NURSES' TEAMWORK ATTITUDES AND THEIR CAREGIVING ROLES: THE MODERATOR ROLE OF PATIENT WITH COVID-19 NURSING CARE *

HEMŞİRELERİN EKİP ÇALIŞMASI TUTUMLARI VE BAKIM VERİCİ ROLLERİ: COVID-19 HASTASINA HEMŞİRELİK BAKIMININ MODERATÖR ROLÜ

Tuğba ÖZTÜRK YILDIRIM[1], Emel KAYA[2]

1. Dr. Öğr. Üyesi, Doğuş Üniversitesi, Sağlık Bilimleri Yüksekokulu,
tugba.ozturkyildirim@gmail.com,
https://orcid.org/0000-0002-6853-8996

2. Dr., Çankırı Karatekin Üniversitesi, Sağlık Bilimleri Fakültesi, gr.emel.85@gmail.com,
https://orcid.org/0000-0001-9932-0976

Abstract

During the pandemic, nurses and other healthcare workers fought an unprecedented struggle for sustaining the delivery of quality patient care. In this process, nurses take an effective role within the team and patient care. This study aims to explain the moderator role of providing nursing care to the patient with COVID-19 in the effect of nurses' teamwork attitudes on their caregiving roles. This descriptive, correlational and cross-sectional study included 256 nurses working in private, state, and university hospitals between May and June, 2020 with a high rate of COVID-19 cases in Turkey. Data were collected by survey and analyzed using descriptive statistical analyses, Pearson's correlation analysis, linear regression analysis. The moderator effect was done using Model 1 of the PROCESS macro for SPSS. Nursing care to the patient with COVID-19 has a moderator role in the effect of nurses' teamwork attitudes on their caregiving roles (β=0.23, p<0.05). Teamwork attitudes of nurses providing nursing care to the patient with COVID-19 are less effective in their caregiving roles.

Keywords: Caregiving Role, COVID-19, Nurse, Teamwork Attitudes

Öz

Pandemi sırasında hemşireler ve diğer sağlık çalışanları, kaliteli hasta bakımının sürdürülebilirliğini sağlamak için eşi görülmemiş bir mücadele verdi. Bu süreçte hemşireler, ekip ve hasta bakımı içinde etkin rol aldılar. Bu çalışma, hemşirelerin ekip çalışması tutumlarının bakım verme rollerine etkisinde COVID-19'lu hastaya hemşirelik bakımı vermenin moderatör rolünü ortaya çıkarmayı amaçlamaktadır. Kesitsel ve ilişki arayıcı tipteki bu çalışmaya, Türkiye'de COVID-19 vakalarının yüksek olduğu Mayıs-Haziran 2020 tarihleri arasında özel, devlet ve üniversite hastanelerinde çalışan 256 hemşire dahil edilmiştir. Veriler e-anket yoluyla toplanmış ve betimsel istatistiksel analizler, Pearson korelasyon analizi, lineer regresyon analizi kullanılarak analiz edilmiştir. Moderatör etkisi, SPSS için PROCESS makrosunun Model 1'i kullanılarak yapıldı. Hemşirelerin ekip çalışması tutumlarının bakım verme rollerine etkisinde COVID-19'lu hasta hemşirelik bakımının düzenleyici rolü olduğu saptandı (β=0,23, p<0,05). COVID-19'lu hastaya hemşirelik bakımı veren hemşirelerin ekip çalışması tutumları bakım verme rollerinde daha az etkili olduğu tespit edilmiştir.

Anahtar Kelimeler: Bakım Verici Rol, COVID-19, Hemşire, Ekip Çalışması Tutumu

GENİŞLETİLMİŞ ÖZET

Çalışmanın Amacı

Sağlık kurumlarının hizmet süreçlerini değiştiren pandemi, sağlık meslekleri içinde en büyük grubu oluşturan ve hasta bakımında kilit noktada rol üstlenen hemşirelerin ekip çalışmasını ve bakım verici rollerini etkiledi (Wichaikhum vd., 2019; Hui Wang vd., 2020). Bu çalışma hemşirelerin ekip çalışması tutumlarının bakım verici rollerine etkisini araştırmak ve bu ilişkide COVID-19 tanılı hasta bakımının moderatör rolünü açıklamak amacıyla yapıldı.

Araştırma Hipotezleri

Hipotez 1: Hemşirelerin ekip çalışması tutumlarının hemşirelerin bakım verici rolü üzerinde pozitif etkisi vardır. Hipotez 2: Hemşirelerin ekip çalışması tutumları ile hemşirelerin bakım verici rolleri arasındaki ilişkide COVID-19 tanılı hastaya bakım vermenin moderatör rolü vardır.

Literatür Araştırması

COVID-19' un insandan insana bulaşabilir, yüksek morbidite ve potansiyel olarak ölümcül özellikte olması her geçen gün hasta sayısının artmasına neden oldu (Li vd., 2020). Sağlık sisteminin artan hasta yükü karşısında hemşire yöneticiler ekipleriyle birlikte emsalsiz bir mücadele sergiledi (Hui Wang vd., 2020). Ekip çalışmasının hemşireliğin uygulama üzerindeki kontrolü, çatışma yönetimi stratejileri, motivasyon, hasta güvenliği ile güçlü bir şekilde ilişkili olduğu (Neily vd., 2010; Çelik ve Karaca, 2017; Başoğul, 2020) ve bakım davranışları üzerinde olumlu bir etkiye sahip olduğu bildirildi (Celik vd., 2019). Diğer yandan pandemi sürecinde ekip çalışmasının önemi daha iyi anlaşıldı ve yönetici hemşirelerin süreç yönetiminde yararlandıkları anahtar bir kavram olduğu vurgulandı (Turkmen vd., 2020). COVID-19 tanılı hastaların sağlık sisteminde oluşturduğu yük karşısında krizi yönetmek ve bakımın sürekliliğini sağlamak için ekipleriyle birlikte mücadele eden yönetici hemşireler, birçok ülkede insanların ayakta alkışladığı emsalsiz bir süreci yönetti (Huang vd., 2020; Baykal vd., 2020). Tüm bu nedenlerle ekip çalışmasının bakım verici roller üzerindeki etkisini ortaya koymak önemlidir.

Yöntem

Bu çalışma kesitsel ve ilişki arayıcı tasarımda gerçekleştirildi. Türkiye'de 2020 yılı Mayıs-Haziran ayları arasında farklı ildeki özel, devlet ve üniversite hastanelerinde çalışan 256 hemşireden veri toplandı. Anket, Google Form üzerinden araştırmacılar tarafından tasarlandı. Pandemi nedeniyle hemşirelere Whatsapp uygulaması üzerinden online anket linkini içeren ön yazı gönderildi. Hemşirelere çalışma hakkında bilgi verildi ve onamları alındı. Bu çalışma T.C. Sağlık Bakanlığı tarafından onaylandı (2020-05-28T00_03_57). Türkiye'deki bir üniversitenin

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araştırma etik kurulundan etik onay alındı (tarih: 27/05/2020, E.411). Ekip Çalışması Tutumları Ölçeği (EÇTÖ) ve Hemşirelerin Bakım Verici Rollerine İlişkin Tutum Ölçeği (HBRTÖ) kullanımı için yazarlardan e-posta yoluyla izin alındı. Çalışmaya bir yıldan fazla çalışan hemşireler dahil edildi. Bu çalışmada dışlanma kriteri, bir yıldan az süredir çalışan hemşireler olarak belirlendi. Veriler, araştırmacılar tarafından hazırlanan "Bilgi Formu", "EÇTÖ" ve "HBRTÖ" kullanılarak toplandı. Bilgi formu, hemşirelerin sosyo-demografik özelliklerine ilişkin yaş, cinsiyet, medeni durum, eğitim durumu, kurum türü, kurumun bulunduğu coğrafi bölge, mesleki unvan, mesleki yıl deneyimi, yönetim yıl deneyimi ile COVID-19 pandemisine ilişkin COVID servisinde görevlendirilme durumu, COVID-19 tanılı hastaya hemşirelik bakımı verme durumu, COVID-19'u başkalarına bulaştırmada endişe düzeyi, COVID-19'u başkalarına bulaştırmaya yönelik konaklama durumu, kurum tarafından verilen eğitim olmak üzere 14 sorudan oluştu. EÇTÖ, Bireylerin ekip çalışmasına yönelik tutumlarını belirlemek amacıyla Baker ve arkadaşları (2008) tarafından geliştirilen ölçeğin Türkçe'ye geçerlik ve güvenilirlik çalışması Yardımcı ve arkadaşları (2012) tarafından yapıldı. Ölçek, 5 alt boyut ve 28 maddeden oluşmaktadır. 5'li Likert ölçeklendirme (1: Kesinlikle katılmıyorum ve 5: Kesinlikle katılıyorum) kullanılmıştır. (Baker vd., 2008; Yardımcı vd., 2012). HBRTÖ, hemşirelerin bakım verici rolünü yerine getirme düzeyini belirlemek amacıyla Koçak ve arkadaşları (2014) tarafından geliştirildi. 3 alt boyut ve 16 maddeden oluşmaktadır. 5'li Likert ölçeklendirme (1: Kesinlikle katılmıyorum ve 5: Tamamen katılıyorum) kullanılmıştır (Koçak vd., 2014).

Sonuç ve Değerlendirme

Yapılan istatistiksel analizler sonucunda hemşirelerin ekip çalışması tutumları ile bakım verici rollerine ilişkin tutumları toplam puanları arasında pozitif yönlü ve yüksek düzey ilişki olduğu tespit edildi. Bu bulguya göre ekip çalışması tutumları yüksek olan hemşirelerin bakım verici rollerine yönelik tutumlarının da yüksek olduğu söylenebilir. Çalışmadaki Hipotez-1'e yönelik yapılan analizde ekip çalışmasının bakım verici rol üzerinde istatistiksel olarak anlamlı, pozitif ve önemli bir etkisinin olduğu ve açıklanan varyansın %52 olduğu belirlendi. Bu bulgunun Hipotez-1'i desteklediği söylenebilir. Hemşirelerin ekip çalışması tutumları ile bakım verici rolleri arasındaki ilişkide COVID-19 tanılı hastaya bakım vermenin moderatör etkisini belirlemek için yapılan PROCESS analizinde; COVID-19'u başkalarına bulaştırmada endişe düzeyi ve COVID-19'u başkalarına bulaştırmaya yönelik konaklama durumu kontrol değişkeni olarak belirlenip yapılan analizde değişkenlerin moderatör değişkeni üzerinde bir etkisinin olmadığı belirlendi ve moderatör rol tespit edildi. Başka bir ifadeyle, ekip çalışmasının bakım verici rol üzerindeki doğrudan ve dolaylı etkileri COVID-19 tarafından açıklanmaktadır. Bu bulgu Hipotez 2'yi desteklemektedir. COVID-19 tanılı hastaya hemşirelik bakımı verme veya

vermeme durumunda ekip çalışmasının bakım verici rol üzerinde pozitif yönde olumlu bir etkisinin olduğu görüldü. COVID-19 tanılı hastaya hemşirelik bakımı verildiğinde ekip çalışması, bakım verici role yönelik tutumu pozitif yönde etkilemektedir. COVID-19 tanılı hastaya bakım verilmediğinde, hemşirelerin ekip çalışması tutumu, bakım verici rolü pozitif yönde ve güçlü bir şekilde etkilemektedir. Bu bulguya göre pandemi döneminde COVID-19 tanılı hastaya hemşirelik bakımı vermeyen hemşirelerin, ekip çalışması tutumlarının hemşirenin bakım verici rolü üzerindeki etkisinin daha yüksek olduğu söylenebilir. Sonuç olarak hemşirelerin ekip çalışması tutumlarının hemşirelerin bakım verici rollerine etkisinde COVID-19 tanılı hasta bakımının moderatör rolü vardır. COVID-19 tanılı hastaya hemşirelik bakımı veren hemşirelerin ekip çalışması tutumlarının bakım verici rolleri üzerindeki etkisi daha düşük düzeydedir. Bu sonuçlar pandemi gibi olağanüstü durumlarda, hemşirelik bakımının kalitesinin sürekliliğinin sağlanması bakımından yöneticilerin planlamalarına katkı sağlayabilir. Yönetici hemşirelerin acil durum eylem planlarında proaktif yaklaşımlar belirlemelerine yardımcı olabilir. Ayrıca yönetici hemşireler, kurumlarında ekip çalışmasını destekleyen faaliyetler (hizmet içi eğitimler, proje çalışmaları, vb.) planlayabilir.

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1. INTRODUCTION

The World Health Organization (WHO) declared COVID-19 as a pandemic on March 11, 2020 due to its rapid spread across continents (World Health Organization, 2020a). The first cases were detected in Turkey on March 10, 2020. Constantly updated COVID-19 guidelines on how to take a systematic approach against it with all aspects of the health system were published by the Turkish Ministry of Health following the Scientific Committee recommendations (Republic of Turkey Ministry of Health, 2020). On the other hand, the general and specialized associations related to nursing in Turkey continuously informed nurses with published reports and training guidelines, and supported them in taking an active role in this process (Barnes et al., 2020; Turkish Nurses Association (THD), 2020). The fact that COVID-19 can be transmitted from person to person, has high morbidity, and potentially fatal has led to an increase in the number of patients every day (Li et al., 2020). In the face of the healthcare system's growing patient load, nursing managers and their teams fought an unprecedented challenge (Wang, Hui., Zeng, T., Wu, X., & Sun, H., 2020).

Pandemic has once again demonstrated that nurses fighting at the forefront are the backbone of the health system and a strong health system can only be achievable through strong nursing practices (Tsay et al., 2020; World Health Organization, 2020b). The caregiving roles, which is the core competence of the nursing, and teamwork attitudes, which is inherent,, are critical to obtain quality patient outcomes (For example: good patient outcomes such as pressure sores, infection) and protect public health (International Council of Nurses, 2013). The pandemic that changed the service processes provided by healthcare institutions affected teamwork attitudes and caregiving roles of nurses, who constitute the largest group in healthcare professions and have a key role in patient care (American Association of Colleges of Nursing [AACN], 2019; Wichaikhum et al., 2019; Hui Wang et al., 2020).

Fast and accurate decisions have been required for the effective and efficient management of nursing services under pandemic conditions (Huafen Wang et al., 2020). In this process, the role of nursing care has become even more important in managing the pandemic (Liu et al., 2020; Huafen Wang et al., 2020). This is due to the fact that the difficulties brought by the pandemic have been added to the existing difficult working conditions of nurses. This situation has increased the importance of nursing care provided under pandemic conditions in ensuring the sustainability of the care quality (Kocaman et al., 2017; Kuşçu Karatepe, H., Öztürk Yıldırım, T., & Tiryaki Şen, H.; 2022). In this context, teamwork is an important approach that managers can benefit from in the delivery of quality nursing care and achieving positive patient outcomes (Babiker et al., 2014; Chapman et al., 2017; Logan & Michael Malone, 2018). Teamwork in healthcare institutions is the work of the same or different health professions that coordinate to share their expertise, different skills, knowledge and experience in order to meet the demand of patients for healthcare at the highest level; each of them fulfills their own duties, knowledge and experience are constantly shared, joint decisions are made and implemented together
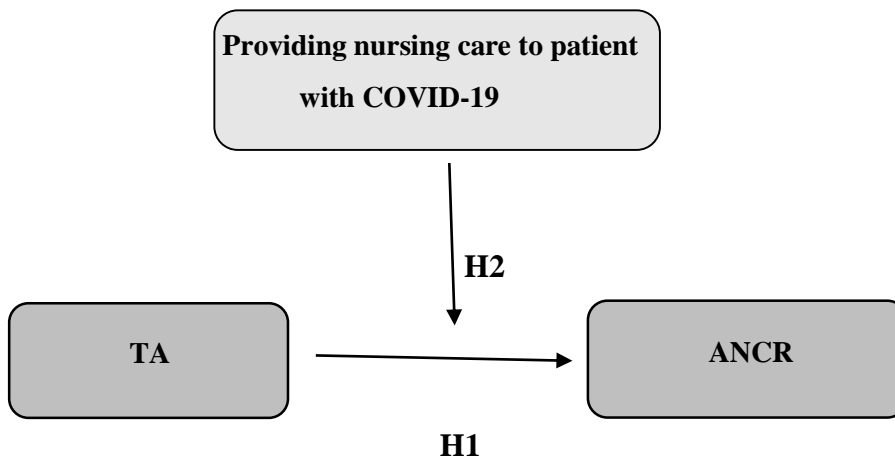
(Öğüt, A. & Kaya, D., 2011). Quality care cannot be expected without effective collaboration between team members (Kalisch et al., 2013). It has also been reported that teamwork is strongly associated with nursing control over practice, conflict management strategies, motivation, patient safety (Neily et al., 2010; Celik & Karaca, 2017; Basogul, 2020), and caregiving behaviors (Celik et al., 2019). On the other hand, the importance of teamwork in the pandemic process was better understood, and it was emphasized as a key concept that nursing managers benefit from in process management (Turkmen et al., 2020). Nursing managers, who struggled with their teams to manage the crisis and ensure the continuity of care in the face of the load of COVID-19 patients on the health system, managed an unprecedented process of a standing ovation in many countries (Huang et al., 2020; Baykal et al., 2020). Considering all these reasons, it is important to reveal the effect of teamwork attitude on caregiving roles. This study was conducted to investigate the effect of nurses' teamwork attitudes on their caregiving roles and to explain the moderator role of COVID-19 patient care in this relationship.

The study tested the following hypotheses.

*Hypothesis 1: Nurses' teamwork attitudes (TA) have a positive effect on attitudes of nursing caregiving roles (ANCR).

*Hypothesis 2: Providing nursing care to the patient with COVID-19 moderates the relationship between TA and ANCR

Figure 1. Conceptual Model

Reference: Created by the authors.

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2. METHODS

2.1. Study design

This study used a cross-sectional and correlational design.

2.2. Participants, setting, and data collection

Data were collected from 256 participants working in private, state, and university hospitals in different provinces of Turkey between May and June, 2020 months with a high rate of COVID-19 cases in Turkey. Due to the COVID-19 pandemic, social isolation and social distancing were implemented as legal requirements in Turkey. Under these conditions, the survey was designed by using digital tools in Google Forms. Cover letter including the online survey link was delivered to nurses via WhatsApp. This application was preferred since it is a legal and commonly used one in Turkey. The nurses were informed about the study, and their informed consent was obtained. They were then asked to complete the questionnaire, which lasted approximately 15-20 minutes when they were available. Completion and return of the survey indicated the respondent's consent to participate. Data collection was performed using the snowball sampling method between May 28 and June 30, 2020. Convenience and snowball sampling techniques were employed to enhance nurse participation (Whitaker ve diğ., 2017; Østergaard ve ark., 2020). In the snowball sampling, one of the units of the population is contacted. With the help of this unit, someone contacts the second unit and with the help of the second unit, someone contacts the third. The sample size hence expands like a snowball (Yazıcıoğlu ve Erdoğan, 2014). G Power version 3.1.9.7 was used to determine the sample size (Faul et al, 2007). In accordance with this analysis, the minimum sample size was determined as 229 with a margin of error of 0.05, power of 0.90 and effect size of 0.22. A total of 256 participants were reached due to reasons such as the excessive workload of the nurses and the intensity of the research conducted using the survey method. The inclusion criteria for study participants were being a nurse with more than one year of experience.

2.3. Instruments

The data were collected using the "Information Form", "Teamwork Attitudes Questionnaire (TAQ)" and "Attitude Scale for Nurses in Caregiving Roles (ASNCR)" prepared by the researchers.

2.3.1. Information Form

It is a form consisting of 13 questions regarding the socio-demographic, institutional and professional characteristics of nurses including age, sex, marital status, educational status, type of the institution, professional title, years of professional experience, years of management experience, and the status of being assigned to the COVID-19 service, providing nursing care to the patient with COVID-19, the level of anxiety in transmitting COVID-19 to others, the accommodation status related to infecting others with COVID-19, and the training provided by the institution. This form was created as

a result of the literature review (Huafen Wang et al., 2020; Liu et al., 2020; Turkish Nurses Association (THD), 2020; Turkmen et al., 2020).

2.3.2. Teamwork Attitudes Questionnaire (TAQ)

The Turkish validity and reliability study of the scale, which was developed by Baker et al. (2008) to determine the teamwork attitudes of individuals, was conducted by Yardimci et al. (2012). In the 5-point Likert-type scale (1: Strongly disagree and 5: Strongly agree), there are 5 subscales including team structure (6 questions), leadership (6 questions), situation monitoring (6 questions), mutual support (5 questions), and communication (5 questions). A minimum of 28 and a maximum of 140 points can be obtained from TAQ. High scores obtained from the scale indicate positive teamwork attitudes. Cronbach's alpha value of the original scale is between 0.70 and 0.89 (Baker et al., 2008; Yardımcı et al., 2012). In this study, Cronbach's alpha value was found to be 0.97. It indicated that it had a marvelous variance (Sarmento & Costa, 2017).

2.3.3 | Attitude Scale for Nurses in Caregiving Roles (ASNCR)

It was developed by Kocak et al. (2014) to determine the level of fulfillment of nurses' caregiving role. This scale is a 5-point Likert scale (1: Strongly Disagree to 5: Strongly Agree) including 16 items and three subscales, namely, 'attitude towards nursing self-care needs and counseling role' (self-care), 'attitude towards nurse's role in protecting individual and respecting rights' (safety) and 'attitude towards nurse's role in treatment process' (treatment). Cronbach's alpha value of the original scale is 0.90 (Kocak et al., 2014). In this study, Cronbach's alpha value was found to be 0.97. It indicated that it had a marvelous variance (Sarmento & Costa, 2017).

2.4. Data analysis

Statistical analyses were carried out using SPSS 22.0 software. A descriptive analysis was conducted using the mean ± standard deviation (M±SD) for quantitative variables. Pearson's correlations were computed to examine the inter-correlations among study variables. Hypothesis 1 was examined using linear regression models with the dependent variable of ANCR. Then, Hypothesis 2 tested the moderator hypotheses using Model 1 of the PROCESS macro 3.5 software for SPSS, which includes the bootstrap method employing 5.000 samples to reduce biased estimates (Hayes, 2017). The results were considered statistically significant with $p < 0.05$ and the 95% confidence interval (CI). The covariates included a level of anxiety in transmitting COVID-19 to others and accommodation status related to infecting others with COVID-19, which have been considered to be associated with providing nursing care to the patient with COVID-19.

2.5. Ethical considerations

This study was approved by the Turkish Ministry of Health (2020-05-28T00_03_57). Ethical approval was obtained from the Research Ethics Committee of Osmaniye Korkut Ata University

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(Decision Date: 06/05/2020, Decision Number: 2020/21/2). Permission was obtained from the authors via email to use TAQ and ASNCR.

2.6. Limitation

Although the sample of the study represented all categories of hospitals, it was limited to the voluntary participation of nurses due to the difficult working conditions associated with the pandemic. Therefore, the results cannot be generalized. Another limitation is that the response rate to e-surveys is lower than that of face-to-face surveys. Also, positive or negative experiences of nurses in the following days may lead to different findings.

3. RESULTS

The nurses (n=256) participated from a state hospital 48.4% (n=124), a private hospital 24.2% (n=62), and a university hospital 27.3% (n=70). The majority were female 82.4% (n=211) and 52.3% (n=134) were single. Participants' ages ranged from 20 to 56 years, with a mean age of 31.01 years (SD 7.23). Mean nurse tenure was 9.40 years (SD 7.76). The mean years of management experience of 40 nurses serving in management positions were 5.40 (SD 4.47). A total of 56.6% (n=145) of the nurses had a bachelor's degree, and 21.1% (n=54) had a master's degree or higher. 34.4% of the nurses worked as intensive care nurses, 28.1% as service nurses, 12.1% as emergency nurses, and 25.4% as education nurses, charge nurses, and dialysis nurses. In the questions about the pandemic process, 60.2% (n=154) reported providing nursing care to COVID-19 patients while 39.8% (n=102) did not provide nursing care to COVID-19 patients. In addition, 36.3% (n=93) of the nurses stated that they were assigned to the COVID-19 service, 59% (n=151) were very concerned about transmitting COVID-19 to others, and 36.3% (n=93) lived separately from their family during this period. Finally, regarding COVID-19 training provided by their institutions, 85.93% (n=220) stated that they received training on COVID-19 (Table 1.).

Table 1: Demographic Characteristics of the Study Participants

Characteristics		N(%)	Mean ± SD
Age		256(100)	31.01± 7.23
Sex	Female Male	211(82.4) 45(17.6)	
Marital status	Single Married	134(52.3) 122(47.7)	
Education level	High school Undergraduate Graduate Master's degree Doctorate degree	30(11.7) 27(10.5) 145(56.6) 46(18) 8(3.1)	
Types of hospital	Private hospital State hospital University hospital	62(24.2) 124(48.4) 70(27.3)	

Characteristics		N(%)	Mean ± SD
Professional title	Unit nurse Intensive care unit nurse Emergency nurse Other(dialysis nurse operating room nurse, charge nurse, training nurse)	72(28.1) 88(34.4) 31(12.1) 65(25.4)	
Years of experience in nursing		256	9.40±7.76
Years working in nurse manager		40	5.40±4.47
Status of being assigned to the COVID-19 service	Yes No	93(36.3) 163(63.7)	
Providing nursing care to the patient with COVID-19	Yes No	154(60.2) 102(39.8)	
Level of anxiety in transmitting COVID-19 to others	None Moderate High	9(3.5) 96(37.5) 151(59)	
Accommodation status related to infecting others with COVID-19	I live with my family I'm living in a separate place	163(63.7) 93(36.3)	
*Training provided by the institution	COVID-19 training Protective measures-Isolation methods Coping with stress Communication Other (mechanical ventilator)	220(85.93) 214(83.59) 43(16.79) 39(15.23) 15 (5.85)	
TOTAL		**256(100)**	

* 256 nurses responded. More than one option has been marked.

When Table 2 was examined, the leadership subscale of TAQ (24.94±4.99) had the highest mean, while the support subscale (16.62±3.85) had the lowest mean. It was determined that the safety subscale of ANCR (4.16±0.89) had the highest mean, while the treatment subscale (3.94±0.80) had the lowest mean. In addition, as a result of the correlation analysis, it was determined that there were statistically significant and positive relationships between dependent and independent variables, with a 99% confidence interval ($p < 0.01$). A positive and high-level correlation was found between TA and ANCR total mean scores (r=0.72; p<0.01).

Table 2. Descriptions and Correlations of Study Variables

	Mean	SD	1	2	3	4	5	6	7	8
Team structure(1)	23.49	4.77								
Leadership(2)	24.94	4.99	0.871**							
Situation	24.41	4.91	0.857**	0.924**						
Mutual support(4)	16.62	3.85	0.515**	0.473**	0.519**					
Communication(5)	20.04	4.33	0.764**	0.821**	0.793**	0.527**				
Self-care(6)	4.07	0.86	0.687**	0.741**	0.735**	0.333**	0.669**			
Safety(7)	4.16	0.89	0.653**	0.740**	0.725**	0.280**	0.646**	0.946**		
Treatment(8)	3.94	0.80	0.608**	0.672**	0.653**	0.344**	0.584**	0.873**	0.863**	

**Correlation is significant at the 0.01 level

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3.2.Hypothesis Testing

As a second step, the effect of TA on ANCR was analyzed by linear regression analysis. As a result, it was determined that TA had a statistically significant, positive, and critical effect (β=0.82; p=0.000; t=16.547) on ANCR and the explained variance was 52%. This finding supports Hypothesis 1.

A PROCESS analysis was used to test the moderator effect of nursing care to the patient with COVID-19 on the relationship between TA and ANCR while checking for the level of anxiety in transmitting COVID-19 and accommodation status for infecting others with COVID-19 was significant ($F_{(5, 250)}$=56.87; p=0.0000; R^2=0.53). Specifically, moderation was supported since the interaction between COVID-19 and TA was significantly associated with ANCR (Table 3). This indicated that the relationship between TA and ANCR varied by the patient with COVID-19. In other words, the direct and indirect effects of TA on ANCR were moderated by the patient with COVID-19. This finding supports Hypothesis 2. In addition, it was determined that the level of anxiety of transmitting COVID-19 to others, which is considered as the control variable, and the accommodation status for infecting others with COVID-19, had no effect on the moderator variable.

Table 3. Moderating Effects of Providing Nursing Care to the Patient with COVID-19 on Relationship Between TA and ANCR

Dependent variable	Independent variable	β	SE	t	p	LLCI	ULCL
ANCR	Providing nursing care	0.02	0.07	0.26	0.79	-0.13	0.16
	TA	0.83	0.05	16.64	0.00*	0.73	0.93
	Providing nursing care X TA	0.23	0.10	2.25	0.02*	0.03	0.43
	** level of anxiety	-0.01	0.04	-0.25	0.80	-0.08	0.06
	**accommodation status	-0.04	0.04	-1.14	0.26	-0.11	0.03

*P <0.05
**This variable was centered at their means.

Figure 2 shows the relationship of providing nursing care to the patient with COVID-19 between TA and ANCR. Teamwork attitudes of nurses have a positive effect on their caregiving roles, whether they provide care to the patient with COVID-19 or not. However, this effect is stronger when nurses do not provide such care (β=0.96; SE=0.07; p=0.00).

Figure 2. Moderation Effect of Providing Nursing Care to the Patient with COVID-19 on Relationship Between TA and ANCR
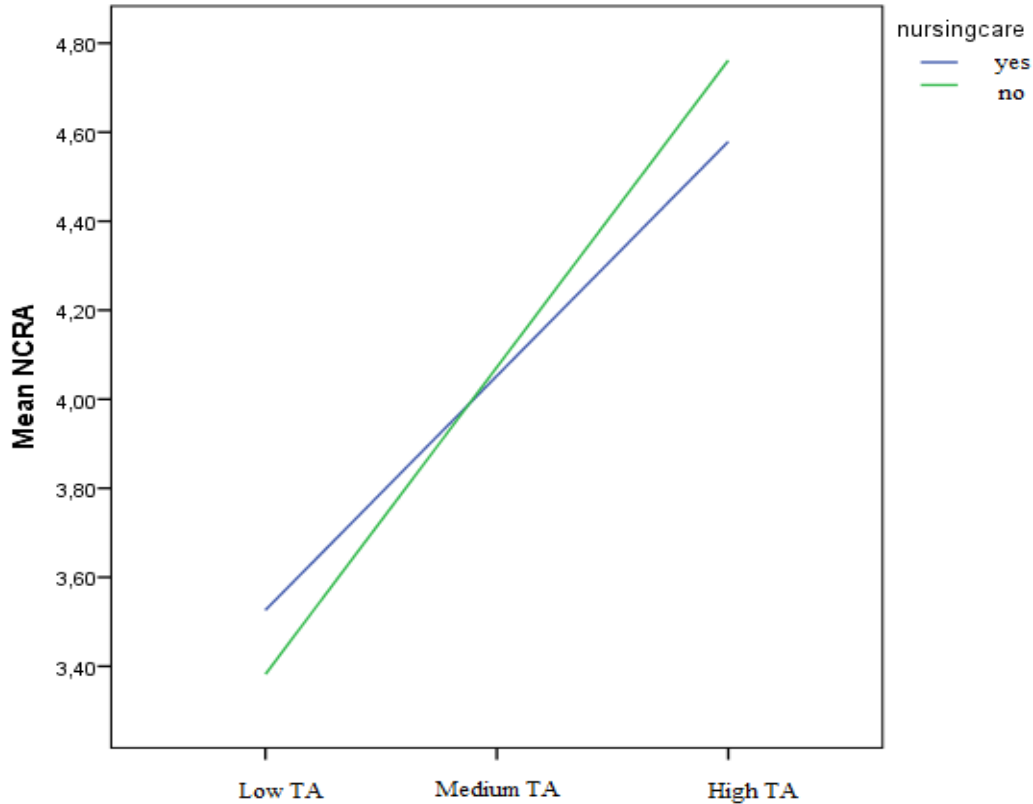
4. DISCUSSION

This study aimed to explain the moderator role of COVID-19 patient care in the effect of nurses' teamwork attitudes on their caregiving roles. In the study, while the mean TAQ scores of nurses were found to be at a high level, similarly high levels were found in studies conducted using the same scale before the pandemic (Türe Yılmaz & Yıldırım 2018; Celik et al., 2019). Teamwork is inherent in the nursing profession. These results reveal the importance of teamwork for nurses despite the COVID-19 pandemic. In addition, it may be related to being better prepared due to the occurrence of COVID-19 cases in Turkey after Asia and Europe. In this process, the guidelines prepared by both the Ministry of Health and the general and private nurse associations have been guiding in pandemic management. On the other hand, nursing managers have demonstrated analytical thinking, quick decision making, problem-solving, and effective leadership skills in combating the pandemic (Baykal et al., 2020). Additionally, effective teamwork created as a result of nurse managers' adoption of an employee-oriented leadership approach plays a key role in process management (Turkmen et al., 2020). When the mean scores of TAQ's subscales were examined, it was determined that the highest score was obtained from "leadership" subscale and the lowest score from "mutual support" subscale. Similarly, it was observed in the studies of Türe Yılmaz and Yıldırım (2018) and Celik et al. (2019) that the highest score was obtained from the "leadership" subscale and the lowest score from the "mutual support" subscale.

(Türe Yılmaz & Yıldırım, 2018; Celik et al., 2019). Healthcare institutions can achieve quality care by adopting a patient-oriented teamwork approach (Babiker et al., 2014). The health service provided to the patient is a team effort. A study showed that lack of teamwork and communication plays an important role in the occurrence of adverse events and accidents in patient care. Therefore, team leaders need to acquire the skills to support teamwork to ensure the continuity of quality patient care (Celik et al., 2019; Yardimci et al., 2012).

In this study, The total mean scores of ASNCR, and safety, self-care and treatment subscales were found to be at a high level. In the study conducted with the same scale before the pandemic, nurses' mean total score of ASNCR was found to be very high, the mean scores of safety subscale were very high, and the mean scores of self-care subscale and treatment subscale were high (Tuna & Sahin, 2020). This result showed that the COVID-19 pandemic negatively affected nurses' attitudes towards caregiving roles. Studies conducted during the pandemic revealed that nurses experience adversity with the rapid increase in the number of cases, such as increased workload, long working hours (Mo et al., 2020), the fear of being infected, the fear of infecting others (Neto et al., 2020), the inadequacy of resources despite the rapid increase in the number of cases (Huang et al., 2020), lack of protective equipment (gowns, masks, disinfectants) (Liu et al., 2020), high levels of uncertainty, unwillingness, worry, stress, anxiety, depression (Lai et al., 2020; Mo et al., 2020; Pappa et al., 2020). In this context, it is considered that it adversely affects nurses' attitudes towards the caregiving role.

In this study, it was found that nurses' teamwork attitudes had a positive effect on their caregiver roles, whether or not they provided care to the patient with COVID-19. However, this effect was found to be stronger when they did not provide care to the patient with COVID-19. Rehder et al. (2023) investigated how the teamwork climate changed before and during the COVID-19 pandemic. Accordingly, it was found that teamwork norms of healthcare workers deteriorated, and this situation affected other workplace norms and workforce well-being measures (Rehder et al., 2023). In a study conducted before the pandemic, it was reported that teamwork had a positive effect on care behaviors (Celik et al., 2019). Teamwork is inevitable due to the structural characteristics of hospitals. It is also very essential for nursing since it is of great importance for nurses to work in cooperation to achieve goals in patient care, and to achieve positive patient outcomes (pressure sores, infection, etc.). In this context, effective teams are needed to provide quality patient care (Babiker et al., 2014; Türe Yılmaz &Yıldırım, 2018). In this study, it was found that the teamwork attitudes of nurses providing care to patients with COVID-19 were less effective in their caregiving roles.

5. CONCLUSION

Effective teamwork played a key role in process management during the pandemic. In this study, it was determined that the teamwork attitudes of nurses positively affected their caregiver roles and that

caring for the patient with COVID-19 had a moderator role. In addition, the effect of teamwork attitudes on caregiving roles of nurses not providing care to the patient with COVID-19 was found to be higher.

These results may guide nurse managers and health institution administrators for approaches to support teamwork for future crises. Proactive teamwork training can be provided in health institutions, which can make significant contributions to team performance and quality patient care during stressful periods. In future studies, researchers can focus on research evaluating the effect of training or practices that support effective teamwork on nursing care and the quality of care.

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