	0.379	0.363
		p	<0.001	<0.001	<0.001	<0.001
Total MDCS		r	0.289	0.330	0.329	0.331
		p	<0.001	<0.001	<0.001	<0.001

p: Pearson correlation coefficient; MDCS, Multi-dimensional COVID-19 scale; ASNCR, attitude scale for nurses in caregiving roles

The univariate analysis showed that gender, education, and MDCS subscale scores affected participants’ ASNCR “meeting the patient’s self-care needs and the nurse’s attitude towards the counseling role” ($R^2=0.216$; $p<0.001$), “the nurse’s attitude toward the role of protecting the individual and respecting their rights” ($R^2=0.227$; $p<0.001$), and “the nurse’s attitude towards the role in treatment” ($R^2=0.236$; $p<0.001$) subscale scores ($p<0.001$) (Table 4).

Having a high school ($\beta=-0.263$; $p<0.001$), associate’s ($\beta=-0.212$; $p<0.001$), or bachelor's degree ($\beta=-0.267$; $p<0.001$) decreased the participants' ASNCR scores. Thoughts about COVID-19 ($\beta=0.254$; $p=0.001$), and precautions taken related to COVID-19 ($\beta=0.258$; $p<0.001$) increased their ASNCR scores. The model explained 24.4% of the ASNCR score (Table 4).

Table 4. Factors affecting nurses' attitudes towards caregiver roles

ASNCR and subscales	Independent variables affecting the ASNCR	Unstandardized Coefficients		Standardized Coefficients	95.0%	CI for B		t	p
		B	SE	β	Lower	Upper			
Meeting the patient's self-care needs and the nurse's attitude towards the counseling role R ² =0.216 F=11.754 p<0.001	(Constant)	19.246	1.913		15.482	23.010	10.063	<0.001	
	-Gender (women)	1.083	0.699	0.083	-0.293	2.459	1.549	0.123	
	-High school	-4.482	1.003	-0.282	-6.457	-2.508	-4.468	<0.001	
	-Associates	-3.860	1.033	-0.226	-5.893	-1.827	-3.736	<0.001	
	-Bachelor	-2.799	0.665	-0.286	-4.107	-1.491	-4.211	<0.001	
	-Feelings and behaviors related to COVID-19	-0.090	0.053	-0.132	-0.194	0.015	-1.693	0.092	
	-Thoughts about COVID-19	0.268	0.073	0.270	0.124	0.411	3.659	<0.001	
	-Precautions taken related to COVID-19	0.267	0.091	0.199	0.087	0.447	2.915	0.004	
The nurse's attitude toward the role of protecting the individual and respecting their rights R ² =0.227 F=12.527 p<0.001	(Constant)	11.185	0.964		9.288	13.081	11.606	<0.001	
	-Gender (women)	0.907	0.352	0.137	0.214	1.601	2.575	0.011	
	-High school	-1.752	0.506	-0.217	-2.747	-0.757	-3.466	0.001	
	-Associates	-1.144	0.521	-0.132	-2.168	-0.119	-2.197	0.029	
	-Bachelor	-0.993	0.335	-0.200	-1.652	-0.333	-2.964	0.003	
	-Feelings and behaviors related to COVID-19	-0.047	0.027	-0.136	-0.100	0.005	-1.763	0.079	
	-Thoughts about COVID-19	0.135	0.037	0.268	0.063	0.208	3.667	<0.001	
	-Precautions taken related to COVID-19	0.168	0.046	0.247	0.077	0.259	3.646	<0.001	
The nurse's attitude towards the role in treatment R ² =0.236 F=7.523 p<0.001	(Constant)	11.011	1.328		8.398	13.624	8.293	<0.001	
	-Gender (women)	0.645	0.493	0.071	-0.326	1.616	1.307	0.192	
	-High school	-0.938	0.596	-0.085	-2.111	0.236	-1.573	0.117	
	-Associates	-0.814	0.629	-0.069	-2.052	0.424	-1.294	0.197	
	-Bachelor	1.551	0.488	0.177	0.591	2.511	3.180	0.002	
	-Feelings and behaviors related to COVID-19	-0.030	0.038	-0.063	-0.104	0.044	-0.803	0.423	
	-Thoughts about COVID-19	0.109	0.052	0.158	0.007	0.212	2.093	0.037	
	-Precautions taken related to COVID-19	0.276	0.064	0.296	0.150	0.403	4.290	<0.001	
Total ASNCR R ² = 0.244 F=13.730 p<0.001	(Constant)	43.096	3.892		35.437	50.756	11.073	<0.001	
	-Gender (women)	2.634	1.423	0.097	-0.167	5.434	1.851	0.065	
	-High school	-8.673	2.042	-0.263	-12.691	-4.656	-4.248	<0.001	
	-Associates	-7.490	2.102	-0.212	-11.627	-3.353	-3.563	<0.001	
	-Bachelor	-5.413	1.353	-0.267	-8.075	-2.751	-4.002	<0.001	
	-Feelings and behaviors related to COVID-19	-0.176	0.108	-0.125	-0.389	0.036	-1.633	0.104	
	-Thoughts about COVID-19	0.521	0.149	0.254	0.228	0.814	3.502	0.001	
	-Precautions taken related to COVID-19	0.716	0.186	0.258	0.350	1.082	3.845	<0.001	

B, Unstandardized Coefficients; SE, Standart Error; CI, Confidence Interval; p, Significance Level; t, Independent Sample-t test; R², Linear Regression; F, F Test

Discussion

The results showed that participants' feelings, thoughts, behaviors, and precautions toward COVID-19 positively affected their attitudes toward caregiving roles. This result is critical, given the importance of care practices during the pandemic.

Our participants had moderate attitudes toward caregiving roles. Higher scores indicate that nurses assume more caregiving roles and have more positive attitudes toward them (Koçak et al., 2014). Our result is consistent with the literature (Altınbaş & İster, 2020; Bulut et al., 2022; Kaplan et al., 2021). However, having a high school, associate's, or bachelor's degree explained 24.4% of participants' MDCS subscale scores (feelings and behaviors related to COVID-19, thoughts about COVID-19, and precautions taken related to COVID-19). Our participants' feelings, thoughts, behaviors, and measures against COVID-19 were positively correlated with their attitudes toward caregiving roles ($r=0.247$; $p<0.001$). Nurses' attitudes towards their caregiving roles significantly affect their dependent and independent roles and, thus, their professional behaviors. Care is both a physical and a comprehensive approach that targets psychological, emotional, and spiritual optimization (Koçak et al., 2014). Nurses should be aware of their feelings, thoughts, behaviors, and attitudes because they must provide physical and psychological care to isolated patients facing death (Karadağ et al., 2019). Nurses feel powerless and inhibited (Sheng et al., 2020) and struggle to provide appropriate care due to uncertainty and limited knowledge and experience (Kackin et al., 2021; Schroeder et al., 2020; Zhang et al., 2020). Moreover, hospitals and healthcare systems are unprepared for the pandemic (He et al., 2020; Hou et al., 2020). These factors affect nurses' caregiving roles during the COVID-19 pandemic.

There was a positive correlation between the MDCS "feelings and behaviors related to COVID-19" subscale score and ASNCR "meeting the patient's self-care needs and the nurse's attitude towards the counseling role" subscale score ($r=0.247$; $p<0.001$). Kossiori et al. (2021), argues that personal characteristics, philosophy of life, sense of responsibility, burnout level, and psychological problems can affect the quality of nursing care. On the other hand, Dossary (2020) emphasizes that nurses' awareness, emotions, attitudes, and behaviors regarding the COVID-19 pandemic and their personal and professional characteristics affect their adaptation to the pandemic and their care attitudes during the pandemic. According to Huang et al. (2020), nurses develop emotional coping skills and fulfill their care roles without confusion by providing emotional support to patients and approaching bad situations from an optimistic perspective (Huang et al., 2020). Sun et al. (2020) investigated the psychological experiences

of nurses caring for COVID-19 patients and reported that nurses experienced negative emotions that affected their caregiving role. Liu et al. (2020) found that the uncertainty and fear experienced by Chinese nurses about being infected and infecting others affected the quality of care. Therefore, the importance of the impact of nurses' emotions, thoughts, and behaviors on their caregiving roles during the COVID-19 pandemic is also supported by the literature.

Having a high school, associate's, or bachelor's degree, feelings and behaviors related to COVID-19, thoughts about COVID-19, and precautions taken related to COVID-19 explained 21.6% of the ASNCR "meeting the patient's self-care needs and the nurse's attitude toward the counseling role." Nursing education is a process that imparts and affects caring attitudes and behaviors (Shen et al., 2020). These findings also emphasize that professional care behaviors are acquired through education. Zeydi et al. (2022) conducted a meta-analysis on the clinical competence of nurses and concluded that the higher the education level, the better the nursing care. Our results also showed that the participants with higher education had more positive attitudes toward meeting patients' self-care needs and developing more positive attitudes toward the counseling role. This shows the positive effect of education on attitudes toward care, but the negative relationship exists at all education levels. The level of education suggests that its effect on attitudes during the pandemic may not be sufficient.

There was a positive correlation between the MDCS "thoughts about COVID-19" subscale score and ASNCR "the nurse's attitude toward the role of protecting the individual and respecting their rights" subscale score ($r=0.336$; $p<0.001$). However, having a high school, associate's, or bachelor's degree, and feelings and behaviors related to COVID-19, thoughts about COVID-19, and precautions taken related to COVID-19 explained 22.7% of the ASNCR "the nurse's attitude toward the role of protecting the individual and respecting their rights" subscale. Nurses build emotional relationships with patients who feel lonely, scared, and nervous because they are completely isolated during the pandemic (Irandoost et al., 2022; Kaslow et al., 2021). Nurses may also have similar experiences in their private lives. This may be considered to increase nurses' attitudes toward their roles of protecting their patients and respecting their rights. Inocian et al. (2021) examined nurses' quality of life and care behaviors during the COVID-19 pandemic. They found that nurses' caring behaviors were lowest regarding "knowledge and skills" and highest regarding "assurance of human presence." During the COVID-19 pandemic, the most common way to maintain the sense of security nurses experience while practicing care is access to reliable information rather than emotions, thoughts, and behaviors (Chen et al., 2020; Heitzman, 2020; Lai et al., 2020).

There was a positive correlation between precautions taken related to COVID-19 and ASNCR "attitudes towards their role in treatment" subscale scores ($r=0.379$; $p<0.001$). Being a woman and having a high school, associate's, or bachelor's degree, feelings and behaviors related to COVID-19, thoughts about COVID-19, and precautions taken related to COVID-19 explained 23.6% of the ASNCR "attitude towards their roles in the treatment process" subscale. Participants with bachelor's degrees only increased their attitudes toward their roles in treatment. Although most participants (63.7%) had bachelor's degrees, this result is interesting. Uncertainties, fear, anxiety, worry, and burnout during the COVID-19 pandemic may be associated with nurses avoiding their caregiving roles regardless of their educational level. The result also suggests that nurses with higher education levels are responsible for treating and monitoring patients due to the intensive and complicated treatment procedures of COVID-19. Sierakowska & Doroszkiewicz (2021) examined the stress-coping strategies of nurses during the pandemic and documented that most nurses needed uninterrupted access to up-to-date information about the pandemic to fulfill their caregiving roles. Joo & Liu (2021) and Cha & Park (2021) found that insufficient information was one of the barriers for nurses of COVID-19 patients and one of the reasons that negatively affected care. Bergman et al. (2021) analyzed the experiences of intensive care nurses during the pandemic and reported that increased workload, stress related to uncertainties, and burnout prevented nurses from delivering care or feeling competent in care.

Study Limitations

The fact that the research took place within a specific time period, that it was single-centered, that the number of female nurses participating in the study was higher than that of male nurses, that the data was collected online, that the sample size was medium effect size, and that nurses with at least one year of experience were included in the sample, could not be generalized to all nurses is the limitation of the research.

Conclusions

The fact that the subject of the study has not been studied in the relevant literature, that the COVID-19 scale used is a relatively broad new scale that measures emotions, thoughts, and behaviors, and that the results obtained to create a different perspective on care practices, which are the basis of nursing, can be considered as the strengths of the research. There was a positive correlation between nurses' attitudes toward their caregiving roles during the pandemic and their feelings, thoughts, behaviors, and measures regarding the COVID-19 pandemic. Having

a high school, associate’s, or bachelor’s degree affected nurses’ attitudes toward caregiving roles during the pandemic. This effect should be considered in hospitals' nursing education programs and in-service training programs, and a particular area should be allocated for pandemic periods. Nurses caring for isolated patients with a very high risk of transmission should be encouraged to develop an awareness of their feelings, thoughts, and behaviors. Future studies may include more detailed investigations of each factor affecting caregiving based on gender.

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Conflict of Interests

No conflict of interest has been declared by the authors.

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