



ORJİNAL MAKALE / ORIGINAL ARTICLE

Balıkesir Sağlık Bilimleri Dergisi / BAUN Sağlık Bil Derg
Balıkesir Health Sciences Journal / BAUN Health Sci J
ISSN: 2146-9601- e ISSN: 2147-2238
Doi: <https://doi.org/10.53424/balikesirsbd.1263058>



Background Psychological Effects of War on Healthcare Employees Assigned to Refugee Camps

İsmet ÇELEBİ¹, Selma DURMUŞ SARIKAHYA²

¹ Gazi University, Vocational School of Health Services, Department of Paramedic

² Artvin Çoruh University, Faculty of Health Sciences, Department of Public Health Nursing

Geliş Tarihi / Received: 10.03.2023, Kabul Tarihi / Accepted: 23.06.2023

ABSTRACT

Objective: This study has been carried out to evaluate the burnout, depression, anxiety and stress levels of healthcare employees temporarily assigned to refugee camps and factors related hereto. **Materials and Methods:** The population of this descriptive-cross-sectional study consisted of healthcare employees assigned to work temporarily in refugee camps in a certain province. A socio-demographic information form, the DAS-21 scale and the Maslach Burnout Inventory were used in this study as data collection tools. **Results:** A percentage of 64.5% of the participants was younger than 31 years old, 50.0% was employed as a paramedic, 31.2% had crossed the border and 54.7% was assigned to camps on a voluntary basis. It was determined that the Emotional Exhaustion, Desensitization and Personal Achievement score average of the participants assigned to National Medical Rescue Teams was statistically significant compared to those assigned to ambulance services. The rate of depression was found to be statistically higher in National Medical Rescue Team employees and those who had gone on cross-border missions ($p<0.05$). **Conclusion:** On the basis of this study, it was concluded that the rate of depression is higher in those who went on a cross-border mission, that emotional exhaustion was higher in those who had been assigned on a voluntary basis and that emotional exhaustion, depersonalization and anxiety levels were higher in women.

Keywords: Burnout, Healthcare Employees, Mental Health, Refugee Camp.

Mülteci Kamplarına Görevlendirilen Sağlık Çalışanlarında Savaşın Arka Plan Psikolojik Etkileri

ÖZ

Amaç: Bu araştırma mülteci kamplarına görevlendirilen sağlık çalışanlarının tükenmişlik, depresyon, anksiyete ve stres düzeyleri gibi ruhsal durumları ve bunlarla ilişkili faktörleri değerlendirmek amacıyla gerçekleştirilmiştir. **Gereç ve Yöntem:** Tanımlayıcı-kesitsel olarak tasarlanan bu araştırmanın evrenini bir ilde mülteci kamplarında geçici olarak görevlendirilen sağlık çalışanları oluşturmuştur. Araştırmaya toplam 234 sağlık çalışanı katılmıştır. Veri toplama aracı olarak "Sosyo-demografik Bilgi Formu", "DAS-21 Ölçeği", "Maslach Tükenmişlik Envanteri" kullanılmıştır. **Bulgular:** Katılımcıların %64.5'i 31 yaşından küçük, %50.0'ı Paramedik, %31.2'si sınır ötesine geçmiş ve %54.7'si gönüllü olarak kamplarda görevlendirilmiştir. Ulusal Medikal Kurtarma Ekibi olarak görevlendirilen katılımcıların Duygusal Tükenme, Duyarsızlaşma ve Kişisel Başarı puan ortalaması ambulans servisi çalışanları olarak görevlendirilenlere göre yüksek ve istatistiksel olarak anlamlı olduğu belirlenmiştir. Ulusal Medikal Kurtarma Ekibi çalışanlarında ve sınır ötesi göreve gidenlerde depresyon oranı istatistiksel olarak daha yüksek bulunmuştur ($p<0,05$). **Sonuç:** Bu araştırma ile sınır ötesi göreve gidenlerde depresyon oranının, gönüllü görevlendirilenlerde duygusal tükenmenin daha fazla olduğu, kadınlarda duygusal tükenme, duyarsızlaşma ve anksiyetenin daha fazla olduğu sonucuna ulaşılmıştır.

Anahtar Kelimeler: Tükenmişlik, Sağlık Çalışanları, Ruh Sağlığı, Mülteci Kampı.

Sorumlu Yazar / Corresponding Author: İsmet ÇELEBİ, Gazi University, Vocational School of Health Services, Department of Paramedic Ankara, Türkiye.

E-mail: ismetcelebi@gazi.edu.tr

Bu makaleye atıf yapmak için / Cite this article: Çelebi, I., & Durmuş Sarıkahya S. (2023). Background psychological effects of war on healthcare employees assigned to refugee camps. *BAUN Health Sci J*, 12(3), 586-596. <https://doi.org/10.53424/balikesirsbd.1263058>



BAUN Health Sci J, OPEN ACCESS <https://dergipark.org.tr/tr/pub/balikesirsbd>
This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License

INTRODUCTION

Healthcare employees who are on the frontline have a profession in which they are exposed to high risks due to the continuing response to various critical and emergency situations (e.g. fires, natural disasters, motor vehicle accidents, medical emergencies, etc.) and providing emergency medical services (Jitnarin et al., 2022; Karter & Molis, 2013). Exposure to the pain of the sick and injured increases the vulnerability of the individual to the development of both physical and psychological problems over time (Jitnarin et al., 2022; Lee et al., 2018). In particular, the exposure of fire, ambulance and rescue workers to trauma due to the nature of their work causes an increase in the risk of accumulation of fatigue and burnout (Jahnke et al., 2016). In addition, other psychological disorders, including depression, anxiety and panic disorders, have also been associated with burnout (Stellman et al., 2008). Healthcare employees working with individuals who have left their countries due to conflicts, war, migration, etc. and whose routine life is disrupted, are under more stress compared with other sections of the society (Saglam & Cinna, 2008). Due to mass migration, conflicts, wars, increasing inequalities, global terrorism and climate change, refugees continue to be one of the increasingly important issues globally and in our country (Karadağ & Altuntaş, 2010; Küçükkendirici & Batı, 2020). Currently, there are more than three million Syrian refugees in our country, some of them in temporary shelters and the majority of them living in different cities within the country (UNHRC, 2022). Some of the healthcare services provided to asylum seekers in temporary accommodation centers in Turkey are provided by healthcare employees who work on the basis of a temporary assignment. It is thought that the stress and anxiety levels of healthcare employees who are temporarily assigned, increase due to exposure to helping war victims, crossing the border or being at risk of conflict at their location.

Intense working conditions, a lack of psychological support and exposure to violence by patients and their relatives lead to burnout among healthcare employees, along with depression and anxiety (Çelebi, 2016). Difficulties in the working environment and conditions for healthcare employees employed at temporary shelters, treating trauma patients and the injured and the presence of additional stressors cause high levels of traumatic stress for the individual.

Whilst there are many studies in the literature about the health problems experienced by refugees and asylum seekers and the difficulties in making use of and accessing healthcare services (Karadağ & Altuntaş, 2010; Kördeve, 2017; Stellman et al., 2008), studies on the problems experienced by healthcare employees who provide healthcare services to refugees and asylum seekers, their burnout and depression rates are limited. The limited literature indicates that professionals and volunteers working

with the displaced also experience psychological effects such as burnout, secondary traumatic stress and compassion fatigue (Jones and Williamson, 2014; Apostolidou, 2016; Roberts et al., 2021). In addition, these studies belonged to populations such as volunteers, mental health professionals, students. There is a need for a study involving ambulance service workers who are exposed to chronic stress due to their profession. In our country, there are no additional regulations such as risk management policy in order to reduce the work stress levels caused by the difficulties and inadequacies experienced by the health personnel working in the frontlines in the work environment and to protect their mental health. Considering that UMKE and 112 employees work hard in natural disasters and extraordinary situations, in conflict zones, their ability to fight against stress weakens and traumas occur in their psychological and behavioral reactions. At the same time, these front-line health workers do not receive regular psychosocial support training annually or at certain intervals (Ministry of Health, 2023). Considering the increasing number of refugees and asylum seekers in our country; It is thought that the evaluation of frontline personnel in terms of psychological trauma is of increasing importance. This study may contribute to the provision of appropriate psychosocial support that supports the staff working in refugee camps to adapt positively to normal life outside of work. When the relevant literature is examined, it is seen that most of the studies on mental trauma, both in the world and in our country, are carried out on health workers who are directly exposed to traumatic events such as disasters and wars. It is thought that this study will contribute to the literature by addressing the problems created by refugees and asylum seekers in health services, as well as the effects of health workers and related factors.

At the same time, the results of the study will be effective in taking necessary administrative measures by providing information about the social, psychological and functional effects of the difficulties experienced by the front-line personnel, how they cope, the difficulties they report, their support, and their stress levels.

Within the scope of all this information, this study was carried out to evaluate the burnout, depression, anxiety and stress levels of ambulance services employees temporarily assigned to refugee camps and the factors related thereto. The research results can be used to provide awareness on risk factors, opportunities for early diagnosis and early intervention and to improve environmental conditions in order to protect and maintain the mental health of frontline healthcare employees.

MATERIALS AND METHODS

Type of research

This descriptive cross-sectional study was set up to evaluate the burnout, depression, anxiety and stress levels of healthcare employees temporarily working in refugee camps and the factors affecting it.

Place, population and sample of the study

The population of the research consists of healthcare employees related with the Provincial Health Directorate in a province of Turkey. Since assignments to temporary shelters are realized through ambulance services and the National Medical Rescue Team (UMKE), employees working at these units were included in the study. Health workers work in camps located in provinces bordering Syria such as Gaziantep, Kilis, and Şanlıurfa in Turkey. At the province where the study was carried out, 465 healthcare employees were employed at the ambulance services of the Provincial Health Directorate and 149 persons were employed at the UMKE unit. The sample size was not calculated and it was aimed to reach the entire universe. 234 people who agreed to participate in the study and completed the data collection form were included.

Data collection tools of the study

The research data were collected through the Socio-Demographic Information Form, the Depression, Anxiety, Stress Scale (DAS-21) and the Maslach Burnout Inventory.

Socio-Demographic Information Form: This form, which was prepared by the researcher by scanning the literature (Choi, 2011; Kahil, 2016; Yeşil, 2010), consists of 11 questions meant to evaluate age, gender, educational status, marital status, employment unit, period of employment, assignment, presence of cross-border assignments, smoking and alcohol use.

Depression, Anxiety, Stress Scale (DAS-21): The DAS-21 was created by Lovibond and Lovibond (1995) and forms an abbreviation of DAS-42 (Lovibond and Lovibond, 1995). The psychometric properties of the Turkish version of the DAS-21 scale in normal and clinical samples were made by Sarıcam (Sarıcam, 2018). This scale is a 4-point Likert type scale and consists of seven questions measuring the "depression, stress and anxiety dimensions". Five points or more for the sub-dimension of depression, four points or more for anxiety and eight points or more for stress, indicate that the individual has a related problem. The Cronbach's alpha coefficient of the scale is .91 for depression, .84 for anxiety and .90 for stress (Sarıcam, 2018). This study Cronbach's alpha coefficient of the scale is .86 for depression, .89 for anxiety and .83 for stress.

Maslach Burnout Inventory: The Maslach Burnout Inventory (MBI), which was developed by Maslach and for which the validity and reliability study was conducted by Çam and Ergin for our country, was used. The MBI consists of three sub-dimensions, which are emotional exhaustion (EE),

depersonalization (D) and personal achievement (PA), and 22 items (Maslach et al., 2001; Çam, 1991). The scale consists of 9 items on EE, 5 items on depersonalization and 8 items on PA. The items consist of 5-point Likert-type statements (0: never 1: very rarely; 2: sometimes; 3: often and 4: always). By adding these scores, scores ranging from 0-36 for EE, 0-20 for D, and 0-32 for PA are obtained. In the EE and D subgroups, high scores indicate high burnout levels, whereas in the PA subgroup, low scores indicate high burnout levels (Maslach et al., 2001; Çam, 1991). In our country, the reliability coefficients of the Turkish version of the scale by Çam (1991) were found to be 0.89 for EE, 0.71 for D and 0.72 for PA (Çam, 1991). This study were found to be 0.93 for EE, 0.78 for D and 0.83 for PA.

Collection of the research data

Data were collected online via Google Forms from healthcare employees employed at the Provincial Ambulance Service and Provincial UMKE unit on a voluntary basis between August and September 2022. The healthcare employees on duty were reached through social media groups and e-mail. In advance of the study, participants were informed about the research content, research questions and matters to be considered during data collection. The time to answer the questionnaires was approximately 20 minutes and the data were collected after obtaining the permission of the ethics committee and the institution.

Inclusion and exclusion criteria for the research

Healthcare employees employed at the healthcare ambulance services affiliated with the Provincial Directorate for Healthcare and the UMKE, who were assigned to temporary shelters at least once and volunteered for the study, were included in the research. Participants who did not meet these criteria and those who were diagnosed with anxiety or depression by a psychiatrist were excluded.

Dependent and independent variables of the research and research questions

The independent variables of the study are the socio-demographic characteristics of the participants (gender, occupation, educational status, unit of employment, type of assignment, cross-border assignment, etc.). The dependent variable of the study is the scores obtained by the participants according to the DAS-21 scale and the MBI scale.

Within the scope of the study, answers to the following questions were sought.

- What are the depression and anxiety levels of the participants?
- What is the burnout level of the participants?
- What are the factors affecting the depression, anxiety and burnout levels of the participants?

Statistical analysis

The research data were analyzed with the Statistical Package for Social Sciences (SPSS) 25.0 package program. Numbers, percentages and means were used in the evaluation of descriptive data. Before comparing the responses of participants to the DAS-

21 and MBI scales and their sub-dimensions according to the variables age, gender, marital status, and length of employment in order to test the assumption of normality, the kurtosis and skewness values of each variable were found to be between $+1.5$ and -1.5 , indicating that the data conformed to the normal distribution.

The t-test was used in the independent group to compare the mean scores of the MBI and scale sub-dimension scales. The relationship between age, length of employment, MBI sub-dimension scores and DAS-21 sub-dimension mean scores were analyzed through a correlation analysis. We divided the participants into two groups below and above the cut-off point of the DAS-21 scale. Whether depression, anxiety and stress states differ according to independent variables was analyzed with the chi-square test. In addition, age, length of employment, DAS-21 and MBI score averages, standard deviations, minimum and maximum values are given. A reliability level of 95% and significance level of $p < 0.05$ in the interpretation of all analysis results was acknowledged.

Ethical considerations

Ethics committee approval was obtained from the Artvin Coruh University Ethics Committee (E-

18457941-050.99-60372) prior to the study. This research was conducted in accordance with the principles of the Declaration of Helsinki. In addition, permission was not obtained from the institution, but consent was obtained from the participants.

RESULTS

The socio-demographic characteristics and introductory information of the individuals participating in the research are given in Table 1. A percentage of 64.5% of the participants was younger than 31 years, 65.0% was male, 85.5% was a university graduate, 50.0% was a paramedic, 31.2% had crossed the border and 54.7% was voluntarily assigned to camps. It was determined that 26.1% of the participants worked at UMKE, 45.7% smoked and 16.7% consumed alcohol (Table 1). The mean age of the participants was 30.95 ± 11.13 , the mean length of employment was 7.91 ± 8.14 , the mean total score for MBI was 37.22 ± 15.75 , the mean anxiety score was 5.72 ± 4.02 , the mean depression score was 4.63 ± 3.44 and the mean stress score was 5.72 ± 4.02 . In addition, the mean score for emotional exhaustion was 15.14 ± 7.15 , the mean score for depersonalization was 8.87 ± 4.79 and the mean score for personal achievement was 13.21 ± 5.74 (Table 2).

Table 1. Distribution of the socio-demographical characteristics of the participants.

		Number	%
Age	<31	151	64.5
	31 and >	83	35.5
Sex	Male	152	65.0
	Female	82	35.0
Academic status	Secondary education	34	14.5
	University	200	85.5
Total Length of employment	<8 year	145	62.0
	8 year and >	89	38.0
Marital status	Married	79	33.8
	Unmarried	155	66.2
Title	Paramedic	117	50.0
	EMT	53	22.6
	Other*	64	27.4
Unit	112	173	73.9
	UMKE**	61	26.1
Cross-border	Yes	73	31.2
	No	161	68.8
Assignment	Voluntarily	128	54.7
	Assigned	106	45.3
Smoking	Yes	107	45.7
	No	127	54.3
Alcohol	Yes	39	16.7
	No	195	83.3

*Nurse, Midwife, Doctor, Lab Technician, ** National Medical Rescue Team

Table 3 shows the distribution of the Maslach Burnout Inventory Sub-Dimension mean score according to the socio-demographic characteristics and introductory information of the participants. When the results are examined, the emotional exhaustion sub-dimension scores of participants under the age of 31 ($p=0.009$), who were female

($p=0.001$), who had worked 8 years or less ($p=0.027$), who were married ($p=0.017$), who were employed at UMKE ($p=0.024$), who were voluntarily assigned ($p=0.044$), and who smoked and consumed alcohol ($p=0.001$) were found to be significantly higher (Table 3).

According to table 4, depression, anxiety and stress levels are higher in participants with a length of employment of less than eight years compared to participants with a length of employment of eight years or more, which is statistically significant. The depression level is higher in participants employed at the UMKE unit compared to those who are employed in 112 services, which is statistically significant. The depression level is higher in those who go on cross-border missions compared to those who do not, which is statistically significant.

When table 5, which includes the correlation between some variables, is examined, it can be observed that a high level of negative correlation is present between EE, Depersonalization and PA on the one hand and age and length of employment on the other hand. There is a high level of negative correlation between the sub-dimensions of stress and the length of employment and a positive correlation with the number of assignments. It was determined that a high level of positive correlation is present between EE, Depersonalization and PA on the one hand and depression and anxiety on the other hand.

Table 2. Averages of some variables.

	n (%)*	Min	Max	Mean	SS
Age	-	18.00	43.00	30.95	11.13
Length of employment	-	1.00	38.00	7.91	8.14
Maslach Burnout Inventory Total	-	0.00	75.00	37.22	15.76
Emotional Exhaustion	-	0.00	34.00	15.14	7.15
Depersonalization	-	0.00	18.00	8.87	4.79
Personal achievement	-	0.00	24.00	13.21	5.74
Anxiety	123 (52.6)	0.00	14.00	3.78	3.04
Depression	120(51.3)	0.00	15.00	4.63	3.44
Stress	59(25.2)	0.00	18.00	5.72	4.02

* Prevalence by cut-off point.

Table 3. Differential analysis of the maslach burnout inventory sub-dimension mean scores according to some variables.

		Emotional Exhaustion			Depersonalization			Personal achievement		
		Mean-SD	t	p	Mean-SD	t	p	Mean-SD	t	p
Age	Age <31	16.05±6.99			9.61±4.78			10.84±5.96		
	Age 31 and >	13.49±7.17	2.652	0.009	7.53±4.53	3.240	0.001	14.51±5.19	4.897	0.001
Sex	Male	13.54±7.63			7.85±4.84			12.82±6.14		
	Female	18.11±4.97	-4.880	0.001	10.77±4.09	-4.639	0.001	13.92±4.87	-1.407	0.161
Length of employment	<8 years	15.95±6.51			9.55±4.77			14.55±5.73		
	8 years and >	13.83±7.95	2.220	0.027	7.76±4.63	2.812	0.005	11.02±6.54	4.772	0.001
Marital status	Married	16.71±7.88			8.89±4.51			13.16±5.58		
	Unmarried	14.34±6.63	2.412	0.017	8.85±4.83	0.061	0.951	13.23±5.84	-0.085	0.932
Unit	112	14.52±6.34			8.23±4.63			12.57±5.36		
	UMKE	16.91±8.88	-2.272	0.024	10.68±4.80	-3.528	0.001	15.03±6.41	-2.876	0.004
Cross-border	Yes	15.56±7.74			9.63±4.81			13.78±6.64		
	No	14.95±6.88	0.599	0.550	8.52±4.75	1.636	0.103	12.95±5.68	1.025	0.306
Assignment	Voluntarily	16.02±8.04			9.42±5.27			13.61±6.23		
	Through assignment	14.11±5.81	2.022	0.044	8.19±4.06	1.969	0.051	12.72±5.06	1.172	0.243
Smoking	Yes	17.67±7.24			10.31±4.38			14.57±5.06		
	No	13.02±6.35	5.236	0.001	7.65±4.79	4.402	0.001	12.05±6.03	3.426	0.001
Alcohol	Yes	18.82±4.34			12.02±2.73			15.28±2.53		
	No	14.41±7.38	3.605	0.001	8.24±4.87	4.661	0.001	12.79±6.11	2.497	0.013

Table 4. Examination of depression, anxiety and stress levels according to some variables.

		Depression			Anxiety			Stress		
		n (%)	Chi-square	p	n (%)	Chi-square	p	n (%)	Chi-square	p
Age	Age <31	82(54.3)			68(58.3)			35(23.2)		
	Age 31 and >	38(48.8)	1.557	0.222	35(42.2)	5.574	0.020	24(28.9)	0.935	0.349
Sex	Male	74(48.7)			70(46.1)			39(25.7)		
	Female	46(56.1)	1.172	0.337	53(64.6)	7.376	0.009	20(24.4)	0.045	0.876
Academic status	Secondary education	13(38.2)			13(38.2)			7(20.6)		
	University	107(53.5)	2.710	0.137	110(55.0)	3.276	0.094	52(26.0)	0.451	0.670
Length of employment	<8 years	91(62.8)			95(65.5)			50(34.5)		
	8 years and >	29(32.6)	20.098	0.001	28(31.5)	25.654	0.001	9(10.1)	17.370	0.001
Marital status	Married	41(51.9)			31(39.2)			28(35.4)		
	Unmarried	79(51.0)	0.018	0.998	92(59.4)	8.491	0.004	31(20.0)	6.618	0.016
Title	Paramedic	66(56.4)			72(61.5)			25(21.4)		
	EMT	26(49.1)			23(43.4)			19(35.8)		
	Other*	28(43.8)	2.790	0.248	28(43.8)	7.560	0.023	15(23.4)	4.204	0.222
Unit	112	76(43.9)			90(52.0)			40(23.1)		
	UMKE	44(72.1)	14.356	0.001	33(54.1)	0.078	0.882	19(31.1)	1.541	0.232
Cross-border	Yes	47(64.4)			41(58.2)			19(26.0)		
	No	73(45.3)	7.290	0.008	82(50.9)	0.552	0.483	40(24.8)	0.037	0.872
Assignment	Voluntarily	68(53.1)			74(57.8)			33(25.8)		
	Through assignment	52(49.1)	0.384	0.602	49(46.2)	3.122	0.088	26(25.5)	0.048	0.880
Smoking	Yes	52(48.6)			47(43.9)			34(31.9)		
	No	68(53.5)	0.568	0.512	76(59.8)	5.901	0.018	25(19.7)	4.502	0.036
Alcohol	Yes	20(51.3)			26(66.7)			14(35.9)		
	No	100(51.3)	0.000	1.000	97(49.7)	3.733	0.056	45(23.1)	2.833	0.107

Table 5. Correlation between some variables.

		Age	Length of employment	Number of ass.	EE	D	PA	Depression	Anxiety
Age	r	1							
	p								
Length of employment	r	0.651	1						
	p	0.001							
Number of assignments	r	0.053	-0.023	1					
	p	0.418	0.728						
Emotional exhaustion	r	-0.172	-0.322	-0.070	1				
	p	0.009	0.001	0.283					
Depersonalization	r	-0.208	-0.355	0.023	0.722	1			
	p	0.001	0.001	0.729	0.001				
Personal achievement	r	-0.306	-0.436	0.035	0.720	0.596	1		
	p	0.001	0.001	0.592	0.001	0.001			
Depression	r	-0.030	-0.375	0.002	0.562	0.474	0.355	1	
	p	0.649	0.001	0.973	0.001	0.001	0.001		
Anxiety	r	-0.112	-0.368	0.087	0.454	0.559	0.354	0.779	1
	p	0.086	0.001	0.184	0.001	0.001	0.001	0.001	
Stress	r	-0.092	-0.426	0.140	0.624	0.511	0.491	0.875	0.790
	p	0.161	0.001	0.032	0.001	0.001	0.001	0.001	0.001

DISCUSSION

The aim of this study was to examine burnout, depression, anxiety, stress levels and related factors among healthcare employees in refugee camps and to contribute to the subject matter.

Experiences such as war, terrorist attacks and migration are traumatic experiences that threaten the life, as well as the physical and mental wellbeing of an individual, which can affect not only the individual who is directly exposed to the experience, but also the

people with whom the individual has a relationship with. When the literature on this subject is examined, it is observed that traumatic events experienced by professionals as a result of assistance during or after the trauma, may have a similar impact on individuals who are indirectly exposed to the trauma due to reasons such as witnessing death or the risk of injury (Choi, 2011; Kahil, 2016). It is inevitable that employees helping traumatized individuals, whether on a professional or voluntary basis, will show similar

psychological symptoms since they witness the life events of the individuals (Figley, 2002; Kahil, 2016). In this context, it was determined in our study that the participants had higher levels of depression and anxiety compared to the Turkish population. According to the World Health Organization report, the depression rate in Turkey is 3.81% and the anxiety rate is 5.87% (WHO, 2020). The main reason why participants have higher rates of depression and anxiety compared to the general population is undoubtedly their chronic exposure to potentially traumatic events (for example natural disasters, car accidents) due to the nature of their work (Skeffington, Rees & Mazzucchelli, 2017; Stellman, 2008). When the literature on the subject is examined, it can be determined that 112 emergency healthcare employees showed signs of high traumatic stress because they witnessed violence and death during their work, treated severe physical injuries, witnessed child deaths and worked with individuals who were exposed to human-made attacks (Yeşil, 2010).

In our study, the mean scores for the sub-dimensions of the Maslach burnout scale were at a normal level of emotional exhaustion. When the data on depersonalization are observed, burnout levels are low. When the data on personal achievement are examined, the level of burnout is still low. In the study of Süloğlu (2009) similar results were obtained in our study. In the study conducted by Demirbilek and Uzman (2021), the level of burnout in ambulance service workers was found to be similar (Demirbilek & Uzman, 2021).

In the study, the level of depression was found to be higher in participants who went on cross-border missions. However, there was no significant difference in the level of stress and anxiety. The presence of serious stressors such as the fear for conflict situations at any time during the cross-border mission may have created a tendency for depression in individuals. In addition, difficult conditions, the stress of having to find out how to fix things and the difficulties they experience in meeting their health care needs, and the inadequacy of their ability to evaluate and manage the psychological state of the psychologically destroyed families and people who have lost their homes may be the cause. In his study, Erkaya (2003) stated that post-traumatic stress disorder is seen throughout life in emergency rescue teams, and that traumatic stress, especially depression, other anxiety disorders, alcohol substance addiction, etc. She reports that various psychopathologies such as she. Ben-Ezra et al. (2003) studied the effects of the Gaza War among Israeli nurses to understand the characteristics of post-traumatic stress symptoms. found that they had high scores. The findings of our study support the literature. In order to prevent this, it is necessary to determine the approaches that will minimize the negative impact levels of employees and to carry out preventive mental health studies.

Depression level was higher in UMKE employees. In the study conducted by Stellman et al. (2008) with the rescue workers who took part in the September 11, 2001 attack, it was observed that the depression frequency of the participants was higher than the general population (Stellman et al., 2008). It is stated in the literature that employees who participate in activities involving intense physical and psychological stress or respond to disasters are at risk of developing psychopathological symptoms and reactions because they often witness people's suffering and encountering death (Berger et al., 2007; Psarros et al., 2018). Occupational stress in healthcare workers working in emergency situations or working in the frontline can cause an acute or long-term stress disorder (Jonsson et al., 2003). Our research was compatible with the literature in this aspect.

The level of depression, anxiety and stress was significantly higher in participants who worked less than 8 years. In the study conducted by Alan and Demir (2022) with ambulance service employees, it is seen that the variable of working time does not affect the frequency of depression, anxiety and stress (Alan, Demir, 2022). The literature states that burnout, emotional exhaustion and depersonalization decrease in healthcare workers as the age increases and the working year increases (Barutçu & Serinkan, 2008). Age periods of the employees can affect their perceptions, wishes and expectations regarding their jobs (Yakut et al., 2013). Two-thirds of the participants in this study have 8 years or less of working experience and are a group of young workers. This situation can be explained by the inadequacy of young employees' ability to find solutions to problems in terms of working years and the disappointment experienced due to the high expectation level of young employees.

In our study, the level of anxiety and stress was higher in married participants, but there was no difference in the level of depression. When the literature was examined, different results were found regarding the effect of marital status on the level of depression, anxiety and stress. In the study conducted by Alan and Demir (2022) with ambulance service employees, it was seen that the marital status variable did not affect the frequency of anxiety and stress (Alan, Demir, 2022). In the study conducted by Stellman et al. (2008) with rescue workers who took part in the September 11, 2001 attack, the level of depression was significantly higher in married participants (Stellman et al., 2008). The reason for the different results suggests that there may be different confounding factors.

The frequency of anxiety and stress was higher in smokers. A meta-analysis by Zimmermann et al. (2020) has strikingly shown that smoking is the most studied risk factor and is also supported as a modifiable risk factor in the development of anxiety and stress disorders (Zimmermann et al., 2020).

When the gender characteristics of the participants were examined, there was no significant difference in depression and stress levels, but the frequency of anxiety was higher in female participants. In the study conducted by Alan and Demir (2022) with ambulance service workers, it was found that the anxiety level of female participants was significantly higher than male participants; it is seen that depression and stress levels do not make a difference according to the gender variable (Alan, Demir, 2022). In the study conducted by Stellman et al. (2008) with the rescue workers involved in the September 11, 2001 attack, the level of depression was significantly higher in women (Stellman et al., 2008). It is possible to explain this situation with the personality structures of women and men, their working environment and their roles in private life.

In our study, the mean EE score of the participants who worked voluntarily in temporary shelters, who were under the age of 31, female, smoking, use alcohol, married and had been working for 8 years or less was found to be significantly higher. Emotional exhaustion is accepted as the basic dimension and clearest symptom of burnout (Tümekaya, Çam & Çavuşoğlu, 2009). This means that healthcare employees who work on the frontline are emotionally fatigued, excessively worn out and tired, which leads to a decrease in productivity, missing work, being late at work, feelings of unhappiness, absenteeism from work due to psychosomatic complaints, resignation, regarding oneself as dysfunctional and such consequences, which causes an unproductive situation for both the employee and the institution on the long term (Demirbilek & Uzman, 2021).

In our study, it was determined that the burnout level score of participants employed at UMKE was significantly higher. The reason for this may be that UMKE employees intervene in more traumatic situations such as rescue efforts and they are more frequently at the frontline compared to other healthcare employees. Also they have a lot of experience and have great responsibilities such as refreshing their theoretical and practical education, which may be an explanation for higher levels of emotional exhaustion, depersonalization and personal achievement, compared with other professionals.

In the study, being female, working at UMKE and having a length of employment of 8 years or less were found to be significantly higher with regard to the sub-dimensions of depersonalization and personal achievement. When the literature is examined, it can be determined that 112 emergency healthcare employees and emotional exhaustion and depersonalization decrease as age and length of employment increase (Barutçu & Serinkan, 2008; Demirbilek & Uzman, 2021).

In our study, it was observed that using alcohol and cigarettes increased the mean scores of depersonalization. When the literature is examined, it is seen that smoking behavior is frequently used as a

method of coping with the stress and burnout of employees (Yıldız et al., 2018; Kütükçü & Kocataş, 2019). In a study conducted on nurses, depersonalization scores of nurses who smoked were higher than nurses who did not smoke (Kütükçü & Kocataş, 2019), in a study conducted in Saudi Arabia; Among health professionals, smokers were found to be at higher risk for burnout compared to nonsmokers (Alqahtani et al., 2019), while another study on police and ambulance personnel in Norway found that personnel who drink alcohol to cope with occupational stress experience higher levels of depersonalization. (Sterud et al., 2007). On the contrary, it can be said that alcohol and cigarettes, which are used to reduce stress, are factors that negatively affect stress and stress, increase stress, and have no effect on coping.

According to the results of the correlation analysis, a positive relationship was found between stress and anxiety, depression and burnout sub-dimension scores.

A negative significant relationship was found between all sub-dimensions of burnout, age and working time. In the study conducted by Barutcu and Serinkan on nurses, it was observed that emotional exhaustion and depersonalization decrease as age progresses (Barutcu and Serinkan, 2008). Emotional exhaustion describes a situation where the individual has nothing left to give to others and his emotional resources are diminished. Depersonalization is the individual's negative perception of himself and the people he serves because of his lack of attention, distance, indifference and hostility to others.

It is possible to explain the lower burnout levels of the elderly compared to the young, with the increase in their ability to solve problems with increasing age, and the disappointment experienced by the young employees due to their high expectation levels. From this point of view, it can be said that there is a negative relationship between age and burnout. It can be said that with the progress of the working year, the experience increases, and therefore, it reduces the psychological reaction to the difficulties encountered chronically. There was a negative significant relationship between depression, anxiety and stress and working year. We think that it is due to the fact that the experience increases with the progress of the working year, and therefore, it reduces the psychological reaction to the difficulties encountered chronically.

It is seen that there is a positive and significant relationship between the sub-dimensions of burnout and the scores of depression, anxiety and stress. Traumatic stress-related depression, stress and panic disorder are often seen together in the same person, this is called comorbidity. Psychiatric comorbidity rates are higher in frontline personnel such as ambulance workers and rescuers (Stellman et al., 2008).

This study presents important findings in terms of determining the depression, stress and anxiety states of healthcare employees assigned to the frontlines and creating the necessary awareness and intervention programs to protect them from burnout. The results of these studies have important implications for developing future research programs, educational and psychosocial support initiatives, and international policies. For researchers, knowing the mental states and resilience of health workers working in refugee and asylum camps, and examining the associated factors that affect them, may improve procedures in responding to such situations. In addition, we reveal that many frontline health workers need support mechanisms to prevent the stress, burnout and weariness of the workforce; will start to invest significantly in healthcare professionals working in this field. This knowledge can identify the support systems these groups need. Finally, our study will provide very important information about the health consequences of refugees and asylum seekers to the policy makers of UMKE and 112 emergency health services at the front line. The strength of the study lies in the fact that it is one of the limited number of studies on the mental state of healthcare employees working in temporary shelters.

Limitations of the Study

Certain limitations are applicable to our study. The most important limitation of this study is that it cannot be generalized, since it was carried out in a cross-sectional descriptive manner. The fact that the study was implemented in only one province and the data were collected online, are other limitations. There is a necessity for future studies which examine stress and burnout experienced by healthcare employees working at refugee camps with different variables and which also include the examination of the effects of regulations and support mechanisms.

CONCLUSION

In conclusion, it can be stated that the depression, stress and anxiety levels of participants were high. The fact that the participants were female, aged 31 and younger, had a short length of employment and were UMKE staff members increased the level of burnout, while the depression levels of volunteer workers in the camps were higher. It is recommended to make arrangements in the working conditions in such a manner as to increase the job satisfaction and to reduce burnout in healthcare employees at refugee camps, to closely monitor workers in these regions and to provide the necessary psychological support. Regulations aiming to ensure that employees have a social support network both in and outside the working environment and engaging in interventional activities will be effective in strengthening coping mechanisms.

It is known that the studies in our country on burnout and depression in healthcare employees working in

refugee camps are limited. It is thought that examining the stress and burnout experienced by healthcare employees working in refugee camps with different variables will contribute to the literature.

Acknowledgements

We would like to thank all healthcare professionals who participated in our study for their contributions. This study was presented as an oral presentation at the 6th International 24th National Congress of Public Health held in Antalya from December 1st to 4th, 2022.

Conflict of Interest

There is no conflict of interest between the authors.

Author Contributions

Plann, design: IÇ, SDS; **Material, methods and data collection:** IÇ, SDS; **Data analysis and comments:** IÇ, SDS **Writing and corrections:** IÇ, SDS.

REFERENCES

- Alan, M., Demir, O. (2022). The Effect of Covid 19 Fear On 112 Employees' Stress, Depression and Anxiety Levels: Malatya 112 Example. Master Thesis, Firat University, Health Sciences Institute, Diyarbakir University.
- Alqahtani, A.M., Awadalla, N.J.I., Alsaleem, S.A., Alsamghan, A.S., Alsaleem, M.A. (2019). Burnout Syndrome among Emergency Physicians and Nurses in Abha and Khamis Mushait Cities, Aseer Region, Southwestern Saudi Arabia. *The Scientific World Journal*, 1-14.
- Apostolidou, Z. (2016). The notion of professional identity among practitioners working with asylum seekers. A discursive analysis of practitioners' experience of clinical supervision and working context in work with asylum seekers. *European Journal of Psychotherapy and Counselling*, 18(1), 4– 18. <https://doi.org/10.1080/13642537.2015.1130073>
- Barutcu, E. & Serinkan, C. (2008). Burnout syndrome as one of the important problems of today and research conducted in Denizli. *Ege Academic Review*, 8(2),541-561.
- Ben-Ezra, M., Palgi, Y., Shrira, A., Hamama-Raz, Y. (2013). Somatization and psychiatric symptoms among hospital nurses exposed to war stressors. *Israel Journal of Psychiatry and Related Sciences*, 50, 182– 187.
- Berger, W., Figueira, I., Maurat, A. M., Bucassio, E. P., Vieira, I., Jardim, S. R., Mendlowicz, M. V. (2007). Partial and full PTSD in Brazilian ambulance workers: prevalence and impact on health and on quality of life. *Journal of Traumatic Stress: Official Publication of The International Society for Traumatic Stress Studies*, 20(4), 637-642.
- Choi, G.Y.(2011). Secondary traumatic stress of service providers who practice with survivors of family or sexual violence: a national survey of social workers. *Columbia School of Social Work*, 81,101-119. <https://doi.org/10.1080/00377317.2011.543044>.
- Çam, O. (1991). Research on Burnout Syndrome in Nurses. Unpublished Doctoral Thesis, Ege University, Health Sciences Institute Nursing Program, İzmir.

- Çelebi, İ. (2016). The condition of being exposed to violence of medical staffs working in 122 emergency medical service stations in çanakkale and its impact on burnout syndrome. *Journal of Prehospital, 1*(2), 1-13.
- Demirbilek, Ö., & Uzman, E. (2021). Compassion Fatigue, Compassion Satisfaction and Burnout among 112 Emergency Health Workers - The Case of Province of Kayseri. *Gümüşhane University Journal of Health Sciences 10*(1), 56-69.
- Erkaya, H. (2003). 155 Post Traumatic Stress Disorder in Emergency Rescue Teams. Specialization Thesis. Osmangazi University Faculty of Medicine, Eskisehir
- Figley, C.R.(2002). Compassion fatigue: psychotherapists' chronic lack of self-care. *Journal of Clinical Psychology, 58*, 1433-1441.
- Jahnke, S.A, Poston, W.S.C., Haddock, C.K., & Murphy, B. (2016). Firefighting and mental health: Experiences of repeated exposure to trauma. *Work (Reading, Mass.) 53*(4), 737-744. <https://doi.org/10.3233/WOR-162255>.
- Jitnarin, N., Jahnke, S.A., Poston, W.S., Haddock, C.K, Kaipust, C.M. (2022). Posttraumatic stress disorder (PTSD) and mental health comorbidity in firefighters. *Journal of Workplace Behavioral Health, 1*-22.
- Jones, C. & Williamson, A. E. (2014). Volunteers working to support migrants in Glasgow: A qualitative study. *International Journal of Migration, Health, and Social Care, 10*(4), 193-206. <https://doi.org/10.1108/IJMHC-10-2013-0034>
- Jonsson, A., Segesten, K., & Mattsson, B. (2003). Post-traumatic stress among Swedish ambulance personnel. *Emergency medicine journal, 20*(1), 79-84.
- Kahil, A. (2016). Investigation of secondary traumatic stress levels of professionals and volunteers who help individuals with traumatic experiences. *Ufuk Üniversitesi Sosyal Bilimler Enstitüsü Yüksek Lisans Tezi*, Ankara.
- Karadağ, Ö., Altıntaş, K.H. (2010). Refugees and Health. *TAF Preventive Medicine Bulletin, 9*(1), 55-62.
- Karter, M.J., & Molis, J.L. (2013). US firefighter injuries-2012. Quincy, MA: *National Fire Protection Association. Fire Analysis and Research Division.*
- Kördeve, M.K. (2017). Access to health services of Syrian refugees: field research. *Sağlık Yönetimi Dergisi, 1*(2),1-12.
- Küçükendirci, H., & Batı, S.(2020). Evaluation of The View on Refugees and Asylum-Seekers by Healthcare Professionals in Konya. *Genel Sağlık Bilimleri Dergisi. 2*(2), 28-39.
- Kütükçü, E., & Kocataş, S. (2019). The Relationship Between Burnout Levels and Smoking Status of Nurses Working in a State Hospital. *Journal of Public Health Nursing, 1*(3), 84-102.
- Lee, J.Y., Kim, S.Y., Bae, K.Y, Kim, J.M., Shin, I.S., Yoon, J.S.,& Kim, S.W. The association of gratitude with perceived stress and burnout among male firefighters in Korea. *Personality and Individual Differences, 123*, 205-20.
- Lovibond, S.H. Lovibond, P.F. (1995). Lovibond Manual for the depression anxiety stress scales (2nd ed.), Psychology Foundation, Sydney.
- Maslach, C., Wilmar, B.S., Leiter, M.P.(2001). Job burnout. *Annual Reviews Psychology, 52*(1), 397-422.
- Roberts, F., Teague, B., Lee, J., & Rushworth, I. (2021). The Prevalence of Burnout and Secondary Traumatic Stress in Professionals and Volunteers Working with Forcibly Displaced People: A Systematic Review and Two Meta-Analyses. *Journal of Traumatic Stress, 34*(4), 773-785.
- Ministry of Health, General Directorate of Emergency Health Services. UMKE. URL: <https://ashgmafetacildb.saglik.gov.tr/TR-80255/ulusal-medikal-kurtarma-ekibi-birimi-umke.html> (Accessed June 20, 2023).
- Psarros, C., Theleritis, C., Kokras, N., Lyrakos, D., Koborozos, A., Kakabakou, O., Bergiannaki, J. D. (2018). Personality characteristics and individual factors associated with PTSD in firefighters one month after extended wildfires. *Nordic journal of psychiatry, 72*(1), 17-23.
- Sağlam, A.G, Çına, B.E. (2008). The Concept of Burnout: Its Importance For Individuals and Organizations. *Yönetim ve Ekonomi, 15*(1): 131-48.
- Sarıcam, H. (2018).The psychometric properties of Turkish version of depression anxiety stress scale-21 (DASS-21) in health control and clinical samples. *Journal of Cognitive- Behavioral Psychotherapy and Research, 7*(1), 19-30.
- Skeffington, PM, Rees, CS, Mazzucchelli, T.(2017). Trauma exposure and post-traumatic stress disorder within fire and emergency services in Western Australia. *Australian Journal of Psychology, 69*(1), 20-28. <https://doi.org/10.1111/ajpy.12120>.
- Stellman, JM, Smith, RP, Katz, CL, Sharma, V, Charney, DS, Herbert, R., Southwick, S.(2008). Enduring mental health morbidity and social function impairment in world trade center rescue, recovery, and cleanup workers: the psychological dimension of an environmental health disaster. *Environmental Health Perspectives, 116*(9),1248-1253. <https://doi.org/10.1289/ehp.11164>.
- Sterud, T., Hem, E., Ekeberg, Ø., Lau, B. (2007). Occupational stress and alcohol use: a study of two nationwide samples of operational police and ambulance, personnel in Norway. *Journal of studies on alcohol and drugs, 68*(6), 896-904.
- Süloğlu, A. (2009). Burnout Syndrome in Doctors and Nurses Working in Dialysis Centers, TR Ministry of Health Bakırköy Dr. Sadi Konuk Training and Research Hospital, Department of Family Medicine, Unpublished Specialization Thesis, Istanbul.
- Tümekaya, S., Çam, S., & Çavuşoğlu, I. (2009). Turkish Adaptation of the Burnout Syndrome Inventory Short Version. *Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 18*(1), 387-398.
- United Nations High Commissioner for Refugees. <https://www.unhcr.org/tr/turkiyedeki-multeciler-ve-siginmacilar> [Accessed February 10, 2023].
- World Health Organization. Supporting Turkish mental health policy and service delivery <https://www.who.int/about/accountability/results/who-results-report-2020-mtr/country-story/2020/supporting-turkish-mental-health-policy-and-service-delivery> [Accessed February 10, 2023].
- Yakut, H. İ., Kapsız, S. G., Durutuna, S., Evran, A. (2013). Burnout in working life in the field of health. *Journal of Gynecology-Obstetrics and Neonatology Medicine, 10*(38), 1564-1571.

- Yeşil, A. (2010). Prevalence of mental trauma and related problems among health workers working in 112 emergency health services. Kocaeli University Institute of Health Sciences, Master's thesis, Kocaeli.
- Yıldız, A., Çiçek, İ., Şanlı, M. E. (2018). The determinants of burnout in health care workers: examining the effects of smoking and alcohol use. *Journal of Celal Bayar University Institute of Health Sciences*, 5(3), 126-132.
- Zimmermann, M., Chong, A. K., Vechiu, C., & Papa, A. (2020). Modifiable risk and protective factors for anxiety disorders among adults: A systematic review. *Psychiatry research*, 285, 112705.