



## Determination of The Health Anxiety Levels of Patients with COVID-19 in Hospitalization

### Hastaneye Yatılan COVID-19 Hastalarının Sağlık Kaygı Düzeylerinin Belirlenmesi

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#### ÖZET

**Amaç:** Bu çalışmanın amacı, kırsal kesimde COVID-19 pozitif vakaların dağılımını belirlemek ve sağlık kaygısını etkileyen faktörlerin tanımlanmasını sağlamaktır. **Yöntem:** Araştırmanın evrenini Amasya Merzifon devlet hastanesinde 14 Eylül 2020-14 Kasım 2021 tarihleri arasında COVID-19 tanısı ile tedavi edilen ve taburcu edilen toplam 193 hasta oluşturdu. Bu çalışma tanımlayıcı kesitsel tipte bir araştırmadır. Veri toplama araçları kişisel bilgi formu ve sağlık kaygısı envanteridir. Çalışmayı kabul eden 103 hastadan örneklem oluşturuldu. Çalışma sonunda elde edilen veriler SPSS 22.0 ile değerlendirildi. **Bulgular:** COVID-19 Pozitif Vakalar arasında üniversite mezununun sağlık kaygısı üzerinde istatistiksel olarak anlamlı ve pozitif bir etkisi vardır. Katılımcıların %46.6'sı COVID-19 teşhisi konan biriyle teması olduğunu belirtti. Gün içerisinde sürekli olarak COVID-19 ile ilgili haberleri takip ettiğini belirtenlerin kaygı ölçeği ortanca değeri 18'e yükselmekte olup, COVID-19 ile ilgili haberler arttıkça kaygı düzeyinin de arttığı görülmektedir. **Sonuç:** Bu çalışmada yatan hastalarda kaygı düzeyinin düşük saptanması ve diğer araştırmalara göre düşük olmasının klinik hemşirelerin verdiği sağlık eğitiminden kaynaklandığı düşünüldü. Bu süreçte hemşireler tarafından verilecek sağlık eğitimi kaygı ile mücadelede anahtar rol oynayabilir.

**Anahtar Kelimeler:** COVID-19, epidemiyolojik dağılım, sağlık kaygısı, sağlık eğitimi.

#### ABSTRACT

**Aim:** The aim of this study is to determine the distribution of COVID-19 positive cases in rural areas and defined evaluation of factors affecting health anxiety. **Subjects and Methods:** The population of the study consisted of a total of 193 patients who were treated and discharged with the diagnosis of COVID 19 between 14 September 2020 and 14 November 2021 in Amasya Merzifon state hospital. This study is a descriptive cross-sectional type research. Data collection tools are personal information form and health anxiety inventory. The sample of 103 patients who accepted the study was formed. The data obtained at the end of the study were evaluated with SPSS 22.0. **Results:** Among COVID-19 Positive Cases, university graduate has a statistically significant and positive effect on health anxiety. 46.6% of the participants stated that they had contact with someone with COVID-19. The median value of the anxiety scale of those who stated that they constantly follow the news about COVID-19 during the day increases to 18, and it is seen that the anxiety level increases as the news about COVID-19 increases. **Conclusion:** In this study, a low level of anxiety was detected in inpatients and its low level compared to other studies was thought to be due to the health education given by clinical nurses. In this process, health education provided by nurses can play a key role in the fight against anxiety.

**Keywords:** COVID-19, epidemiological distribution, health anxiety, health education.

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## INTRODUCTION

COVID-19 caused by the SARS-CoV-2 virus is a viral infectious disease with a remarkably high mortality and infectious disease that threatens the health of communities. The disease mostly starts with symptoms of fever, cough and weakness. Most symptom developers (about 80%) recover without the need for hospitalization, about 15% become seriously ill, and 5% are treated in intensive care (World Health Organization, 2020a). People aged 60 years and older, those with underlying medical problems such as high blood pressure, heart and lung problems, diabetes, obesity or cancer are at higher risk of contracting the disease. It has been determined that people with cardiovascular diseases are more risky in terms of mortality risk (World Health Organization, 2020a). Centers For Disease Control and Prevention (CDC) (2020) data show that the disease mortality of the black race is 1.9 times higher in the United States than that of the white race. It has been found out that hospitalization rates are 4.1 times higher in Latin Americans. As of March 4, 2022, at 11:04, the World Health Organization reported 440.807,756 COVID-19 cases worldwide and reported 5.978.096 disease-related deaths. The United States, India, Brazil and France are the first four countries with the highest incidence. According to World Health Organization (WHO) data, Turkey ranks 9th in the global case ranking. According to the data of the Ministry of Health, Republic of Turkey, on March 6, 2022; a total of 13.353.676 cases were detected and 91.910 deaths occurred. The disease, which has become an epidemic all over the world, has also affected people's perception of health. Individuals' health perception levels are important on their physical and psychological health. The impaired perception of health restricts the purchase of health care, makes it difficult for individuals to realize individual protection methods, delays the acceptance of the disease and causes anxiety as a result of missing early diagnosis opportunities (Tutku et al., 2020). Health anxiety is a psychological experience that emerges with the idea that the individual is under a great threat to his/her health and triggers the symptoms of physical and emotional anxiety (Anderson et al., 2011). People are concerned about having a serious and potentially life-threatening disease or getting this disease (Ferguson, 2009). Adverse health outcomes of health anxiety are the need to fully accept health concerns, to be overly careful about body and physical functions (and browsing the internet), to go to the doctor frequently due to body re-control for disease symptoms, and to constantly ask for assurance from the physician (Tyrer, 2018).

The pandemic period may cause individuals to experience some problems in their daily lives (Batawi et al., 2019), the necessity to stay at home permanently in order to prevent the epidemic and the decrease in social relations may cause depression and fear (especially fear of death and fear of getting sick), sleep problems and anxiety of having an irreversible disease in individuals (Torales et al., 2020; Bacon et al., 2020). Rajkumar's research (2020) on 28 articles showed that having symptoms suggestive of COVID-19 and the presence of high anxiety and depression play a role in health anxiety. In a study conducted with Chinese people in Hong Kong, almost all of the participants stated that they were worried about COVID-19 and their daily routines were disrupted (Kwok et al., 2020). In the study of Torales et al. (2020) on published articles, it was determined that anxiety, depression, fear, stress and sleep problems were more common during the COVID-19 pandemic.

COVID-19 is an important public health problem. Diagnosis of the disease disrupts daily routines of individuals, increases health anxiety, delays the individual's receiving care and hospital admission. In terms of public health, it is valuable to be aware of the presence of health anxiety, to take individual measures by controlling the level of health anxiety of the society and to understand the importance of control measures applied by individuals throughout the country. Otherwise, health anxiety levels will increase in individuals who do not perceive the scope and breadth of the measures taken and as a result, it will be difficult for them to exhibit adaptive behaviors towards epidemic disease control (Dikmen et al., 2020; American Psychological Association, 2020). Missing early diagnosis and treatment options may cause loss of the individual, familial and social trauma, the presence of unprotected, untreated and non-rehabilitated health anxiety may cause adverse effects on public mental health. The aim was to evaluate the health anxiety and health anxiety examination criteria in patients with COVID-19.

## **SUBJECTS AND METHODS**

### **Study Design**

This study is a descriptive cross-sectional type research.

### **Sample**

The population of the study consisted of a total of 193 patients who were treated and discharged with the diagnosis of COVID 19 between 14 September 2020 and 14 November 2021 in Amasya Merzifon state hospital. This Data collection tools are personal information form and health anxiety inventory. Sample selection was not made within the scope of the research and the whole universe (n=103) was included in the research.

### **Data Collection**

The participants were contacted from the phone and phone numbers registered in the system 2 months after discharge and were asked to answer the questions in the questionnaire form prepared. It took 15 minutes to fill out the questionnaires.

### **Data collection tools**

**Personal Information Form:** In the first questions, "sociodemographic characteristics" of the participants were examined. 21 questions were asked about age, gender, marital status, occupation, income level, chronic diseases, COVID-19 disease, contact and symptom status, and the relationship between COVID-19 and media (Sauer et al., 2020; Pietri et al., 2020).

**Health Anxiety Inventory:** In this section, 18 questions were asked to the participants. It was developed by Salkovskis et al. (2002), to evaluate health anxiety. The scale consists of two factors. The first factor includes the first 14 items of the scale and is called the trunk size, which represents the hypersensitivity and anxiety dimension to bodily symptoms. The second factor includes the last 4 items of the scale and is called the dimension associated with the adverse consequences of the disease. The scoring of the scale is between 0-3 for each item and the total score of the scale varies between 0 and 54 points. A high score indicates a high level of health anxiety (Kocjan, 2016). Health Anxiety Scale has high reliability coefficients. The validity and

reliability study of the Turkish version of the Health Anxiety Scale in panic disorder patients was conducted by Karaer et al. (2012). The internal consistency coefficient of the scale was calculated as 0.91 and it was found to distinguish between patients with panic disorder and healthy controls. Again, Aydemir et al. (2013), included 101 people who met the diagnostic criteria of 24 somatoform disorders, 55 panic disorders and 22 major depressive disorders according to the DSM-IV criteria as the diagnostic groups and Cronbach's alpha internal consistency coefficient was obtained as 0.918 in the reliability analysis of the Health Anxiety Scale. Cronbach's alpha coefficient was calculated separately for each item.

### **Statistical analysis**

The data obtained from the research has been evaluated with SPSS 22.0 (IBM SPSS Corp; Armonk, NY, USA) program on computer. Number and percentage distribution were used as descriptive statistics. In this study, Cronbach's alpha internal consistency coefficient was found to be 0.961. Kaiser Mayer-Olkin (KMO) value (0.905), which shows the construct validity and homogeneity of the scale, was found to be the Chi-square value in Bartlett's Test ( $\chi^2=1829.669$ ;  $p=0.000$ ), which shows the statistical significance of factor correlations. Mann-Whitney U Test and Kruskal Wallis Test were used to evaluate non-parametric variables, data were evaluated based on 0.05 significance level.

### **Ethical considerations**

Ethics committee approval was obtained from Konya Selçuk University Ethics Committee (06/11/2020-E.89708), and informed consents were obtained from the patients who agreed to participate in the study. The study was conducted by the Declaration of Helsinki.

### **RESULTS**

Table 1 shows socio-demographics of COVID-19 positive cases ( $n=103$ ). The mean age of the research group was  $41.79\pm 14.08$ . The average number of people living in the family is  $3.72\pm 1.03$ . 71.8% of the participants are women, 80.6% are married. 53.4% are university graduates and 29.1% are nurses.

**Table 1. Socio-demographics of COVID-19 positive cases (n=103)**

		<u>Min-Max</u>	<u><math>\bar{x} \pm SS</math></u>
<b>Age</b>		18-84	41.79±14.08
<b>Number of People Living in the Family</b>		1-6	3.72±1.03
		<b>N</b>	<b>%</b>
<b>Gender</b>	Female	74	71.8
	Male	29	28.2
<b>Marital Status</b>	Married	83	80.6
	Single	20	19.4
<b>Educational background</b>	Primary School	19	18.4
	Middle School	9	8.8
	High School	16	15.5
	University	55	53.4
	Not Illiterate	4	3.9
<b>Profession</b>	Nurse	30	29.1
	Housewife	27	26.2
	Doctor	8	7.8
	Other (Worker, Farmer, Student, Artisan, Self- employment, Driver, Unemployed, Teacher)	28	27,2
	Soldier	2	1.9
	Other	8	7.8

Table 2 shows characteristics of COVID-19 positive cases according to health anxiety scale scores (n=103). Bodily Symptom Hypersensitivity sub-dimension was median 12, Adverse Consequences of the Disease sub-dimension was median 3. The Total Health Anxiety median was found to be 16.

**Table 2. Characteristics of COVID-19 positive cases according to health anxiety scale scores (n=103)**

<b>Health Anxiety Scale</b>	<u>Min-Max</u>	<u>Median</u>	<u>Q<sub>1</sub> - Q<sub>3</sub></u>
Bodily Symptom Hypersensitivity	0-33	12	4-16
Adverse Consequences of the Disease	0-12	3	0-5
Total Health Anxiety	0-45	16	5-20

**Table 3. The comparison of sociodemographic characteristics and health anxiety scale scores (n=103)**

	1st Sub-dimension			2nd Sub-Dimension			Total Score		
	Min-max	Median Value	Q1-Q3	Min-max	Median Value	Q1-Q3	Min-max	Median Value	Q1- Q3
<b>Age</b>									
18-28 years old	0-33	12	3.5-14	0-12	4	2-4.5	0-45	14	7-18
29-39 years old	0-33	15	9-23	0-12	3	1-6	0-45	18	10.5-29
40-50 years old	0-29	11	8-14	0-8	3	1-5	0-36	17	9-18
51-61 years old	0-33	9	2-16	0-12	4	0-6	0-45	11	2-20
62 and older	0-18	4	1.5-6.5	0-9	0	0-2	0-22	4	1.5-11
Statistical analysis	X <sup>2</sup> =11.512, p=.021**			X <sup>2</sup> =6.149, p=.188**			X <sup>2</sup> =8.810, p=.066**		
<b>Gender</b>									
Female	0-33	12	5.8-17.3	0-12	3	0-6	0-45	15.5	7.8-20
Male	0-33	14	3.5-14	0-12	4	0-4.5	0-45	18	3.5-18
Statistical analysis	U=989.500, Z=-.615, p=.539*			U=1068.500, Z=-.034, p=.973*			U=1018.000, Z=-.405, p=.685*		
<b>Marital Status</b>									
Married	0-33	12	4-18	0-12	3	0-5	0-45	16	5-20
Single	0-33	11	2.8-14	0-12	4	1.3-5.5	0-45	16	6-18
Statistical analysis	U=733.500, Z=-.808, p=.419*			U=735.000, Z=-.806, p=.420*			U=765.500, Z=-.540, p=.589*		
<b>Educational background</b>									
Primary school	0-33	7	3-18	0-12	1	0-4	0-45	13	3-22
Middle school	0-16	6	0-14	0-6	0	0-3	0-18	10	0-16
High school	0-33	11.5	.5-14	0-12	4	0-4	0-45	14	1-18
University	0-33	14	10-19	0-12	4	1-6	0-45	18	11-22
Not literate	0-14	2	0-11.5	0-4	0	0-3	0-18	2	0-14.5
Statistical analysis	X <sup>2</sup> =12.315, p=.015**			X <sup>2</sup> =10.727, p=.030**			X <sup>2</sup> =12.838, p=.012**		
<b>Vocational</b>									
Healthcare personnel	0-29	12	10-17	0-8	3	1-5.3	0-36	17	11-20
Other	0-33	12	2.5-16	0-12	3	0-5.5	0-45	14	3-18
Statistical analysis	U=1010.500, Z=-1.540, p=.124*			U=1129.500, p=.463*			Z=-.734, U=1031.500, p=.162*, Z=-1.397,		

\* Mann-Whitney U, \*\* Kruskal Wallis Test

1st Sub-Dimension: Bodily Symptom Hypersensitivity, 2nd Sub-dimension: Adverse Results of the Disease  
 Q<sub>1</sub>= 25% Percentage, Q<sub>3</sub>= 75% Percentage

It was determined that the scores of the Physical Symptom Hypersensitivity sub-dimension changed according to age groups ( $p = .021$ ). As the level of education increases, it is seen that the scores obtained from the Health Anxiety Scale ( $p = .012$ ), the Physical Symptom Hypersensitivity sub-dimension ( $p = .015$ ) and the Adverse Results of the Disease sub-dimension ( $p = .030$ ) increase. While the median value of the Health Anxiety Scale score of the health personnel (Nurse and Doctor) was 17, the median value of the Health Anxiety Scale score of the personnel working in other service areas was determined as 14, but no statistically significant difference was determined ( $p = .162$ ) (Table 3).

Table 4 shows the characteristics of COVID-19 positive cases related to the pandemic process. While the median value of the COVID-19 positive cases who stated that they did not follow the news about COVID-19 was 4, the median value of the anxiety scale of those who stated that they constantly follow the news about COVID-19 increased to 18 and the scores obtained from the anxiety scale varied according to the status of following the news about COVID-19 ( $p = .018$ ).

**Table 4. Characteristics of COVID-19 positive cases related to the pandemic process**

	1st Sub-dimension			2nd Sub-Dimension			Total Score			
	N%	Min-Max	Median Value	Q1-Q3	Min-Max	Median Value	Q1-Q3	Min-Max	Median Value	Q1-Q3
<b>Duration of Hospitalization (n=91)</b>										
1-24 hours	34(37.4)	0-33	12	8-19	0-12	3	1-5.3	0-41	15.5	9-25
25-48 hours	28(30.8)	0-33	11	3.3-15.8	0-12	3	0-4	0-45	14	4-18
49-72 hours	10(11.0)	3-33	7.5	4-18.8	0-12	3.5	0-7.5	3-45	10.5	6.3-24.8
73-96 hours	12(13.2)	0-33	4	0-14	0-12	-	0-4	0-45	4	0-18
97 hours	7(7.6)	0-24	7	4-14	0-12	4	1-9	1-36	11	4-18
Statistical analysis		$X^2=2.792$ . $p=.593^*$			$X^2=.658$ . $p=.956^*$			$X^2=2.388$ . $p=.665^*$		
<b>Last 14 Days Before COVID-19 Diagnosis; (n=103)</b>										
<b>Going Abroad</b>										
Yes	1(1.0)	-	-	-	-	-	-	-	-	-
No	102(99.0)	0-33	10	4-15	0-12	3	0-5	0-45	15	5-18
<b>Going Out of the City</b>										
Yes	14(13.6)	0-33	8.5	5-13.3	0-8	1	0-4.3	0-41	10.5	6-15
No	89(86.4)	0-33	11	4-15.8	0-12	3.5	0-5.8	0-45	16	5-18
Statistical analysis		$U=568.000$ . $Z=-.531$ . $p=.595^{**}$			$U=482.500$ . $Z=-1.376$ . $p=.169^{**}$			$U=506.000$ . $Z=-1.131$ . $p=.258^{**}$		
<b>Contact Status with Anyone From Abroad</b>										
Evet	4(3.9)	0-24	13.5	0.8-24	0-12	4.5	0-11.3	0-36	18	0.835-3
Hayır	99(96.1)	0-33	10	4-14.3	0-12	3	0-5	0-45	14.5	5.8-18
Statistical analysis		$U=194.500$ . $Z=-.060$ . $p=.952^{**}$			$U=181.000$ . $Z=-.295$ . $p=.768^{**}$			$U=191.500$ . $Z=-.111$ . $p=.911^{**}$		

**Table 4 (Continue). Characteristics of COVID-19 positive cases related to the pandemic process**

<b>Out-of-town Contact Status</b>										
Yes	29(28.2)	0-28	9	0-14	0-12	1	0-4	0-36	10	0-18
No	74(71.8)	0-33	12.5	5.8-19	0-12	4	1-6	0-45	17	10-20.5
Statistical analysis	U=719.500. Z=-2.602. p=.009**				U=724.000. Z=-2.605. p=.009**			U=709.500. Z=-2.677. p=.007**		
<b>Contact Status with Someone Diagnosed with COVID-19</b>										
Evet	48(46.6)	0-28	12	6-16	0-12	4	1-6	0-40	17	9-20
Hayır	55(53.4)	0-33	10	0-16.3	0-12	0.5	0-4	0-45	10.5	0-18.8
Statistical analysis	U=766.500. Z=-1.922. p=.155**				U=706.000. Z=-1.922. p=.055**			U=747.000. Z=-1.575. p=.115**		
<b>Following COVID-19-related News (n = 98)</b>										
I never followed	27(27.6)	0-24	4	0-13	0-12	-	0-4	0-36	4	0-18
Occasionally I looked through news sources	29(29.6)	0-24	10	6.5-14	0-9	3	.5-5	0-30	14	7.5-17
I followed mostly during the week	11(11.2)	0-28	13	5-14	0-8	4	2-4	0-36	15	11-18
I constantly followed during the day	31(31.6)	0-33	14	8-25	0-12	4	1-8	0-45	18	10-36
Statistical analysis	X <sup>2</sup> =7.456. p=.059*				X <sup>2</sup> =5.769. p=.123*			X <sup>2</sup> =10.071. p=.018*		
* Kruskal Wallis Test. * Mann-Whitney U. <b>1st Sub-dimension:</b> Bodily Symptom Hypersensitivity. <b>2nd Sub-dimension:</b> Adverse Consequences of the Disease. <b>Q<sub>1</sub></b> = 25%. <b>Q<sub>3</sub></b> = 75%										

## DISCUSSION

COVID-19 is an important public health problem that causes the death of millions of people all over the world and causes death anxiety due to COVID-19 (Xiao, 2020; Canlı et al., 2020;). In this study investigating the epidemiological distribution of COVID-19 positive cases in rural areas and their relationship with health anxiety, the scores obtained from the health anxiety scale are between 0 and 45 and the median value is 16 (Table 2). Low health anxiety is present in COVID-19 positive individuals. In the study conducted by Özdin et al. (2020) and in the study conducted by Messner et al. (2020) low health anxiety levels were found to be similar results of our research, while in some studies health anxiety was found to be high, it was determined that the acceleration of the spread of COVID-19 disease all over the world increased health anxiety (Sauer et al., 2020; Pietri et al., 2020).

Health education is any combination of learning experiences designed to help individuals and communities improve their health by increasing their knowledge or influencing their attitudes (World Health Organization, 2020e). Studies have shown that health education

given to individuals leads to positive health behaviors (Li ve et al., 2020; Chang et al., 2017) and have also shown the effects of health education on anxiety and depression. According to the results of a meta-analysis study, it was determined that the anxiety level of families towards hospital intensive care hospitalizations decreased after the health education (Shafipour et al., 2017). According to the results of a study conducted in Hong Kong, when the SARS pandemic occurred, high anxiety levels in individuals completely disappeared after health education (Chan et al., 2007). In our study, patients are informed about the possible difficulties (such as fever, shortness of breath, cough, joint pain, etc.) that COVID-19 disease may experience in the following days, and it is explained that the nurse will first perform a control evaluation in any adverse situation and then contact his/her clinical physicians immediately. The education given about COVID-19 during the treatment process may have an effect on the low level of anxiety. In addition, patients are informed in detail about the importance of communication, precautions and practices to be taken, and clinical functioning and their questions are answered.

Various applications are carried out all over the world in order to manage the risk posed by perceptions in terms of public health and public order, to ensure social isolation, to maintain social distance and to keep the rate of spread under control, and individuals are asked to lead an isolated life in order to reduce the transmission rate and to prevent the deaths of their closest relatives due to COVID-19 disease. In line with the decisions taken in the presidential cabinet dated 30.11.2021, many decisions were taken; curfew was put into effect on weekends except for compulsory cases, access to shopping centers with HES code was decided, restrictions on the use of public transportation vehicles over 65 years of age and under 20 years of age and restrictions on participation in ceremonies such as funerals and weddings were imposed with a maximum of 30 people. It has been decided to impose fines in accordance with Article 282 of the Public Health Law on citizens who do not comply with the decisions. Strict practices and sanctions have also affected hospital policies and visitation bans have been introduced within the framework of infection control measures for individuals with COVID-19 disease. Many people who did not comply with the isolation rules had to face the fact of sudden death while they were waiting for the discharge of their relatives who had been infected with the disease or had received it from their closest relatives and had been diagnosed with a post-infection indication. In our study, 46.6% of the participants stated that they had contact with someone diagnosed with COVID-19. The high contact rate is an indication of non-compliance with insulation rules. While the results of the study conducted by Tenford et al. (2020) examining the contact status of patients diagnosed with COVID-19 are similar to our study, it is seen that the community-themed rate in CDC data is higher. In our study, although the median value of the health anxiety scale score of those who had contact with someone diagnosed with COVID-19 was 17 and the median value of those who did not have contact was 10.5, there was no significant relationship between the status of contact with someone diagnosed with COVID-19 and the health anxiety scale score ( $p = .115$ ) (Table 4). The Ministry of Health General Directorate of Public Health's Guide to COVID-19, Republic of Turkey (2020), Contact Follow-up, Home Patient Monitoring, Morgue Burial Procedures states that "Persons who have had close contact with a person with COVID-19 infection without taking protective measures against droplet infection should be monitored and visited by phone, especially in terms of fever

and respiratory symptoms, for 14 days after their last contact" Home visits are a common intervention strategy implemented in developed countries and constitute an important component of public health. It is a common practice to base home visits on priority groups at risk and to conduct them through these groups (Ergin and Akın 2018), which increases the level of satisfaction in individuals (Godwin et al., 2015) . With the announcement of the Amasya Governorship regarding the decision of the Provincial Sanitation Board dated 30.07.2020 on COVID-19 additional measures, the filiation teams formed in order to reach the contacts of the patient, inpatient, severe patient and the person in isolation more quickly and effectively should be supported by law enforcement units and headmen, teachers and imams in villages/neighborhood, and the importance of keeping the contacted people in isolation was emphasized. Based on this information, it can be said that contacted individuals' knowing the possibility of early intervention towards the progression of the disease by reaching and questioning them by public health workers increases the perception of trust in individuals and this perception is effective on anxiety level.

In the study, anxiety level does not change according to gender. Although the median value of the women's health anxiety scale was determined as 15.5 and men as 18, no statistically significant relationship was found between gender and anxiety level ( $p = .685$ ) (Table 3). In the literature, the prevalence, severity and burden of increased anxiety, trauma and stress-related disorders in women compared to men have been discussed and it has been determined that the effect of sex hormones is an undeniable fact. Estradiol and progesterone affect gender differences in anxiety disorders, increasing vulnerability factors associated with the development of anxiety disorder and facilitating the maintenance of anxious symptoms after development (Li et al., 2017). Gender being female, presence of chronic diseases, unemployment, student status, frequent exposure to news about COVID-19 on social media are seen as risk factors of psychological problems experienced in COVID-19 (Xiong, 2020). In a study conducted in Turkey, the presence of health anxiety in women during the pandemic was found to be higher than in men (Canlı et al., 2020). In a study conducted with healthcare professionals, women's health anxiety level was found to be high, and working in a specialized hospital, postgraduate education and marital status were reported to be risk factors for health anxiety (Chen et al., 2019). In another study, it has been shown that the level of health anxiety is 1.4 times higher in women (Kibbey et al., 2020). Some studies support that health anxiety is higher in women (Du et al., 2020; Huang et al., 2020). Unlike these researches, Ahmed et al. (2020) found that the level of depression and anxiety was higher in men than in the whole society, and it was also found that the mental health status of men was lower. According to the same research results, hazardous alcohol use in 1/3 of men accompanies depression and anxiety. In our study, the fact that anxiety and depression experienced during the COVID-19 pandemic do not change according to gender can be interpreted as the expectations and feelings of both sexes about the disease are similar in this disease, which is characterized by uncertainties.

In our study, while the median value of the health anxiety scale score of health care personnel (nurses and doctors) was 17, the median value of the health anxiety scale score of the personnel working in other service areas was determined as 14, but no statistically significant difference was found ( $p = .162$ ) (Table 3). The COVID-19 pandemic adversely affects the

mental status of healthcare professionals and may have to deal with adverse situations such as burnout, anxiety, depression, insomnia, post-traumatic stress disorder, stigma, mobbing and discrimination while fighting the epidemic (Bana, 2020; Sotgiu et al., 2020; Sonado et al., 2020; Chew et al., 2020). In the study conducted by Du et al. (2020), the anxiety level of female health personnel in China was found to be higher and it was determined that there was a lack of psychological preparation. Huang et al. (2020) found that female health workers and nurses had higher levels of anxiety and emphasized that female nurses should pay particular attention to mental health. In the study conducted by Zhu et al. (2020), it was observed that the level of depression and anxiety of healthcare professionals increased as the number of working years increase, Zhang et al. (2020) found that half of the healthcare professionals had high levels of depression, nearly half of them had high levels of anxiety, education level, isolation environment, psychological concerns related to the COVID-19 pandemic and being a doctor increased the level of depression and anxiety. In all the studies examined, it is observed that the anxiety level of health personnel is high. In this process, it can be thought that factors such as heavy working conditions, obligation to work with protective clothing, decrease in time spent with their families, freezing leave and resignation rights in line with the fight against the pandemic are related to high anxiety.

The median value of the anxiety scale of COVID-19 positive cases stating that they have never followed the news about COVID-19 is 4. The median value of the anxiety scale of those who stated that they continuously follow the news about COVID-19 during the day increases to 18, and it is seen that the anxiety level increases as the news about COVID-19 increases ( $p=0.018$ ) (Table 4). When not used correctly, governments have great duties to prevent anxiety caused by social media that threaten public health. In addition, there is a need for more social studies on increasing social media and e-health literacy (Chong et al., 2020) and on the conscious use of social media. The correct or false information obtained by individuals and the frequency of accessing this information revealed the infodemic definition. Infodemic is a large amount of information that contains false or misleading information in digital and physical environments during a disease outbreak (WHO, 2020b). The World Health Organization drew attention to the fight against infodemic and determined that more than 550 million posts were made as of March 2020 covering the words coronavirus, corona virus, COVID19, COVID-19, COVID\_19 or pandemic. These shares prevent individuals or healthcare professionals from accessing reliable sources, and the inaccurate information they obtain when they do not have enough time makes it difficult for them to make evidence-based analysis and increases the frequency of anxiety and depression (WHO, 2020c). In this process, many official institutions and ministries carried out public awareness campaigns through social media accounts, and sometimes even institutions misinformed and caused information pollution. Sometimes social media has been seen as the only source where societies can access information during the COVID-19 pandemic. Infodemic has also been associated with racism, and in some regions of Italy, it has been determined that individuals search for racism against Chinese people in addition to COVID-19 news with the use of masks and disinfectants in internet search engines (Rovetta et al., 2020). Infodemic has caused a reaction to Chinese individuals based on Wuhan, the region where the outbreak originated (Hu, 2020). In a study examining COVID-19 literacy

and infodemic in Germany (2020), it was determined that more than half of the German population had inadequate literacy levels and access to infodemic information was found to be high (Okan et al., 2020). Some studies show that following COVID-19 news on social media increases the frequency of anxiety and depression (Ni, 2020; Gao, 2020). The results of our research support the literature.

## **CONCLUSION AND RECOMMENDATIONS**

In this study, a low level of anxiety was detected in inpatients and its low level compared to other studies was thought to be due to the health education given by clinical nurses. In this process, health education provided by nurses can play a key role in the fight against anxiety. Elimination of health anxiety is valuable in terms of community mental health management and improving the quality of life in individuals. In the study, it is seen that healthcare professionals are faced with the fact that they can be inpatient while working under this heavy burden. According to the findings, the level of anxiety in health personnel is high. More psychological support to health professionals, who are the fixtures of the health sector, will be effective in maintaining their mental well-being during this period. The study also revealed a fact about the media, and it was observed that the media increased the level of anxiety in inpatients. It is important for individuals to be able to use media and perform accurate resource screening and access evidence-level information by interpreting existing resource information. For this reason, increasing health and media literacy and ensuring that citizens have access to the right resources in the media should be one of the biggest duties of public health and psychiatric nurses, non-governmental organizations and governments in particular.

## **LIMITATIONS**

The results of this study cannot be generalized to the general population as it includes patients receiving service from a single center. Patients were not asked whether they received health education, whether they benefited from the support provided by public institutions for COVID-19, and the time elapsed after the diagnosis of COVID-19. It is recommended to be asked in future studies.

## **Conflict of Interest**

The authors have no conflict of interest to declare.

## **Author Contributions**

Research Idea/Concept: PU, FÖ, YU

Research Design: PU, FÖ, YU

Supervision/Consultancy: PU, FÖ, YU

Data Collection and/or Processing: PU, FÖ, YU

Analysis and/or Interpretation of Data: PU, FÖ, YU

Literature Review: PU, FÖ, YU

Article Writing: PU, FÖ, YU

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