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ARAŞTIRMA MAKALESİ / RESEARCH ARTICLE

DETERMINATION OF CORONAVIRUS ANXIETY LEVEL OF HEALTHCARE WORKERS

SAĞLIK ÇALIŞANLARININ KORONAVİRÜS ANKSİYETE DÜZEYİNİN BELİRLENMESİ

Dr. Özlem ÖZAYDIN [1]

Uzm. Dr. Serkan ELARSLAN[2]

Doç. Dr. Yaşar SERTBAŞ[3]

ABSTRACT

The coronavirus pandemic has been negatively affecting the psychology of the whole society for the last year. However, its psychological effect on healthcare workers is greater. The aim of this study is to determine the coronavirus anxiety levels of healthcare workers and the factors affecting it. A total of 201 healthcare worker, working in a training and research hospital, constitutes the sample of the study. A questionnaire, including 14 questions about demographic characteristics, working and home life status and a 5 statement Short Form Coronavirus Anxiety Scale (CAS), was applied. Kruskal Wallis and Mann Whitney U Tests were applied for analyzing with SPSS V.22 program. The mean age of the participants was 34.9±8.1 years and the average total working time of them in the healthcare sector was 11.4±8.7 years. The anxiety level of the participants was generally low (4.31±4.72). A statistically significant difference was found in the coronavirus anxiety levels of the employees in terms of gender (p = 0.003), presence of chronic disease (p = 0.011) and the number of people living together at home (p = 0.029). While anxiety levels were higher in women and those with chronic diseases, it was lower in employees living alone. In addition, although it was not statistically significant, it was observed that the anxiety level of the employees' working in the frontline was higher than the others. Age, marital status, working experience, education levels, occupations, total working experience of employees, the departments they work, and status of living with people younger than 15 years and older than 65 years old had no statistically significant effect on anxiety levels (p>0.05). During the pandemic, healthcare workers' anxiety levels differ by their gender and the presence of chronic illness. Moreover, as the number of family members living together increases, the anxiety levels of healthcare workers increases.

Keywords:COVID-19 Outbreak, Healthcare Workers, Anxiety, Mental Health, Hospital.

JEL Classification Codes:I10, I18.

ÖZ

Koronavirüs pandemisi son bir yıldır tüm toplumun psikolojisini olumsuz etkilemektedir. Ancak sağlık çalışanları üzerindeki psikolojik etkisi daha fazladır. Bu çalışmanın amacı, sağlık çalışanlarının koronavirüs anksiyete düzeylerini ve bunu etkileyen faktörleri belirlemektir. Araştırmanın örneklemini bir eğitim ve araştırma hastanesinde çalışan toplam 201 sağlık çalışanı oluşturmaktadır. Demografik özellikler, çalışma ve ev yaşam durumu ile ilgili 14 sorudan oluşan bir anket ve 5 ifadelik Kısa Form Coronavirüs Anksiyete Ölçeği (CAS) uygulanmıştır. SPSS V.22 programı ile analiz için Kruskal Wallis ve Mann Whitney U Testleri uygulanmıştır. Katılımcıların yaş ortalaması 34,9±8,1 yıl ve sağlık sektöründe ortalama toplam çalışma süresi 11,4±8,7 yıl idi. Katılımcıların anksiyete düzeyi genel olarak düşüktü (4,31±4,72). Çalışanların koronavirüs anksiyete düzeylerinde cinsiyet (p = 0,003), kronik hastalık varlığı (p = 0.011) ve evde birlikte yaşayan kişi sayısı (p = 0,029) açısından istatistiksel olarak anlamlı fark bulunmuştur. Anksiyete düzeyi kadınlarda ve kronik hastalığı olanlarda daha yüksek iken, yalnız yaşayan çalışanlarda daha düşüktü. Ayrıca istatistiksel olarak anlamlı olmasa da ön sahada çalışanların anksiyete düzeylerinin diğerlerine göre daha yüksek olduğu görülmüştür. Yaş, medeni durum, çalışma deneyimi, eğitim düzeyi, meslekler, çalışanların toplam çalışma deneyimi, çalıştıkları bölümler ve 15 yaşından küçük ve 65 yaşından büyük kişilerle birlikte yaşama durumlarının anksiyete düzeyleri üzerinde istatistiksel olarak anlamlı bir etkisi bulunmamıştır (p>0.05). Pandemi sırasında sağlık çalışanlarının anksiyete düzeyleri cinsiyetlerine ve kronik hastalık varlığına göre farklılık göstermektedir. Ayrıca birlikte yaşayan aile bireylerinin sayısı arttıkça sağlık çalışanlarının anksiyete düzeyleri de artmaktadır.

Anahtar Kelimeler:COVID-19 Salgını, Sağlık Çalışanları, Anksiyete, Mental Sağlık, Hastane.

JEL Sınıflandırma Kodları:I10, I18.

[1] Health Sciences University Fatih Sultan Mehmet Training and Research Hospital, gudukozlem@gmail.com

[2] Health SciencesUniversity Fatih Sultan Mehmet Training and Research Hospital, drelarslan@yahoo.com

[3] Health SciencesUniversity Fatih Sultan Mehmet Training and Research Hospital, yserzincan24@gmail.com

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GENİŞLETİLMİŞ ÖZET

Amaç ve Kapsam:

COVID-19 salgını toplumda psikolojik sorunlara neden olmaktadır. Sağlık sistemine getirdiği yük ise iki şekilde değerlendirilmektedir; (1) ülkelerin sağlık sistemleri üzerindeki yükü ve (2) sağlık çalışanları üzerindeki olumsuz etkileri (Adams & Walls, 2020). Daha önceki araştırmalar, sağlık çalışanlarının algılanan stres ve anksiyetelerinin genel nüfusa kıyasla daha yüksek olduğunu göstermiştir (Huang & Zhao, 2020; Al-Hanawiet al, 2020; Simione & Gnagnarella, 2020). Bu dönemde zor kararlar vermek ve yoğun baskı altında çalışmak, sağlık çalışanları arasında ruh sağlığı sorunlarına yol açabilmektedir (Greenberg ve diğerleri, 2020). Dahası hem uzun saatler boyunca çalışmak hem de aile üyelerinden ayrılma nedeniyle olumsuz duygular yaşamak da çalışanların anksiyetesini artırmaktadır (Pappa ve diğerleri, 2020; Xiang ve diğerleri, 2020; Lu ve diğerleri, 2020). Ön saflarda çalışan sağlık çalışanlarının anksiyete, stres, depresif ruh hali ve uykusuzluk bildirme olasılığının ise diğer sağlık çalışanlara göre daha fazla olduğu görülmektedir (Alshekailiet ve diğerleri, 2020; Cai ve diğerleri, 2020).

Sağlık çalışanları, COVID-19 salgını sırasında hayati bir hizmet sunmaktadır (Türkoğlu & Kantaş Yılmaz). Bu nedenle sağlık çalışanlarının ruh sağlığının korunması ve psikososyal iyilik hallerinin iyileştirilmesi, enfekte olmuş toplumun sağlığının yönetimi kadar önemlidir (Kumar ve Nayar, 2020). Bu çalışmada sağlık çalışanlarının koronavirüs anksiyete düzeylerinin belirlenmesi ve sağlık çalışanlarının demografik özellikleri ile aile yapısına göre anksiyete düzeylerinde farklılık olup olmadığının belirlenmesi amaçlanmıştır. Çalışmadan elde edilen sonuçların, gelecekte olası salgın hastalıklarla daha güçlü mücadele etmek için sağlık çalışanlarının yeteneklerinin artırılmasına faydalı olacağı düşünülmektedir.

Yöntem:

Çalışmanın örneklemini bir eğitim ve araştırma hastanesinde görev yapan 201 sağlık çalışanı oluşturmaktadır (evrenin %22'si). Veriler toplam 19 soruluk (14'ü demografik ve tanımlayıcı bilgileri, 5'i ise koronavirüs ile ilişkili anksiyete düzeyini ölçmektedir) çevrimiçi bir anket aracılığıyla toplanmıştır. Coronavirüs Anksiyete Ölçeği Kısa Formu Lee (2020) tarafından COVID-19 kriziyle ilişkili olası işlevsel olmayan anksiyete durumlarını tanımlamak için geliştirilmiş ve Türkçe geçerlilik ve güvenilirlik çalışmaları Bicer ve ark. (2020) tarafından yapılmıştır. Ölçek tek boyutlu olup 5 maddeden oluşmaktadır. Her madde bir bileşeni tanımlamaktadır (Baş Dönmesi, Uyku Bozuklukları, Tonik Hareketsizlik, İştah Kaybı, Karın Şikayetleri). Ölçekten alınan toplam puan ne kadar yüksekse, bireylerin anksiyete düzeylerinin de o kadar yüksek olduğu belirtilmektedir.

Veriler SPSS v.22.0 programı ile değerlendirilmiş ve istatistiksel anlamlılık $p<0.05$ düzeyinde kabul edilmiştir. Analizde Kruskal Wallis and Mann Whitney U Testleri kullanılmıştır.

Bulgular:

Katılımcıların yaş ortalaması 34,9±8,1 yıl ve sağlık sektöründe ortalama toplam çalışma süresi 11,4±8,7 yıl olarak tespit edilmiştir. Elde edilen bulgular sonucunda çalışanların anksiyete düzeyinin genel olarak düşük olduğu görülmüştür (4,31±4,72). Çalışanların koronavirüs anksiyete düzeylerinde cinsiyet ($p = 0,003$), kronik hastalık varlığı ($p = 0.011$) ve evde birlikte yaşayan kişi sayısı ($p = 0,029$) açısından istatistiksel olarak anlamlı bir farklılık görülmüştür. Anksiyete düzeyi kadınlarda ve kronik hastalığı olanlarda daha yüksek iken, yalnız yaşayan çalışanlarda daha düşüktür. Ayrıca istatistiksel olarak anlamlı olmasa da ön sahada görev yapan çalışanların anksiyete düzeylerinin diğerlerine göre daha yüksek olduğu görülmüştür. Yaş, medeni durum, çalışma deneyimi, eğitim düzeyi, meslekler, çalışanların toplam çalışma deneyimi, çalıştıkları bölümler ve 15 yaşından küçük ve 65 yaşından büyük kişilerle birlikte yaşama durumlarının anksiyete düzeyleri üzerinde istatistiksel olarak anlamlı bir etkisi bulunmamıştır (p). >0.05).

Sonuç ve Tartışma:

Pandemi sırasında sağlık çalışanlarının anksiyete düzeyleri cinsiyetlerine ve kronik hastalık varlığına göre farklılık göstermektedir. Ayrıca birlikte yaşayan aile bireylerinin sayısı arttıkça sağlık çalışanlarının anksiyete düzeyleri de artmaktadır. Sağlık yöneticileri, pandemi dönemlerinde etkili sağlık hizmeti verebilmek için ön saflarda çalıştırmak üzere en dayanıklı personelin seçilmesini tercih edilebilir. Bu doğrultuda çalışanların anksiyete düzeyleri zaman zaman kontrol edilmeli ve psikolojik güçlendirmeye yönelik uygun destekler sunulmalıdır.

1. INTRODUCTION

The COVID-19 outbreak emerged in Wuhan Province, China, in late 2019 and since then, COVID-19 has rapidly spread worldwide, becoming a pandemic. It has been causing negative psychological consequences all over the populations on the world. The pandemic has placed a significant strain on the healthcare system. This pressure can be generalized in two ways; as the burden of the disease on the healthcare system of the countries and the negative effects on healthcare workers (Adams & Walls, 2020). During the pandemic, the perceived stress and anxiety of healthcare professionals are greater compared to the general population (Huang & Zhao, 2020; Al-Hanawiet al, 2020; Simione & Gnagnarella, 2020). Making difficult decisions and having to work under intense pressure can lead to mental health problems among the healthcare workers (Greenberg et al, 2020). In addition, both working for long hours, and having negative emotions due to being separated from family members increase the anxiety of employees (Pappa et al, 2020; Xiang et al, 2020; Lu et al, 2020). Moreover, healthcare workers who work on the front line are more likely to report anxiety, stress, depressed mood, and insomnia than other workers (Alshekailiet al, 2020; Cai et al, 2020).

During the pandemic, most countries have imposed lockdown on citizens in order to control contagion, and for their health concerns (DW, 2020). In Turkey, the government imposed a lockdown for people over 65 and people suffering from chronic diseases on March 22, 2020 (Icisleri Bakanligi, 2020). Additionally, in April, a lockdown was also imposed on those under the age of 20. Subsequently, this arrangement was divided into two different subgroups: those under the age of 15 and those between the ages of 15 and 20 (AA, 2020). The presence of elderly and young individuals among family members affects the anxiety levels of healthcare professionals. Indeed, Sakaoglu et al. found that the anxiety level of healthcare workers who had children was higher than that of other study participants (Sakaogluet al, 2020). In a study conducted on nurses in Iran, it was found that the anxiety levels of nurses were higher if their family members were infected than if they were infected themselves (Nemati et al, 2020). However, the reason of higher anxiety levels among healthcare professionals is not known exactly due to the limited number of studies evaluating this issue.

Healthcare professionals have been providing a vital service to the whole community during the COVID-19 outbreak (Turkoglu & Kantas Yilmaz). They have been working in stressful environments constantly threatenedby exposure to the infection and sickness with limited resources. In such cases, the protection of the mental health of healthcare workers and the improvement of their psychosocial well-being are as important as the management of the health of the infected population (Kumar & Nayar, 2020). If employees do not get enough emotional support, their distress may increase and reduce their working efficiency. As a result, it can adversely affect the delivery of the volume of care required to combat the pandemic.Ultimately, in the long term, it may expose employees to the risk of mental health problems such as post-traumatic stress syndrome (PTSD). For these reasons, one must consider that employees will have different emotional responses, depending on their age, work experience and working in different units (Wu et al, 2020). Since COVID-19 is a new disease all over the world, studies on the psychologic aspect of the disease are limited. In this study, it was aimed to determine the coronavirus anxiety levels of healthcare workers and to determine whether there is a difference in anxiety levels according to the demographic characteristics and family life features of the healthcare professionals. It is thought that the results obtained from the study will be useful for taking measures to increase the ability of healthcare professionals to fight stronger in possible future epidemics. Since the study is one of the first studies to address this issue in our country, it is thought to be a reference for future studies.

2. METHODS

2.1. Design: This was a cross-sectional survey administered via an online questionnaire during October 2020 to all healthcare professionals at a training and research hospital.

2.2. Study Population: The population of the study was 921 healthcare workers. It has been tried to reach the entire population.However, as participation in the study was voluntary, 22% of the population participated in the study. As a result, the sample of the study consisted by 201 healthcare workers working at atraining and research hospital.

2.3. Inclusion and Exclusion Criteria: Healthcare professions (doctor, nurse, dietitian, psychologist, etc.), and office workers who were working at non-patient clinics (accountancy department, human resources department,

etc.) were included in the study. Since doctors and nurses are the main healthcare providers in hospitals, we grouped these occupations separately. Then other healthcare professions (dietitian, psychologist, pharmacist, etc.) were grouped into one other subgroup. Finally, office workers were grouped as non-healthcare professions.

Workers working in support services (cleaning, security services, etc.), trainee students and hospital staff who did not volunteer to do the survey were not included in the study.

2.4. Data Collection: An online survey consisting of 19 questions was commissioned to the participants. The questionnaire contains 14 demographic and descriptive questions about the workplace and family, as well as 5 elements measuring the level of anxiety associated with the coronavirus.Prior to applying the questionnaire, participant consent was obtained.

The Short Form of the Coronavirus Anxiety Scale was developed by Lee in order to describe possible dysfunctional anxiety cases associated with the COVID-19 crisis (Lee, 2020), and its Turkish validity and reliability studies were conducted by Bicer et al. (Bicer et al, 2020). The scale is one dimensional and consists of 5 items. Each item describes one component (Dizziness, Sleep Disturbances, Tonic Immobility, Appetite Loss, Abdominal distress). The score which can be obtained for one item ranges between 0-4 points. It is indicated that the higher the total score, the higher the anxiety levels of the individuals.

The original reliability coefficient of the scale was 0.93 (Lee, 2020), and Bicer et al. (2020) found it 0.832. In this study, Cronbach Alpha valuewas found 0.893. In this context, it can be said that the reliability of the scale is sufficient.

2.5. Statistical Analysis: The data was evaluated with SPSS v.22.0 program and statistical significance was accepted at $p<0.05$ level. The results of all parameters belonging to patients were given as mean ± standard deviation and median (inter quartile range).The normality distribution of the data was evaluated with the Kolmogorov-Smirnov Test. Since the parameters were not showing normal distribution between groups, Mann Whitney-U Test and Kruskal Wallis Test were used in the analysis.

2.6. Ethical Approval: The Turkish Health Ministry (2020-08-04T13_49_21 file no.) and alocal ethical committee approval were obtained (Fatih Sultan Mehmet EAH- KAEK 13/08/2020 date and 2020/77 number). The Helsinki Declaration of Human Rights was followed.

3. RESULTS

Sociodemographic features and working conditions of participants were shown in Table 1. The mean age of the participants was found as 34.9 years ± 8.08 (min=21, max=57).The majority of participants were under the age of 50 (93.5%), female (69.2%), and married (66.7%). The average of the total working time in the healthcare sector of all participants was 11.4±8.7 years and working time in the hospital was 5.7±4.9 years. Employees were divided into three different groups according to their working departments. Since the workers working at the emergency department and COVID-19 clinics are the most vulnerable group in terms of risks of contamination of coronavirus than others, they were gathered in one group. Workers in this group comprised 36.3% of the total participants. Around 1/5 of the participants had at least one chronic disease. Those living alone constituted 11.4% of the total participants. On the other hand, most of the participants (88.6 %) lived in the same house with at least one person.

Table1: SociodemographicCharacteristics and Working Conditions of Participants

Variables	Groups	n	%
Age	≤ 30 years	77	38.3
	31-49 years	111	55.2
	≥ 50 years	13	6.5
Gender	Male	62	30.8
	Female	139	69.2
Maritalstatus	Single	67	33.3
	Married	134	66.7
Education	High School and ↓	14	7.0
	University (2-year education)	29	14.4
	University (4-year education)	75	37.3

	Master's	23	11.4
	Doctorate	60	29.9
	Doctor	61	30.3
Occupation	Nurse	90	44.8
	Other healthcareworkers	24	12.0
	Non-healthcare professions	26	12.9
	< 5 years	69	34.3
Total working experience	Between 5-10 years	43	21.4
	>10 years	89	44.3
Working experience at the hospital	< 5 years	114	56.7
	≥ 5 years	87	43.3
	Emergency department + COVID-19 clinics	73	36.3
Department	other clinics	96	47.8
	Non-patient departments	32	15.9
	Alone	23	11.4
	2 people	43	21.4
Household	3 people	47	23.4
	4 people	55	27.4
	5 and more people	33	16.4
Existence of 15 years old and younger people at the house	Yes	97	48.3
	No	104	51.7
Existence of 65 years old and older people at the house	Yes	22	10.9
	No	179	89.1
Existence of chronic disease	Yes	43	21.4
	No	158	78.6

The average anxiety level of total participants was found as 4.31±4.72. Table 2 shows the average scores of the components. Sleep disturbances had the highest score among the all 5 items (mean=1.09±1.07). On the other hand, the lowest score belonged to the "tonic immobility" component (mean=0.60±1.06).

Table 2: The Average Points of the Components and Items of the Scale

Component / Items		n	Median (min-max)	Mean	SD
Dizziness	I felt dizzy, lightheaded, or faint, when I read or listened to news about the coronavirus.	201	0 (0-4)	0.78	1.13
Sleep Disturbances	I had trouble falling or staying asleep because I was thinking about the coronavirus.	201	1 (0-4)	1.09	1.17
Tonic Immobility	I felt paralyzed or frozen when I thought about or was exposed to information about the coronavirus.	201	0 (0-4)	0.60	1.06
Appetite Loss	I lost interest in eating when I thought about or was exposed to information about the coronavirus.	201	1 (0-4)	0.99	1.12
Abdominal Distress	I felt nauseous or had stomach problems when I thought about or was exposed to information about the coronavirus.	201	0 (0-4)	0.86	1.16
Total Scale		**201**	**3 (0-20)**	**4.31**	**4.72**

According to gender, it was found that there was a significant difference in anxiety levels between the groups (p=0.003). The anxiety level of the female was higher than the male. Furthermore, employees with chronic illness seemed more anxious than other employees (p=0.011). On the other hand, marital status, working experience, living with people "younger than 15 years old people" and "older than 65 years old people" did not affect anxiety levels (p>0.05) (Table 3).

Table 3: Effects of Some Variables on Anxiety

Variables	Groups	n	Mean (SD)	Median (min-max)	Z	p
Gender	Female	139	4.80 (4.71)	3 (0-19)	-2.950	**0.003**
	Male	62	3.23 (4.62)	2 (0-20)		
Marital status	Married	134	4.54 (4.75)	3 (0-18)	-1.174	0.241
	Single	67	3.87 (4.68)	2 (0-20)		
Working experience at the hospital	< 5 years	114	4.11 (4.31)	3 (0-20)	-0.042	0.966
	≥ 5 years	87	4.59 (5.24)	3 (0-19)		
Existence of 15 years old and younger people at the house	Yes	97	4.53 (4.76)	3 (0-19)	-0.823	0.410
	No	104	4.12 (4.71)	3 (0-20)		
Existence of 65 years old and older people at the house	Yes	22	5.50 (5.22)	4.5 (0-19)	-1.375	0.169
	No	179	4.17 (4.66)	3 (0-20)		
Existence of chronic illness	Yes	43	5.84 (5.06)	4 (0-19)	-2.537	**0.011**
	No	158	3.90 (4.56)	3 (0-20)		

**Mann-Whitney-U Analysis p<0.05.*

The number of households was found to have a statistically significant effect on anxiety level (p=0.029). The group with the lowest anxiety level was people living alone (mean=3.22±4.88). On the other hand, anxiety levels were higher in employees who were living with four or more people in the same house. However, there was not any relationship between age, education levels, occupations, total working experience of employees, and the departments they work and anxiety levels (p>0.05). Although the difference in the anxiety levels of the employees according to their departments was not found statistically significant, it was noted that the anxiety level of the employees working in the emergency department and COVID-19 clinics were higher than the others (Table 4).

Table 4: Effects of Some Variables on Anxiety Levels

Variables	Groups	n	Mean (SD)	Median (min-max)	X^2	p
Age	≤ 30 years	77	4.13 (4.60)	3 (0-20)	3.659	0.161
	31-49 years	111	4.05 (4.41)	3 (0-19)		
	≥ 50 years	13	7.62 (6.89)	4 (0-19)		
Education	High School and ↓	14	3.29 (2.23)	4 (0-6)	5.039	0.283
	University (2-year education)	29	2.86 (3.24)	2 (0-12)		
	University (4-year education)	75	4.87 (5.41)	3 (0-19)		
	Master's	23	3.39 (4.48)	2 (0-16)		
	Doctorate	60	4.92 (3.80)	3 (0-20)		

Occupation	Doctor	61	4.77 (4.77)	3 (0-20)	2.273	0.518
	Nurse	90	4.31 (4.78)	3 (0-18)		
	Other healthcare workers	24	3.67 (4.86)	1.5 (0-14)		
	Non-healthcare professions	26	3.85 (4.42)	4 (0-19)		
Total Working Experience	< 5 years	69	4.14 (4.72)	3 (0-20)	0.374	0.830
	Between 5-10 years	43	4.49 (4.73)	3 (0-19)		
	>10 years	89	4.36 (4.78)	3 (0-18)		
Department	Emergency department + COVID-19 clinics	73	5.04 (4.88)	4 (0-16)	5.169	0.075
	Other clinics	96	4.11 (4.57)	3 (0-20)		
	Non-patient departments	32	3.25 (4.73)	1 (0-19)		
Household	Alone	23	3.22 (4.88)	2 (0-20)	10.773	**0.029**
	2 people	43	3.74 (4.29)	2 (0-14)		
	3 people	47	3.23 (3.95)	2 (0-16)		
	4 people	55	5.64 (5.23)	4 (0-18)		
	5 and more people	33	5.15 (4.87)	4 (0-19)		

**Kruskal-Wallis Analysisp<0.05.*

4. DISCUSSION

Many factors such as long working hours, intense workload, being away from their families lead healthcare workers to experience mental health problems like stress, anxiety, and insomnia during the coronavirus pandemic (Simione & Gragnarella, 2020; Greenberg et al, 2020; Pappa et al, 2020; Xiang et al, 2020; Lu et al, 2020). The purpose of this study was to determine the coronavirus anxiety levels of healthcare workers and the factors associated with it. In the study, firstly, the coronavirus anxiety levels of the healthcare workers were determined, then it was examined whether there was a difference in the anxiety levels of HCWs according to sociodemographic, working, and living variables.

The average anxiety level of total participants was 4.31±4.72 pointsin this study. This level was also found low in the previous studies (Ahmed et al, 2020; Hosgor et al, 2020). In our study we found that there was a significant difference among the anxiety levels of different gender (p=0.003). The anxiety level of female was found to be higher than male. This result is similar to the previous studies conducted either with healthcare workers or with the general society in which females was found to have higher anxiety levels than males (Ahmed et al, 2020; Hosgor et al, 2020; Polat & Coskun, 2020; Havlioglu &Demir, 2020; Zhang et al, 2020; Shaukat et al, 2020; Wilson et al, 2020; Maanavi & Heller, 2020).

Having a chronic disease had an effect on the anxiety levels of the employees.The anxiety level of employees with chronic diseases was found statistically higher than the others (p=0.011). Similar to our result, Zhang et al (2020) found that having organic diseases were independently associated with anxiety risk among medical health workers. However, Hosgor et al (2020) found that there was no effect of the presence of chronic illnesses on anxiety levels.

This study revealed a relationship between the number of households and the level of anxiety (p=0.029). The healthcare workers living alone had the lowest anxiety level (mean=3.22±4.88). On the other hand, the anxiety

levels of employees who lived with four or more people in the same house were the highest. This may be due to the concern of healthcare workers about their family's health status.In the study of Maaravi and Heller (2020), they found that people were more anxious about others' health than theirs. A large majority of healthcare workers had serious concerns about the spread of infection from themselves to their friends or family members (Wilson et al, 2020). In another study, almost all the healthcare workers stated that they were afraid of carrying the virus to their family (Havlioglu & Demir, 2020). Although we found that living with people younger than 15 years old and older than 65 years old did not significantly affect anxiety levels of HCWs ($p>0.05$), the anxiety levels of those groups were higher than others. In our opinion, this should also be taken into account.

Marital status was found to have no impact on anxiety levels in some earlier studies similar to our results ($p>0.05$) (Hosgor et al, 2020; Havlioglu & Demir, 2020).On the other hand, there are studies oppose this result as the anxiety levels of single health workers are higher than those of married workers (Polat & Coskun, 2020).

We found that the difference in the anxiety levels of the employees according to their departments was not found statistically significant, we noted that the anxiety level of the employees working in the frontlines was higher than the others. In some studies, anxiety levels were higher in healthcare workers working with COVID-19 positive patients than those who did not work with these patients and people who were not health professionals (Shaukat et al, 2020; Evren et al, 2020; Que et al, 2020). Compared to non-front-line healthcare workers, frontline healthcare workers had higher rates of anxiety symptoms (Cai et al, 2020). Also, according to Polat and Coskun (2020), 22.7% of the healthcare workers who took an active role against the pandemic had very high anxiety levels. Moreover, being at risk of contact with COVID-19 patients was one of the factors increasing the anxiety level of healthcare workers (Zhang et a, 2020).

We did not find a relationship between occupations and the anxiety levels ($p>0.05$). Similar to our result, some researchers found no difference according to the professions (Hosgor et al, 2020; Polat & Coskun, 2020), however in another study, it was found that nurses and doctors' anxiety levels were higher than other healthcare workers (Havlioglu & Demir, 2020). According to Zhang et al (2020), medical health workers had higher anxiety rates than nonmedical healthcare workers in a hospital. In another study, Shaukat et al found (2020) that anxiety level of nurses was higher than doctors.

While Ahmed et al (2020) found a difference in the level of anxiety according to the educational level of workers, Havlioglu and Demir (2020) found that age, education and work experience had no effect. According to Hosgor et al (2020) there is no relationship between education and anxiety levels. In addition to these results in our study, employees' age, education, and total work experience did not affect anxiety levels.

5. CONCLUSION

During the pandemic, healthcare workers' anxiety levels differ by their gender and the presence of chronic illness. Moreover, as the number of family members living together increases, the anxiety levels of healthcare workers, in order to provide effective health care, it may be preferable to choose the most durable workers to work in the front lines and the anxiety levels of employees who are prone to anxiety should be checked from time to time and treated if necessary.

DECLARATION OF THE AUTHORS

Limitation: The study was conducted only one hospital with limited number of participants in Istanbul. Thus, results cannot be generalized to healthcare workers throughout the country or the world.

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