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Araştırma Makalesi/ Research Article

Nurses' Psychological Resilience Levels and Family Role Performances during the COVID-19 Pandemic: A Descriptive and Correlational Study

COVID-19 Salgınında Hemşirelerin Psikolojik Sağlamlıkları ve Aile Rol Performansları: Tanımlayıcı ve İlişki Arayıcı Çalışma

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ABSTRACT

Objective: This study aimed to evaluate the psychological resilience and family role performances of nurses who worked in a hospital pandemic during COVID-19.

Methods: This study was descriptive and correlational. The study sample consisted of 318 nurses working in a tertiary state hospital in Kayseri. Data were collected using by "Socio-Demographic Form", "Connor-Davidson Resilience Scale", and "Family Role Performance Scale". After the normal distribution analysis of the data, SPSS 22.0 was used for descriptive and advanced analysis, and Lisrel 8.71 program was used for structural equation modeling.

Results: As a result of the structural equation model, it was found that the psychological resilience of nurses had a significant 0.61 effect on family role performance ($p<0.01$). It was found that the psychological resilience score of the nurses was higher and statistically significantly different in males, married, having children, and not having any fear of infection ($p<0.05$). The family role performance scores of the nurses were higher and statistically significantly different in those who did not have close contact with the patient with COVID-19, those who received isolation training, and those who see their families every day ($p<0.05$).

Conclusion: Based on the results, the psychological resilience levels of participants nurses were high, their family role performances were moderate, and psychological resilience had a significant effect on family role performance. Therefore, nurses should maintain work and life balance during the pandemic and protect positive expectations and goals for life in the face of painful experiences.

Keywords: COVID-19, nurse, family role performance, psychological resilience

ÖZ

Amaç: Bu çalışma, COVID-19 salgını sırasında bir pandemi hastanesinde çalışan hemşirelerin psikolojik dayanıklılık düzeylerini ve aile rol performanslarını değerlendirmeyi amaçlamıştır.

Yöntem: Bu çalışma, tanımlayıcı ve ilişki arayıcı çalışmadır. Araştırmanın örneklemi Türkiye'de Kayseri ilinde yer alan üçüncü basamak bir devlet hastanesinde çalışan 318 hemşireden oluşmuştur. Veriler "Sosyo-Demografik Form", "Connor-Davidson Psikolojik Sağlamlık Ölçeği" ve "Aile Rol Performansı Ölçeği" kullanılarak toplanmıştır. Verilerin normal dağılım analizinden sonra tanımlayıcı ve ileri analizini yapmak için SPSS 22.0, yapısal eşitlik modeli için Lisrel 8.71 programı kullanılmıştır.

Bulgular: Yapısal eşitlik modeli sonucunda hemşirelerin psikolojik sağlamlığının, aile rol performansı üzerinde 0.61'lik anlamlı etkisi olduğu bulunmuştur ($p<0.01$). Hemşirelerin psikolojik sağlamlık puanı erkeklerde, evli olanlarda, çocuk sahibi olanlarda ve virüs bulaşma endişesi olmayanlarda daha yüksek ve istatiksel olarak anlamlı farklılık gösterdiği bulunmuştur ($p<0.05$). Hemşirelerde aile rol performansı puanlarının COVID-19'lu hastaya yakın temasta bulunmayanlarda, izolasyon eğitimi alanlarda ve ailesiyle her gün görüşenlerde yüksek ve istatiksel olarak anlamlı farklılık gösterdiği görülmüştür ($p<0.05$).

Sonuç: Araştırma sonucunda hemşirelerin psikolojik dayanıklılık düzeylerinin yüksek, aile rol performanslarının orta düzeyde olduğu ve psikolojik dayanıklılığın aile rol performansı üzerinde anlamlı bir etkisi olduğu bulundu. Hemşireler salgın döneminde iş ve yaşam dengesini sağlamalı, acı verici deneyimler karşısında yaşam için olumlu beklentileri ve hedefleri korumalıdır.

Anahtar Kelimeler: COVID-19, hemşire, aile rol performansı, psikolojik sağlamlık

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Introduction

The COVID-19 pandemic occurred in December 2019 and quickly affected the entire world. On September March 2, 2020, six months after the first (March 11, 2020) case of COVID-19 detected in Turkey, Fahrettin Koca, the Minister of Health of the Republic of Turkey, issued a press briefing and stated that 10.1% (29,865) of 273.301 cases associated with COVID-19 were healthcare personnel and 52 healthcare personnel died due to COVID-19(Anadolu Agency, 2020). Considering that medical personnel account for 21% of cases in the Middle East respiratory syndrome (MERS) and 19% of cases in the severe acute respiratory syndrome (SARS) of coronavirus pandemics that have occurred in the past, medical personnel are at serious risk (World Health Organization [WHO], 2015; WHO, 2020). Healthcare professionals, particularly nurses, are vulnerable to many occupational risks and experience a lot of stress, emotional exhaustion, and uncertainty associated with their work (Singh et al., 2020, Yörük and Güler, 2021)

Research conducted in China's Hubei province has reported that health workers and nurses experience high degrees of depression, anxiety, insomnia, distress and stress (Lai et al., 2020; Mo et al., 2020). In addition, the prevalence of anxiety and depression in healthcare workers during the COVID-19 pandemic was 23.2% and 22.8%, respectively in a systematic review involving 33,062 participants (Pappa et al., 2020). According to the research conducted in China, nurses had a high psychological resilience (Lyu et al, 2020). Front-line nurses in the Philippines, with the first case after China, had moderate psychological resilience during the COVID-19 pandemic (Labrague and De Los Santos, 2020). Nurses in Turkey (Kılınç and Sis Çelik, 2021) had moderate psychological resilience levels.

It has been reported that during the pandemic, healthcare professionals do not receive support for their mental health and are afraid of quarantine, and stress is common among healthcare personnel at risk of contracting COVID-19 (Xiao et al., 2020). The uncertainty and life changes caused by the COVID-19 pandemic outside the family system can be stressful for parents (Chung et al., 2020). Nurses need to adapt to existing conditions, protect their mental health, build psychological resilience to cope with stressful situations, and provide efficient and safe care to patients (Jiloha, 2020). Psychological resilience is an ecological phenomenon that interacts with environmental factors such as family and society. In the concept analysis on nurse resilience, work-life balance was among the basic features of psychological resilience (Cooper et al., 2020). During the pandemic period, nurses often neglect the emotional and physical needs and their families while dealing with the care and treatment of suspected or definite cases. The effective fulfillment of the roles expected of family members contributes to family satisfaction, competence and integrity (Bandura et al., 2011). Family role performance can be defined as the individual meeting the natural responsibilities and expectations created by being a member of the family in a mission and relational sense (Akın and Uğur, 2014). Family role performance emphasizes family cohesion, family resilience, and various aspects of family functioning, such as family communication (Bandura et al., 2011).

Responsibilities and behaviors associated with several different roles, including spouse, parent, and child, are also affected by family role performance. According to the theory of role tension, responsibilities in the fields of work and family compete for physical energy, a limited amount of time, and psychological resources. Demands experienced in one role take time and energy away from demands experienced in another role (Greenhaus and Beutell, 1985). New responsibilities and stresses imposed on parents with the COVID-19 pandemic have led to family incompatibilities (Daks et al., 2020). Li et al. (2013) and Nohe et al. (2014) also revealed the negative impact of family and work conflict on performance.

Stressors that arise with crisis and distress can affect all family members, disrupt their relationships, and deteriorate family functions adversely. Supporting the psychological well-being and resilience of healthcare workers is essential to achieve a global recovery from the COVID-19 pandemic (Santarone et al., 2020).

There is no study in the literature that evaluates nurses' psychological resilience and family role performance together. This study will examine the psychological resilience and family role performance levels of nurses who make great sacrifices by facing significant risks in health care delivery and the variables that affect them.

Research Question

- What is the psychological resilience and family role performance levels of nurses?

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- Is there a relationship between the psychological resilience of nurses and the level of family role performance?
- What are nurses' psychological resilience, family role performance levels and the factors affecting them?

Material and Method

Design, samples, and settings

This study was a descriptive and correlational study that, reveals the current situation on the subject, examines the psychological resilience of nurses and their level of family role performance. The population of the research consists of 1650 nurses working in tertiary state hospital in the province of Kayseri, located in the Central Anatolia region of Turkey. 318 nurses were determined as samples with a known sampling method (N=Nt2pq/d2(N-1) + t2pq) at 95% confidence interval. The selected sample was reached by the convenient sampling method.

Data collection tool

Data were collected using “Nurse Information Form”, “Connor Davidson Psychological Resilience Scale (CD-RISC)” and “Family Role Performance Scale”.

Nurse Information Form

This form, which was based on the literature (Akın and Uğur, 2014; Karaırmak, 2010), includes evaluating the 17 questions socio-demographic characteristics of nurses and their working status during the pandemic.

Connor Davidson Psychological Resilience Scale (CD-RISC)

The Psychological Resilience Scale was developed by Connor and Davidson (2003), and this scale was validated for Turkish culture by Karaırmak (2010). In Karaırmak's validity study, the Cronbach alpha coefficient was 0.92, and in this study, the Cronbach alpha coefficient was 0.95. This scale consists of 25 items. The scale's scoring has a five-point (5) Likert type with “never true” (0) and “always true” (4). The scale consists of three (3) sub-dimensions: “Perseverance and Self-Efficacy” (15 items), “Resilience to Negativity” (7 items) and “Tendency to Spirituality” (3 items), and there are no reverse items. The lowest and highest score that can be taken from the scale is between 0-100. A high score on the scale indicates high psychological resilience.

Family Role Performance Scale (FRP)

The Family Role Performance Scale was developed by Chen et al. (2014) and this scale was validated for Turkish culture by Akın and Uğur (2014). In the validity study of Akın and Uğur, the Cronbach alpha coefficient were 0.58 for the task performance sub-dimension and 0.86 for the relationship performance sub-dimension. In this study, Cronbach alpha value was 0.89. This scale consists of 8 items and two sub-dimensions (task performance and relationship performance). The scale has a five-point (5) Likert type with "absolutely inappropriate" (1) and "absolutely appropriate" (5). The scale consists of two (2) sub-dimensions, namely "Task Performance" (first 4 items) and "Relationship Performance" (last 4 items), and there is no reverse item. The lowest and highest scores that can be obtained from the scale are between 8 and 40. High score indicates high family performance.

Data Collection Method

In order for this study to be carried out, the permission of the institution and the permission of the Ethics Committee were obtained. Data were collected between 20 June and 20 July 2020 from nurses working in a public hospital in the Central Anatolia region whenever they were appropriate. The data were collected through Smartphone chat applications. Data from the nurses involved in the study was collected using the Google survey method.

Analysis of the Data

In order to determine whether the data is in the normal distribution, normal distribution analysis was performed on a cell basis by dividing the files. For normal distribution of data, the median, mode, and arithmetic mean are expected to be close to each other and the kurtosis-skew coefficient values are in the range of +2 to -2 values (Pallant, 2017). SPSS 22.0 was used for description according to advanced analysis the data was distributed normally. LISRELL 8.71 program was used for the structural equation modeling (SEM). The significance value in the study was accepted as .05. The data regarding whether the FRP and CD-RISC scores of nurses show significance according to socio-demographic characteristics of nurses and variables of working conditions in the pandemic were evaluated with t-test and One Way ANOVA statistical analysis. SEM analysis was used to test the effect of psychological resilience on family role performance.

Research Criteria

Inclusion Criteria

- Working as a nurse during COVID-19 process
- To be able to use a smartphone.
- Agree to participate in research.

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Exclusion Criteria
- Not filling out forms

Result

In this study, the average psychological resilience score of the nurses was 67.33, and the average family role performance score was 24.45 (Table 1). When the total scores to be taken from the scale are divided into 5 levels between very low and very high, the psychological resilience score averages of the participants are high and the family role performance score is moderate.

The socio-demographic characteristics of the nurses were presented in Table 1. The average age of the nurses participating in the study was 34.01, most were female (71.1%) and approximately 80% of the nurses have received undergraduate and graduate education. The working year of nurses is 12.06 years; the average weekly working time is 45 hours. The vast majority of nurses work in the 08-08 shift (Table 1).

There was a statistical difference between the nurses 'psychological resilience scores according to the nurses' gender ($p<.05$). CD-RISC scores of male nurses were determined to be higher than female nurses (Table 1). A statistically significant difference was found between the CD-RISC scores of the nurses and their marital status ($p<.05$). It was determined that the CD-RISC scores of the married nurses were higher than the single nurses (Table 1). A statistically significant difference was found between the nurses' CD-RISC scores and the state of having children ($p<.05$). It was determined that the CD-RISC scores of the nurses who have children are higher than the nurses who do not have children (Table 1).

Table 1. Psychological resilience and family role performance general characteristics and differences of nurses according to socio-demographic features

Variable	n	%	CD-RISC Scores	Mean	±Sd	FRP	Mean	±Sd
Participants	318	100		67.33	18.1		24.45	7.12
Age								
34 and below	174	54.7	t= -1.210	66.21	18.28	t= .496	24.64	6.83
34 and above	144	45.3	p= .227	68.69	17.99	p= .620	24.24	7.48
Gender								
Male	92	28.9	t= 2.419	71.16	17.37	t= 1.626	25.47	7.00
Female	226	71.1	p= **.016***	65.77	18.28	p= .105	24.04	7.16
Marital Status								
Married	202	63.5	t= 2.261	69.07	18.22	t= .034	24.47	7.21
Single	116	36.5	p= **.024***	64.31	17.73	p= .973	24.44	6.99
Having a child								
Yes	191	60.1	t= 2.425	69.33	18.00	t= .837	24.73	7.25
No	127	39.9	p= **.016***	64.33	18.06	p= .403	24.05	6.93
Childcare support								
Himself/herself	16	5.0	F= .803 p= .525	67.88	26.30	F= .476 p= .753	24.00	8.70
With his/her spouse	101	31.8		69.95	16.57		25.10	6.78
Relative-family support	47	14.8		68.11	17.83		24.64	7.64
Caregiver support	12	3.8		63.58	13.66		22.25	7.22
Nursery and so on	15	4.7		75.13	20.67		25.27	8.00
Educational Status								
High School	15	4.7	F= 1.369 p= .252	72.66	19.42	F= 1.345 p= .260	25.93	5.64
Associate	48	15.1		66.16	18.66		23.07	8.11
Undergraduate	237	74.5		66.73	17.79		24.49	6.91
Graduate	18	5.7		73.89	20.05		26.56	7.97
Years of work in the profession								
12 years and below	176	55.3	t= -1.768	65.72	17.74	t= .134	24.51	6.70
12 years and above	142	44.7	p= .078	69.33	18.53	p= .894	24.40	7.64
Weekly shift								
45 hours and below	161	50.6	t= -.451	66.88	18.64	t= -.530	24.25	7.32
45 hours and above	157	49.4	p= .652	67.80	17.70	p= .597	24.67	6.93

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Table 1. (continue) Psychological resilience and family role performance general characteristics and differences of nurses according to socio-demographic features

Variable	n	%	CD-RISC Scores	Mean	±Sd	FRP	Mean	±Sd
Shift								
08-16	62	19.5	F= .585	66.11	16.96	F= 1.190	23.23	7.12
16-08	44	13.8	p= .742	69.91	14.02	p= .306	25.02	5.11
08-08	212	66.7		67.16	19.24		24.70	7.46
Current Unit								
Policlinic	25	7.9	F= .781	68.72	16.04	F= 1.238	22.64	7.16
Normal service	53	16.7	p= .585	67.34	16.02	p= .286	25.17	6.82
Intense Care	54	17.0		65.84	20.44		24.31	7.60
Pandemic service	97	30.5		66.89	18.62		24.65	7.00
Pandemic intensive care	44	13.8		66.36	19.92		23.00	7.12
Emergency	30	9.4		72.73	14.63		26.78	7.46
Dialysis	15	4.7		65.32	19.18		2.87	5.95

*Note. CD-RISC = Psychological Resilience; FRP= Family Role Performance * p <.05 It was considered statistically significant.*
*** p <.01 It was considered statistically significant. ***p=.051 It was statistically considered borderline significant.*

In this study, the general characteristics and differences of nurses' FRP and CD-RISC scores due to COVID-19 were evaluated by t-test and One Way ANOVA statistical analysis. A statistically significant difference was found between the CD-RISC scores of the nurses and the concern for virus transmission. (p<.05). It has been determined that the CD-RISC scores of the nurses who do not have any concern for virus transmission are higher than the nurses who are concerned about virus transmission (Table 2). A borderline significant difference was found between nurses' CD-RISC scores and their isolation training status (p =.051). The CD-RISC scores of the nurses who received isolation training were determined to be higher than the nurses who did not receive isolation training (Table 2).

Table 2. General characteristics and differences of nurses' psychological resilience and family role performances associated with COVID-19

Variable	n	%	CD-RISC Scores	Mean	±Sd	FRP	Mean	±Sd
COVID - 19 patient contact status								
1	66	20.8		69.21	15.00		26.76	6.46
2	36	11.3		64.61	19.78		24.22	6.93
3	49	15.4	F: .736	69.53	16.28	F: 2.309	24.12	7.19
4	42	13.2	p: .568	65.00	16.00	p: .058	23.32	6.66
5	125	39.3		67.05	20.49		23.82	7.47
Close contact status with COVID-19 patient								
Yes	235	73.9	t: -.769	66.87	18.73	t: -2.458	23.88	7.13
No	83	26.1	p: .442	68.65	16.48	p: **.015***	26.10	6.87
Isolation training								
Yes	212	66.7	t: 2.109	68.84	16.63	t: 2.244	25.09	6.79
No	106	33.3	p: **.051*** **	64.31	20.63	p: **.026***	23.20	7.62
Friend diagnosed with COVID-19								
Yes	156	49.1	t: -.824	66.48	19.62	t: -1.093	24.01	7.66
No	162	50.9	p: .411	68.16	16.66	p: .275	24.89	6.56

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Table 2. (devam) General characteristics and differences of nurses' psychological resilience and family role performances associated with COVID-19

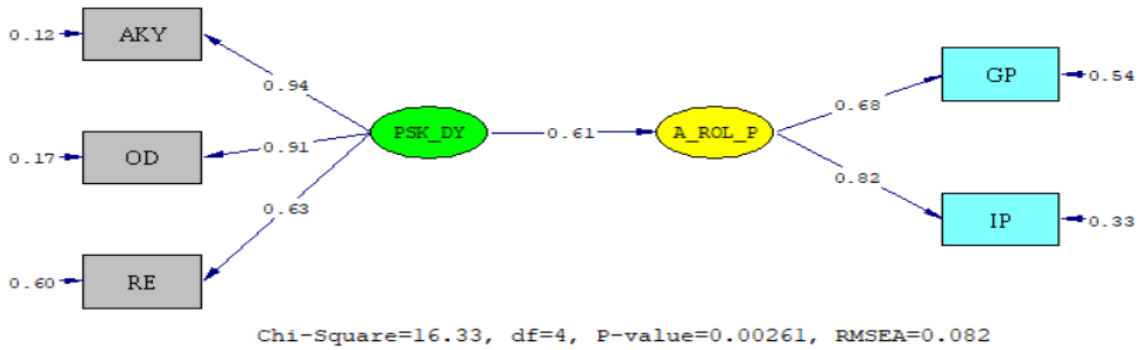
Variable	n	%	CD-RISC Scores	Mean	±Sd	FRP	Mean	±Sd
Virus infection concern								
Yes	273	85.8	t= -3.003	66.11	17.96	t= -1.961	24.14	7.14
No	45	14.2	p= **.003****	74.77	17.78	p= **.051*****	26.38	6.77
Frequency of meeting with family								
I never meet	73	23.0		68.19	16.94		23.99	6.75
Everyday*	186	58.5		68.72	17.53		25.29	7.28
Every other day*	28	8.8	F= 2.020	60.70	23.01	F=2.413	21.14	6.68
Once a week	17	5.3	p= .091	66.29	21.13	p= **.049***	23.77	7.17
Once a month	14	4.4		59.00	15.04		23.29	6.16
Accommodation								
With the family	242	76.1		68.02	18.26		24.79	7.00
Hotel	29	9.1		64.76	14.56		21.38	6.58
With colleague	15	4.7	F= .788 p= .501	68.98	23.93	F=2.011 p= .112	24.60	8.60
Alone	32	10.1		63.66	17.16		24.69	7.43

*Note. CD-RISC = Psychological Resilience; FRP= Family Role Performance * p <.05 It was considered statistically significant.*
*** p <.01 It was considered statistically significant. ***p=.051 It was statistically considered borderline significant.*

A statistically significant difference was found between the FRP scores of the nurses and their close contact with the patient with COVID-19 (p < .05). It was determined that nurses who were not in close contact with COVID-19 patients had a higher FRP score than nurses who were in contact with COVID-19 patients (Table 2). A statistically significant difference was found between nurses ' FRP scores and isolation training (p < .05). FRP score of nurses receiving isolation training was higher than FRP score of nurses without Training (Table 2). A statistically significant difference was found between nurses ' FRP scores and their meeting status with their families (p< .05). It was determined that nurses who meet with their families every day have higher FRP scores than nurses who meet every other day (Table 2). A borderline significant difference was found between the FRP of nurses and their concern for virus transmission (p = .051). It was determined that nurses with anxiety about virus transmission had higher FRP scores than nurses without concern (Table 2).

When Figure 1 and Table 3 were examined, it was found that CD-RISC had a significant effect of 0.61 on FRP (t= 7.41; p < .01). This result indicates that one unit increase in CD-RISC will cause an increase of 0.61 in FRP.

Figure 1. *Path Diagram for Psychological Resilience and Family Role Performance*



***Note. PSK_DY**= Psychological Resilience, **A_ROL_P**= Family Role Performance*

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Table 3. Structural Equation Model (SEM) results of the second question of the research

Hypotheses	Procedures	Standardized Estimates	Parameter	*t* values	Result
H_1	(PSK_DY)→(A_ROL_P)	0.61		7.41**	**Confirmed**
**p<.01					

Note. PSK_DY= *CD-RISC,* ***A_ROL_P=*** *Family Role Performance*

The values obtained for the model of the research fall within acceptable and perfect fit indices. It was understood that X2/df value, which is the most important fit index value, has an acceptable fit range with 4.083. It was determined that the RMSEA value has an acceptable range of fit with 0.082. It was determined that other fit indices were in acceptable and perfect fit (Table 4).

Table 4. SEM goodness of compliance values for the second question of the research

X^2/df	P	RMSEA	CFI	NNFI	NFI	RMR	SRMR
4.083	0.002	0.082	0.980	0.960	0.960	0.019	0.015

Discussion

Four months after the first case in Turkey COVID-19 this survey data was collected. The strength of the research is as follows: Nurses' CD-RISC scores was high, FRP scores were moderate and ıt reveals that there is a highly positive relationship between psychological resilience and FRP. In the context of the COVID-19 pandemic, nurses ' psychological resilience may help them effectively withstand the stress caused by the pandemic (Cooper et al., 2020). High psychological resilience is protective against the risk of depression (Yörük and Güler, 2021). The effect of psychological resilience on FRP demonstrates the protective role of personal endurance, which allows one to positively adapt to stressful and worrying situations and successfully return despite adverse conditions (Foster et al., 2020).

In the study, the CD-RISC scores of the nurses who took part in the COVID-19 pandemic was high. When we examine the literature, the CD-RISC of nurses in the front line was found to be moderate in the study on nurses in the Philippines, the country where the first case was seen after China (30 January 2020) (Labrague and De Los Santos, 2020). In another study conducted in the COVID-19 pandemic in Turkey, the psychological resilience levels of nurses were moderate (Kılınç and Sis Çelik, 2021). A systematic review found that psychological resilience was moderate and high among healthcare workers during the COVID-19 pandemic (Labrague, 2020). According to 2018 data of the Organization for Economic Development and Cooperation [OECD] countries, the number of nurses per 1000 people is around 8, while this number is 2.1 in Turkey (OECD,2020). As can be seen, before the pandemic, nurses in Turkey had a lot of workload and intense pace; accordingly, crisis management improved. However, the first case in Turkey was observed on March 11, 2020, following the epidemic that occurred on December 31, 2019, in Wuhan City, Hubei Province in China (Turkish Ministry Of Health [TMOH], 2020). Turkish nurses, who kept up with the intense pace before the pandemic, had an advantageous position compared to many countries according to the fact that the first case in Turkey was observed 2.5 months after the pandemic in China and due to the Scientific Council of the Ministry of Health taking the necessary measures and measures. In this way, nurses in Turkey had enough time to adapt and trust themselves in the care of infected patients, and were better equipped and trained for the pandemic. In addition to the positive public support provided to members of the health profession, the availability of adequate personal protective equipment and medical equipment in the hospital may have increased the level of psychological resilience of the nurses included in this study. Due to the high level of a positive relationship between psychological resilience and FRP, it can be thought that nurses' FRP are positively affected, but FRP are moderate due to the worry of infecting the family.

CD-RISC scores of male participants in the study were higher than of women. A study conducted in China's Hubei province in the early days of the pandemic reported that female nurses experienced

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high degrees of depression, anxiety, insomnia, and distress (Lai et al., 2020). Research has shown that women probably have lower levels of resistance (Bozdağ and Ergün, 2020; Rodriguez- Llanes et al., 2013). As an employee, women are exposed to more pressure due to the additional demands of their roles and responsibilities in the family due to the difference in social roles compared to men, which negatively affects their performance (Aktaş and Gürkan, 2015). At the same time, the majority of the (patriarchal) family structure based on male authority in Turkey places more burden on women in the family. This may have caused the woman to have lower CD-RISC scores than the man.

The CD-RISC scores of married nurses participating in the study were higher than single ones. In a study examining the psychological effect of the severe acute respiratory syndrome (SARS) epidemic on hospital workers in Beijing, China, married health workers had fear of SARS more than those who are not married or divorced (Wu et al., 2009). In a study examining the CD-RISC score among nurses marriage is often associated with longer life, better health, and acts as a buffer against psychological threats (Wade et al., 2013). Married individuals ' perception of the pandemic as a psychological threat can be considered effective in this process and is an expected result.

In the study, CD-RISC scores of nurses with children were high. In a study that measured the CD-RISC scores of oncology nurses in 2016, participants who had children had high levels of self-perception, a component of psychological resilience (Kutluturkan et al., 2016). It can be said that having children affects a person's outlook on life and expectations in a positive way, increasing their ability to cope with adversity, and is effective in this process.

There was a borderline significant difference (p=0.051) between the isolation training of the nurses involved in the pandemic and their CD-RISC scores. There was a significant difference between isolation training and FRP. The CD-RISC and FRP scores of the nurses who received isolation training were high. In the study conducted by Wu et al. during the COVID-19 pandemic, the mental health levels of nurses who received pandemic training were high (Wu et al., 2020). In a study conducted on healthcare workers, the CD-RISC scores of the participants who received in-service training were found to be high (Arslan et al., 2021; Pak, Özcan and Çoban, 2017). No nurses were infected in the SARS and COVID-19 pandemic, due to protocols that include training for nurses, according to data taken from directors of Guangdong Second State General Hospital, China (Huang et al., 2020). Our research finding on isolation training is similar to the literature. On the other hand, it can be considered that minimizing the risk of infection and transport of nurses home along with isolation training positively affects family role performance.

In this study, the CD-RISC scores of the nurses with anxiety about getting the virus were low. In a study, the anxiety about being infected by the SARS-COV-2 virus reduced the psychological resilience of healthcare workers (Bozdağ and Ergün, 2020). On the other hand, a study conducted in China found that nurses who felt themselves or their relatives were likely to develop the disease had high levels of anxiety and depression (Han et al., 2020). The fact that COVID - 19 is a highly contagious and rapidly spreading disease may have created a sense of anxiety and helplessness for nurses.

Nurses who are in close contact with COVID-19 patients and who are concerned about being infected with the virus are observed to have a decrease in their family role performance. Nurses have serious concerns about transmitting the infection to their families, as well as personal safety concerns. On the other hand, if symptoms such as fatigue, depression and irritability experienced by nurses in relation to their work affect effective adaptation to their role in the family, tension-based family and work conflict arises (Parasuraman and Simmers, 2002). This conflict between family and work is thought to be effective in reducing nurses' family role performance.

In the study, an increase was observed in the role performance of nurses who were with their families every day compared to those who were together every other day. It is often assumed that individuals will devote more time and energy to people or roles they value highly since resources such as time and energy are scarce and limited. In this case, the degree of an individual's commitment to a work or family role will affect the amount of time and energy he or she wants to spend on that role (Frone et al., 1992) and his or her sensitivity to the role (Higgins et al., 1992). It can be stated that feeling a high level of commitment to the family positively affects the family role performance of nurses.

Conclusion and Recommendations

This study found that the nurses who worked during the COVID-19 pandemic had high levels of psychological resilience and moderate levels of

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family role performance. The psychological resilience of nurses affected their family role performance to a high degree. In the study, the psychological resilience levels of nurses who are male, married, have children, receive isolation training and do not worry about virus transmission were found to be higher. In the study, the family role performance levels of nurses who did not have close contact with the COVID-19 patient, who received isolation training, who did not worry about virus transmission and who talk to their family every day were found to be higher.

Psychological protection and awareness activities should be provided for female, single, and non-children nurses with low levels of psychological resilience through institutional support, psychological counseling and psychotherapeutic guidance, printed media (guidelines) and electronic media (television). For nurses who do not have isolation training, who are concerned about virus transmission, and who have close contact with infected patients, training on pandemic management should be provided. It should not be forgotten that with the increase of psychological resilience, family role performances will increase.

This study shows that nurse leaders should pay more attention to nurses' psychological responses and determine their negative emotions. It is thought that determining the variables related to psychological resilience and family role performance in nurses during a crisis will be a guide for psychosocial services. Positive expectations for the future must be maintained. Nurses also need to be realistic, as not all situations they encounter have positive consequences.

Limitations of the Study

The most important limitation of this study is that research data is collected from nurses working in a single center in Turkey and therefore reflects pandemic conditions and nurse characteristics specific to that center. Therefore, the findings cannot be generalized to all nurses. The nature of research design has brought with it some limitations. The web-based data collection method used to avoid infections may have restricted nurses ' responses. In-depth interviews about the experience of the COVID-19 pandemic can then be conducted and quantitative surveys can be applied to nurses for a better understanding of the psychological resilience and family role performances of nurses.

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Ethics Committee Approval: For this research, a Clinical Research Ethics Board permit No. 79 was obtained from the ethics board associated with the relevant hospital and an institution permit was obtained from the relevant hospital unit in order to collect data from nurses. Written consent was obtained for the use of the scales. Written consent was obtained from the nurses before data was collected.
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What did the study add to the literature?

- This is the first study to evaluate nurses' psychological resilience and family role performance together during a pandemic.
- This study shows that as nurses' psychological resilience increases, their family role performances will also increase.
- This study shows that nurses' leaders should pay more attention to nurses' psychological responses and determine their negative emotions.

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