ARAŞTIRMA / RESEARCH

Examination of the Experience and Stress Situation of Emergency Health Professionals During the Early Stages of the COVID-19 Pandemic in Turkey

Türkiye'de COVID-19 Pandemisinin İlk Dönemlerinde Acil Sağlık Profesyonellerinin Deneyimleri ve Stres Durumlarının İncelenmesi

Besey ÖREN¹ (), Esra YILMAZ² (), Nurcan ÇAĞLAYAN³ (), Döndü SEVİMLİ GÜLER⁴ (), Begüm ASLAN⁵

¹Sağlık Bilimleri Üniversitesi, Sağlık Bilimleri Fakültesi, Ebelik Bölümü, İstanbul ²Karabük Eflani İlçe Entegre Hastanesi ³Mahmutbey Aile Sağlığı Merkezi, Bağcılar, İstanbul ⁴Sakarya Üniversitesi Eğitim ve Araştırma Hastanesi ⁵Marmara Üniversitesi, Sağlık Bilimleri Fakültesi, Ebelik Bölümü

Geliş tarihi/Received: 12.01.2021 Kabul tarihi/Accepted: 09.08.2021

Sorumlu Yazar/Corresponding Author:

Nurcan ÇAĞLAYAN, Uzman Hemşire Mahmutbey Aile Sağlığı Merkezi, Bağcılar, İstanbul E-posta: nrcncglyn@hotmail.com ORCID: 0000-0002-0081-4798

Besey ÖREN, Doç. Dr. ORCID: 0000-0003-4182-7226

Esra YILMAZ, Uzman Ebe ORCID: 0000-0002-7830-0631

Döndü SEVİMLİ GÜLER, Uzman Hemşire ORCID: 0000-0003-2618-4920

Begüm ASLAN, Arş. Gör. ORCID: 0000-0002-1675-1760

This study was presented as an online oral presentation at the "Congress on Research-Publication and Education Processes in the COVID-19 Pandemic" on January 15-16, 2021.

Abstract

Objective: This study was conducted to determine the profiles, experiences, and stress of emergency health professionals in the COVID-19 pandemic in Turkey.

Material and Method: The present descriptive study was carried out with 210 healthcare professionals working in emergency units of pandemic hospitals in Turkey between May 1 and June 1, 2020. The sampling method was not used. The data were collected on the internet with a questionnaire form consisting of 70 questions, which the researchers created by scanning the relevant literature and included many sub-headings such as the demographic characteristics of emergency workers, as well as their feelings, attitudes, stress situation, work environments, and information about the COVID-19 pandemic.

Results: The results showed that the participants followed current information about the COVID-19 pandemic from multiple sources (97.6%), received training regarding preventive measures through in-service training at hospitals (22.9%), or multiple sources (58.6%). The mean scores regarding the feeling of risk for themselves were 8.21±2.01 (min-max: 1-10), while the mean scores regarding the feeling of risk for the people they live with were 7.99±2.77 (min-max: 0-10). The stress intensity in the last week was found to be mean ±SD: 6.80±2.49.

Conclusion: Although the healthcare professionals working in the emergency units obtained the information about the COVID-19 outbreak from many sources, the information given by the hospitals was inadequate; the professionals felt themselves at risk. Intense stress was seen in the female healthcare workers, nurses, those who do not receive psychological support, and those who perform pre-triage to suspected COVID-19 patients.

Keywords: COVID-19, pandemic, healthcare professionals, emergency unit, stress.

Öz

Amaç: Bu çalışma Türkiye'de COVID-19 pandemisinin ilk dönemlerinde acil sağlık profesyonellerinin deneyimleri ve yaşadıkları stresi belirlemek amacı ile yapıldı.

Gereç ve Yöntem: Tanımlayıcı olarak planlanan araştırma, 01 Mayıs-01 Haziran 2020 tarihleri arasında, Türkiye'de pandemi hastanelerinin acil ünitelerinde görev yapan 210 sağlık çalışanı ile gerçekleştirildi. Örneklem seçimine gidilmedi. Veriler araştırmacılar tarafından ilgili literatür taranarak oluşturulan ve acil çalışanlarının demografik özelliklerinin yanısıra, çalışma ortamları, COVID-19 ile ilgili bilgileri, pandemiye ilişkin hissettikleri, tutumları, stres durumları gibi birçok alt başlığı içeren 70 soruluk anket formu ile internet ortamında toplandı.

Bulgular: Katılımcıların COVID-19 hakkındaki güncel bilgi/haberleri birden çok kaynaktan takip ettikleri (%97,6), koruyucu önlemler konusundaki eğitimleri hastanelerdeki hizmet içi eğitimlerden (%22,9) veya birden çok yerden (%58,6) aldığı, kendilerini riskte görme puan ortalamalarının 8,21±2,01 (min-max:1-10) ve birlikte yaşadıkları kişiyi riskte görme puan ortalamalarının 7,99±2,77 (min-max:0-10) olduğu belirlendi. Son bir haftadır hissettikleri stres yoğunluğu ise ort±SD:6,80±2,49 olduğu görüldü.

Sonuç: Acil ünitedeki sağlık çalışanlarının COVID-19 salgını ile ilgili bilgileri pek çok kaynaktan takip etmelerine rağmen, hastanelerin bu konudaki bilgilendirmelerinin yetersiz olduğu, çalışanların kendilerini önemli oranda risk altında hissettikleri, kadınların, hemşirelerin, psikolojik destek almayanların, COVID-19 şüphesi olan hastaların triyajını yapan hemşire, ebe ve sağlık memurlarının yoğun stres hissettikleri tespit edilmiştir.

Anahtar Kelimeler: COVID-19, pandemi, sağlık çalışanı, acil ünite, stres.

1. Introduction

COVID-19 negatively affects human health worldwide. SARS-CoV-2 infection, Severe Acute Respiratory Syndrome, started in Wuhan, China, in December 2019 and then has spread rapidly worldwide and caused a pandemic. International studies conducted by the National and World Health Organization (WHO) have identified the pathogen causing new pneumonia as SARS-CoV-2, and this type of pneumonia has been defined as Coronavirus Disease 2019 (COVID-19) (1,2). COVID-19 is transmitted through droplets and causes severe respiratory infection (3). Rapid transmission rate, severe disease prevalence, and high mortality rate have placed a heavy burden on healthcare worldwide and become a source of concern for healthcare professionals' infection risk (3,4).

Healthcare professionals are involved in providing primary care to communities, especially during infectious disease outbreaks. Continuous exposure to infected patients and contaminated surfaces may pose a risk of catching and transmitting infection. Chronic illnesses, physical and mental fatigue, difficult triage decisions, shortage of personal protective equipment (PPE), grieffollowing patient and colleague death, frequent exposure to pathogens, long working hours, stressful working environment, and living away from home increases the risk of infection and virus transmission of health workers. Especially in national and global epidemics and pandemics, measures should be taken regarding the working conditions, problems, and solutions (5,6). During the COVID-19 pandemic, emergency units are chaotic places to which many patients refer (7). The COVID-19 pandemic poses occupational risks for all healthcare professionals working in the frontline (8,9). Several guidelines have been published in Turkey and worldwide to prevent and manage infections (10).

Most of the studies on the COVID-19 pandemic have focused on epidemiology, prevention, control, diagnosis, and treatment. Emergency healthcare professionals face serious risks. There is insufficient research investigating the problems faced by emergency healthcare professionals and the factors affecting them during the COVID-19 outbreak. The current study aimed to determine the problems experienced by healthcare professionals who struggle against COVID 19, identifying the status of being affected, examine the influencing factors, and taking measures against similar situations that may be experienced later.

2. Material and Method

2.1. Study Design

The present descriptive cross-sectional study was conducted to determine emergency healthcare professionals' practices, the problems they encounter, and the pandemic's effect.

2.2. The Universe and Sample of the Study

The study's universe included healthcare professionals working in the emergency units of the pandemic hospitals in Turkey between May 1, 2020 and June 1, 2020. The study was completed with the random sampling method with 210 volunteer participants. The data were collected with an internet-based digital environment (Google survey) faster and more comfortable, and there was no infection risk for researchers.

2.3. Data Collection Tools

As the data collection tool, a questionnaire form consisting of questions based on the researchers' literature review was used. There were 70 questions, and the questions were formed according to three main objectives. The first part of the form includes questions regarding sociodemographic and professional characteristics. The second part consists of questions about employees' knowledge, experience, and behavior about the COVID-19 pandemic and the pandemic's effect on their work motivation. In this section, a total of nineteen questions were asked. Three of these questions were asked to be scored between 0-10, and sixteen of them consisted of closed-ended questions. The third part includes questions about employees' risk and stress towards themselves and their family members. There was a total of thirty-two questions, six open-ended and 26 closed-ended questions.

Participants were asked to score between 1 (minimum) and 10 (maximum) regarding the extent of the risk which they felt for "themselves" and "the people they live with" due to COVID-19 and "the intensity of the stress they felt in the last week". The participants' mean scores regarding the feeling of risk for themselves were 8.21 ± 2.01 (min-max: 1-10), and the mean scores regarding the feeling of risk for the people they live with were 7.99 ± 2.77 (min-max: 0-10). Additionally, they stated the intensity of the stress they felt for the last week was in the range of 0-10 (mean \pm SD: 6.80 ± 2.49).

2.4. Research Ethics

At the beginning of the questionnaire, the participants were informed that they could withdraw from the study at any time. The electronic form's first option was the "volunteering tab" to enable voluntary participation in the research. Thus, volunteers accessed other questions. Approval from the Sakarya University Faculty of Medicine non-invasive clinical research ethics committee (dated 30/04/2020 and numbered E.4334) was obtained.

2.5. Data Analysis

The data were evaluated using SPSS-22 software. Error controls, tables, and statistical analyses were performed. Numbers and percentages were given in statistical analysis. Before normality analysis, missing data and extreme value extractions were made. Afterward, histograms were made for normality, skewness, and kurtosis values were examined, and Kolmogorov-Smirnov analyses were performed. After all steps, logarithmic transformations were applied to quantitative data that did not show normal distribution, but it was determined that normal distribution conditions did not occur. For this reason, Mann-Whitney U (MWU) and Kruskal Wallis (KW) tests were conducted to determine the variables that did not make a difference in quantitative data. Chi-square and Spearman Correlation tests were performed, and the statistical significance level was considered p <0.05.

3. Results

The participants' mean age was 29.56 ± 6.64 ; 33.8% were from the Marmara region, and 64.8% were females. Of the participants, 37.6% were married, 29.5% had children, 62.4% were nurses, and 27.6% had a family member at home with a chronic disease (Table 1).

 Table 1. Distribution of Emergency Unit Healthcare Professionals according to Socio-Demographic Characteristics

Variables Mean±Sd Min-Max 29.56 ± 6.64 20-51 Age n (%) Gender Female 136 64.8 Male 74 35.2 Marital Status Married 79 37.6 Single 131 62.4 Family Type Nuclear 59 28.1 Extended 15 7.1 Living Alone 117 55.7 Living with One of the Parents 8 3.8 Other 11 5.2 Having a child No 148 70.5 Yes 62 29.5 Profession 131 Nurse 62.4 Midwife 17 8.1 Physician 29 13.8 Health Officer 18 8.6 Other 15 7.1 Educational Background High School Graduate 22 10.5 Associate Degree 39 18.6 Bachelor's Degree 124 59 Master's Degree 16 7.6 Doctoral Degree (Ph.D.) 9 4.3 Duration of Service 0-5 122 58 6-10 34 16.2 11-15 27 12.9 16-20 14 6.7 21 and above 13 6.2 Type of the Hospital Training and Research Hospital 81 38.6 Public Hospital 96 45.7 Private Hospital 2.9 б Other 27 12.9 Having a Chronic Disease No 182 86.7 Yes 28 13.3 Having a Family Member with a Chronic Disease at Home 152 72.4 No 58 27.6 Yes Having an Elderly Family Member 173 No 82.4 Yes 37 17.6

The participants usually followed up-to-date information about the COVID-19 pandemic (97.6%), and 70.5% received training for pandemic and preventive measures (Table 2).

Table 2. Data regarding Information Gathering, Be Experiences of Emergency Healthcare Professionals		r, and 210)
Variable	n	(%)
Following up to date information / news about COVID-19		
No	5	2.4
Yes	205	97.6
Training on the COVID-19 pandemic and preventive measures for healthcare professionals		
No	62	29.5
Yes	148	70.5
The presence of any instruction / protocol / algorithm related to COVID-19 process management in the unit worked		
No	27	12.9
Yes	183	87.1
The obligation of staying outside the home due to the pandemic		
No	169	80.5
Yes	41	19.5
The result of the COVID-19 test (n=107)		
Positive	8	7.5
Negative	83	77.6
Suspicious	16	15.0
Having psychological support in the unit due to the COVID-19		
No	178	84.8
Yes	32	15.2
Using vitamin / prophylactics for protection against the COVID-19		
No	159	75.7
Yes Thinking of leaving the job due to the COVID-19	51	24.3
Mostly	9	4.3
Sometimes	30	14.3
Never	164	78.1
Other	7	3.3
Reporting the individual diagnosed with COVID-19 to the Provincial Health Directorate	,	5.5
No	51	24.3
Yes Having shortages of personal protective equipment in the	159	75.7
emergency services	115	54.8
Yes	95	45.2
Keeping social distance in the emergency unit		
No	75	35.7
Yes	30	14.3
Partially Having shift and rest hour changes at work due to the pandemic	105	50.0
No	105	50.0
Yes	105	50.0

Although not stated in the tables, 22.9% of the participants stated that they received this training within the scope of hospital in-service practices and 10.0% by the hospital's infectious disease specialist. Due to the C0VID-19 pandemic, 45.2% of the participants reported that they had shortages of PPE in the emergency unit, 50.0% had changes in shift hours, 7.5% had a positive COVID-19 PCR test result, and 15.0% had suspicious COVID-19 PCR test result. Additionally, 19.5% of healthcare professionals had to stay outside their homes. During the pandemic, 84.8% of the participants stated that they did not receive any psychological support, and 24.3% stated that they used vitamins for protective purposes. As a preventive measure, 35.7% of the respondents reported that they kept the social distance in the emergency unit, while 50.0% responded that they were partially careful about social distancing (Table 2).

This section examined whether some of the participants' events made a difference in their thoughts of leaving the job due to COVID-19, and only those found meaningful are shown in Table 3. Although not stated in the table, %5.1 of the participants reported that they experienced social exclusion due to this pandemic because of being healthcare workers. It was observed that those who had a chronic illness and those who were excluded from society thought to leave their job at a statistically significant level (p=0.003).

According to some participants' features, only those making a difference in terms of the feeling of risk for themselves and people living together, and the stress points' distribution are shown in Table 4. Accordingly, in terms of the COVID-19 outbreak, the median of the feeling of risk was higher among those working in university hospitals (p =0.001). In contrast, the median of the feeling of risk for the person they lived with was higher in females (p=0.009), healthcare officers (p=0.029), and those living with someone with chronic illnesses at home (p=0.007). Additionally, the median intense stress level was found to be higher in females (p=0.007), nurses (p=0.023), in those who said that psychological support was not provided during the outbreak (p=0.045), and in nurses performing pre-triage of patients with suspected COVID-19 (p =0.025) (Table 4).

Although not mentioned in the table; 4.8% of the participants stated that there was an individual with the diagnosis of COVID-19 in their family, 69.0% reported

that a colleague whom he/she knew well was diagnosed with COVID-19, and 32.4% stated that they used public transportation while going to the work.

4. Discussion

This descriptive study was carried out to determine the experiences of emergency healthcare professionals and their stress situations in the early stages of the COVID-19 pandemic. The COVID-19 pandemic has spread to all of the regions in Turkey and all over the world. Emergency healthcare professionals who were the most affected group by the pandemic, the first unit of admissions, and facing an unknown virus, had to deal with serious problems.

It is essential to identify the current situation and problems to eliminate disruptions in healthcare practices during the pandemic. For this reason, it is necessary to determine the problems and working conditions of emergency healthcare professionals in the COVID-19 pandemic, protect their mental health, take measures against new situations, and prepare an action plan. Within this scope, it is crucial for healthcare professionals to be familiar with the infection routes of COVID 19, determine the affecting factors, learn to control, prevent infection, and follow psychosocial variables, symptoms, treatment, and management procedures reliable sources. Bhagavathula et al. (2020) found that 453 healthcare professionals received information about COVID-19 from social media (11). In the present study, the participants reported that they received training on the COVID-19 pandemic from many sources. This result shows that healthcare professionals are searching for information, the level of knowledge should be improved, and the right information sources should be easily accessible as the pandemic continues.

During the pandemic, healthcare professionals' protection is significant for the continuity of healthcare and personal protection. It is also imperative for professionals to feel safe for providing health services and the institution's security measures. In a retrospective study conducted by Wang et al. (2020) in Wuhan, 41% of infections were spread in the hospital. It was determined that 70% of the patients were healthcare professionals, and 17.5% worked in the emergency unit (12). It was found that 7.5% of the emergency healthcare professionals participating in our study were COVID-19 positive, and 15% were suspicious. This situation shows that the hospital environments are the riskiest places, and the emergency unit healthcare professionals are at high risk.

Table 3. The Distribution of Some Events Exp	nerienced by the Particing	ants on Their Thoughts of Leavin	a lob due to $COVID-19 (N = 210)$
Tuble 5. The Distribution of Some Events Exp	perienceu by the runticipt	unts on their thoughts of Leuvin	y = 2 + 0 = 10 = 10 = 10 = 10

		Thinking of Leaving Job due to COVID-19				Test and p values
Event		Yes	Sometimes	No	Other	_
		n (%)*	n (%)*	n (%)*	n (%)*	
Having chronic disease	No	8 (4.4)	21 (11.5)	147 (80.8)	6 (3.3)	$\chi^2 = 8.50$
	Yes	1 (3.6)	9 (32.1)	17 (60.7)	1 (3.6)	p=0.030
Exclusion by society	Yes	4 (11.1)	9 (25.0)	23 (63.9)	0 (0.0)	$\chi^2 = 18.112$
	No	1 (1.0)	7 (7.1)	85 (86.7)	5 (5.1)	p= 0.006
	Sometimes	4 (5.3)	14 (18.4)	56 (73.7)	2 (2.6)	,

*Row percentage was calculated.

Features	FRT	FRPLT	SL
	Median (%95 Cl)	Median (%95 Cl)	Median (%95 CI)
Gender			
Female	9.00 (7.95-8.63)	10.00 (7.83-8.75)	7.00 (6.82-7.58)
Male	8.50 (7.59-8.54)	8.00 (6.78-8.10)	6.00 (5.44-6.71)
Test value	U=4665.00, p=0.362	U=4001.00, p=0.009	U=3900.00, p=0.007*
Job			
Physician	7.00 (6.92-8.32)	8.00 (6.19-8.21) ^a	6.00 (4.54-6.35) ^a
Nurse	9.00 (8.01-8.69)	10.00 (7.51-8.50)	7.00 (6.67-7.48) ^a
Midwife	8.00 (6.21-9.07)	9.00 (5.88-9.29)	7.00 (5.06-8.23)
Health Officer	9.50 (7.68-9.42)	10.00 (8.14-9.85) ^a	7.00 (5.34-7.98)
Others	9.00 (7.27-9.39)	10.00 (7.28-10.04)	7.00 (6.06-8.73)
Test value	KW=5.429, p=0.246	KW=10.793, p=0.029	KW=11.338, p=0.023*
Educational Background			
High school graduate	8.00 (7.56-9.07)	10.00 (7.25-9.65)	7.00 (5.49-7.86)
Associate degree	10.00 (7.89-9.17)	10.00 (8.06-9.52)	8.00 (6.42-8.13)
Bachelor's degree	9.00 (7.75-8.52)	9.00 (7.22-8.27)	7.00 (6.41-7.26)
Master's degree	7.00 (7.02-8.97)	8.00 (5.93-8.81)	6.00 (4.56-7.56)
Doctoral degree	8.00 (7.05-8.94)	8.00 (6.42-9.34)	6.00 (4.32-7.67)
Test value	KW=2.607, p=0.626	KW=9.888, p=0.042	KW=4.481, p=0.345
Having an individual with chr	ronic diseases at home		
No	9.00 (7.84-8.48)	9.00 (7.27-8.19)	7.00 (6.37-7.15)
Yes	9.00 (7.79-8.89)	10.00 (8.05-9.29)	7.00 (6.21-7.61)
Test value	U=4076.00, p=0.378	U=3402.50, p=0.007	U=4159.00, p=0.524
Type of the institution			
University Hospital	10.00 (8.61-9.28) ^a	9.00 (7.14-8.43)	8.00 (6.54-7.67)
Public Hospital	8.00 (7.19-8.07) ^a	9.00 (7.22-8.37)	7.00 (5.94-6.86)
State Hospital	9.00 (6.26-10.39)	-	9.50 (6.60-10.73)
Other	8.00 (7.20-8.86)	10.00 (7.96-9.73)	7.00 (5.79-8.06)
Test value	KW=19.593, p=0.001	KW=10.120, p=0.018	KW=9.464, p=0.024*
Working in the emergency un	nit		
Yes	9.00 (8.12-8.76) ^a	10.00 (7.52-8.43)	7.00 (6.63-7.40)
No	8.00 (6.77-8.36)	8.00 (6.79-8.80)	6.00 (5.23-7.16)
lf needed	7.00 (6.81-8.09) ^a	8.50 (7.54-9.17)	6.00 (4.99-7.27)
Test value	KW=13.035, p=0.001	KW=0.860, p=0.650	KW=4.902, p=0.086
Having psychological suppor	t by the institution during the panden	nic	
No	9.00 (7.92-8.51)	9.50 (7.59-8.44)	7.00 (6.56-7.30)
Yes	9.00 (7.37-8.93)	8.00 (7.06-8.62)	6.00 (5.23-6.94)
Test value	U=2826.00, p=0.942	U=2512.00, p=0.258	U=2218.50, p=0.045*
The professional performing	the preliminary triage of patients with	n suspected COVID-19 in the emergency ro	om
Physcian	9.00 (7.69-9.08)	8.00 (7.05-8.80)	6.00 (4.63-6.58) ^a
Nurse/midwife/officer	9.00 (7.89-8.51)	10.00 (7.51-8.39)	7.00 (6.63-7.36) ^a
Paramedics /EMT	8.00 (6.66-9.17)	10.00 (7.44-10.05)	7.50 (5.11-8.72)
Test value	KW=0.520, p=0.771	KW=2.666, p=0.264	KW=7.344, p=0.025*

*Bonferroni correction was made for variables with more than two groups. *shows the groups with differences. FRT: Feeling of Risk for Themselves FRPLT: Feeling of Risk for the People Living Together SL: Stress Level

Healthcare professionals require high-quality respiratory protection to reduce COVID-19 infection exposure. Masks are essential PPE, but they are not sufficient. N95 masks or face protectors should be used when caring for patients diagnosed or suspected of COVID-19 (3,13). Evidence shows that FFP2 and FFP3 type masks remain protective even if used for a long time. The participants stated that they changed their masks (40.5%) in emergency units most frequently every four hours. This result was found to be consistent with the literature. Those who did not change their masks every four hours are thought to be caused by 45% of the participants who stated they had equipment shortages or lack of information.

Another situation that may pose a risk in healthcare professionals' clinical practices is the distance created by the exhaled air during the patient's respiratory and oxygen supply (3). Meng et al. (2020) emphasized the importance of preparation, protocol, and PPE before airway management to reduce the risk of viral infection when caring for patients who need intensive care, including 2500 tracheal intubations in Wuhan, and stated that most of the healthcare-related infections occurred before the precautions were taken (14). In this study, 71.0% of the participants stated that they took inhalers and protective measures against aerosol formation during the HFNC and NIV applications. It proves that healthcare professionals are knowledgeable about aerosol-generating practices and cautious about risks.

The potential of the COVID-19 pandemic to affect the mental wellbeing of healthcare professionals is very high. In a metaanalysis conducted with 33062 participants to determine the level of depression and anxiety in healthcare professionals during the pandemic, female healthcare professionals' rate of depression was higher than that of males (15). In a metaanalysis of Kisely et al. (2020), 59 studies were examined. It was determined that the healthcare professionals who were in direct contact with the infectious patients had higher levels of PTSD and psychological distress. Children waiting at home, an infected family member, and low household income were associated with adverse mental health outcomes (16). In a study conducted by Bohlken et al. (2020), in which 14 studies were included, the psychological distress caused by the pandemic was evaluated. They found that conditions such as stress, anxiety, and depression are related to gender, age, profession, specialization, and proximity to patients with COVID-19 (17). In China, the level of depression was 50.3%, anxiety was 44.6%, and insomnia was 34.0% during the pandemic, and access to PPE and adequate rest were associated with positive psychological outcomes (16,18). Similarly, in our study, the stress levels of the females, nurses, those working in the emergency units, those making pre-triage, and those not provided with psychological support were found to be significantly higher. It is an indication that healthcare professionals are in constant contact with patients with COVID-19 and that they are in a first-degree risk environment in emergency triage, which increases their stress levels.

In a cross-sectional study in which the knowledge, attitudes, and practices of 1357 healthcare workers were analyzed, Zhang et al. (2020) concluded that 89% of the participants had sufficient knowledge about COVID-19, and 85% had a fear of infection. Additionally, they found that the level of knowledge, work experience, and business category affected healthcare professionals' attitudes and practices regarding COVID-19 (19). The current study's results demonstrated a positive relationship between age and duration of service, feeling of risk for themselves and stress level, and feeling of risk for the person they live with and stress level. The study results are similar in terms of age, occupational experience, and feeling of risk. Thus, it can be said that risk perceptions and awareness based on experiences increase as the duration of service in the profession increases.

5. Conclusion

It was concluded that emergency healthcare professionals took the necessary precautions in some practices. However, they did not take enough precautions in some practices due to the complex nature of their work, lack of knowledge, or lack of materials. It was also seen that they felt themselves at risk in terms of infection, worried about themselves and their relatives, and experienced intense stress. Finally, it was demonstrated that those who experienced social exclusion for being a healthcare professional and those with chronic diseases considered leaving the profession.

Compatible with these results, in addition to national action plans, action plans for this type of pandemic should be prepared in advance in the emergency units. Additionally, health professionals should be informed and trained about their physical needs and their ability to cope with stress and manage their concerns. It is also recommended that measures be taken to reduce the risk of infection of healthcare professionals' family members. Support should be provided to emergency professionals by organizing a professional health team in acute situations. The continuity of education should be established by creating in-service training groups. Finally, it is suggested that problems should be identified by conducting workload analyses in further comprehensive studies, and emergency teams should be planned accordingly.

6. Contribution to the Field

The COVID-19 pandemic has affected the whole world. Health workers experience difficulties in combating the pandemic. It will contribute to the field for healthcare professionals to move forward in line with the identified problems.

7. Limitations

The results cannot be generalized to all of Turkey due to the low number of participants and lack of participation from each region at the same rate. In addition, the physical environment of the emergency unit and the workload of the professionals could not be evaluated.

Acknowledgments

Thank you to participants in the scope of the research.

Conflict of Interest

This article did not receive any financial fund. There is no conflict of interest regarding any person and/or institution.

Authorship Contribution

Concept: EY, NÇ, BÖ; Design: EY, NÇ; Supervision: EY, NÇ; Funding: EY, NÇ, BÖ; Materials: DSG, BA ; Data Collection/ Processing: EY, NÇ, BÖ, DSG, BA; Analysis/Interpretation: EY, NÇ; Literature Review: BÖ, EY, NÇ; Manuscript Writing: EY, NÇ, BÖ; Critical Review: BÖ, EY, NÇ, NSG, BA. Ören et al., Covid-19 and emergency unit healthcare professionals'

References

1. Mo Y, Deng L, Zhang L, Lang Q, Liao C, Wang N, et al. Work stress among Chinese nurses to support Wuhan in fighting against COVID-19 epidemic. J Nurs Manag. 2020 Jul;28(5):1002-1009. doi:10.1111/jonm.13014.

2. Lai CC, Shih TP, Ko WC, Tang HJ, Hsueh PR. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and coronavirus disease-2019 (COVID-19): The epidemic and the challenges. Int J Antimicrob Agents. 2020;55(3):105924. doi:10.1016/j.ijantimicag. 2020.105924

3. Ferioli M, Cisternino C, Leo V, Pisani L, Palange P, Nava S. Protecting healthcare workers from SARS-CoV-2 infection: practical indications. Eur Respir Rev. 2020;29(155):200068. doi:10.1183/16000617.0068-2020

4. Kursumovic E, Lennane S, Cook TM. Deaths in healthcare workers due to COVID-19: the need for robust data and analysis. Anaesthesia. 2020;10.1111/anae.15116. doi:10.1111/anae.15116

5. The Lancet. COVID-19: protecting health-care workers. Lancet. 2020;395(10228):922. doi:10.1016/S0140-6736(20)306449http:// europepmc.org/article/MED/32199474

6. Lotfinejad N, Peters A, Pittet D. Hand hygiene and the novel coronavirus pandemic: The role of healthcare workers. J Hosp Infect. 2020;S0195-6701(20)30116-X. doi:10.1016/j.jhin.2020.03.017

7. Moazzami B, Razavi-Khorasani N, Dooghaie Moghadam A, Farokhi E, Rezaei N. COVID-19 and telemedicine: Immediate action required for maintaining healthcare providers well-being. J Clin Virol. 2020;126:104345. doi:10.1016/j.jcv.2020.104345

8. Tsamakis K, Rizos E, Manolis AJ, Chaidou S, Kympouropoulos S, Spartalis E, et al. COVID-19 pandemic and its impact on mental health of healthcare professionals. Exp Ther Med. 2020 Jun;19(6):3451-3453. doi:10.3892/etm.2020.8646.

9. Hoe Gan W, Wah Lim J, Koh D. Preventing intra-hospital infection and transmission of COVID-19 in healthcare workers [published online ahead of print, 2020 Mar 24]. Saf Health Work. 2020;11(2):241-243. doi:10.1016/j.shaw.2020.03.001

10. Houghton C, Meskell P, Delaney H, Smalle M, Glenton C, Booth A, et al. Barriers and facilitators to healthcare workers' adherence with infection prevention and control (IPC) guidelines for respiratory infectious diseases: a rapid qualitative evidence synthesis. Cochrane Database Syst Rev. 2020 Apr 21;4(4):CD013582. doi:10.1002/14651858.CD013582

11. Bhagavathula AS, Aldhaleei WA, Rahmani J, Mahabadi MA, Bandari DK. Knowledge and perceptions of COVID-19 among health care workers: cross-sectional study. JMIR Public Health Surveill. 2020;6(2):e19160. doi:10.2196/19160

12. Wang D, Hu B, Hu C, Zhu F, Liu X, Zhang J, et al. Clinical Characteristics of 138 Hospitalized Patients With 2019 Novel Coronavirus-Infected Pneumonia in Wuhan, China. JAMA. 2020 Mar 17;323(11):1061-1069. doi:10.1001/jama.2020.1585

13. Friese CR, Veenema TG, Johnson JS, Jayaraman S, Chang JC, Clever LH. Respiratory Protection Considerations for Healthcare Workers During the COVID-19 Pandemic. Health Secur. 2020;18(3). doi:10.1089/ hs.2020.0036

14. Meng L, Qiu H, Wan L, Ai Y, Xue Z, Guo Q, et al. Intubation and Ventilation amid the COVID-19 Outbreak: Wuhan's Experience. Anesthesiology. 2020 Jun;132(6):1317-1332. doi:10.1097/ALN.000000000003296

15. Pappa S, Ntella V, Giannakas T, Giannakoulis VG, Papoutsi E, Katsaounou P. Prevalence of depression, anxiety, and insomnia among healthcare workers during the COVID-19 pandemic: A systematic review and meta-analysis [published online ahead of print, 2020 May 8]. Brain Behav Immun. 2020;S0889-1591(20)30845-X. doi:10.1016/j. bbi.2020.05.026

16. Kisely S, Warren N, McMahon L, Dalais C, Henry I, Siskind D. Occurrence, prevention, and management of the psychological effects of emerging virus outbreaks on healthcare workers: rapid review and meta-analysis. BMJ. 2020;369:m1642. Published 2020 May 5. doi:10.1136/bmj.m1642

17. Bohlken J, Schömig F, Lemke MR, Pumberger M, Riedel-Heller SG. COVID-19-Pandemie: Belastungen des medizinischen Personals [COVID-19 Pandemic: Stress Experience of Healthcare Workers-A Short Current Review]. Psychiatr Prax. 2020;47(4):190-197. doi:10.1055/a-1159-5551

18. Gold JA. Covid-19: adverse mental health outcomes for healthcare workers. BMJ. 2020;369:m1815. doi:10.1136/bmj.m1815

19. Zhang M, Zhou M, Tang F, Wang Y, Nie H, Zhang L, et al. Knowledge, attitude, and practice regarding COVID-19 among healthcare workers in Henan, China. J Hosp Infect. 2020 Jun;105(2):183-187. doi:10.1016/j. jhin.2020.04.012.