

Determining the Anxiety Levels of Emergency Service Employees' Working During The Covid-19 Pandemic

COVID 19 Pandemisinde Görevli Acil Servis Çalışanlarının Anksiyete Düzeylerinin Belirlenmesi

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Abstract

Background: The purpose of this study is to determine the anxiety levels of emergency service employees working during the COVID-19 pandemic.

Materials and Methods: This descriptive study was carried out in May 2020 at the Şanlıurfa Mehmet Akif İnan Research and Training Hospital, which is a pandemic hospital. The sample of the study consisted of 95 emergency service employees. A descriptive information form prepared by the researchers and the Beck Anxiety Inventory were used as the data collection instruments.

Results: It was determined had, among the participants, 53.7% had mild, 28.4% had moderate and 17.9% had severe anxiety levels. It was observed that the women in comparison to the men and the doctors and nurses in comparison to other emergency employees experienced more anxiety ($p<0.05$).

Conclusions: It is needed to take various protective precautions in terms of mental health for emergency service employees. Before developing effective approaches to support emergency service employees, it is important to determine their anxiety levels and sources of anxiety. It is recommended to provide psychological counselling and support to reduce the anxiety levels of emergency service employees.

Key Words: COVID-19, Emergency healthcare employees, Anxiety

Öz.

Amaç: Bu çalışmanın amacı Covid 19 pandemisinde görevli acil servis çalışanlarının anksiyete düzeylerinin belirlenmesidir.

Materyal ve Metod: Tanımlayıcı tipte yapılan bu çalışma Mayıs 2020 tarihinde Şanlıurfa'da pandemi hastanesi olan Şanlıurfa Mehmet Akif İnan Eğitim ve Araştırma Hastanesi'nde yürütülmüştür. Araştırmanın örneklemini 95 acil sağlık çalışanı oluşturmuştur. Veri toplama aracı olarak araştırmacılar tarafından hazırlanmış olan tanıtıcı bilgi formu, Beck Anksiyete Ölçeği kullanılmıştır.

Bulgular: Çalışmaya katılanların %53,7'sinin hafif, %28,4'ünün orta ve %17,9'unun ağır düzeyde anksiyete yaşadığı belirlenmiştir. Kadınların erkeklere göre, doktor ve hemşirelerin diğer acil çalışanlarına göre daha fazla anksiyete yaşadığı tespit edilmiştir ($p<0.05$).

Sonuç: Acil sağlık çalışanları için koruyucu ruh sağlığı açısından çeşitli önlemlerin alınması gerekmektedir. Sağlık profesyonellerini desteklemek için etkili yaklaşımlar geliştirilmeden önce, onların anksiyete düzeylerini ve anksiyete kaynaklarını tespit etmek önemlidir. Acil sağlık çalışanlarında anksiyete düzeyini azaltmak için psikolojik danışmanlık ve destek verilmesi önerilmektedir.

Anahtar kelimeler: COVID 19, Acil sağlık çalışanları, Anksiyete

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Geliş tarihi / Received:
15.06.2020

Kabul tarihi / Accepted:
21.07.2020

DOI: 10.35440/hutfd.752467

Introduction

Since the end of December 2019, the Chinese city of Wuhan has reported a novel pneumonia caused by coronavirus disease 2019 (COVID-19), which is spreading domestically and internationally. On January 30, 2020, the World Health Organization held an emergency meeting and declared the global COVID-19 outbreak a public health emergency of international concern (1).

As the coronavirus disease 2019 (COVID-19) pandemic accelerates, global healthcare systems have become overwhelmed, leading to great psychological pressure on healthcare workers in the care of critically ill patients with COVID-19 (2). Facing this critical situation, healthcare workers on the front line who are directly involved in the diagnosis, treatment and care of patients with COVID-19 are at risk of developing psychological distress and other mental health symptoms (1). Previous studies have reported adverse psychological reactions to the 2003 SARS outbreak among healthcare workers (3). Studies on the SARS outbreak revealed that healthcare workers experienced acute stress reactions (4,5). Maunder et al. reported that some healthcare workers at Toronto's Mount Sinai Hospital experienced intense emotional reactions during the SARS outbreak, including fear of contagion, feelings of stigmatization, loneliness, boredom, anger, anxiety and a sense of uncertainty. Similar reactions have been described in healthcare workers in the context of a previous botulism outbreak (6).

As the outbreak is ongoing, it is crucial to equip the health care systems and the general public to be medically and psychologically prepared (7). Past studies have shown that HCWs (e.g., paramedics, ambulance personnel, and other HCWs) who were at high risk of exposure of infectious disease outbreak exhibited extreme stress, were emotionally influenced and traumatized, and had extreme levels of symptoms of depression and anxiety (8). Anxiety is known to be a situation that can be experienced by everyone. Anxiety is a common, unpleasant and vague hunch. Health workers who provide COVID-19 care have higher anxiety scores (9,10). A higher vulnerability of developing adverse psychiatric effects has been shown in HCWs serving in emergency departments, intensive care units, and isolation wards compared to those working in other departments, probably because they are first hand exposed to the infected patients, and their work is more challenging (11).

The emergency department (ED) is considered to be a high-risk area as it is often the first stop for febrile patients who later turn out to be suffering from COVID-19. Healthcare workers have to face a tremendous mental burden in addition to physical strain in taking care of patients potentially infected with COVID-19 (12). Little is known about the psychological effects of this type of disease outbreak on healthcare and other hospital workers (13).

The objective of this study was to examine the degree and

sources of anxiety adopted by emergency service employees in Şanlıurfa/Turkey during the outbreak of COVID-19.

Materials and Methods

This descriptive study was carried out in May 2020 at the Şanlıurfa Mehmet Akif İnan Research and Training Hospital, which is a pandemic hospital. No sampling was made for the study. The population of the study consisted of 101 emergency service employees working during the pandemic of COVID-19, while the sample consisted of 95 employees who agreed to participate (95%).

A descriptive information form prepared by the researchers and the Beck Anxiety Inventory (BAI) were used as the data collection instruments. The data collection forms took approximately 15 minutes to complete. The descriptive information form consisted of 20 questions on the participants' age, gender, education, marital status, years of experience in the profession, position of working with COVID-19 patients, status of using personal protective equipment, status of encountering COVID-19 patients, status of having suspicion of COVID-19, status of positive COVID-19 test results in family or personnel at their institution, status of being quarantined and status of being influenced by news on COVID-19.

Beck Anxiety Inventory

It measures the frequency of anxiety symptoms experienced by the individual. It is a 4-point Likert-type self-report scale including 21 items each scored as 0-3. A high total score indicates a high level of anxiety experienced by the person. In the Beck Anxiety Inventory, 8-15 points indicate mild, 16-25 points indicate moderate and 26-63 points indicate severe anxiety. The inventory was developed by Beck et al. (14) and tested for validity and reliability in Turkish by Ulusoy et al. The Cronbach's alpha coefficient of the scale was found to be 0.93 (15). In this study the Cronbach's alpha coefficient found as 0.83.

The data were analyzed using the SPSS 20.0 package software, while the analyses included descriptive statistics (frequency, percentage, mean) and independent-samples t-test and Kruskal Wallis tests to investigate the intergroup differences. For all statistical analyses, $p < 0.05$ was accepted as statistically significant.

Before starting the study, approval was received from the Ethics Board of the Faculty of Medicine at Harran University (decision number 27.04.2020 / 8), permission was obtained from Şanlıurfa Mehmet Akif İnan Research and Training Hospital, and consent was received from the participants.

Results

Table 1 shows the sociodemographic characteristics of the participants. Among the participants, 35.8% were female, 64.2% were male, and their mean age was 30.08 ± 5.64 . It was observed that the women in comparison to the men

and the doctors and nurses in comparison to other emergency employees experienced more anxiety ($p < 0.05$). According to the Beck Anxiety Inventory, among the participants, 53.7% had mild, 28.4% had moderate and 17.9% had severe levels of anxiety.

Table 1. Distribution of Emergency Service Employees Based on Sociodemographic Characteristics and Anxiety Levels (n=95)

Descriptive Characteristics		Frequency	Percentage	Beck Anxiety Inventory mean score \pm SD	Test Value and Significance
Gender	Male	61	64.2	11.78 \pm 11.70	t=4.12 p=.000
	Female	34	35.8	21.58 \pm 9.89	
Marital Status	Married	47	49.5	14.87 \pm 13.40	t=-3.38 p=.736
	Single	48	50.5	15.70 \pm 10.59	
Age	18-28	49	51,6	14.48 \pm 9.95	t=-6.72 p=.503
	29-48	46	48,4	16.15 \pm 13.93	
Education	High School	14	14,7	13.85 \pm 16.11	KW=2.19 p=.334
	Associate's / Bachelor's	44	46,3	14.45 \pm 11.05	
	Master's/Doctorate	37	38,9	16.83 \pm 11.51	
Occupation	Doctor	32	33,7	17.53 \pm 11.79	KW=18.48 p=.000
	Nurse	44	46,3	17.70 \pm 12.14	
	Other	19	20,0	5.94 \pm 6.75	
Professional Experience	1-5	60	63,2	14.96 \pm 10.95	KW=2.32 p=.313
	6-10	16	16,8	17.87 \pm 10.63	
	11-24	19	20,0	14.15 \pm 16.06	

Table 2. COVID-19-related experiences of emergency service employees

Occupational Characteristics		Frequency	Percentage
Have you met a COVID-19 positive patient?	Yes	78	82.1
	No	17	17.9
Do you use personal protective equipment?	Goggles	52	54.7
	N95 mask	20	21.1
	Surgical mask	95	100
	Coat	65	68.4
	Gloves	85	89.5
Have you experienced COVID-19 suspicion?	Yes	42	44.2
	No	53	55.8
Have you been quarantined?	Yes	4	4.2
	No	91	95.8
Have you heard of COVID-19 positive cases from personnel?	Yes	33	34.7
	No	62	65.3
Did this situation create concern or fear in you?	Yes	35	36.8
	No	60	63.2
Have you been afraid of carrying the virus home?	Yes	92	96.8
	No	3	3.2
How do COVID-19 programs on TV affect you?	Negatively	45	47.4
	No effect	28	29.4
	Increases my knowledge	22	23.2

Table 2 shows the COVID-19-related experiences of the participants. Among the participants, 82.1% stated that they encountered COVID-19-positive patients, 44.2% said they experienced suspicion of COVID-19, and 96.8% stated they were afraid of carrying the COVID-19 virus home. All participants wore surgical masks while working,

89.5% used gloves, 68.4% wore coats, and 52.6% used face shields. 47.4% of the participants stated that the news stories on the media regarding COVID-19 induced a negative effect in them.

Discussion

The COVID-19 pandemic has created a never before seen psychological stress on the people in the world, especially on medical labor. It was determined that, among the emergency service employees who participated in this study 53.7% had mild, 28.4% had moderate and 17.9% had severe anxiety levels. In a study conducted in İzmir in Turkey on paramedics and emergency medicine technicians, when the Beck Anxiety Inventory results were reviewed, it was seen that 90.1% of the participants had mild, 8.6% had moderate and 1.2% had severe anxiety levels (16). A study in China on employees working at a COVID-19 pandemic hospital also determined higher anxiety levels than normal among the healthcare workers (17). Another study at Fujian Provincial Hospital determined that 22.6% of medical personal had mild or moderate and 22.6% had severe anxiety. It was also shown that emergency service employees more anxiety in comparison to those working at clinical services (18). Due to the risk of direct contact with COVID-19-suspicious or confirmed patients and getting infected, as well as concerns of carrying the virus to their families when they meet critical patients, it is an expected result that anxiety levels are higher among emergency service employees who are in the front lines.

In this study, the mean BAI score of the women was higher than that of the men. Considering the literature, it is seen that studies on healthcare workers have found higher anxiety levels among women than men (10,19,20,21). The findings in our study support this. Women have various responsibilities both at home and work life in addition to their positions as spouses and mothers. Considering these roles attributed to women by the society, women experience more anxiety in comparison to men.

In this study, the mean BAI scores of the doctors and nurses were found to be higher than those of other emergency service employees. Doctors and nurses are in close contact with patients in the process of diagnosis, treatment and care for the patients. This increases their risk of being exposed to COVID-19. Additionally, their higher knowledge levels on COVID-19 in comparison to other employees increase their anxiety levels concerning the disease.

In the study, among the participants, 82.1% said they met a COVID-19 patient, 44.2% said they experienced suspicion of COVID-19, and 96.8% stated that they were afraid of carrying the virus home to their families. Another study on healthcare workers at a COVID-19 hospital similarly found that they experienced fears of exposure to COVID-19 at the workplace and carrying the infection to their fam-

illies, as well as failure of accessing tests fast and spreading the infection at work if they developed COVID-19 symptoms (22). Similarly, in a study on healthcare workers in Turkey, healthcare workers stated that they experienced anxiety and stress due to the transmission of the virus to them and the risk of carrying the virus to their families because of their working conditions (23). In Turkey, healthcare workers do not go near their families because of virus transmission concern to partners, children and elderly family members, they stay in places such as hotels and pensions allocated for them by the government.

Among the participants of this study, all were using surgical masks while working, 89.5% were using gloves, 68.4% were using coats, and 52.6% were using face shields. To prevent exposure to COVID-19, it is vitally important to use personal protective equipment (24). Having problems accessing personal protective equipment constitutes a source of stress on healthcare workers (25,26). As problems accessing protective equipment are not encountered in Turkey, the high rate of protective equipment in this study may be an indicator that the healthcare policies of the Republic of Turkey are successful and effective, and the infrastructure of the Ministry of Health is sufficient.

47.4% of the participants stated that news stories on the media regarding COVID-19 produced negative effects on them. The media constantly presents news stories and reports beyond borders to inform people regarding the pandemic situation. The general public and emergency service employees follow up on their governments' attitudes and policies against COVID-19, preventive and protective precautions about COVID-19 and new developments. All these create anxiety on people (27).

Conclusion

COVID-19 is highly contagious and is rapidly spreading. In this process, the anxiety levels of emergency healthcare employees, who are in the front lines, are increasing. It was determined that women in comparison to men and doctors and nurses in comparison to other employees experience more anxiety.

It is needed to take various protective precautions in terms of mental health for emergency service employees. Before developing effective approaches to support emergency service employees, it is important to determine their anxiety levels and sources of anxiety. It is recommended to provide psychological counselling and support to reduce the anxiety levels of emergency service employees.

Ethical Approval: Ethics committee approval was obtained from the Noninvasive Clinic Ethical Committee of the Medical Faculty at Harran University (decision number 27.04.2020 / 8), institution approval of the study was obtained from the Şanlıurfa Mehmet Akif Inan Research and

Training Hospital and consent was obtained from the participants.

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