

COVID- 19 PANDEMİ SÜRECİNDE BAKIM VEREN HEMŞİRELERİN KORONAVİRÜS FOBİLERİ VE YAŞAM KALİTELERİ ARASINDAKİ İLİŞKİSİNİN İNCELENMESİ: KESİTSEL BİR ÇALIŞMA

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Öz

Bu araştırma COVID-19 pandemi döneminde bakım veren hemşirelerin koronavirüs fobileri ve yaşam kalitesini incelemek amacıyla yapıldı. Araştırma, verileri bir üniversite hastanesinde çalışan ve çalışmaya katılmayı kabul eden 178 hemşire ile tanımlayıcı ve kesitsel olarak yapıldı. Veriler sosyo-demografik özellikleri içeren soru formu, Kısa Form 36 Yaşam Kalitesi Ölçeği ve Koronavirüs-19 Fobisi Ölçeği ile online google forms aracılığı ile toplandı. Verilerin analizi bilgisayar ortamında; yüzdelik, ortalama, parametrik ve nonparametrik testler kullanılarak yapıldı. Araştırmada kadınların, evli olanların, çocuk sahibi olanların koronavirüs fobi düzeyleri istatistiksel olarak anlamlı düzeyde yüksek bulunmuştu ($p<0.05$). Hemşirelerin koronavirüs fobisi ölçeği puan ortalaması 68.93 ± 5.43 olarak belirlendi. Ayrıca yaşam kalitesi ölçeği alt boyutları ve koronavirüs fobi düzeyleri arasında anlamlı bir ilişki bulunamamıştır. ($p>0.05$). Araştırmada hemşirelerin pandemi döneminde yaşam kalitelerinin orta düzeyde, koronavirüs fobi düzeylerinin ise yüksek olduğu belirlendi. Hemşirelerin yaşam kaliteleri ve koronavirüs fobi düzeyleri arasında herhangi bir ilişki saptanmadı.

Anahtar Kelimeler: COVID-19, Fobi, Hemşire, Yaşam Kalitesi

INVESTIGATION OF THE RELATIONS BETWEEN CORONAVIRUS PHOBIA AND QUALITY OF LIFE OF CARE-GIVER NURSES DURING THE COVID-19 PANDEMIC: A SECTIONAL STUDY

Abstract

The present study was conducted to examine the Coronavirus phobia and quality of life of nurses providing care during the COVID-19 pandemic period. The study was conducted descriptively and cross-sectionally with 178 nurses, who worked in a university hospital, and who agreed to participate in the study. The data were collected with a questionnaire that contained data on socio-demographic characteristics, Short Form 36 Quality of Life Scale, Coronavirus-19 Phobia Scale, and online google forms. The analysis of the data in computer medium was made by using percentages, mean values, and parametric and nonparametric tests. The Coronavirus phobia levels of women, married people, and those who had children were found to be higher at statistically significant levels in the study ($p<0.05$). The mean score of the nurses' Coronavirus phobia scale was found to be 68.93 ± 5.43 . Also, no significant relations were detected between the sub-dimensions of the quality of life scale and Coronavirus phobia levels. ($p>0.05$). It was determined in the study that the quality of life of the nurses during the pandemic period was moderate, and the level of Coronavirus phobia was high. No correlations were detected between nurses' quality of life and Coronavirus phobia levels.

Keywords: COVID-19, Phobia, Nurse, Quality of Life

1. INTRODUCTION

Many cases of acute respiratory failure syndrome accompanied by upper respiratory tract cough, fever, and dyspnea symptoms were reported in the city of Wuhan, China, in late December 2019 due to an unidentified microbial agent (1, 2). In these cases, who were hospitalized for pneumonia between 18-29 December 2019, the virus genome sequence was examined, and a previously unknown Beta-Coronavirus (beta-COV) was detected in all patients (3). The epidemic was then defined as a pandemic by the World Health Organization (WHO) after the first case was seen in China, spreading rapidly and increasing numbers of cases emerged all over the world, especially in Europe (4). The new Coronavirus, which was called SARS-CoV-2 (2019) and COVID-19, causes serious infections. As medicines and vaccines are not yet adequate to fight the COVID-19 pandemic, various protective measures, including hygiene and disinfection, improvement of environmental control, early detection and reporting, isolation, quarantine, use of personal protective equipment, social distancing, and travel restrictions were imposed to reduce the spread of infection (1, 5). Despite such protective measures, conditions such as advanced age, chronic disease, and immune system failure in individuals who faced COVID-19 infection may affect the prognosis of the infection adversely causing tissue and organ damage (6). For this reason, the prevalence of COVID-19 in the general population in many countries, its novel, highly infectious nature, the requirement for physical distancing and isolation, and the associated high morbidity and mortality rates necessitate the development of new ways of adapting to and thinking on this crisis and creates an unprecedented burden on healthcare employees all around the world (2, 3, 5). Nurses have extremely important roles in the prevention of this pandemic at the point of intervention and caregiving (6-8). The addition of new working styles with the pandemic to the nature of caregiving that requires attention, care, and effort, also brings working in this setting to an extremely stressful point (7, 8). Nurses not only face an increased number and intensity of work, but also try to adapt to new protocols and a very “new normal” (8). The difficulties faced by nurses, who are fighting on the front lines with the COVID-19 pandemic, to protect themselves and their families from this pandemic and the addition of family-related responsibilities, affect the lives of nurses in many dimensions (9-11). Burnout, stress, fear, sleep problems, anxiety disorders appear as problems frequently faced during the COVID-19 pandemic and affect the quality of life negatively (9-12). Accordingly, in this study, it was aimed to examine the relationship between the coronavirus phobia levels and quality of life of nurses providing care during the COVID-19 period.

2. MATERIALS AND METHODS

2.1.Purpose and Type of Study: The study was conducted in the descriptive and cross-sectional design to examine the relations between Coronavirus phobia, and the quality of life of nurses who provide care during the COVID-19 pandemic.

2.2.Place and Time of the Study: The study was conducted at a university hospital between 02.11.2020 and 25.11.2020.

2.3.Ethical Aspect of the Study: Before starting the study, Ethics Committee approval (dated 26.08.2020, session 2020/16, decision no. 22), institutional permission and permission of the Ministry of Health were obtained.

2.4. Population and Sampling of the Study: The population of the study consisted of all nurses working at the hospital at the time of the study, and the sampling consisted of 178 nurses who agreed to participate in the study and used smart phones. At the time of the research, 300 nurses are actively working in the hospital. In this research, 59.33% of the universe was reached.

2.5. Data Collection: The data of the study were collected online with a questionnaire that consisted of the SF-36 quality of life scale, Coronavirus phobia scale, and a form that contained questions on the socio-demographic variables and occupational characteristics. The average time needed to answer the questions in the study was 10-15 minutes. The questionnaires of the online study were carefully answered by the nurses in a period that would not disrupt the clinical functioning.

2.6. Data Collection Tools

2.6.1. Question Form

It is a form consisting of 13 questions covering nurses' socio-demographic characteristics, occupational characteristics and COVID-19-related characteristics.

2.6.2. Short Form 36 Quality of Life Scale

Among the quality of life scales, the Short Form 36, which has the generic scale feature and provides wide-angle measurement, was developed and made available by Rand Corporation in 1992. When the scale was developed, it was aimed to be short and easy to apply, as well as have a wide range of usage areas. It is not specific to any age, disease, or treatment group, and includes the concept of general health. The primary feature of the SF-36 is that it is a self-assessment scale consisting of 36 items providing the measurement of 8 dimensions; physical function (10 items), social function (2 items), role limitations due to physical problems (4 items), role limitations due to emotional problems (3 items), mental health (5 items), energy/vitality (4 items), pain (2 items), and general perception of health (5 items). There is no total score calculation in the SF-36 Quality of Life Scale. The subscales evaluate health between 0-100, and 0 indicates “bad health”, and 100 indicates “good health” status (13).

2.6.3. Coronavirus-19 Phobia Scale (C19P-S)

The Coronavirus-19 Phobia Scale is a 5-point Likert-type self-assessment scale that was developed by Arpacı et al. to measure the phobia, which may develop regarding the Coronavirus. Scale items are evaluated between 1 “I Strongly Disagree” and 5 “I Strongly Agree”. Items 1, 5, 9, 13, 17, and 20 make up the Psychological Sub-Dimension; items 2, 6, 10, 14, and 18 make up the Somatic Sub-Dimension; items 3, 7, 11, 15, and 19 make up the Social Sub-Dimension; items 4, 8, 12, and 16 make up the Economic Sub-Dimension. The sub-dimension scores are obtained by adding the answers given to the items of that sub-dimension, and the total C19P-S score is obtained by adding the sub-dimension scores and ranges from 20 to 100 points. Higher scores show elevated subscale scores and general Coronavirus phobia scores. Arpacı et al.'s Cronbach α value of 0.92 reports that (14). In this study, Cronbach α was calculated as 0.90

2.6.4. Evaluation of Data

The SPSS 26.0 (Statistical Package of Social Sciences for Windows) program was used to analyze the findings obtained in the study. In the evaluation of the study data, descriptive statistical methods such as percentages, standard deviation values, frequency and mean values were calculated.

The normality distribution of the data was evaluated with the Shapiro-Wilk Test; and the Student T-Test, Anova Test was used for the data that had normal distribution, and Manny Whitney U, and Kruskal Wallis Test was used for the evaluation of the data that did not have a normal distribution.

3. RESULTS

Descriptive Characteristics of Nurses

It was found that 62.40% of the nurses who participated in the study were women, 38.2% were between the ages of 38-43, 61.8% were married, 83.63% of those who were married had children, and 47.2% had undergraduate education. Also, a significant relation was detected between the

variables such as gender, marital status, having a child, and the level of Coronavirus phobia ($p < 0.05$) (Table 1).

Table 1. Socio-Demographical Characteristics of Nurses and Examination of the Relationship between These Characteristics and the Level of Coronaphobia

Feature	n(%)	X±SD	p/ test value
Gender			
Female	111(62.31)	69.75±5.22	0.011/ 2.594*
Male	67(37.69)	67.58±5.52	
Age			
18-30	60(33.7)	67.96±4.91	0.218/3.046**
31-43	68(38.2)	69.07±5.99	
44-56	50(28.1)	69.92±5.13	
Marital status			
Married	110(61.8)	69.71±5.43	0.018/ -2.358***
Single	68(32.2)	67.67±5.22	
Do you have a child			
Yes	92(83.63)	69.78±5.27	0.037/ -2.097***
No	18(16.37)	68.03±5.48	
Education			
Postgraduate	17(9.6)	70.52±7.32	0.273/ 3.898**
Undergraduate	84(47.2)	68.85±5.35	
Associate Degree	53(29.8)	69.20±5.48	
High School	24(13.5)	67.50±3.76	

*Student-T test **Kruskal-Wallis Test *** Manny-Whitney U test

Some Conditions of Nurses Associated with COVID-19

A total of 25.3% of the nurses who participated in the study worked in the COVID-19 Intensive Care Unit, 61.2% preferred to stay in out-of-home accommodation facilities during the pandemic, 45.5% did not have a chronic disease, 64.6% had COVID-19 or experienced the symptoms of the disease, 69.56% had COVID-19 diagnostic tests, and 61.2% of them had individuals who had COVID-19 in their family. It was determined that 23.0% of the nurses increased their use of cigarettes during this period, and 57.3% increased their use of social media. Also, a significant relation was detected between chronic disease status and Coronavirus phobia mean scores ($p < 0.05$) (Table 2).

Table 2. Situations of Nurses Associated with COVID-19 and Examination of the Relationship Between These Situations and Coronaphobia

Feature	n(%)	X±SD	p/ Test Value
Did you stay out of the house during the epidemic?			
Yes	109(61.2)	69.13±5.39	0.542/0.614*
No	69(38.8)	68.62±5.51	
Unit of the Work			
COVID-19 Service	56(31.50)	68.75±6.51	0.540/ 0.377****
COVID-19 Critical Care	45(25.30)	70.44±4.47	
COVID-19 Polyclinic	41(23.0)	68.36±4.25	
COVID-19 Contact Tracing	36(20.20)	68.00±5.73	
Suspected COVID-19 or Suffering From COVID-19			
Yes	115(64.6)	69.06±4.92	0.603/ 0.520***
No	63(35.4)	68.71±6.28	
Diagnostic test in case of suspected COVID-19			
Yes	80(69.56)	68.82±4.86	0.802/-0.255*
No	35(30.44)	69.03±5.87	
Those who have been diagnosed/contacted with COVID-19 in your family			
Yes	109(61.2)	68.79±5.97	0.647/-0.459*
No	69(38.8)	69.15±4.48	
Chronic Illness Condition That May Create a Risk for COVID-19			
No chronic disease	81(45.5)	68.87±5.16	0.002/ 4.444****
Diabetes Mellitus	30(16.9)	66.60±5.84	
Hypertension	26(14.6)	67.76±4.97	
COPD/Asthma	28(15.7)	71.92±5.67	
Use of immunosuppressive	13(7.3)	70.61±3.25	
Change in Smoking Habits in the COVID-19 Pandemic			
I don't smoke	62(34.8)	69.09±5.40	0.405/1.009****
My smoking has increased	41(23.0)	70.26±6.60	
My smoking decreased	20(11.2)	68.55±7.71	
My smoking habit hasn't changed	23(12.9)	69.29±4.67	
I quit smoking	32(18.0)	67.46±5.26	
Social Media Usage Status in the COVID-19 Pandemic			
I Don't Use Social Media	36(20.2)	68.36±6.32	0.338/ 1.090****
My Social Media Usage Increased	102(57.3)	68.71±4.97	
My Social Media Use Has Decreased	40(22.5)	70.02±5.68	

Student-T test* **Kruskal-Wallis Test *** Manny-Whitney U test **** ANOVA

Coronavirus Phobia Mean Scores and Mean Scores on Quality of Life of Nurses

The mean total score of the Coronavirus phobia scale of the nurses was found to be 68.93±5.43, psychological sub-dimension mean score was 17.80±3.90, the somatic sub-dimension mean score was 17.56±2.97, and economic sub-dimension mean score was 17.19±2.96.

The quality of life scale sub-dimension mean scores of the nurses were found to be as follows; Physical Function sub-dimension mean score was 84.03±5.16, Social Function sub-dimension mean score was 90.15±8.67, Role Restriction due to Physical Problems sub-dimension score mean was

63.67±6.15, mean pain subscale score was 85.13±5.72, vitality sub-dimension mean score was 61.38±5.35, mental health score was 67.78±8.56 (Table 3).

Table 3. Analysis of Nurses' Quality of Life Scale's Subdimensions and Coronaphobia Scale's Total Score and Sub-Dimensions

Coronaphobia Scale's Total Score and Sub-Dimensions	X±SD	Min-Max
Psychological Subdimension	17.80±3.90	9-28
Somatic Subimension	17.56±2.97	6-22
Economic Subdimension	17.19±2.96	4-20
Coronaphobia Scale's Total Score	68.93±5.43	22-94
Quality of Life Scale's Subdimensions		
Physical Function Subdimension	56.76±6.79	10-85
Social Function Subdimension	57.85±7.53	17-88
Role Restriction Due to Physical Problems	56.75±6.73	41-96
Pain Subdimension	56.70±7.31	20-85
Vitality Subdimension	60.98±5.55	20-94
Mental Health Subdimension	57.33±7.34	25-91
Emotional Health	52.03±8.17	30-100
General Health Perception	53.25±7.97	34-71

The Relations Between the Coronavirus Phobia Mean Scores of Nurses and the Sub-Dimension Mean Scores of Quality of Life

No significant relations were detected between the Coronavirus phobia levels of nurses and the physical function, social function, role limitations due to physical problems, role limitations due to emotional problems, mental health, energy/vitality, pain and general perception of health sub-dimensions of the quality of life scale ($p>0.05$) (Table 4).

Table 4. The Relationship Between Nurses' Quality of Life Scale Sub-Dimensions and Coronaphobia Scale Total Score

Quality of Life Scale Sub-Dimensions	Coronaphobia	
	r	p
Physical Function Subdimension	0.082	0.275
Social Function Subdimension	-0.096	0.203
Role Restriction Due to Physical Problems	-0.043	0.569
Pain Subdimension	-0.118	0.116
Vitality Subdimension	-0.256	0.112
Mental Health Subdimension	-0.113	0.132
Emotional Health	0.133	0.077
General Health Perception	0.059	0.436

4. DISCUSSION

Pandemics that occur at different times in the world cause fear and concern about health, death and illness in individuals. The COVID-19 is a life-threatening viral infection that has a very high risk of contagiousness and threatens the health of individuals with sociological and psychological effects. Nurses, who fight on the front lines during the COVID-19 pandemic, are faced with many problems with the increased workload, risk of exposure to positive cases, and uncertain situations regarding the working order. These problems faced during the COVID-19 pandemic process affect nurses physically, mentally, and socially (3, 4, 6, 7). The study data were collected in the first year of the COVID-19 pandemic in Turkey, and the quality of life and Coronavirus phobia levels of nurses caring for COVID-19 patients in a hospital were examined in this study during the pandemic period.

The mean Coronavirus phobia level of the nurses was found to be 68.93 ± 5.43 in this study (Table 3). Considering that the maximum score on the scale was 100, this value shows that the Coronavirus phobia levels of nurses were high. When studies in the literature were reviewed, it was found in a study that nurses had more anxiety and depression when compared to doctors (9, 10, 15). Zwang et al. reported that nurses felt more anxious and nervous than other healthcare professionals (16). In a study that was conducted during the COVID-19 pandemic, when healthcare professionals were evaluated, the hopelessness and state anxiety levels of nurses were found to be higher than doctors (17). In the study of Arpacioğlu et al., the mean score of Coronavirus phobia of nurses was found to be higher than that of other healthcare staff (18). The Coronavirus phobia levels of nurses were found to be quite high in another study that was conducted with Filipino nurses between September and October 2020 (19). This finding obtained from the study is similar to the literature data. Among the reasons why nurses had high levels of Coronavirus phobia, it can be speculated that there are conditions such as the fact that nurses are the healthcare professionals in constant contact with patients most frequently during the pandemic period, uncertainties regarding the treatment and care, and that they think that they will pose a risk to their health and the health of their beloved ones because of being in close contact with positive cases.

There are individual differences between the Coronavirus phobia levels of nurses. In the present study, the mean score of Coronavirus phobia of female nurses, married nurses, and nurses who had children was found to be higher at statistically significant levels ($p < 0.05$). In a study that was conducted in China, significant correlations were detected between being female during the COVID-19 pandemic and levels of stress, anxiety, and depression (20). In a study that was conducted with healthcare staff in Mexico in the May-June 2020 period, the average fear and anxiety scores of women regarding the Coronavirus were found to be higher (21). In the study that was conducted by Arpacioğlu et al., the Coronavirus phobia levels of female healthcare workers were found to be higher at statistically significant levels than male healthcare workers (18). Although this finding in the study was similar to the literature data, in Rahman's study that was conducted with medical school students, the Coronavirus phobia levels of male students were found to be higher than those of female students (22). These findings in the literature explain that the Coronavirus phobia level is a concept varying according to gender. In the study of Arpacioğlu et al., it was found that married healthcare employees, and in the study of Leodora et al., the levels of Coronavirus phobia of married nurses were found to be higher than those of single. It can be considered that the high mean score of Coronaphobia of married nurses who have children is associated with the risk of infecting their spouses and children with the virus.

Chronic diseases are among the risk factors increasing the risk of positive cases all over the world in the COVID-19 pandemic, increasing the disease burden of the pandemic, and preparing the ground for mortality (23). Chronic disease status was determined in 50.5% of the nurses who participated in this study. When the relations between nurses' chronic disease status and Coronaphobia levels were examined, the Coronavirus phobia levels of nurses who had asthma and COPD diagnoses were found to be higher at statistically significant levels than those of other chronic disease conditions. In the

study of Bakioğlu et al., individuals who had chronic diseases had higher Coronavirus fear levels (24). In a study that was conducted in Turkey to evaluate the depression, anxiety, and health anxiety levels during the COVID-19 pandemic, it was reported that the accompanying chronic disease is a risk factor for health anxiety (25). In another study, it was reported that those with a history of chronic disease faced the psychological effects of the pandemic with higher levels of stress, anxiety, and depression (26). In Gencer's study, however, no relations were detected between the presence of chronic disease and Coronaphobia (27). It can be considered that the high Coronavirus phobia level of nurses who had chronic diseases regarding the respiratory system may be associated with the transmission route of the Coronavirus and the presence of major affected organs in the respiratory system. It is considered that the finding that the Coronavirus phobia level of nurses who have chronic diseases regarding the respiratory system is higher than nurses who do not have chronic diseases and who have chronic diseases in different systems will contribute to the literature.

No doubt, COVID-19 affects the quality of life of people in many ways (28). Quality of life is the ability of an individual to maintain emotional, social, and physical well-being and functions in daily life (29). Quality of life also symbolizes a kind of satisfaction with a general well-being sense. Quality of life constitutes an important point for healthcare staff and nurses who work under heavy workloads in healthcare institutions (29). In this study, the quality of life levels of the nurses were examined during the COVID-19 pandemic period. In line with the findings obtained here, it was found that nurses' mean quality of life scale sub-dimension score was moderate during the COVID-19 pandemic period. Also, no statistically significant relations were detected between the nurses' mean score in the Short Form 36 Quality of Life scale sub-dimensions and the mean score of Coronavirus phobia. In a study that was conducted in India in May 2020, the mean quality of life score of healthcare staff was found to be low (30). In a study that was conducted in the first months of the pandemic in China, it was reported that the quality of life of the participants was affected negatively during this period, and it could cause mental problems (31).

This research data was collected in the first year of the COVID-19 pandemic in Turkey, and in this study, the quality of life and coronavirus phobia levels of nurses caring for COVID-19 patients in a hospital were examined during the pandemic period. In this study, no statistically significant relationship was found between the coronavirus phobia levels and quality of life of nurses ($p>0.05$). A significant relationship was determined between physiotherapists' quality of life and coronavirus phobia levels (32). Landry et al. In a study they conducted, it was determined that health professionals who care in the hospital during the COVID-19 pandemic experienced fear, anxiety, stress, uncertainty, and depression (33).

In a cross-sectional study that was conducted with healthy volunteers in the first months of the pandemic in Turkey, the mean quality of life sub-dimension score was found to be moderate and good. No studies were detected in the literature examining the relations between nurses' quality of life during the COVID-19 pandemic period. It is aimed that this finding obtained from the study will contribute to the literature data.

CONCLUSION AND RECOMMENDATIONS

The mean score of nurses for Coronavirus phobia was found to be high in the study during the pandemic period, and the mean score of the quality of life sub-dimension was moderate. Also, no significant relations were detected between the Coronavirus phobia levels of nurses and the sub-dimensions of the quality of life scale. However, the entire population could not be reached in this study, and it is recommended to conduct further studies to cover a wider population. In line with the findings obtained in this study, institutions should frequently conduct research to determine the factors affecting the quality of life of nurses, who constitute an important population in terms of public health, especially during epidemics.

Limitation of the Study

The biggest limitation of the study was that it covered nurses who provided care in only one hospital during the pandemic period. Also, the number of participants was limited because of the digital collection of the study data.

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Conflict of Interest

All authors declare no conflict of interest.

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