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Burnout and Quality of Life Among Nurses During the Pandemic: A Cross-Sectional Study

Pandemi Sırasında Hemşirelerde Tükenmişlik ve Yaşam Kalitesi: Kesitsel Bir Çalışma

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ABSTRACT Objective: The difficult situation of countries' health systems during the pandemic has once again revealed the key position of nurses. The research was conducted to examine the burnout experienced by nurses during the pandemic and its impact on their quality of life. **Material and Methods:** The research was designed as a cross-sectional study, between October 2020 and March 2021 in a hospital in Türkiye. The data of the research was conducted with 250 nurses and collected using the "descriptive ınformation form", "Maslach Burnout Scale" and "Professional Quality of Life Scale" prepared by the researchers. Comparative analyzes (independent samples t-test and One-Way analysis of variance test-Tukey and Tamhane tests) were used to determine the differentiating features. Correlation and regression analysis were used to determine the effectiveness of the scales. **Results:** It was determined that there was a statistically significant negative relationship between the predictive power of nurses' Maslach Burnout Scale level on the Professional Quality of Life Scale. The independent variables had a 30% significant effect on the dependent variable. It can be said that the emotional exhaustion and depersonalization sub-dimension, which is the sub-dimension of the Maslach Burnout Scale, and the compassion fatigue sub-dimension of the quality of life scale for employees, explain the total variance. **Conclusion:** In the study, it was determined that the quality of life decreased as the burnout of the nurses working in a hospital during the pandemic process increased.

Keywords: Pandemic; nurse; burnout; quality of life; health

ÖZET Amaç: Salgın sürecinde ülkelerin sağlık sistemlerinin içinde bulunduğu zor durum, hemşirelerin kilit konumunu bir kez daha ortaya çıkardı. Araştırma, hemşirelerin pandemi sürecinde yaşadıkları tükenmişliğin ve yaşam kalitelerine etkisinin incelenmesi amacıyla yapıldı. **Gereç ve Yöntemler:** Araştırma, Türkiye'deki bir hastanede Ekim 2020-Mart 2021 tarihleri arasında kesitsel bir çalışma olarak tasarlandı. Araştırmanın verileri 250 hemşire ile gerçekleştirilmiş ve araştırmacılar tarafından hazırlanan "tanımlayıcı bilgi formu", "Maslach Tükenmişlik Ölçeği" ve "Profesyonel Yaşam Kalitesi Ölçeği" kullanılarak toplanmıştır. Ayırıcı özellikleri belirlemek için karşılaştırmalı analizler (bağımsız örnekler t-testi ve tek yönlü varyans analizi testi-Tukey ve Tamhane testleri) kullanıldı. Ölçeklerin etkililiğini belirlemek için korelasyon ve regresyon analizi kullanılmıştır. **Bulgular:** Hemşirelerin Maslach Tükenmişlik Ölçeği düzeyinin Profesyonel Yaşam Kalitesi Ölçeği üzerindeki yordama gücü arasında istatistiksel olarak anlamlı negatif ilişki olduğu belirlendi. Bağımsız değişkenlerin bağımlı değişken üzerinde %30 anlamlı etkisi vardı. Maslach Tükenmişlik Ölçeği'nin alt boyutu olan duygusal tükenme ve duyarsızlaşma alt boyutu ile Profesyonel Yaşam Kalitesi Ölçeği'nin merhamet yorgunluğu alt boyutunun toplam varyansı açıkladığı söylenebilir. **Sonuç:** Araştırmada pandemi sürecinde hastanede çalışan hemşirelerin tükenmişliği arttıkça yaşam kalitesinin düştüğü belirlendi.

Anahtar Kelimeler: Pandemi; hemşire; tükenmişlik; yaşam kalitesi; sağlık

The coronavirus disease-2019 (COVID-19) pandemic has caused an unprecedented health problem that challenges both individuals and healthcare institutions in the world.[1] The professional group most affected by the pandemic was nurses. Even before this extraordinary process, nurses, who had to cope with the negative effects of stress, were at risk of anxiety and depression. During the pandemic period, reasons

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such as long and intense working hours, concerns about being infected and transmitting the disease to their relatives increased stress and anxiety in healthcare workers.[2] In a study conducted in the first period of the pandemic, the rate of anxiety and stress disorder in healthcare workers was determined to be 23% and 27.4%.[3]

Burnout is an important psychosocial problem that causes emotional exhaustion, depersonalization and a decrease in the sense of personal accomplishment in employees caused by chronic stress in the work environment.[4] Job dissatisfaction and burnout occur due to increased stress in nurses who have intense relationships with people. Exposure of healthcare workers, who were at high risk for the negative effects of chronic stress before the pandemic, to multiple stressors resulting from the pandemic increases the risk of burnout.[5] In a study conducted among healthcare workers in Japan, it was found that 22.6% experienced burnout, and in the study by Alsulimani et al., 75% experienced burnout.[6,7]

Studies have shown that nurses experienced many health problems such as intense stress, anxiety, fear, fatigue and sleep disorders during the epidemics before the COVID-19 period.[8] In a study conducted in China, it was determined that the pandemic process caused stress in 71.5 percent of healthcare workers, depression in 50.4 percent, anxiety in 44.6 percent and insomnia in 34 percent.[9] In another study, it was determined that 54.2% of healthcare workers had anxiety symptoms and 58% had depression symptoms.[10] Stress experienced during the pandemic; in addition to depression, it can also lead to anxiety and burnout. Especially in nurses who are exposed to traumatic situations, a decrease in coping skills or negative attitudes towards work may develop. Studies on nurses' burnout during the COVID-19 process in our country and around the world have found that nurses experience a decrease in their personal success, a decrease in their self-confidence, anxiety and depression.[11,12]

It is possible for nurses to provide efficient and effective service if they are satisfied with their jobs.[13] On the other hand, the ability of individuals to work efficiently depends on their feeling of well-being both psychologically and physiologically.[14] The COVID-19 pandemic has negatively affected healthcare professionals psychologically as well as physically. For this reason, studies carried out in this field will be guiding in order to increase professional satisfaction, prevent burnout and psychologically support healthcare workers who assume important responsibilities during a serious crisis such as the COVID-19 pandemic.[13]

COVID-19 has become the most important health crisis of our age. This new viral infection has spread to many countries of the world, regardless of country, socio-economic status and race.[15] It is inevitable that nurses are in the occupational group most affected by this pandemic process. While this situation made nurses physically and mentally vulnerable, they had to balance the needs of patients and themselves with limited resources at the first stage. This study was carried out to examine the burnout experienced by nurses related to this intense traumatic and complex situation they encountered during the pandemic process, and the impact of their quality of life.

H_1: The burnout was high among nurses during the pandemic period.

H_2: The quality of life was high among nurses during the pandemic period.

MATERIAL AND METHODS

STUDY DESIGN

The research was designed as a cross-sectional study and was reported according to the Strengthening the Reporting of Observational Studies in Epidemiology checklist for cross-sectional studies.[16]

SETTING

The research was conducted between October 2020 and March 2021 at a training and research Hospital in Sakarya. During the COVID-19 pandemic, the hospital serving as a pandemic hospital in the province where it was located had a bed capacity of 650.

PARTICIPANTS

The nurses to be included in the study were determined according to the following criteria. The inclu-

sion criteria were working at the institution where the research was conducted, volunteering to participate in the research. The exclusion criteria were not volunteering to participate in the research, being on leave during the study.

The universe of the study consisted of all nurses working in a pandemic hospital (n=840). Study was completed with n=250 people (30%) with 5% margin of error, 95% confidence interval and 50% estimation response rate. The data of the study were obtained by the researchers by distributing the questionnaire and taking it back, filling the forms took an average of 20 minutes.

DATA COLLECTION TOOLS

Variables of the study dependent variables were Maslach Burnout Scale (MBS) and Professional Quality of Life Scale (ProQOL), and independent variables were age, education level, professional experience, position, and institution. In the inter-scale analysis, while the dependent variable was quality of life, the independent variable was the MBS. In the study, the data were collected using the "descriptive information form", "MBS" and "ProQOL".

Descriptive information form: The form prepared by the researchers includes a total of 13 questions regarding the introductory characteristics of nurses (age, gender, position, professional year, etc.).

MBS: The Turkish validity and reliability study of the scale developed by Maslach and Jackson was done by Ergin (1992). The five-point Likert-type scale consists of a total of 22 items and is evaluated in three sub-dimensions: "emotional exhaustion", "depersonalization" and "personal success". The emotional exhaustion subscale consists of 9 items and the score range is 0-36. A high score indicates high emotional exhaustion. The depersonalization subscale consists of 5 items and the score range is 0-20. Higher scores indicate greater insensitivity. The personal success subscale consists of 8 items and is reverse coded. The score range of this subscale is 0-32. Higher scores indicate a greater feeling of decline in personal achievement. Ergin (1992) reported the Cronbach alpha reliability coefficients of the three dimensions as 0.83 for emotional exhaustion, 0.65 for depersonalization and 0.72 for sense of personal accomplishment.[17] In our study, the sub-dimensions of the scale varied between 0.88 and 0.72.

ProQOL: The Turkish validity and reliability study of the scale prepared by Stamm (2005) in 2010 was conducted by Yeşil et al. was carried out by. It is a self-report assessment tool consisting of thirty items and three subscales. Job satisfaction is the first of the subscales. A high score on this subscale indicates the level of satisfaction or satisfaction as a helper. Items 3, 6, 12, 16, 18, 20, 22, 24, 27, 30 in the scale are items that measure professional satisfaction. Alpha reliability value of the scale is 0.87. The second subscale is the burnout subscale, and a high score from the scale indicates a high level of burnout. Alpha reliability value of the scale is 0.72. Items 1, 4, 8, 10, 15, 17, 19, 21, 26, 29 in the scale are items that measure burnout. The third scale is the compassion fatigue subscale. Employees with high scores on this scale are recommended to receive support or assistance. Alpha reliability value of the scale was determined as 0.80. Items 2, 5, 7, 9, 11, 13, 14, 23, 25, 28 in the scale are items developed to measure this situation. In the evaluation of the scores obtained from the scale, items 1, 4, 15, 17 and 29 are the items that need to be calculated by reversing them. The evaluation of the items in the scale was made on a six-step chart ranging from "Never" (0) to "Very often" (5).[18]

STATISTICAL ANALYSIS

The data were evaluated with SPSS 23.0 (SPSS Inc., Chicago, IL, USA) package program. Comparative analyzes (independent samples t-test and one-way analysis of variance (ANOVA) test- Tukey and Tamhane tests) were used to determine the personal characteristics that created a significant difference. Correlation and regression analysis was used to determine the impact power of the scales. Regression analysis assumptions were confirmed prior to analysis. There was a linear relationship between dependent and independent variable and continuous variable, it was delivering no significant outliers, residual (error) were signicant, it was almost normally distributing. After the assumptions were met, a regression model was established and a simple linear regression analysis was performed in SPSS.[19] Significance level was considered as $p<0.05$ in the analysis.

ETHICAL CONSIDERATIONS

Before starting the research, written consent was obtained for the research to be conducted from the website of the T.C. Ministry of Health https://bilimselarastirma.saglik.gov.tr/. In order to conduct the study, institutional permission from the pandemic hospital where the research will be conducted and ethics committee approval from the Scientific Research Ethics Committee of the University of Sakarya (date: September 9, 2020; no: 556) were obtained. The research was conducted in accordance with the principles of the Helsinki Declaration. Before starting the research, the nurses were informed about the research by the researchers, and by emphasizing their personal information would be protected, and verbal and written consents were obtained in accordance with the voluntary principle. In addition, research and publication ethics were complied with in the study.

RESULTS

The total scores of the scales of the nurses included in the study were examined with the Kolmogorov-Smirnov normality test and it was found that they provided normal distribution ($p>0.05$).

There was a significant difference between the age of the nurses included in the study and the MBS lack of personal accomplishment sub-dimension and the ProQOL burnout sub-dimension mean score, and the mean score was higher as the age increased ($t=-3.438$, $p=0.001$; $t=-2.068$, $p=0.040$). There was a significant difference between gender and ProQOL professional satisfaction and burnout sub-dimensions, female nurses had a higher mean score than men ($t=-2.263$, $p=0.025$; $t=-3.707$, $p=0.000$), marital status and MBS personal. It was determined that there was a significant difference between the lack of personal accomplishment scores ($t=-2.293$; $p=0.017$) and the mean score was higher in married people (Table 1).

The ANOVA test was applied because there were more than two independent variables in the comparison of the educational status of the employees and their job satisfaction with the scale averages. In general, it was determined that there was a significant difference between the variables.

MBS emotional exhaustion and depersonalization sub-dimensions [$F=82.057$; $p=0.000$ (1-2,1-3, 2-3)- $F=17.205$; $p=0.000$] (1-3, 2-3), ProQOL that the sub-dimensions of burnout and compassion fatigue is high enough to make a significant difference in those who do not have job satisfaction [$F=7.577$; $p=0.001$ (1-3, 2-3)- $F=6.096$; $p=0.003$] (1-3). In the sub-dimensions of personal acomplishement ($F=4.849$; $p=0.009$) (1-3) and ProQOL professional satisfaction ($F=31.102$; $p=0.000$) (1-3, 2-1, 3-2), the satisfaction as well as higher, the higher the it was observed that they had the average ($F=5.759$; $p=0.004$ (2-3) (Table 1).

When the relationship between the nurses' MBS and ProQOL sub-dimensions was examined, it was found that there was a statistically significant negative relationship between the mean scores in general, and the quality of life of the employees decreased as the burnout increased ($p<0.001$) (Table 2).

In the study, the predictive power of the effect of nurses' MBS level on ProQOL was examined by multiple linear regression model. Regression analyzes regarding the prediction of the sub-dimension averages of the scales were performed to seek answers for this basic study, and the results are presented in Table 3. It has been seen that the burnout level of nurses is a significant predictor of their quality of life.

In the model created for regression analysis, the independent variables had a significant effect on the dependent variable. Emotional burnout and personal achievement from the sub-dimensions of the MBS scale for 40% of the total variance of ProQOL's sub-dimension compassion fatigue (Adjusted $R^2=0.391$, $p<0.001$), and 35% of the total variance of burnout (Adjusted $R^2=0.335$, $p<0.001$) can be said to be able to explained. Similarly, it can be said that the compassion fatigue (Adjusted $R_2=0.307$, $p<0.001$) sub-dimension of the MBS scale sub-dimension emotional exhaustion and depersonalization sub-dimension ProQOL explains 30% of the total variance.

DISCUSSION

The biggest burden in the fight against the COVID-19 pandemic has fallen on healthcare professionals,

TABLE 1: The comparison between the scales and sociodemographic features.

		MBS				ProQOL	
Features		**Emotional exhaustion**	**Depersonalization**	**Lack of personal accomplishment**	**Professional satisfaction**	**Burnout**	**Compassion fatigue**
Overall		28.17±7.90	12.24±4.17	28.99±4.56	36.21±7.61	30.81±5.79	24.99±9.65
Age	<30 (n=103)	27.84±8.32	12.73±4.10	27.83±4.62	35.75±7.83	29.91±5.47	24.57±9.22
	≥30 (n=147)	28.40±7.61	11.89±4.20	29.80±4.35	36.53±7.47	31.44±5.94	25.29±9.96
	Test statistics	*t=0.554; p=0.580	*t=1.571; p=0.117	***t=-3.438; p=0.001**	*t=0.789; p=0.431	***t=-2.068; p=0.040**	*t=0.579; p=0.563
Educational status	College (n=17)	31.47±9.42	13.88±4.94	28.88±3.63	33.52±8.52	31.58±6.69	28.35±9.56
	High school graduate (n=189)	27.94±7.73	12.25±4.07	28.52±4.57	36.17±7.42	30.71±5.50	24.88±9.29
	MSc or PhD (n=44)	27.90±7.90	11.56±4.18	31.06±4.32	37.38±7.98	30.93±6.70	24.15±11.10
	Test statistics	**F=1.592; p=0.206	**F=1.902; p=0.151	****F=5.759; p=0.004 (2-3)**	**F=1.586; p=0.207	**F=0.188; p=0.829	**F=1.206; p=0.301
Gender	Female (n=212)	28.44±8.01	12.19±4.18	29.08±4.54	36.66±7.53	31.32±5.77	25.47±9.43
	Male (n=38)	26.68±7.20	12.50±4.12	28.50±4.72	33.65±7.65	27.94±5.05	22.31±10.55
	Test statistics	*t=1.265; p=0.207	*t=0.410; p=0.682	*t=0.727; p=0.468	***t=-2.263; p=0.025**	***t=-3.707; p=0.000**	*t=1.867; p=0.063
Marrital status	Married (n=144)	28.39±7.69	12.23±4.23	29.58±4.39	36.14±7.93	31.10±6.00	24.81±9.87
	Single (n=106)	27.87±8.21	12.25±4.10	28.19±4.69	36.30±7.21	30.41±5.50	25.23±9.38
	Test statistics	*t=0.512; p=0.609	*t=0.035; p=0.972	***t=-2.293; p=0.017**	*t=0.160; p=0.873	*t=0.929; p=0.354	*t=0.336; p=0.737
Working status	Fixed shift (n=83)	27.30±7.75	11.42±4.24	30.44±4.43	37.98±6.57	31.49±5.79	24.61±9.53
	Variable shift (n=167)	28.61±7.96	12.65±4.08	28.27±4.47	35.32±7.95	30.47±5.79	25.18±9.53
	Test statistics	*t=1.235; p=0.218	***t=-2.214; p=0.028**	***t=-3.625; p=0.000**	***t=2.802; p=0.006**	*t=1.314; p=0.190	*t=0.440; p=0.661
Working time (year)	<7 (n=138)	27.67±8.35	12.38±4.06	28.60±4.68	36.86±7.76	30.51±5.63	24.94±9.34
	≥7 (n=112)	28.79±7.30	12.07±4.31	29.47±4.38	35.40±7.39	31.17±5.98	25.06±10.07
	Test statistics	*t=1.115; p=0.266	*t=0.588; p=0.557	*t=1.492; p=0.137	*t=1.519; p=0.130	*t=0.901; p=0.369	*t=0.098; p=0.922
Professional satisfaction	I am not satisfied (n=51)	36.29±6.86	14.19±4.28	27.41±4.74	30.54±7.46	32.54±6.45	28.31±10.70
	I am partially satisfied (n=111)	28.90±5.81	12.81±3.97	29.02±4.61	35.81±6.70	31.44±5.86	25.38±8.74
	I am satisfied (n=88)	22.54±6.13	10.39±3.63	29.87±4.19	39.98±6.62	29.01±4.80	22.57±9.57
	Test statistics	****F=82.057; p=0.000 (1-2,1-3,2-3)**	****F=17.205; p=0.000 (1-3,2-3)**	****F=4.849; p=0.009 (1-3)**	****F=31.102; p=0.000 (1-3,2-1,3-2)**	****F=7.577; p=0.001 (1-3,2-3)**	****F=6.096; p=0.003 (1-3)**

*Independent samples t-test; **One-way analysis of variance test-the mean difference is given significant at the 0.05 level Tukey and Tamhane; MBS: Maslach Burnout Scale; ProQOL: Professional Quality of Life Scale.

TABLE 2: Relationship between burnout and Professional Quality of Life Scale.

		1	2	3	4	5	6
1. MBS-emotional exhaustion	R	1					
	p value	-					
2. MBS-depersonalization	R	**0.563**	1				
	p value	**0.000***					
3. MBS-lack of personal accomplishment	R	**-0.221**	**-0.305**	1			
	p value	**0.000***	**0.000***				
4. ProQOL-professional satisfaction	R	**-0.460**	**-0.406**	**0.514**	1		
	p value	**0.000***	**0.000***	**0.000***			
5. ProQOL-burnout	R	**-0.555**	**0.267**	0.061	0.118	1	
	p value	**0.000***	**0.000***	0.337	0.062		
6. ProQOL-compassion fatigue	R	**-0.532**	**-0.447**	**-0.180**	**-0.224**	**0.645**	1
	p value	**0.000***	**0.000***	**0.004***	**0.000***	**0.000***	

r: Pearson's correaltion coefficient, p values of the statistically significant correlation coefficients were shown as bold *p<0.01; MBS: Maslach Burnout Scale; ProQOL: Professional Quality of Life Scale.

TABLE 3: Findings on the power of burnout to affect quality of life during the pandemic period.

				95% CI of β			
Dependent variable	**Independent variables**	**β coefficient**	**SE of β**	**Lower**	**Upper**	**t value**	**p value**
ProQOL-professional satisfaction	Constant	27.002	3.271	20.559	33.444	8.255	
	MBS emotional exhaustion	-0.298	0.058	-0.412	-0.184	-5.157	**<0.001**
	MBS depersonalization	-0.194	0.112	-0.415	0.026	-1.733	0.084
	MBS lack of personal accomplishment	0.689	0.087	0.518	0.860	7.937	**<0.001**
	$R=0.631/R^2=0.398$/**Adjusted R^2=0.391** F=54.186/p=0.000						
ProQOL-burnout	Constant	11.577	2.598	6.460	16.694	4.456	
	MBS emotional exhaustion	0.444	0.046	0.353	0.534	9.665	**<0.001**
	MBS depersonalization	-0.021	0.089	-0.197	0.154	-0.239	0.812
	MBS lack of personal accomplishment	0.241	0.069	0.105	0.377	3.498	**0.001**
	$R=0.586/R^2=0.343$/**Adjusted R^2=0.335** F=42.842/p=0.000						
ProQOL-compassion fatigue	Constant	6.551	4.419	-2.153	15.255	1.482	
	MBS emotional exhaustion	0.500	0.078	0.346	0.654	6.401	**<0.001**
	MBS depersonalization	0.484	0.151	0.186	0.782	3.196	**0.000**
	MBS lack of personal accomplishment	-0.054	0.117	-0.285	0.177	-0.459	0.646
	$R=0.562/R^2=0.316$/ **Adjusted R^2=0.307** F=37.854/p=0.000						

SE: Standard error; CI: Confidence interval; ProQOL: Professional Quality of Life Scale; MBS: Maslach Burnout Scale.

and it has re-emerged the importance of nursing care and the profession on both national and international platforms. The COVID-19 pandemic was tried to be managed in an environment where there was not enough information and data about the COVID-19 virus and uncertainty prevailed. However, when the impact of the pandemic on the nursing profession and nurses is evaluated, it is seen that the existing problems have deepened and caused new problems and areas of struggle.[20]

In the study conducted to determine the burnout levels of nurses working under intense and tiring conditions during the pandemic period and its impact on their quality of life, it was seen that there was a relationship between the nurses' socio-demographic data and MBS and ProQOL. In our study, it was determined that the mean score of lack of personal achievement, one of the subscales of MBS, increased as age increased. However, in the study Çevik and Özbalcı, it was observed that the personal success

sub-dimension decreases as age increases.[21] In a study conducted on nurses working in a city hospital during the pandemic, it was seen that there was no significant difference between socio-demographic data such as age, gender, etc. and burnout.[22] It was determined that as the age of nurses increased, the average burnout score, which is one of the ProQOL sub-dimensions, also increased. In Köse 's study, no significant difference was seen between ProQOL and age.[23] Similarly, there are also meta-analysis studies that reveal the relationship between burnout in nurses and sociodemographic characteristics such as age, gender, being married and having children.[24]

A statistically significant difference was found between the gender of the participants and the ProQOL sub-dimensions of professional satisfaction and burnout, and the mean score of women was found higher than that of men. Similar to our study, the average score of women was higher than that of men in the study of Denk.[25] It can be said that this situation is due to female nurses' efforts to balance their social and professional lives due to their high responsibilities regarding home, family and child care.

It was determined that the MBS personal acomplishment sub-dimension mean score of married nurses participating in the study was higher than that of single nurses, but in many studies, no relationship was found between marital status and personal acomplishment sub-dimension.[21] Considering that the thought of a married person's lack of personal acomplishment and the need to spend effort in this direction are related to the necessity of their responsibilities, it can be assumed that married employees develop resistance to thoughts such as emotional exhaustion and depersonalization, and the family environment provides support.[26] In support of our study, Neşe Cerit et al, Karaca Sivrikaya and Erişen concluded that single nurses were in a positive relationship and statistically significant with MBS compared to married nurses, and burnout was higher in individuals without a partner.[27,28]

Due to the nature of the working conditions, shift work patterns negatively affect their biological, psychological and social lives among health professionals. The mean score of the MBS depersonalization sub-dimension of the nurses participating in our study was found significantly higher than those of shift workers who only work during the day, and the study of Karaca Sivrikaya and Erişen is similar to our finding.[28] Neşe Cerit et al., on the other hand, it was determined that those working with the shift system (day-night) experienced more emotional exhaustion and depersonalization.[27] In our study, it was found that only the MBS personal acoplishment and ProQOL professional satisfaction sub-dimension score averages of day workers were significantly higher. However, in the study of Köse, it was found that shift workers have higher ProQOL compassion fatigue scores than those who work constantly during the day, while in Denk's study the average occupational satisfaction score of only day workers and the ProQOL burnout level of shift workers are higher.[23,25] It was determined that the mean scores of the MBS emotional exhaustion and depersonalization sub-dimension of the nurses who has not occupational satisfaction participated in the study were higher than those who were satisfied with their profession. Friganović et al. reported that nurses' occupational satisfaction and burnout were related in their study in which they conducted a literature review, but there were not many studies on this subject.[29] In the study, they concluded that working in a stressful environment, being in contact with a multidisciplinary team, and having increased competence and autonomy in recent years affect occupational satisfaction and thus burnout.

In our study, it was found that burnout and compassion fatigue, one of the ProQOL subscales, were significantly higher in nurses who were dissatisfied with their profession. Similar to our study findings, Neşe Cerit et al. study found that the emotional exhaustion scores of those who wanted to change their profession at the first opportunity were statistically significantly higher than others, and Kulakçı et al. study found that those who chose their profession willingly experienced less emotional exhaustion and depersonalization, and that those who changed their profession at the first opportunity experienced less emotional exhaustion and depersonalization.[27,30] He stated that those who chose unintentionally had a higher perception of personal failure. In the study

conducted by Akalın and Modanlıoğlu on intensive care nurses during the COVID-19 period, it was determined that the general burnout scores of those who were dissatisfied with their profession were higher.[31] It was determined that those who liked their profession, those who thought nursing was very suitable for them, and those who stated that they were committed to their profession had high personal success scores.[32]

In the study, it was determined that the quality of life decreased as the burnout of nurses increased. In addition, it has been revealed that age, education level, marital status, working style and doing the profession with pleasure related to burnout. The quality of life of the nurses working in the pandemic hospital is affected by age, gender, working style and practicing the profession fondly (Table 2). In the study of Jaafarpour et al., it was reported that there is a significant relationship between the quality of work life and burnout, and that the increase in the quality of work life reduces the level of burnout.[33] In this direction, it has been concluded that the improvement of nurses' problems and the creation of mechanisms to solve them can improve their burnout, thus ensuring the satisfaction of employees and patients. Similarly, de Oliveira et al. emphasized that the correction of burnout will contribute to the improvement of the quality of life, and supporting nurses with therapeutic massage, stress-relieving therapies, humor programs, physical activity.[34]

Nursing is a professional profession that requires physical, mental and emotional hard work. First to notice of nurses the heavy workload themselves, to consider better working well-being, to report how they feel among their peers and other professionals, and to seek support for the prevention or treatment of burnout, positive relationships, team relations and managerial support are important.[29]

This study was conducted with nurses working in a pandemic hospital during the pandemic period in Türkiye. The results are important as they reflect the burnout of nurses during the pandemic and its effect on the quality of life. During the pandemic process, similar findings were obtained in studies related to the subject abroad. Fernandez et al. emphasized in a systematic review that nurses' work under life-threatening stress, anxiety and physical fatigue during crisis periods such as pandemics causes burnout and job loss, therefore it is important to be sensitive to government and health policies and to support them with a meaningful support system.[35]

The results are limited to the quantitative data of nurses working in the pandemic hospital between the dates of the study and cannot be generalized.

CONCLUSION

In the study, it was determined that the quality of life decreased as the burnout of the nurses working in a pandemic hospital during the pandemic process increased. It is recommended that nurses be supported to cope with burnout during the pandemic process. In addition, attempts should be made to improve the quality of life. In order to determine the experiences of nurses working during the pandemic process, it is recommended to conduct qualitative studies in which in-depth interview method will be used.

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Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

***Idea/Concept:** Özlem Doğu; **Design:** Özlem Doğu, Nursan Çınar; **Control/Supervision:** Özlem Doğu, Nursan Çınar, Esin Kelağalar; **Data Collection and/or Processing:** Özlem Doğu, Nursan Çınar, Esin Kelağalar; **Analysis and/or Interpretation:** Özlem Doğu, Nursan Çınar, Esin Kelağalar; **Literature Review:** Özlem Doğu, Nursan Çınar, Esin Kelağalar; **Writing the Article:** Özlem Doğu, Esin Kelağalar; **Critical Review:** Özlem Doğu, Nursan Çınar, Esin Kelağalar; **References and Fundings:** Özlem Doğu, Nursan Çınar, Esin Kelağalar.*

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