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Investigation of Coronavirus-19 Phobia in Healthcare Professionals

Sağlık Çalışanlarında Koronavirüs-19 Fobisinin İncelenmesi

Funda Çam, Sümeyye Hanoğlu

ABSTRACT

***Objectives**: Because of the prolongation of the pandemic process, it has gained importance to identify the problems experienced by healthcare workers due to COVID-19 and provide the necessary support. This study was planned to examine the coronavirus-19 phobia and related factors in doctors and nurses.*
***Methods**: The sample of the study consisted of 327 healthcare professionals working in a training and research hospital in Istanbul. Research data were collected with "Personal Information Form" and "COVID-19 Phobia Scale (C19P-S)".*
***Results**: It was determined that the mean age of the participants was 28.82 ± 6.411, 82.3% were women, 65.1% were university graduates, 65.4% were single and 81.7% were nurses. It was determined that the working years of the participants were 5.97 ± 5.910, 79.8% of them were working/working in the COVID-19 services. The total C19P-S score of the participants was 53.43 ± 15.31.It was determined that women experienced phobia at a higher rate than men (p=0.003). It was determined that the level of phobia of nurses was higher than doctors (p=0.002). It was determined that the level of phobia was higher in the participants who lived with a vulnerable group (p=0.002) and who started living separately from the people they lived with during the pandemic period (p=0.002). A significant negative correlation was found between the age of the participants and the level of phobia (p=0.020) and between the years of working in the profession and the psychological sub-dimension (p=0.037).*
***Conclusion**: During the pandemic, in-service training on prevention and coping with infectious diseases should be organized especially for health workers who encounter pandemics at young ages and in the first years of their profession.*

***Keywords:** COVID-19 pandemic, coronavirus, phobia, healthcare professionals*

ÖZ

***Amaç**: Pandemi sürecinin uzamasıyla sağlık çalışanlarının COVID-19'a bağlı yaşadıkları problemlerin belirlenerek gereken desteğin sağlanması ayrıca bir önem kazanmıştır.Bu çalışma doktor ve hemşirelerdeki Koronavirüs-19 fobisini ve ilişkili faktörleri incelemek amacıyla planlanmıştır.*
***Yöntem**: Araştırmanın örneklemini İstanbul'da bir eğitim ve araştırma hastanesinde görev yapan 327 sağlık çalışanı oluşturmuştur.Araştırma verileri "Kişisel Bilgi Formu" ve "COVID-19 Fobisi Ölçeği (C19P-S)" ile toplanmıştır.*
***Bulgular**: Katılımcıların yaş ortalamasının 28,82 ± 6,411 olduğu ve %82,3'u kadın, %65,1'si üniversite mezunu, %65,4'ünün bekar, %81,7'sinin hemşire olduğu belirlendi. Katılımcıların meslekte çalışma yılı 5,97 ± 5,910 olup, %79,8'inin COVID-19 servislerinde görev yapıyor olduğu/yaptığı saptandı. Katılımcıların toplam C19P-S puanı 53,43 ± 15,31 idi.Kadınların erkeklere göre daha yüksek oranda fobi yaşadıkları saptandı (p=0,003). Hemşirelerin doktorlara kıyasla fobi düzeyinin daha yüksek olduğu belirlendi (p=0,002). Hassas gruptan biriyle (65 yaş üstü kişiler, gebeler vs.) birlikte yaşayan (p=0,002) ve pandemi döneminde birlikte yaşadığı kişilerden ayrı yaşamaya başlayan katılımcıların fobi düzeyinin daha yüksek olduğu tespit edildi (p=0,002). Katılımcıların yaşlarıyla fobi düzeyi arasında (p=0,020) ve meslekte çalışma yılları ile psikolojik alt boyut arasında negatif yönde anlamlı bir ilişki saptandı (p=0,037).*
***Sonuç**: Pandemi sürecinde özellikle genç yaşlarda ve mesleğinin ilk yıllarında pandemi ile karşılaşan sağlık çalışanlarına yönelik bulaşıcı hastalıklardan korunma ve baş etme konulu hizmet içi eğitimler düzenlenmelidir.*

***Anahtar kelimeler:** COVID-19, koronavirüs, fobi, sağlık çalışanları*

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F. Çam
Bezmialem Vakif University, Faculty of Health Sciences, Department of Nursing, İstanbul, Türkiye
✉ fcam@bezmialem.edu.tr
ORCID: 0000-0003-4053-4720

S. Hanoğlu 0000-0003-1965-0591
University of Health Sciences Sadi Konuk Training and Research Hospital, Department of Hematology, İstanbul, Türkiye

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INTRODUCTION

Pandemics are not merely disease outbreaks, but also significant events that leave indelible marks and influence various aspects of history, including social life, human relationships, education, professional life, economy, and management [1]. Throughout history, pandemics have posed a significant public health risk, resulting in numerous fatalities and physical and mental health issues for individuals affected. Even though the pandemic has affected a significant portion of the general population, some groups are more sensitive than others in this process. These groups are those with chronic diseases, those with weakened immune systems, the elderly, women, children, and health workers [2]. Healthcare workers have been impacted by a multitude of infectious diseases, making them one of the most vulnerable groups to be affected by future epidemics [3]. The pandemic's declaration and the resulting disruption of daily life, combined with uncertainty, fear, and a sense of unsafety due to precautionary measures, have demonstrated that the pandemic has both psychological and physiological impacts [4]. Healthcare professionals must adapt quickly to changing medical interventions and work overtime during the pandemic to compensate for their health needs in the absence of their colleagues who became ill or quarantined [5]. Undoubtedly, the high-risk nature of healthcare workers' close and direct interactions with COVID-19 patients makes them particularly vulnerable to transmission and numerous associated challenges. They experience anxiety due to the increasing number of cases, increased workload due to the lack of personnel in hospitals, the uncertainty of the course of the epidemic, the apprehension of contracting COVID-19, the concern of transmitting the virus to others, especially their loved ones. In a research study involving 1563 healthcare professionals conducted during the pandemic, it was found that more than 50% of the participants experienced depressive symptoms, 44.7% reported anxiety, and 36.1% exhibited sleep disorders [6]. For healthcare workers, the fear of exposure to COVID-19 and the subsequent potential for transmitting the virus to loved ones and children is a significant source of worry and anxiety [7]. As this anxiety may gradually leave its place in more permanent psycho-pathological situations, it is important to support health workers psychologically in this process. As a consequence, investigating the corona phobia experienced by healthcare professionals who are at the primary position of combating this pandemic could be advantageous in devising strategies for providing them with the necessary support and resources. Becoming infected with COVID-19, the fear of infecting people, especially loved ones.

METHOD

This descriptive and cross-sectional study aimed to assess the prevalence of COVID-19 phobia and identify its contributing factors among healthcare professionals, including nurses and doctors, working at a prominent training and research hospital situated in Istanbul. The sample consisted of a total of 327 participants who voluntarily participated in the study, including 267 nurses and 60 doctors. Data for the research was gathered between 15 June – 31 August 2021, using the "Personal Information Form" and the "COVID-19 Phobia (C19P-S) Scale" prepared by the researchers, through online survey software (Google Forms).

Personal Information Form: The questionnaire comprises 13 questions that encompass demographic information of individuals, their exposure to COVID-19, and their involvement in providing care for COVID-19 patients.

COVID-19 Phobia Scale: The scale, developed by Arpacı et al., consists of 20 items designed as a Likert-type scale with a five-point rating system. It comprises four sub-dimensions: psychosomatic, psychological, economic, and social. Each item is rated on a scale of 1 to 5, with 1 indicating "Strongly Disagree" and 5 representing "Strongly Agree". The Psychological Sub-Dimension includes items 1, 5, 9, 13, 17, and 20, while items 2, 6, 10, 14, and 18 are classified under the Somatic Sub-Dimension. Items 3, 7, 11, 15, and 19 form the Social Sub-Dimension, and the Economic Sub-Dimension is evaluated by items 8, 12, and 16. To calculate the sub-dimension scores, the scores of the respective items are summed. The total C19P-S score, ranging from 20 to 100 points, is obtained by summing the sub-dimension scores. Higher scores indicate higher levels of sub-dimensions and general corona phobia. The scale demonstrates good internal consistency, as indicated by Cronbach's alpha reliability coefficients. The coefficients were found to be 0.92 for the total score, 0.88 for the psychological sub-dimension, 0.90 for the psychosomatic sub-dimension, 0.90 for the social sub-dimension, and 0.85 for the economic sub-dimension [8,9].

Analysis of data

Data analysis was performed using the SPSS for Windows 25.0 software program. The analysis included the calculation of various statistical measures such as number, percentage, minimum, maximum, median, mean, and standard deviation. These measures provided valuable insights into the distribution and characteristics of the data. To identify the data's normal distribution, the kurtosis, and skewness values were analyzed. The mean and standard deviation are given for normally distributed data. In the evaluation of normally distributed data, t-test One-Way (One-Way) in groups independent from parametric tests. Way Anova Analysis and posthoc tests (Tukey, LSD, and Tamhane's) were used. To explore the relationship between the data, Pearson correlation analysis was conducted. The statistical tests were conducted with a 95% confidence interval and a significance level set at $p < 0.05$. These parameters allowed for a reliable assessment of the associations between the variables under investigation.

Legal Permission and Ethics Committee Approval of the Study The research study received written approval from both the hospital management and ethics committee of the training and research hospital, dated 07.06.2021 and numbered 2019/109. The study employed the COVID-19 Phobia Scale with the authorization of its author, which was acquired through email correspondence. Prior to their participation in the study, healthcare workers were provided with detailed information about the research and provided written informed consent. The investigation strictly adhered to the ethical principles outlined in the Helsinki Declaration, ensuring the protection of participants' rights and welfare throughout the research process.

RESULTS

The participants had a mean age of 28.82 ± 6.41, ranging from 19 to 52 years old. The study revealed that the majority of participants 82.3% were female, 65.1% had completed university-level education, and 65.4% were unmarried. Moreover, 81.7% of the participants were nurses, with an average of 5.97 ± 5.910 years of experience in their profession. Additionally, nearly 80% of the participants had either worked or were currently working in COVID-19-related services, and more than a third of them (%34,6) had been working in this unit for over a year. It was determined that 80.7% of the participants did not have children and 34.6% lived with their parents. The study found that 64.2% of the participants did not have any vulnerable individuals (such as those with chronic illnesses, individuals aged over 65, children, pregnant women, etc.) in their household. Additionally, 71% of the participants reported living with the same individuals they resided with before the pandemic (Table 1).

Participants' Coronavirus-19 Phobia (CP19-S) Scale score was 53.43 ± 15.31. Participants' sub-dimension mean scores were; Psychological Sub-Dimension 19.87 ± 5.33, Somatic Sub-Dimension 10.40 ± 3.79, Social Sub-Dimension 14.46 ± 4.84, and Economic Sub-Dimension 8.68 (Table 2).

The study revealed a statistically significant difference in the B19P-S total score, psychological sub-dimension, psychosomatic sub-dimension, and social sub-dimension scores between the participants aged 18-25 and those aged 26-33 ($p<0.05$). Upon examining the data by gender, a statistically significant difference was observed in the C19P-S total score and all sub-dimensions of the scale. Specifically, it was determined that women had higher C19P-S scores as well as higher scores in all sub-dimensions compared to men ($p < 0.05$). When the education level is considered, the scores of the somatic sub-dimension of C19P-S are statistically significantly higher among university graduates compared to postgraduate graduates ($p=0.031$). The C19P-S total score of the nurses and the mean score of all sub-dimensions of the scale was statistically significantly higher than the physicians ($p<0.05$). During the pandemic period, the mean scores of the participants who started living separately from their cohabitants for C19P-S and all sub-dimensions of the scale were statistically significantly higher ($p<0.05$). The study revealed a statistically significant difference ($p < 0.05$) in the C19P-S total scores and mean scores for the psychological, psychosomatic, and social sub-dimensions among participants who lived with individuals from a vulnerable group. Specifically, those who resided with individuals such as those with chronic illnesses, individuals aged over 65, children, pregnant women, etc., had higher scores on the C19P-S scale and its sub-dimensions ($p<0.05$). It was determined that marital status, having children, having a chronic disease, living together, working status in the COVID-19 service and the duration of working in this field of the participants did not affect the C19P-S mean score ($p>0,05$) (Table 3).

Table 1. Distribution of Participants' Sociodemographic and COVID-19-Related Characteristics

Variables	X̄ ± SD	
Age	28.82 ± 6.41	
Years of work in the profession	5.97 ± 5.91	
	N	**%**
Gender		
Woman	269	82.3
Male	58	17.7
Marital status		
Single	214	65.4
Married	113	34.6
Education status		
High school	16	4.9
University	213	65.1
Postgraduate	98	30.0
Job		
Nurse	267	81.7
Physician	60	18.3
Having children		
Yes	63	19.3
No	264	80.7
People living with		
Spouse and children	98	30.0
Spouse, child and parent	11	3,4
Parent	113	34.6
Alone	63	19.3
Other	42	12.8
Vulnerable groups living with		
Yes	117	35.8
No	210	64.2
Living apart in the pandemic		
Yes	93	28.4
No	234	71.6
Having a chronic illness		
Yes	46	14.1
No	281	85.9
Covid field		
Yes	261	79.8
No	66	20.2
Covid field duration		
Less than 3 months	36	11.0
3-6 months	51	15.6
6 months-1 year	61	18.7
More than 1 Year	113	34.6

Table 2. Participants' COVID-19 Phobia (CP19-S) Scale and Sub-Dimensions

	X̄ ± SD	**Minimum - Maximum**
CP19-S Total Score	53.43 ± 15.31	20-100
Psychological Sub-Dimensional Score	19.87 ± 5.33	6-30
Psycho-Somatic Sub-Dimensional Score	10.40 ± 3.79	5-25
Social Sub-Dimensional Score	14.46 ± 4.84	5-25
Economic Sub-Dimensional Score	8.68 ± 3.44	4-20

The outcomes of our research indicated that there was a noteworthy negative correlation between the age of the participants and the psychological sub-dimension (r=-0.145), social sub-dimension (r=-0.138), and the C19P-S total score (r=-0.129) of the C19P-S (p=0.020). A significant negative correlation was found between the participants' years of working in the profession and the psychological sub-dimension of C19P-S (r=-0.115) (p=0.037) (Table 4).

DISCUSSION

Previous research on global epidemics has revealed that the repercussions of the epidemic on individuals' mental health vary depending on their professional role and work environment, with healthcare workers being the most affected [10]. It has been reported that even 3 years after the SARS crisis in China, the findings of post-traumatic stress disorder were observed in medical professionals who worked in epidemic units [11]. In a cross-sectional-observational study involving 180 healthcare professionals who treat individuals diagnosed with COVID-19; participants were evaluated in terms of general self-efficacy, anxiety, acute stress, sleep patterns and social support. Based on the study's findings, it revealed that there is an inverse relationship between anxiety and stress levels and the degree of social support, self-efficacy, and sleep quality. Additionally, these findings showed that anxiety levels are significantly linked to stress levels, which have a detrimental impact on both self-efficacy and sleep quality [12]. According to the review (which involves 14 studies) evaluated on how health workers were affected during the pandemic period; among the participants psychological symptoms were observed at a prevalence range of 2.2-14.5%. Variables such as age, gender, occupation, and working closely with patients with COVID-19 were found to impact symptom severity [13]. In our

Table 3. Comparison of Participants' COVID-19 Phobia (CP19-S) Scale and Sub-Dimension Mean Scores

Variable n = 327	Psychological Sub-Dimension	Psycho-Somatic Sub-Dimension	Social Sub-Dimension	Economic Sub-Dimension	CP19-S Total Score
	X̄ ± SD	X̄ ± SD	X̄ ± SD	X̄ ± SD	X̄ ± SD
Age					
18-25	21.16 ± 4.64 a	11.25 ± 4.04 a	15.47 ± 4.73 a	9.36 ± 3.91	57.26 ± 15.17 a
26-33	19.22 ± 5.49 b	9.80 ± 3.57b	14.01 ± 4.88 b	8.25 ± 3.08	51.29 ± 14.93 b
34-41	18.85 ± 7.10	10.23 ± 4.52	13.33 ± 5.91	7.90 ± 3.80	50.33 ± 19.47
42 ≥	18.75 ± 4.69	10.41 ± 2.33	13.37 ± 3.22	8.91 ± 2.28	51.45 ± 10.93
Statistics	**F=3,867; p=0.001 a >b**	**F= 3,481 ; p =0.016 a >b**	**F= 3,041 ; p = 0.029 a >b**	F=2, 163 ; p = 0.076	**F= 4,090 ; p =0.007 a >b**
Gender					
Woman	20.45 ± 4.98	10.61 ± 3.66	14.88 ± 4.63	8.87 ± 3.43	54.82 ± 14.48
Male	17.20 ± 6.07	9.46 ± 4.25	12.51 ± 5.34	7.81 ± 3.36	47.00 ± 17.44
Statistics	**t=3, 803 ;p= 0.000**	**t=2, 102 ; p = 0.036**	**t= 3,426 ; p =0.001**	**t=2, 153 ; p = 0.032**	**t= 3,593 ; p = 0.000**
Marital status					
single	19.78 ± 5.31	10.54 ± 3.88	14.31 ± 4.85	8.63 ± 3.36	53.28 ± 15.63
married	20.04 ± 5.37	10.15 ± 3.61	14.74 ± 4.82	8.79 ± 3.59	53.73 ± 14.75
Statistics	t=-0, 410;p= 0.682	t = 0.898 ; p = 0.370	t=-0, 763 ; p = 0.446	t=-0, 413 ; p = 0.680	t=-0, 255 ; p = 0.799
Educational Status					
High school	19.87 ± 3.63	10.56 ± 2.22 ab	13.56 ± 3.61	8.43 ± 2.55	52.43 ± 9.92
University	20.20 ± 5.10	10.78 ± 3.73 a	14.83 ± 4.61	9.00 ± 3.58	54.82 ± 14.88
graduate	19.17 ± 5.97	9.57 ± 4.01b	13.79 ± 5.42	8.04 ± 3.17	50.58 ± 16.62
Statistics	F=1,250 ;p= 0.288	**F= 3,499 ; p = 0.031**	F= 1,846 ; p = 0.160	F= 2.704 ; p = 0.068	F=2, 260 ; p = 0.073
Having Children					
There is	20.38 ± 5.57	10.90 ± 3.68	14.92 ± 4.97	8.50 ± 3.18	54.71 ± 15.38
no	19.75 ± 5.27	10.29 ± 3.81	14.35 ± 4.81	8.73 ± 3.50	53.13 ± 15.31
Statistics	t= 0,833; p = 0.405	t= 1, 154 ; p = 0.249	t= 0.836 ; p = 0.404	t= -0.462 ; p = 0.645	t= 0.736 ; p = 0.462
People Living With					
Spouse and children	20.47 ± 5.50	10.31 ± 3.72	15.05 ± 5.01	8.94 ± 3.73	54.79 ± 15.22
Spouse, child and parent	17.27 ± 4.54	9.09 ± 2.73	13.09 ± 3.59	7.36 ± 1.91	46.81 ± 10.96
Parent	20.39 ± 5.44	10.76 ± 4.13	14.93 ± 5.14	8.54 ± 3.57	54.64 ± 16.45
Alone	19.31 ± 4.92	10.19 ± 3.78	13.88 ± 4.53	8.90 ± 3.13	52.30 ± 14.51
Other	18.59 ± 5.09	10.35 ± 3.22	13.02 ± 3.98	8.47 ± 3.10	50.45 ± 14.07
Statistics	F= 2.045;p=0.088	F= 0.642 ; p = 0.633	F= 2,027 ; p = 0.090	F= 0.694 ; p = 0.597	F= 1,374 ; p = 0.243
Sensitive Group Living With					
There is	21.10 ± 5.28	11.36 ± 4.33	15.58 ± 5.18	8.94 ± 3.57	57.00 ± 16.32
no	19.19 ± 5.24	9.87 ± 3.34	13.83 ± 4.53	8.54 ± 3.36	51.45 ± 14.38
Statistics	**t=3,143 ; p =0.002**	**t=3, 226 ; p =0.001**	**t= 3,044 ; p = 0.003**	t= 1,022 ; p = 0.307	**t=3, 183 ; p = 0.002**

Table 3. Continued

Variable n = 327	Psychological Sub-Dimension	Psycho-Somatic Sub-Dimension	Social Sub-Dimension	Economic Sub-Dimension	CP19-S Total Score
	X̄ ± SD	X̄ ± SD	X̄ ± SD	X̄ ± SD	X̄ ± SD
The Situation of Living Separately from the People with Whom They Normally Live During the Pandemic Period					
Yes	21.17 ± 5.41	11.63 ± 4.45	15.61 ± 5.31	9.66 ± 4.37	58.08 ± 17.43
No	19.36 ± 5.22	9.92 ± 3.38	14.00 ± 4.57	8.29 ± 2.91	51.58 ± 14.00
Statistics	**t= 2.796;p= 0.005**	**t= 3, 340 ; p = 0.001**	**t= 2, 736 ; p = 0.007**	**t= 2, 780 ; p = 0.006**	**t= 3, 206 ; p = 0.002**
Having a Chronic Disease					
Yes	20.06 ± 5.22	10.91 ± 3.70	14.00 ± 4.46	8.63 ± 2.74	53.60 ± 14.58
No	19.84 ± 5.35	10.32 ± 3.80	14.53 ± 4.90	8.69 ± 3.54	53.40 ± 15.45
Statistics	t= 0.257 ; p = 0.797	t= 0.971 ; p = 0.332	t= -0,697 ; p = 0.486	t= -0, 122; p = 0.903	t= 0.082 ; p = 0.935
Job					
Nurse	20.31 ± 5.08	10.87 ± 3.74	14.88 ± 4.64	9.03 ± 3.51	55.11 ± 14.82
Doctor	17.91 ± 5.99	8.33 ± 3.29	12.56 ± 5.29	7.16 ± 2.63	45.98 ± 15.38
Statistics	**t= 3,197 ;p=0.002**	**t= 4,854 ; p = 0,000**	**t= 3,408 ; p = 0.001**	**t= 3, 869 ; p = 0,000**	**t= 4, 281 ; p = 0,000**
Covid Field					
Yes	20.01 ± 5.37	10.47 ± 3.79	14.56 ± 4.86	8.64 ± 3.38	53.70 ± 15.32
No	19.33 ± 5.16	10.13 ± 3.77	14.06 ± 4.77	8.84 ± 3.67	52.37 ± 15.34
Statistics	t=0,928 ; p = 0.354	t=0, 655 ; p = 0.513	t= 0,753 ; p = 0.452	t=-0, 423 ; p = 0.672	t=0, 628 ; p = 0.531
Covid Field Duration					
< 3 months	19.94 ± 5.22	10.69 ± 3.56	14.44 ± 4.02	8.08 ± 3.00	53.16 ± 14.08
3-6 months	19.68 ± 4.47	11.00 ± 3.91	14.64 ± 4.09	9.21 ± 2.78	54.54 ± 13.59
6 months-1 year	21.45 ± 5.30	10.62 ± 3.55	16.03 ± 5.28	9.32 ± 4.04	57.44 ± 15.89
1 year >	19.40 ± 5.74	10.09 ± 3.95	13.76 ± 5.06	8.20 ± 3.30	51.47 ± 15.88
Statistics	F= 1,768;p=0.135	F= 0.683 ; p = 0.604	F= 2,351 ; p = 0.054	F= 1, 715 ; p = 0.146	F= 1, 668 ; p = 0.157

Tablo 4. The Relationship Between the Ages and Years of Working in the Occupation of the Participants and the COVID-19 Phobia

		Psychological Sub-Dimension	Somatic Sub-Dimension	Social Sub-Dimension	Economic Sub-Dimension	Total
Age	r	-0.145 **	-0.077	-0.138 *	-0.069	-0.129 *
	P	0.009	0.162	0.012	0.212	0.020
Years of work in the profession	R	-0.115 *	-0.034	-0.092	-0.034	-0.085
	p	0.037	0.540	0.096	0.541	0.123

***. Correlation is significant at the 0.01 level (2-tailed).*
**. Correlation is significant at the 0.05 level (2-tailed).*

study, the corona phobia levels of the participants in the 18-25 age group were found to be higher than the participants in the 26-33 age group. Our study revealed a negative correlation between the individuals' age and their level of corona phobia. Considering that young healthcare professionals may be in the first years of their profession and that they have started to work with a busy schedule and in a stressful environment due to the pandemic, the high level of phobia in young people can be explained.

Research conducted at the time when the COVID-19 outbreak was at its peak in China revealed that individuals were women and students were more impacted by the events. Low education level was found to be associated with higher depression [14]. When we look at the education level in our study, the level of corona phobia is higher for university graduates than for graduate graduates (doctors). The study, conducted at an Italian hospital during the COVID-19 epidemic and involving 2195 healthcare workers, unveiled that women, nurses, and healthcare professionals directly engaged in the care and treatment of COVID-19 patients were at a heightened risk of experiencing psychopathological consequences [15]. Lai et al. found a positive association between being female and higher levels of depression, anxiety, and distress [16]. Consistent with the cross-sectional study conducted by Arslan et al., which examined COVID-19 phobia among medical staff at a pandemic hospital in April 2021, no significant difference was found between genders in terms of the total score of the C19P-S scale or any of the sub-dimension scores [17]. In our study, it was observed that female participants demonstrated elevated levels of corona phobia in contrast to male participants. The higher level of coronavirus phobia among women was attributed to their tendency to be more emotionally responsive, increased concerns about the potential infection of their families with the virus, and higher vulnerability to experiencing depression and anxiety. A study conducted in Singapore examining the psychological effects of the 2003 SARS epidemic on medical professionals found that single healthcare professionals had a 1.4 times higher likelihood of experiencing psychiatric symptoms in contrast to their married counterparts [18]. In contrast to the aforementioned study, a research study of 740 individuals, including 526 nurses, In China, working with patients diagnosed with COVID-19 found that married or divorced individuals experienced a higher level of traumatization compared to their single colleagues [19]. In our findings, no relationship was found between marital status and the level of corona phobia. In a study investigating burnout, depression, and anxiety among medical professionals during the COVID-19 pandemic, an analysis considering the duration of employment in the healthcare sector indicated that the average score for the group with 0-4 years of experience was significantly higher than the mean scores of both the group with 10-19 years of experience and the group with 20 or more years of experience [4]. In another study, the personal success levels of employees who have worked for more than 5 years were found to be higher than those who worked for 5 years or less. This situation has been interpreted as that with the increase in age and experience, employees feel more competent and successful in their profession [20]. In our study, the decrease in the level of corona phobia the working time of the participants in the profession increases, and the increase in knowledge and experience suggests that the ability of healthcare workers to cope with the coronavirus increases, and thus corona phobia decreases.

During the outbreak in China, a research study was conducted on healthcare practitioners, indicating that 50.4% of the participants exhibited signs of depression, 44.6% experienced anxiety disorders, 34% encountered sleep disturbances, and 71.4% expressed feelings of distress. It has been reported that nurses, women, and those working in departments where one-to-one contact with patients are more prone to these psychiatric disorders. In addition; High morbidity rates, deficiencies in protective equipment, an increase in patients, and an increase in working hours can be counted as important stressors. In the study conducted with 469 healthcare workers during the [16] H1N1 pandemic, a study revealed that nurses demonstrated a greater degree of anxiety in comparison to other healthcare professionals[21]. However, there are also studies showing that doctors are in a higher risk group psychologically than nurses. Amidst the SARS outbreak in 2003, a study found that physicians had a 1.6 times higher probability of experiencing psychiatric symptoms in comparison to nurses, accounting for 177 (27%) of the total 660 cases [18]. A distinct investigation carried out in Saudi Arabia revealed that healthcare personnel who directly interact with COVID-19 patients encounter a greater degree of anxiety when compared to their counterparts who do not have such direct contact [22]. In our findings, it is seen that the mean score of coronavirus-19 phobia of nurses is significantly higher than that of physician participants. According to the findings of our study; It may be an important factor that the working conditions of nurses are affected more than other healthcare professionals during the pandemic period, and that nurses working in tertiary healthcare institutions have more physical contact with patients than doctors. As a result of this situation, it can be thought that corona phobia may develop more easily in nurses.

Previous research has consistently shown that healthcare professionals, particularly those employed in emergency wards, infectious disease units, and intensive care settings, face an increased vulnerability to adverse psychiatric outcomes [23]. According to the study conducted by Arslan et al., it was discovered that healthcare workers in the intensive care unit (ICU) had significantly higher scores in all sub-dimensions of the C19P-S scale, regardless of whether they were directly involved in the care of COVID-19 patients or not [17]. The study conducted during the COVID-19 pandemic revealed that healthcare workers aged between 31 and 40 years old expressed heightened concerns about transmitting the infection to their family members. Conversely, personnel aged 50 and above were found to experience more stress due to patient mortality [24]. Based on the findings of our study, the level of corona phobia-19 is higher in the participants who chose to self-isolate from their cohabitants during the pandemic period. And living in the same house as someone from the vulnerable group. The results of our study; this can be explained by the fear of healthcare workers infecting their loved ones with the coronavirus. In our study, we investigated the presence of coronavirus-19 phobia and examined the associated factors that may develop among healthcare staff during the pandemic process. The study evaluated the impact of working status and duration in areas with COVID-19 patients, as well as working in different occupations and other related factors, on Coronavirus-19 phobia. The results of our study are because the participants had an average total C19P-S score of 53.43 ± 15.31; it can be interpreted that the level of coronavirus phobia of healthcare workers is moderate. In a study investigating the coronavirus phobia of medical personnel in a pandemic hospital in our country, the average scale score was found to be 47, which is similar to our study [17].

There was no correlation observed between corona phobia and factors such as having a child, having a chronic illness, living arrangements, employment status in COVID-19 services, or duration of work in this field. In contrast to our study, Amin et al. found in their research that having children was associated with higher levels of anxiety and depression [25]. Arslan et al. According to the study, comorbidity, smoking status, marital status, having a child, and age were not found to affect the level of corona phobia in healthcare workers. In the same study, there was no significant difference observed in the C19P-S total score and all sub-dimensions between frontline and non-frontline healthcare workers [17].

Limitations of our study include its cross-sectional nature and the restriction to a single hospital.

CONCLUSION

It was concluded that younger individuals, females, and nurses had higher levels of corona phobia than doctors. Additionally, those living with a vulnerable group (e.g., people with chronic diseases, people over 65 years old, children, and pregnant women) had higher levels of corona phobia. Furthermore, people who began to live apart from their usual cohabitants during the pandemic period also had higher levels of corona phobia. The study's findings suggest that as health workers' age and working years increase, their level of corona phobia decreases. The results of our study revealed the importance of developing a support mechanism for young age group health workers, especially those who started their profession during the pandemic process. In this context, in-service training should be organized for health workers on the prevention and coping with infectious diseases. Another important conclusion that can be drawn is the effect of the home life of healthcare workers on coronavirus phobia. To reduce coronavirus phobia, practices such as providing shelter (such as using alternative housing), laundering work clothes on-site at the hospital, alleviating excessive working hours, and planning flexible working hours are recommended for healthcare workers. Offering such opportunities is of utmost importance, particularly for healthcare personnel who reside with individuals belonging to a high-risk group.

Author contribution

Study conception and design: FÇ, SH; data collection: FÇ, SH; analysis and interpretation of results: FÇ, SH; draft manuscript preparation: FÇ, SH. All authors reviewed the results and approved the final version of the manuscript.

Ethical approval

The study was approved by the Clinical Research Ethics Committee of İstanbul Bakırköy Dr. Sadi Konuk Training and Research Hospital (Protocol no. 2021-329/07.06.2021).

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Conflict of interest
The authors declare that there is no conflict of interest.

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Araştırma fikri ve tasarımı: FÇ, SH; veri toplama: AFÇ, SH; sonuçların analizi ve yorumlanması: FÇ, SH; araştırma metnini hazırlama: FÇ, SH. Tüm yazarlar araştırma sonuçlarını gözden geçirdi ve araştırmanın son halini onayladı.

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