

Yes	66,7	9,5	11,9	9,5	2,4	0.635
No	64,6	8,8	11,2	7,0	8,4	
Have you stayed in a separate place during the pandemic?						
Yes	52,9	11,8	23,5	0,0	11,8	0.243
No	65,8	8,8	10,4	7,9	7,1	
Are there adequate measures in the hospital?						
Yes	77,9	5,9	8,8	4,4	2,9	0,114
No	60,3	10,1	12,2	8,5	9,0	
Have you considered resigning during the pandemic?						
Yes	61,1	5,6	11,1	22,2	0,0	0.137
No	65,3	9,2	11,3	6,3	7,9	

DASS-42, Depression Anxiety Stress Scales

The proportion of those with stress in individuals who had no previous psychiatric disease was 65(25.9%), but only 2(33.3%) of those who previously had a psychiatric condition had no stress according to the scale at the time of the study, which was statistically significant ($p=0.030$). The proportion those having stress in individuals who considered resigning during the pandemic was 9(50.0%), but it was 60(25.1%) in

those who did not consider resigning, and this difference was statistically significant ($p=0.023$). Approximately 9(13.2%) of respondents who said that adequate measures had been taken in the hospital had stress, whereas 23(31.7%) of those who said hospital measures were inadequate had stress, and this was statistically significant ($p=0.002$) (Table V).

Table V: Severity categories of stress.

	DASS-42, Stress					P value
	None	Mild	Moderate	Severe	Very severe	
Age groups						0.881
29 y and under	73,4	10,9	10,9	3,1	1,6	
30-39 y	69,3	9,9	11,9	5,0	4,0	
40 y and older	77,2	8,7	6,5	5,4	2,2	
Gender						0.001
Male	81,4	9,0	6,2	3,4	0,0	
Female	62,5	10,7	14,3	6,3	6,3	
Education						0.511
High school and below	79,0	6,5	6,5	6,5	1,6	
University	71,3	10,8	10,8	4,1	3,1	
Do you have children?						0.716
Yes	75,5	8,4	8,4	4,5	3,2	
No	69,6	11,8	11,8	4,9	2,0	
Place of work						

Intensive care	78,9	5,3	10,5	3,5	1,8	0.039
Emergency room	62,5	7,1	14,3	5,4	10,7	
Administration	75,8	12,9	6,5	4,8	0,0	
Ward-Outpatient clinic	74,4	12,2	8,5	4,9	0,0	
Occupational groups						0.432
Nurse	69,5	7,4	13,7	5,3	4,2	
Doctor	73,1	11,5	9,6	1,9	3,8	
Other	76,4	10,9	6,4	5,5	0,9	
Marital status						0.754
Single	67,8	11,5	11,5	5,7	3,4	
Married	75,9	8,8	8,8	4,1	2,4	
Smoking						0.560
Smoker	78,6	7,1	9,5	3,6	1,2	
Non-smoker	70,5	11,0	9,8	5,2	3,5	
Do you drink alcohol?						0.601
Yes	80,0	6,7	13,3	0,0	0,0	
No	72,7	9,9	9,5	5,0	2,9	
Do you have any psychiatric disorders?						0.357
Yes	60,0	0,0	20,0	0,0	20,0	
No	73,4	9,9	9,5	4,8	2,4	
Do you have any previous psychiatric disorders?						0.030
Yes	33,3	,0	50,0	0,0	16,7	
No	74,1	10,0	8,8	4,8	2,4	
Do you have any chronic diseases?						0.350
Yes	71,4	7,1	14,3	7,1	0,0	
No	73,5	10,2	8,8	4,2	3,3	
Have you stayed in a separate place during the pandemic?						0.241
Yes	76,5	5,9	5,9	0,0	11,8	
No	72,9	10,0	10,0	5,0	2,1	
Are there adequate measures in the hospital?						0.002
Yes	86,8	5,9	1,5	5,9	0,0	
No	68,3	11,1	12,7	4,2	3,7	
Have you considered resigning during the pandemic?						0.023
Yes	50,0	5,6	33,3	1,1	0,0	
No	74,9	10,0	7,9	4,2	4,2	

According to the results of the multivariate logistic regression analysis; PTSD symptom level, DASS-depression, DASS-anxiety, and DASS-stress were significantly higher in women than in men [(2.02; %95Cl, 1.09-3.73; P=0.026), ((2.97; %95Cl, 1.61-5.47; P=0.001), (2.20; %95Cl, 1.23-3.97; P=0.008), (2.57; %95Cl, 1.36-4.86; P=0.004), respectively]. PTSD symptom level rates of emergency room workers were significantly higher than those of the workers in other departments (2.47; %95Cl, 1.25-4.91; P=0.010). According to those who stated that the infection measures taken in the hospital

were insufficient, the rates of depression, anxiety and stress was significantly higher than those who stated that they were sufficient [(3.93; 95%Cl, 1.51-7.18; P=0.003), (2.54; 95% Cl, 1.23-5.23; P=0.011), (3.47; 95%Cl, 1.47-8.18; P= 0.004), respectively]. The rates of depression, anxiety, and stress was significantly higher in employees who previously had psychiatric disease than those who did not have disease before [(14.86; 95% Cl, 1.37-160.7; P=0.026), (12.40; 95% Cl, 1.20-128.3; P=0.035), (6.90; % 95 Cl, 1.01-47.36, P=0.049), respectively] (Table VI).

Table VI: Sociodemographic Risk Factors for Mental Health Results Identified by Multivariate Logistic Regression Analysis

	PTSD symptom level		DASS Depression		DASS Anxiety		DASS Stress	
	Adjusted CI (%95)	P value	Adjusted CI (%95)	P value	Adjusted CI (%95)	P value	Adjusted CI (%95)	P value
Gender								
Male	1		1		1		1	
Female	2.02 (1.09-3.73)	0.026	2,97 (1,61-5,47)	<0,001	2.21 (1.23-3.97)	0.008	2.57 (1.36-4.86)	0.004
Education								
High school and below	1		1		1		1	
University	0.72 (0.32-1.59)	0.412	1,40 (0.65-3.01)	0.384	0.86 (0.41-1.79)	0.687	0.75 (0.33-1.70)	0.489
Marital status								
Married	1		1		1		1	
Single	0.83 (0.30-2.28)	0.715	2.51 (0.83-7.62)	0.105	1.10 (0.41-2.95)	0.845	1.35 (0.47-3.82)	0.577
Place of work								
Intensive care								
Emergency room	1		1		1		1	
Administration	2.47 (1.25-4.91)	0.010	0.70 (0.35-1.38)	0.295	0.60 (0.31-1.17)	0.131	0.66 (0.32-1.36)	0.256
Ward-Outpatient clinic								
Occupational groups								
Other	1		1		1		1	
Doctor	0.61 (0.28-1.32)	0.208	1.10 (0.53-2.32)	0.797	0.99 (0.49-2.01)	0.977	0.62 (0.29-1.34)	0.222
Nurse	1.11 (0.48-2.55)	0.805	1.29 0.55-3.06)	0.552	0.74 (0.32-1.71)	0.482	0.80 (0.33-1.96)	0.630

Do you have children?								
No	1		1		1		1	
Yes	0.96 (0.35-2.60)	0.929	2.25 (0.75-6.80)	0.149	1.37 (0.52-3.61)	0.519	0.92 (0.32-2.59)	0.867
Smoking								
Smoker	1		1		1		1	
Non-smoker	2.33 (1.17-4.63)	0.016	0.72 (0.38-1.36)	0.311	0.76 (0.41-1.40)	0.373	0.60 (0.31-1.20)	0.148
Have you considered resigning during the pandemic?								
No	1		1		1		1	
Yes	1.40 (0.47-4.11)	0.547	1.33 (0.45-3.93)	0.606	0.55 (0.18-1.67)	0.291	1.45 (0.50-4.19)	0.489
Have you stayed in a separate place during the pandemic?								
No	1		1		1		1	
Yes	1.39 (0.47-4.11)	0.595	1.67 (0.52-5.32)	0.386	1.65 (0.54-5.02)	0.380	0.54 (0.14-2.07)	0.369
Do you have any previous psychiatric disorders?								
No	1		1		1		1	
Yes	5.56 (0.83-37.43)	0.078	14.86 (1.37-160.7)	0.026	12.40 (1.20-128.3)	0.035	6.90 (1.01-47.36)	0.049
Are there adequate measures in the hospital?								
Yes	1		1		1		1	
No	2.07 (0.98-4.36)	0.057	3.93 (1.51-7.18)	0.003	2.54 (1.23-5.23)	0.011	3.47 (1.47-8.18)	0.004
Age	0.99 (0.95-1.03)	0,625	1.03 (0.99-1.07)	0.151	1.01 (0.97-1.05)	0.642	1.01 (0.97-1.05)	0.794

PTSD: post-traumatic stress disorder, DASS-42: Depression Anxiety Stress Scales, CI: Confidence Interval

DISCUSSION

Adverse psychological consequences have affected the healthcare workers as well as the general population during the COVID-19 pandemic. Although the hospital where this study was conducted does not serve as a pandemic hospital, a special service was organized for the hospitalization of possible Covid-19 cases. In this study period, the results

of 6 patients who were evaluated as possible Covid-19 were negative. In this study; employees were not evaluated as employees in Covid service and other services. Approximately 54.9% of the respondents showed signs of PTSD symptom level, 33.5% of depression, 35% of anxiety, and 26.8% of stress, and these rates are similar to those reported in previous studies^{16,17}. Although the hospital where the study is conducted is not a pandemic hospital,

these results show that those working in pandemic hospitals may have higher psychiatric complaints. Since the study was conducted at the beginning of the epidemic, we can predict that the results may be more advanced in the future. In the present study, the rates of PTSD symptom level, depression, anxiety, and stress were higher in women than in men. We can interpret it as it is because women have more responsibilities regarding social life and family outside of work. Our findings show that not all healthcare professionals are affected by the COVID-19 outbreak to the same extent. This rate was significant in the emergency room workers. Among the workers, the rate in nurses was found to be higher. This was consistent with the literature¹⁸. As first contact with Covid-19 patients occurs in the emergency room in our hospital, nurses have intensive contact with patients and are subject to the highest risk of infection due to long working hours. Emergency room staffs have been struggling to provide quality service, and they have been experiencing more difficulties in psychological terms than those working in other departments. In the present study, it was found that 6.6% of the respondents stayed in separate places and 7.0% considered resigning. This proportion is different from that reported in the literature¹⁹. We believe that the reason for the occurrence of few cases is because our hospital is a pediatric hospital and that 72% of the employees believed that the measures taken in the hospital were partially or completely adequate. Nonsmokers had higher PTSD symptoms than smokers. Although smoking is also evaluated as a method of coping with stress by smokers, data to support this was not evaluated in our study. Although the findings determined according to the scale evaluations made in patients with previous and current psychiatric diseases are statistically insignificant, the reason for this is the very low number of patients with psychiatric diseases. This group of employees should be very careful. Because as the stress

burden increases in healthcare professionals such as nurses, suicide rates also increase²⁰.

Although studies conducted during the COVID-19 pandemic in China showed moderate and severe psychological symptoms in the general population, this was not the finding for the hospital workers in the present study²¹. This situation can be explained by the fact that the study is at an early stage, does not serve as a pandemic hospital, only serves as a children's hospital, and the Ministry of Health takes and takes measures rapidly. Although the psychological effect of COVID-19 was found to be more common in healthcare workers without medical training in the studies²², PTSD symptom level was less common in healthcare workers other than doctors and nurses. This is thought to be due to the fact that we had very little contact with the covid-19 patient in the first periods, as we serve as a children's hospital.

It can be estimated that health and social care professionals on the frontline would be at high risk, especially in terms of psychological disorders. In emergency cases, disorders that may occur in the long term such as burnout, depression, and post-traumatic stress disorder can be avoided by managing stress well and providing expert assistance. Frontline workers, including healthcare workers, should be particularly focused on with respect to this. Psychological therapies should not be ignored at any stage of the pandemic period.

This study is important in terms of contributing to the literature in terms of early evaluation and monitoring of the mental health status of healthcare workers in the early stages of future infectious disease outbreaks and also in terms of applying a more active, systematic and scientific psychological support treatment in long-term pandemic processes.

LIMITATIONS

There were some limitations in this study. The first was that this was a pediatric hospital; therefore, there were fewer cases. Second, the study was conducted within a short period of time. Third, as of the region where this study was conducted, people were accustomed to psychological stress load because their living conditions were difficult for various reasons. Fourth, the number of participants was limited. Lastly, the long-term results could not be evaluated.

CONCLUSION

In this study, it was determined that during the Covid-19 pandemic, psychological stress levels significantly increased in healthcare providers. To promote mental well-being in healthcare workers, adequate working conditions, especially for women, nurses, and frontline workers, necessary and adequate medical protective equipment, adequate resting periods as well as multidisciplinary programs such as psychological support should be provided and immediately put into practice. Providing scientific and regular information to healthcare workers during the management of the pandemic process prevents the psychological stress levels of the employees from increasing. In addition, psychological support is thought to be important in increasing the quality of medical services. Additional studies are recommended to investigate the long-term impact of the COVID-19 outbreak on the psychological state of healthcare workers.

Ethics Committee Approval: Ethical approval for the study was obtained from the Republic of Turkey Ministry of Health General Directorate of Health Services and Health Sciences University Diyarbakır Gazi Yaşargil Training and Research Hospital (472. 05/15/2020). Informed consent was obtained from all participants. Data were collected within 10 days (March 23–April 01, 2020).

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