



RESEARCH

COVID-19 pandemic and burnout: factors associated with burnout levels among healthcare workers

COVID-19 pandemisi ve tükenmişlik: sağlık çalışanları arasında tükenmişlik düzeyleriyle ilişkili faktörler

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Abstract

Purpose: This study investigated the psychosocial and demographic factors influencing burnout levels among healthcare workers during the coronavirus disease 2019 (COVID-19) pandemic.

Materials and Methods: A cross-sectional and descriptive study was performed on a total of 418 healthcare workers from Cukurova University Faculty of Medicine, Balcalı Hospital in Turkey. While the participants were selected randomly, a personal information form consisting of 33 open- and close-ended questions, Coronavirus Anxiety Scale, the Maslach Burnout Scale and the Beck Burnout were applied.

Results: They were 418 healthcare workers aged 19-63 (mean= 35.51±9.38), 284 of whom were 61.8% female, 132 (31.7%) of whom were male, and 2 (0.5%) of whom refused to specify their gender. The study found that emotional exhaustion and depersonalization scores were significantly positively correlated with COVID-19 anxiety scores and Beck anxiety scores in healthcare workers, while personal accomplishment scores were significantly negatively correlated with these variables. The study also revealed that COVID-19 anxiety, Beck anxiety, being female, being young, being unmarried, having children, being diagnosed with COVID-19, having a chronic illness, and working more hours per week were all contributing factors to burnout.

Conclusion: Both during and after the COVID-19 pandemic, it is very important to provide various forms of psychological support and make arrangements to address factors that can impact the burnout of healthcare professionals.

Keywords: Burnout, COVID-19, pandemic, anxiety.

Öz

Amaç: Bu çalışmada, COVID-19 pandemisinde sağlık çalışanlarının tükenmişlik düzeylerini etkileyen psikososyal ve demografik faktörler araştırılmıştır.

Gereç ve Yöntem: Türkiye'de Çukurova Üniversitesi Tıp Fakültesi Balcalı Hastanesi'nde görev yapan toplam 418 sağlık çalışanı üzerinde kesitsel ve betimsel bir çalışma gerçekleştirilmiştir. Katılımcılar rastgele seçilirken 33 açık ve kapalı uçlu sorudan oluşan sosyodemografik kişisel bilgi formu, Koronavirüs Kaygı Ölçeği, Maslach Tükenmişlik Ölçeği ve Beck Tükenmişlik Ölçeği uygulandı.

Bulgular: Çalışmamızın örneklemini Çukurova Üniversitesi Tıp Fakültesi Hastanesi'nde yaşları 19 ile 63 (ort= 35.51±9.38) arasında değişen, 284'ü (% 61.8) kadın, 132'si (% 31.7) erkek ve 2'si (% 0.5) cinsiyetini belirtmeyen olmak üzere 418 sağlık çalışanı oluşturmuştur. Sağlık çalışanlarında duygusal tükenme ve duyarsızlaşma puanlarının Beck anksiyete ve Covid-19 anksiyete puanları arasında pozitif yönde anlamlı ilişki olduğu görülürken, kişisel başarı puanlarının ise söz konusu bu değişkenler ile anlamlı düzeyde, ancak negatif yönde ilişki görülmüştür. Ayrıca, Beck anksiyete ve Covid-19 ilişkili anksiyete kadın olmanın, genç olmanın, bekar olmanın, çocuk sahibi olmanın, kronik rahatsızlığa sahip olmanın, Covid-19 hastalığı geçirmenin, haftalık çalışma saatindeki artışın tükenmişliği arttıran faktörler olduğu bulunmuştur.

Sonuç: COVID-19 salgını sırasında ve sonrasında, sağlık çalışanlarının tükenmişliğini etkileyebilecek faktörleri ele almak ve çeşitli psikolojik destek biçimleri sunmak için düzenlemeler yapmak çok önemlidir.

Anahtar kelimeler: Tükenmişlik, COVID-19, pandemi, anksiyete.

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INTRODUCTION

Pandemic is difficult to manage due to the threat to human life and the additional negative feelings they bring, such as uncertainty, dread, worry, and hopelessness. The COVID-19 pandemic, which emerged in 2019, quickly spread worldwide. Due to the significant increase in cases and an international public health emergency, the World Health Organization (WHO) declared it to be a worldwide pandemic on 11 March 2020¹. It is very important to take into account both the physical and potentially fatal impacts of the pandemic on human life, as well as the psychological effects that the pandemic may bring². Burnout is more prevalent in occupations where individuals engage with others and in those where interactions with people are frequent and significant; one such occupation is that of healthcare professionals³. Although emotional exhaustion and burnout brought on by excessive stress are common side effects of healthcare workers' regular work schedules, it has been noted that these issues are likely to be significantly worse during the pandemic^{4,5}. It was reported that stress factors such as anxiety and burnout increased during the pandemic period due to the demanding work situations faced by healthcare professionals⁶. These health workers had to treat patients who were infected with a virus about which little known information at the time and the risk of transmission made it challenging for health workers to acquire social support from family and friends, who have potential protective effects against burnout; these workers were particularly vulnerable to burnout^{7,8}. At this stage, the potential mental distress and interpersonal problems that burnout sufferers face may also have detrimental impacts on their family life, in addition to the negative impacts on their personal and professional lives⁹. Particularly, the extended working hours, increased work burden, risk of infection and potential transmission to their families, separation from their families or children, limited personal protective equipment, staff shortages at the workplace and longer shifts, the lack of medical supplies, equipment and knowledge about the virus and its treatment, challenging decisions that had to be made in unclear circumstances, news of losses involving their coworkers around the world, witnessing deaths caused by COVID-19, life conditions that restrict daily routines, and especially the difficulty in accessing institutions such as kindergartens where children can be entrusted, are all factors that affect healthcare workers' psychological

and mental health^{10,11}. Discourses that devalue the efforts of healthcare workers, the labelling and exclusion resulting from the disease are among the causes of increased pressure on healthcare workers, which eventually lead to a rise in burnout rates^{12,13}.

According to the most widely used and accepted model regarding burnout, Maslach's burnout model, burnout can be explained as emotional exhaustion (feeling of extremely worn out, tired and weary, physically and emotionally) in employees who experience intense interactions with people due to their occupation, depersonalization (individuals are getting unfeeling and impersonal responses towards patients), and low feelings of personal success (the idea that no matter how hard they try, they cannot change their current situation makes people feel intimidated)^{14,15}. The WHO defined burnout as a syndrome characterized by the physical and mental exhaustion caused by the occupational density that is beyond one's capacity to handle, as it was added to The International Classification of Diseases Version-11 in 2019¹⁶. Even outside of pandemic conditions, healthcare workers around the world experienced high levels of burnout¹⁷.

In those terms, healthcare workers during pandemic conditions are under much more pressure regarding workload due to the risk of transmission and intense working conditions. When combined with the fear of transmission and the presence of people whom they need to take care of at home, COVID-19-related anxiety may also have an effect on burnout. However, the literature examining the relationship between COVID-19-related anxiety and other psychosocial factors contributing to burnout is limited. Therefore, the aim of our study is to investigate the psychosocial factors that influence the burnout levels of healthcare professionals at Cukurova University, Faculty of Medicine Balcalı Hospital, during the coronavirus disease 2019 pandemic. Thus, it is thought that it will contribute to the preparation of new and functional health policies that will improve the mental processes experienced by healthcare professionals during the pandemic process and shed light on future studies.

MATERIAL AND METHODS

Sample

This study was conducted as descriptive cross-sectional research, as data from the participants were analyzed at a single point in time. Participants in the

study consisted of healthcare workers of Balcalı Hospital, Cukurova University Faculty of Medicine. This study included healthcare workers such as nurses and doctors, as well as other essential staff in the hospital system such as cleaning staff, patient caregivers, and administrative staff who play a significant role in running the hospital. Among the hospital staff, the cafeteria staff were not included in the study because they were not in close physical contact with the patients.

Procedure

The questionnaires were hand-delivered to employees randomly selected among the volunteer hospital employees. The participants provided their written informed consent to participate in our study. While the participants were selected randomly, a personal information form consisting of 33 open- and close-ended questions, the 5-item Coronavirus Anxiety Scale, the Maslach Burnout Scale consisting of 23 items and the Beck Burnout Scale consisting of 21 items were applied face-to-face. A total of 418 participants voluntarily agreed to take part in the study among health workers whose tasks involved a risk of COVID-19 transmission. According to the power analysis calculation made with the remaining employees, 416 people were found as a sample with a 5% margin of error and 95% confidence interval¹⁸.

Ethical approval was obtained from the Ethics Committee of Social Sciences Institute, Cağ University (date: 15.04.2021, number: E-81570533-044-2100002767) and The Faculty of Medicine Chief Physician of Cukurova University (date: 28.04.2021, number: E-18649120- 900- 86133).

Measures

Sociodemographic Data

A sociodemographic information form was prepared by researchers and included questions to gather information about participants' age, gender, unit where health workers work, weekly working hours, marital status, number of children, whether participants were infected with COVID-19, and whether participants had any chronic illnesses.

Coronavirus Anxiety Scale

The Coronavirus Anxiety Scale, developed by Lee in 2020 as a 5-point Likert scale, consists of a single dimension and 5 items to identify the potential

existence of dysfunctional anxiety related to the COVID-19 crisis¹⁹. The scale ranges from "not at all" (0) to "nearly every day over the last 2 weeks" (4). The scale was adapted into the Turkish version by Biçer et al. in 2020²⁰. A score of 9 or higher on the scale indicates high levels of COVID-19-related anxiety. The Cronbach's alpha internal consistency coefficient was found to be .91 in the current study.

Maslach Burnout Inventory

Maslach and Jackson developed an inventory to evaluate the burnout levels of individuals in 1981¹⁵. The Turkish version of the inventory was created by Ergin in 1992²¹. The inventory consists of 22 items²¹. The 5-point Likert scale is evaluated as never (0), very rarely (1), sometimes (2), most of the time (3), and always (4). The Maslach Burnout Inventory includes three subdimensions: depersonalization, personal accomplishment and emotional exhaustion. Those subdimensions are scored separately and evaluated accordingly. High levels of burnout are indicated by low scores on personal accomplishment and high scores on emotional exhaustion and depersonalization. Cronbach's alpha internal consistency coefficients for emotional exhaustion, personal accomplishment and depersonalization were found to be .89, .82 and .70, respectively.

Beck Anxiety Scale

The scale used to assess the frequency of anxiety symptoms is a 4-point Likert scale with a rating range of 0 to 3. Beck et al. developed the scale in 1988²², and an increase in the overall score on the scale indicates the level of anxiety felt by the individual. The scale was adapted into the Turkish language by Ulusoy, Şahin, and Erkman in 1998²³. The increase in scores derived from the scale indicates that the individual's anxiety is becoming more severe. The Cronbach's alpha internal consistency coefficient was found to be .86 in the current study.

Statistical analysis

Skewness and Kurtosis values were analyzed, along with histograms, to determine whether the variables met the normality assumptions before proceeding to analyze the study's hypotheses. The results indicated that all the variables fulfilled the normality requirements, and thus, parametric statistical analysis was used. Data were analyzed by using IBM SPSS Version 21.00 Windows package program. Correlation analysis was used to interpret the

relationships between burnout, COVID anxiety, Beck anxiety, age, and weekly working hours. Additionally, the t-test for independent groups was used to determine whether the burnout scores of healthcare workers varied based on gender, marital status, COVID status, having children, and having chronic illness. One-way ANOVA was used to compare whether the burnout scores differed according to health professional groups. A P-value <0.05 was considered statistically significant.

RESULTS

They were 418 health workers between ages 19 and 63 (mean= 35.51±9.38), 284 of whom were (61.8%) females, 132 (31.7%) of whom were males and 2 (0.5%) of whom refused to specify their gender. The study included 70 doctors, 147 nurses, 13 anaesthesia and radiology technicians, 40 laboratory staff, 7 paramedics, 57 administrative staff, and 84 cleaning staff. Analyses were carried out to evaluate the interaction of burnout scores with corona anxiety scores, beck anxiety scores, age, and weekly working time. Positive significant correlations were observed between emotional exhaustion, depersonalization, COVID-19 anxiety and Beck anxiety scores of healthcare workers ($p<.001$), while scores of personal accomplishment were found to be negative and significantly correlated with emotional exhaustion,

depersonalization, Beck anxiety and COVID-19 anxiety ($p<.001$). Age, on the other hand, is negatively correlated with emotional exhaustion and depersonalization and positively correlated with personal accomplishment ($p<.05$). Finally, weekly working time was positively correlated with emotional exhaustion and depersonalization ($p<.001$) and negatively correlated with personal accomplishment ($p<.05$). The results of the analyses are shown in Table 1.

The results indicate that women show significantly higher levels of depersonalization and emotional burnout (respectively, $t(414) = 2.13$, $p<.05$; $t(414) = 3.51$, $p<.001$). However, no difference was established according to the groups of their personal accomplishment levels ($p>.05$). According to the t-test analysis that was run to investigate the burnout levels of participants in relation to marital status, married individuals exhibited significantly higher levels of personal accomplishment, while unmarried individuals exhibited significantly higher levels of depersonalization and emotional burnout (respectively, $t(406) = -2.62$, $p<.05$; $t(406) = 3.74$, $p<.001$; $t(406) = 5.49$, $p<.001$). The comparison analysis was performed to determine the effects of having a child on the burnout levels of healthcare workers, and it showed that those with children exhibit significantly higher levels of emotional exhaustion ($t(412) = 2.72$, $p<.01$) (Table 2).

Table 1. Correlation values of Burnout Subscale, Corona Anxiety Scale, Beck Anxiety Scale, age, and weekly working hours

Variables	Maslach Burnout Inventory		
	Emotional Exhaustion	Depersonalization	Personal Accomplishment
Emotional Exhaustion	1	.518**	-.332***
Depersonalization	.518**	1	-.480***
Personal Accomplishment	-.332***	-.480***	1
Corona Anxiety Scale	.337***	.334***	-.525***
Beck Anxiety Scale	.355***	.223***	-.347***
Age	-.110*	-.141**	.181***
Weekly Working Hours	.227***	.261***	-.102*

*** $p<.001$, ** $p<.01$, * $p<.05$

Table 2. Comparison of Maslach Burnout Inventory subscale scores according to sociodemographic variables

Demographic Characteristics	N	Maslach Burnout Inventory Mean ± Sd		
		Emotional Exhaustion	Depersonalization	Personal Accomplishment
Sex				
Female	284	24.63±7.60	11.68±4.34	26.20±8.23
Male	132	21.79±7.91	10.73±3.96	27.83±7.80
	t	3.508	2.131	-1.901
	p:	.001***	.034*	.058
Marital status				
Unmarried	150	26.16±7.31	12.25±4.29	25.35±8.26
Married	258	22.07±7.24	10.71±3.84	27.50±7.85
	t	5.486	3.742	-2.618
	p:	<.001***	<.001***	.009**
Children				
Yes	245	24.56±7.63	11.66±4.34	26.63±7.93
No	169	22.44±7.89	11.02±4.06	26.83±8.33
	t	2.734	1.508	-.247
	p:	.007**	.132	.805
Infected with Covid-19				
Yes	130	26.49±8.72	12.55±4.89	24.66±8.78
No	285	22.46±7.04	10.89±3.80	27.57±7.59
	t	4.630	3.425	-3.363
	p:	<.001***	.001***	.001***
Chronic illness				
Yes	85	27.44±8.75	12.40±4.88	25.21±8.80
No	329	22.73±7.30	11.13±4.04	27.10±7.90
	t	4.569	2.212	-1.918
	p:	<.001***	.029*	.056
Current position				
Medical Doctor	70	24.70±7.41	12.16±4.29	26.51±7.36
Nurse	147	23.94±8.19	11.28±4.22	26.38±8.56
Others	201	23.22±7.70	11.20±4.21	27.08±8.06
	F	1.009	1.407	.351
	p	.366	.246	.704

**p<.001, **p<.01, *p<.05, N: Number

According to the t-test analysis for three independent groups that were used to compare burnout levels of healthcare workers in terms of the individuals had infected with COVID-19 and whether they had chronic illnesses, it was found that participants who had been diagnosed with COVID-19 showed significantly higher scores of depersonalization and emotional exhaustion, while those who had not exhibited significantly higher levels of personal accomplishment (respectively, $t(413) = 3.43, p < .001$; $t(413) = 4.63, p < .001$; $t(413) = -3.36, p < .001$). Regarding suffering from chronic illnesses, individuals with a chronic illness showed significantly higher levels of depersonalization and emotional burnout (respectively, $t(412) = 2.12, p < .05$; $t(412) =$

$4.57, p < .001$) but not personal accomplishment ($p > 0.05$). One-way ANOVA, which was performed to compare the burnout scores of different professional groups of healthcare workers, indicated no significant difference between the groups in terms of their depersonalization, emotional exhaustion and personal accomplishment levels ($p > .05$). These results are presented in Table 2

DISCUSSION

The present study investigated the relationship between the levels of Beck Anxiety Scale scores and COVID-19-related anxiety scores, burnout of healthcare workers, and related sociodemographic

variables. The study showed that healthcare workers' COVID-19-related anxiety and Beck anxiety scores were positively correlated with emotional exhaustion and DP levels but negatively and significantly correlated with personal accomplishment levels. Similar associations between depersonalization, personal accomplishment and emotional exhaustion of healthcare workers were found in the literature, suggesting that anxiety levels increase burnout levels²⁴. In other studies conducted with healthcare workers, it was reported that COVID-19-related fear and anxiety caused an increase in burnout levels^{25,26}. Individuals who are affected by changes in their environment may feel more anxious and insecure, especially when contagious diseases emerge around them and when there is insufficient information regarding these diseases²⁷.

When the results related to sociodemographic variables of the present study are evaluated, age is negatively correlated with emotional exhaustion and depersonalization and positively correlated with personal accomplishment scores, which is consistent with the results of similar studies in the literature^{25,28,29}. Healthcare workers gain more experience as their age increases and thus acquire skills to better manage more effectively and cope with the potential occupational (work-related/vocational) problems they may face. Additionally, the fact that the workload of younger healthcare workers is heavier may also have an effect on the results of our study.

Similarly, the findings regarding weekly working hours suggest that weekly working hours are positively correlated with emotional exhaustion and depersonalization and negatively correlated with positive accomplishment, which is consistent with previous literature^{25,30,31}. These results indicate that the physical and psychological effects of increased weekly working hours may contribute to higher levels of burnout among healthcare workers.

On the other hand, according to the gender variable, female health workers had significantly higher scores for depersonalization and emotional exhaustion than male health workers. However, there was no significant difference between the groups in terms of personal accomplishment. Our results are consistent with studies conducted with healthcare workers during the pandemic, including participants from different countries such as Japan, Mexico, Italy, Taiwan, and China, which indicate that women experience significantly higher levels of

burnout^{26,28,32,33,34}. This finding may result from potential increased responsibilities in the household³⁵⁻³⁸ and the resulting physical and psychological impacts, as well as the fear of transmitting the disease to the people they are in contact with due to work.

An analysis of the burnout levels of healthcare workers, according to their marital status, reveals that unmarried individuals have significantly higher scores for depersonalization and emotional exhaustion, whereas married individuals have significantly higher scores for personal accomplishment. In the literature, there are conflicting findings on the relationship between marital status and burnout levels among healthcare workers. Some studies reported no significant difference in burnout levels between healthcare workers of different marital statuses during the pandemic period^{39,40}, while others have presented similar results to the present study, demonstrating that unmarried individuals exhibit significantly higher burnout levels^{25,41}. This result may be interpreted by the fact that unmarried individuals were more likely to spend increasing amounts of time alone at home due to the partial curfew protocols aimed at managing the risk of infection and temporarily shutting down social spaces in Turkey. Furthermore, unmarried individuals may lack the social support provided by partners, which can often be considered a fundamental aspect of social support.

In the present study, another sociodemographic variable, having a child, is associated with significantly higher emotional exhaustion levels. However, there was no difference between groups in terms of depersonalization or personal accomplishment means. Our results are consistent with a study conducted by Duarte in 2020 on healthcare workers during the pandemic period⁴¹. In parallel, it has been observed that parents have been shown to engage in more cautious behaviors to protect their children, which may lead to additional fear and anxiety⁴². Parents who are exempt from curfews due to the COVID-19 pandemic in Turkey and continue to work as healthcare workers in hospitals may face difficulties in meeting their children's safety, emotional, and educational needs during this period. The suspension of face-to-face classes seems to be one of the main difficulties brought about by the pandemic for parents in Turkey. In the current study, the factors affecting the burnout of parents may be interpreted as the need for parental

support in technology use for relatively new online education for their children, the new responsibility of caring for their stay-at-home kids and the responsibility of maintaining work-life balance while caring for children.

Another result regarding individuals infected with COVID-19 showed significantly higher scores of depersonalization and emotional exhaustion, whereas other participants who were not diagnosed with COVID-19 had significantly higher levels of personal accomplishment. However, a study conducted in Istanbul with 120 healthcare workers reported that the researchers did not find a significant difference in the subscales of burnout between the participants who were infected with COVID-19 and those who were not⁴⁰. In addition, there are many studies suggesting that people with COVID-19 have an increased susceptibility to depression, anxiety and similar somatic disorders^{43,44,45}. In the present study, it may be inferred that participants who were not infected with COVID-19 scored significantly higher levels of personal accomplishment. This finding suggests that the personal accomplishment subscale scores of burnout of the health workers who had not been diagnosed with COVID-19 scored significantly higher levels of personal accomplishment, which may be linked to their locus of control. According to the locus of control theory perspective, individuals tend to have an external or internal locus of control⁴⁶. Hence, individuals with a high internal locus of control tend to feel responsible for their experiences and actions, but individuals with a high external locus of control tend to attribute their problems to luck, fate, or external factors⁴⁶. Thus, it can be considered that COVID-19-diagnosed health workers may have an internal locus of control, leading them to believe that their ability to avoid virus is a result of their personal efforts and success.

Regarding the impact of chronic illness on burnout levels, it was reported that individuals with a chronic illness had significantly higher emotional exhaustion and depersonalization levels in this study. Similarly, in a study including 293 nurses at an Italian university hospital, it was found that individuals with at least one chronic illness had higher burnout scores than individuals without such a condition⁴⁷. On the other hand, a chronic illness is not significantly correlated with the burnout subscales, according to a different study conducted with family physicians in Mersin, Turkey⁴⁸. Moreover, another study involving 330 healthcare professionals found no significant

associations between depersonalization, emotional exhaustion and low personal accomplishment in regard to comorbid physical diseases, but it was noted that the presence of comorbid psychological diseases influenced these three subdimensions⁴⁹. Furthermore, self-perceived health status, which may be assessed similarly to chronic illness, was found to be negatively associated with emotional exhaustion among Italian healthcare workers³². This could be due to concern over a higher risk of mortality from COVID-19 when combined with pre-existing chronic conditions, which is often-heard information since the early days of the pandemic. Comparing the burnout levels of healthcare workers based on their occupational group, we found no significant differences in emotional exhaustion, depersonalization, and personal accomplishment levels in the present study. Similarly, in a study conducted with 244 healthcare workers, including administrative staff, working in a hospital in Istanbul, it was found that occupation had no effect on burnout⁴⁰.

Our study has some limitations. The greatest limitation of this study is that the sample was restricted to healthcare workers from a single university hospital. The fact that the sample consisted of only Cukurova University Balçali Hospital health workers and that the participants could allocate limited time to questions due to the heavy workload and social distancing rules was considered a limitation. The conditions brought by the COVID-19 pandemic process, such as the interviewers delivering the tests to the employees and the delay in the answers to the questionnaires, caused unforeseen mandatory limitations in the work implementation calendar. Therefore, future studies with larger and more diverse samples are needed to better generalize the results. Moreover, it can be said that investigating the prognosis of burnout levels longitudinally in crisis periods such as the COVID-19 pandemic could yield more effective results. At this point, it can be advised to incorporate the required psychosocial support into health policy to enhance the mental health of healthcare professionals both during and after the pandemic.

In the study, burnout and anxiety levels of healthcare workers, who are in the most at-risk group for burnout, have increased during the pandemic period, along with their workload and the risk of illness they are exposed. In the current literature, it is noticeable that there is a lack of research examining the levels of

burnout among a wider range of healthcare workers occupations, and studies tend to focus more on specific occupational groups, such as doctors and nurses^{50,51,52,53}. One strength of the current study is its large-scale inclusion of various healthcare workers, including nurses, doctors, anesthesia and radiology technicians, laboratory staff, paramedics, and other essential staff in the hospital system, such as patient caregivers, cleaning staff, and administrative staff, all of whom play significant roles in the successful operation of the hospitals. The finding that there were no significant differences in burnout levels among different occupational groups in this study suggests that to maintain a successful health policy, health policies should address the problems, needs, and issues of all healthcare workers equally. To determine the needs of health workers and to provide appropriate support, it is crucial to conduct screenings directly involving health workers in hospitals and to regulate working conditions accordingly. In addition, to prevent burnout among healthcare workers who are parents, it is recommended to build new daycare facilities or expand the capacity of existing ones at or near the hospital when parent health workers have problems with their children's care during their work time. Providing parenting classes, family education-focused group studies, and seminars from mental health units to healthcare professionals who have children is also considered beneficial. Finally, offering and providing psychological support at an individual level can help prevent burnout among healthcare professionals when needed.

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