

Evaluation of Burnout Level in Nurses with Loneliness and Other Findings

Hemşirelerde Tükenmişlik Düzeyinin Yalnızlık ve Diğer Bulgularla Değerlendirilmesi

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ABSTRACT

Background: Today, healthcare professionals can feel lonely and exhausted due to the stresses of the environments in which they work. Burnout is a situation that affects not only the employees but also the health of society receiving the service. In this study, we aimed to determine the burnout levels of nurses, related factors and whether there is a correlation between burnout and loneliness.

Materials and Methods: The study included nurses who agreed to participate in the study and employed in University of Health Sciences Türkiye, Şişli Hamidiye Etfal Training and Research Hospital from 10.10.2018-10.01.2019. The socio-demographic data form, Maslach burnout inventory (MBI) and UCLA loneliness scale (UCLA-LS) were used to collect the research data and these questionnaires were applied by face-to-face interview method. The statistical alpha significance level was accepted as $p<0.05$.

Results: Of the 318 participants, 258 were female (81.1%) and the mean age was 26.26 ± 5.34 (min=19, max=54). The mean score of nurses on the UCLA-LS was 36.77 ± 7.66 (min=24, max=60) and on the MBI subscales were 15.02 ± 6.86 (min=0, max=34) for emotional exhaustion (EE), 5.02 ± 3.81 (min=0, max=16) for depersonalization (DP) and 21.16 ± 4.89 (min=5, max=32) for personal accomplishment (PA). The PA points of nurses who had attended a congress within the last year were found to be significantly high ($p=0.030$). There were positive correlations between the UCLA-LS scores with the MBI EE and DP subscales, and a negative correlation with the PA subscale ($r=0.367, p<0.001$; $r=0.295, p<0.001$; $r=-0.304, p<0.001$, respectively).

Conclusion: Findings obtained from our study; show that as the level of loneliness of nurses increases, their burnout levels increase and their presence in scientific environments such as congresses increases their personal success levels positively. In line with these data, we think that they should be supported for both scientific and social activities.

Keywords: Burnout, loneliness, nurses

ÖZ

Amaç: Günümüzde sağlık çalışanları, çalışma ortamlarındaki streslerden dolayı kendilerini yalnız ve tükenmiş hissedebilmektedirler. Tükenmişlik, sadece çalışanları değil, hizmet alan toplumun sağlığını da etkileyen bir durumdur. Biz bu çalışmada hemşirelerin tükenmişlik düzeylerini, bu durumla ilişkili faktörleri ve yalnızlık ile tükenmişlik arasında bir ilişki olup olmadığını belirlemeyi amaçladık.

Gereç ve Yöntemler: Çalışmaya 10.10.2018-10.01.2019 tarihleri arasında Sağlık Bilimleri Üniversitesi, Şişli Hamidiye Etfal Eğitim ve Araştırma Hastanesi'nde görev yapan ve araştırmaya katılmayı kabul eden hemşireler dahil edilmiştir. Araştırma verilerini toplamak için sosyo-demografik veri formu, Maslach tükenmişlik envanteri (MBI) ve UCLA yalnızlık ölçeği (UCLA-LS) kullanılmış olup ve bu anketler yüz yüze görüşme yöntemi ile uygulanmıştır. İstatistiksel alfa anlamlılık düzeyi $p<0,05$ olarak kabul edilmiştir.

Bulgular: Üç yüz on sekiz katılımcının 258'i (%81,1) kadın ve yaş ortalaması $26,26\pm 5,34$ (min=19, maks=54) idi. Hemşirelerin UCLA-LS puan ortalaması $36,77\pm 7,66$ (min=24, maks=60) ve MBI alt ölçeklerinde puan ortalamaları duygusal tükenme (EE) için $15,02\pm 6,86$ (min=0, maks=34), duyarsızlaşma (DP) için $5,02\pm 3,81$ (min=0, maks=16) ve kişisel başarı (PA) için $21,16\pm 4,89$ (min=5, maks=32) idi. Son bir yıl içinde bir kongreye katılan hemşirelerin PA puanları anlamlı olarak yüksek bulundu ($p=0,030$). UCLA-LS puanları ile MBI EE ve DP alt ölçekleri arasında pozitif, PA alt ölçeği ile negatif korelasyon vardı (sırasıyla; $r=0,367, p<0,001$; $r=0,295, p<0,001$; $r=-0,304, p<0,001$).

Sonuç: Çalışmamızdan elde edilen bulgular, hemşirelerin yalnızlık düzeyi arttıkça tükenmişlik düzeylerinin arttığını ve kongre gibi bilimsel ortamlarda bulunmalarının kişisel başarı düzeylerini olumlu yönde artırdığını göstermektedir. Bu veriler doğrultusunda hem bilimsel hem de sosyal faaliyetler için desteklenmeleri gerektiğini düşünüyoruz.

Anahtar Kelimeler: Tükenmişlik, yalnızlık, hemşireler



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Introduction

Health workers (nurse, health officer) serving in the health sector; being in constant communication with patients and their relatives, lack of staff and high workload cause them to be among the work groups exposed to burn out (1).

Burnout is a concept handled by many occupational groups. Personnel working in institutions to serve people are required to spend a significant amount of time with other people. When professionals working in continuous communication with people are exposed to chronic stress, they are at risk of developing emotional overload and burnout syndrome (2).

When factors affecting the level of burnout are examined, they appear to be dealt with in two dimensions as those related to the workplace and individual/social factors (work-related factors, social factors) (3). Among work-related factors, work load, authority of the person to choose and make decisions about their work, material or social encouragement as reward for work performed and feeling they belong in their workplace were shown to affect burnout (4). When social factors are examined; factors such as age, education, marital status, number of children, excessive commitment to work, relationships and communication with colleagues and managers can be counted among these (5).

When previous studies are investigated, those experiencing burnout are reported to be faced with many individual and organizational problems like dissatisfaction with their work, family problems, inability to continue work, changing jobs, quitting jobs, lack of power, tiredness, headache, bodily and mental diseases, insomnia, depression, dissatisfaction and smoking (6).

Social connections are among the necessities of human life and loneliness is among the problems most experienced by people in their social lives. Loneliness has been discussed by many and has been defined by the Turkish Language Association as "the state of being alone, desolation". Due to changing and rapid life conditions, people have difficulty forming relationships and lose confidence, which increases alienation and time spent on their own and this causes limitations of social surroundings. As a result of this, human relationships, in-family communication and relationships in work life may be disrupted (7).

In order to maintain services in health organizations, where people serve other people, in the best way possible, it is very important to improve the working conditions of health personnel, to support them in material and mental terms and to research routes to solving problems.

In this study, we aimed to determine the level of burnout, the factors affecting it, and whether there is a connection

between feelings of loneliness and burnout among health workers (nurse, health officer) working in a training and research hospital.

Material and Methods

This study was permitted by the Ethics Committee of the University of Health Sciences Türkiye, Şişli Hamidiye Etfal Training and Research Hospital on 09.10.2018 with decision number 2136. The study was carried out at University of Health Sciences Türkiye, Şişli Hamidiye Etfal Training and Research Hospital with nurses who agreed to participate in the study between 10.10.2018-10.01.2019.

Data Collection Tools

The socio-demographic data form, Maslach burnout inventory (MBI) and UCLA loneliness scale (UCLA-LS) were used to collect the research data and these questionnaires were applied by face-to-face interview method to the participants.

The socio-demographic data form was prepared by the researchers in line with similar studies and included descriptive questions about age, gender, marital status and educational information, working conditions and chronic diseases.

MBI

This scale, which was developed by Maslach and Jackson (2) and is still in use today, consists of 22 questions in total. The scale contains 3 subdimensions as emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA) and is a Likert-type scale. These subdimensions comprise the total points obtained from 9 questions for EE (items 1, 2, 4, 6, 8, 13, 14, 16 and 20), from 5 questions for DP (items 5, 10, 11, 15, 22) and from 8 questions for PA (items 4, 7, 9, 12, 17, 18, 19, 21). The original scale gave points of 1 for "never" and 7 for "always". With response form with seven choices on the original scale, the Turkish validity and reliability study by Çam (8) organized a five-point grading from 0 to 4. Low levels of burnout are shown by low points for the EE and DP subscales and high points from the PA subscale, with moderate levels of burnout indicated by moderate points on all three subscales. High levels of burnout are related to high points on the EE and DP subscales and low points on the PA subscale.

University of California, Los Angeles (UCLA) Loneliness Scale

This scale developed by Russel et al. (9) in 1978 and revised in 1980 (10) to measure loneliness had Turkish validity and reliability studies performed by Demir (11). The scale comprises a total of 20 questions, with half of the questions given inverse coding. Responses are given points

of 1 for “I never feel this way”, 2 for “I rarely feel this way”, 3 for “I sometimes feel this way”, and 4 for “I often feel this way”. The scale has minimum 20 and maximum 80 points. It shows that the higher the total score, the more intense the loneliness.

Statistical Analysis

Statistical analysis of data used the SPSS 17.0 for Windows program. Descriptive statistics are given as number, percentage and mean for categoric variables. The one-sample t-test, Pearson correlation and cross-table analyses were used. Independent groups were tested with the chi-square analysis. The statistical alpha significance level was accepted as $p < 0.05$.

Results

Of the 318 participants who volunteered for our study, 258 were female (81.1%) and mean age was 26.26 ± 5.34 years (minimum=19, maximum=54). The distribution of socio-demographic data and working status data of the nurses participating in the study are given in Table 1.

The departments they work in are given in Graph 1; they mostly work in internal branch services with 99 (31%).

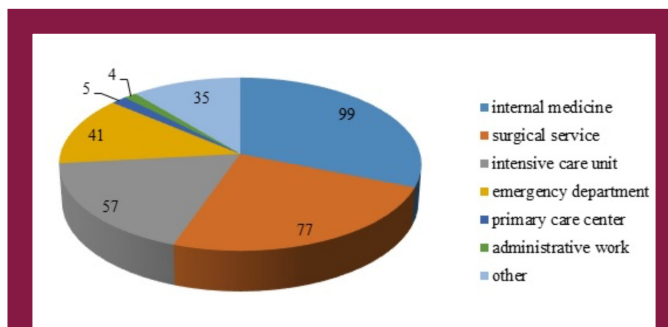
Nurses had mean points of 36.77 ± 7.66 (min=24, max=60) on the UCLA-LS and points for the MBI subdimensions were 15.02 ± 6.86 (min=0, max=34) for EE, 5.02 ± 3.81 (min=0, max=16) for DP and 21.16 ± 4.89 (min=5, max=32) for PA.

When comparisons are made between socio-demographic data and both scales, significant data are shown in Table 2. There was a significant correlation between age with the DP subdimension of the MBI; as age increased DP increased ($p=0.030$). There were no correlations identified between gender, income level, chronic disease and smoking with the UCLA-LS ($p \geq 0.05$). There was a significant correlation between the MBI subdimension of EE with gender; females were found to have higher EE points ($p=0.025$). There was a significant correlation between income level with the MBI subdimension of EE; those with high income level had high points ($p=0.005$). In the analysis performed in individuals with chronic diseases, a significant relationship was found with EE and DP, which are subgroups of MBI, and the scores of those with chronic diseases were higher in both groups ($p=0.002$, $p=0.023$, respectively). There was no significant correlation found between having children with the UCLA-LS and the MBI subdimensions ($p \geq 0.05$). The points for the MBI subdimensions of EE and DP were found to be significantly high for nurses who smoked ($p=0.008$, $p=0.016$, respectively).

The correlations between working status data with loneliness and burnout are given in Table 3. There was no correlation between shifts and UCLA-LS, but there

Table 1. Socio-demographic characteristics and working status data of nurses

	n	%
Age group		
≤24 years	140	44.0
≥25 years	178	56.0
Gender		
Female	258	81.1
Male	60	18.9
Income		
1701-3499 TL	118	37.1
≥3500 TL	200	62.9
Is there anyone else you have to provide care outside of work?		
Yes	67	21.1
No	251	78.9
Do you working in your department according to your own wish?		
Yes	197	61.9
No	121	38.1
Shift work		
Yes	189	59.4
No	129	40.6
Working hours in a week		
≤40 hours	177	55.7
≥41 hours	141	44.3
Did you attend any congress within the last year?		
Yes	100	31.4
No	218	68.6
Chronic diseases		
Yes	28	8.8
No	290	91.2
Smoking		
Yes	86	27.0
No	232	73.0



Graph 1. The distributions of the departments of employment (n=318)



Table 2. Comparison of the UCLA loneliness scale and subdimension of the Maslach burnout inventory between socio-demographic data (n=318)

	UCLA loneliness scale		Maslach burnout inventory					
			Emotional exhaustion		Depersonalization		Personal accomplishment	
	Mean ± SD	p	Mean ± SD	p	Mean ± SD	p	Mean ± SD	p
Age group								
≤24 years	35.91±6.73	0.070	14.36±6.87	0.132	4.49±3.78	0.030	21.28±4.92	0.711
≥25 years	37.44±8.27		15.53±6.84		5.43±3.79		21.07±4.89	
Gender								
Female	36.61±7.80	0.435	15.43±7.01	0.025	5.00±3.83	0.909	21.19±4.74	0.842
Male	37.47±7.03		13.23±5.90		5.07±3.76		21.05±5.56	
Income								
1701-3499 TL	37.45±7.67	0.225	13.63±6.89	0.005	4.75±3.87	0.348	20.95±5.33	0.549
≥3500 TL	36.37±7.64		15.84±6.74		5.17±3.77		21.29±4.63	
Chronic diseases								
Yes	39.11±9.20	0.091	18.86±6.28	0.002	6.57±4.26	0.023	20.29±3.91	0.321
No	36.55±7.47		14.65±6.81		4.87±3.74		21.25±4.97	
Smoking								
Yes	38.04±7.62	0.074	16.69±7.24	0.008	5.86±4.10	0.016	21.05±5.15	0.796
No	36.30±7.63		14.40±6.63		4.70±3.66		21.21±4.81	
Is there anyone else you have to provide care outside of work?								
Yes	39.08±8.20	0.005	15.02±6.24	0.996	4.92±4.52	0.827	21.82±4.91	0.216
No	36.15±7.40		15.02±7.03		5.04±3.91		20.99±4.88	

SD: Standard deviation

Table 3. Comparison of the working status data with UCLA loneliness scale and Maslach burnout inventory (n=318)

	UCLA loneliness scale		Maslach burnout inventory					
			Emotional exhaustion		Depersonalization		Personal accomplishment	
	Mean ± SD	p	Mean ± SD	p	Mean ± SD	p	Mean ± SD	p
Shift work								
Yes	36.86±7.80	0.807	16.22±7.21	<0.001	5.38±3.81	0.038	21.62±4.62	0.042
No	36.64±7.46		13.26±5.92		4.48±3.76		20.49±5.21	
Working hours in a week								
≤40 hours	36.64±7.99	0.742	14.38±6.67	0.065	4.56±3.54	0.016	20.72±4.99	0.068
≥41 hours	36.93±7.24		15.82±7.04		5.59±4.07		21.72±4.73	
Do you working in your department according to your own wish?								
Yes	36.70±7.43	0.836	14.51±6.81	0.090	4.94±3.75	0.648	21.80±4.69	0.003
No	36.88±8.05		15.85±6.90		5.14±3.92		20.12±5.06	

SD: Standard deviation

was a significant correlation with the MBI EE, DP and PA subdimensions. Nurses working shifts experienced more problems related to EE and DP, but felt they had more PA ($p < 0.001$, $p = 0.038$, $p = 0.042$, respectively). As the number of hours worked per week increased, significantly higher points were obtained from the MBI DP subdimension ($p = 0.016$). Nurses working in departments according to their own wish were observed to have significantly higher points for the MBI PA subdimension ($p = 0.003$). Though there was no significant difference between the MBI EE and DP subdimensions with place of employment according to their choice, the points for EE and DP were determined to be lower for those working according to their own wishes.

The PA points of nurses who had attended a congress within the last year were found to be significantly high ($p = 0.030$). According to the UCLA-LS, nurses who stated they were caregivers for patients outside of work ($n = 67$) felt significantly more lonely compared to those who were not caregivers ($p = 0.005$).

As points obtained on the UCLA-LS increased, there was a positive significant correlation with the MBI EE and DP subdimensions and a negative significant correlation with the PA subdimension ($r = 0.367$, $p < 0.001$; $r = 0.295$, $p < 0.001$; $r = -0.304$, $p < 0.001$, respectively).

Discussion

In our study, of the 318 healthcare workers, 81.1% ($n = 258$) were women. In similar studies, it is seen that health workers other than physicians are mostly women (12,13).

When studies are examined, Kütükçü et al. (14) found the mean age was 33.8 ± 8.46 years in a state hospital and Kaçan et al. (12) found the mean age was 33.1 ± 7.85 years in a study conducted in Bursa. In our study, the mean age was 26.26 ± 5.34 years. One of the reasons for the younger age in our study may be new assignments due to the excessive personnel circulation in İstanbul.

In a study conducted with 203 nurses in Balıkesir, the mean score of UCLA-LS was found to be 37.54 ± 8.81 , and in another study conducted with university nursing students, the mean score was found to be 39.49 ± 8.40 (15,16). Nurses participating in our study were identified to have mean UCLA-LS scores of 36.77 ± 7.66 , similar to the studies above.

We found that nurses participating in our study had points of 15.02 ± 6.86 for the MBI subdimension of EE, 5.02 ± 3.81 for DP and 21.16 ± 4.89 for PA. A study in 2019 by Kütükçü et al. (14) to determine the burnout levels of nurses working in a state hospital found mean EE points of 17.3 ± 7.16 , mean DP points of 5.6 ± 3.47 , and mean PA points of 19.7 ± 4.40 . A 2016 study in Bursa by Kaçan et al. (12) identified mean points for EE of 20.36 ± 7.70 , for the DP of 8.62 ± 5.21 , and for PA of 18.50 ± 5.58 . Our study results comply

with the literature, and we think small differences are due to studies being performed in hospitals located in different provinces.

We did not find significant correlations between the UCLA-LS and socio-demographic features (age, gender, chronic disease and smoking habit). In our study, though no significant correlation was found, the points obtained from the loneliness scale were higher in males, as age increased, as income decreased, among those with chronic disease and among health workers who smoked. When previous studies are examined, Özcan (16) did not find any correlations between gender with UCLA-LS. A study by Kaya et al. (17) found the male gender received significantly higher points on UCLA-LS and as age increased, loneliness points increased too. Differences between studies may be due to features of the samples (age groups, working areas, etc.) and as a result, we think clearer results will be reached if more comprehensive studies of health personnel are performed.

Previous studies have shown that smoking behavior is among ways to cope with stress for people experiencing burnout (18,19). The significantly higher scores of EE and DP subdimensions of the MBI in this study for health nurses who smoked is consistent with studies in the literature. A study by Petrelli et al. (20) identified significant differences between feelings of burnout with alcohol and smoking. In another study, it was determined that the DP scores of the smoking nurses were higher than the non-smoking nurses, and there was no significant difference in terms of EE and PA scores (14). Similar to our study, another study conducted among health workers found that EE was linked with increased rates of smoking while DP was linked with increased rates of both smoking and alcohol use (19). Addictions like smoking and alcohol are associated with psychological discomfort. According to studies, the smoking habits of those with psychiatric diseases are higher than those without (21). As a result, the increases with the burnout inventory subdimensions of EE and DP is an expected situation. In a study on loneliness and smoking, no connection was found between smoking and loneliness, but it was found that smokers had higher scores on loneliness (22). In our study, a similar relationship is present. However, another study about young people concluded that smoking individuals had statistically significant increased points for loneliness (23). A meta-analysis of studies in the literature found there was a correlation between loneliness and smoking, but proposed that it needed to be clarified (24).

Nurses who stated that they had a patient they were obliged to take care of outside of work felt significantly more lonely than those who did not have a patient to look after, according to the UCLA-LS. This data is compatible with the finding of Kalinkara and Kalaycı (25) in the study they conducted with people who provide home care services to the elderly, that their social relations are mostly absent, they

are isolated from social life and their family relations are damaged. For healthcare workers with intense conditions in the work place, caring for a patient outside the hospital causes more isolation from social environments and more feelings of loneliness.

Working conditions are an important part of work load for people. Several studies of nurses working in secondary centers about the correlation of workload with burnout are available in the literature and a research concluded that though there are results showing that as workload increases burnout increases, the studies need expanding (26). The correlations between questions assessing working conditions and burnout subdimensions were separately investigated. As weekly working hours increased, significantly high points were received for the MBI DP subdimension, though not significantly different, EE points were identified to be higher compared to those who worked fewer hours. The study by Kaçan et al. (12) found higher mean points for EE and DP subdimensions and lower mean points obtained for the PA subdimension. It has been shown that increasing the weekly working hours increases the feeling of burnout. The reason for this may be the decrease in socialization of individuals due to the increase in fatigue as a result of the increase in weekly working hours.

Individuals working shifts may experience problems with sleeping, socialization and a steady family life. A study by Köylü and Korkut (27) showed that higher points were received for the MBI EE subdimension by doctors working night shifts. Another study showed that doctors working in shifts have higher burnout levels (28). A meta-analysis identified increased MBI EE and DP subdimensions and reduced PA among shift workers (29). Our study results are consistent with the literature in terms of EE and DT subdimensions; however, PA points were identified to be higher among shift workers. The reason for this may be that the majority of the participants work in the places they want.

In fact, nurses working in duties according to their own wish were observed to have significantly higher MBI PA points. In their studies, Kaçan et al. (12) and Kekeç and Tan (30) found that the EE and DP scores of the nurses working in their units according to their wishes decreased, while the PA scores increased. As shown in common with these studies, nurses working in areas of their own choosing may reduce feelings of burnout and increase personal success.

Nurses who had attended a congress in the last year were found to have significantly higher PA points compared to those who had not attended congresses. A 2016 study in Bursa by Kaçan et al. (12) found similar results. Being in scientific environments like congresses, being able to exchange ideas with colleagues and being able to follow scientific developments was shown to have a positive effect on PA of nurses. As a result, participation in congresses should be supported.

There are not many studies about workload and loneliness in the literature. However, there are studies showing that loneliness levels among academics in the work place does not differ according to lesson load (31). In our study, there was no correlation between working status and loneliness.

Loneliness is a silent epidemic affecting many people in the current age and is associated with many factors (32). In our study, a correlation was identified between burnout and loneliness. In the literature, results of a study of 182 nurses found that loneliness in work life negatively affected work satisfaction and again stated that loneliness experienced in work life affected their desire to leave their jobs (32). In conclusion, by using the correlation between burnout and loneliness, it can be said that increasing the socialization of nurses will contribute to reducing burnout.

Conclusion

In our study, widespread burnout was found to be associated with increased working hours in nurses, more frequently in women. In order to reduce the burnout levels of nurses, who have a very important place in the delivery of health services, it is necessary to take their opinions when deciding where to work, to support their participation in scientific environments and to ensure their socialization in the working environment.

Ethics

Ethics Committee Approval: This study was permitted by the Ethics Committee of University of Health Sciences Türkiye, Şişli Hamidiye Etfal Training and Research Hospital on 09.10.2018 with decision number 2136. The study was carried out at University of Health Sciences Türkiye, Şişli Hamidiye Etfal Training and Research Hospital with nurses who agreed to participate in the study between 10.10.2018-10.01.2019.

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Authorship Contributions

Concept: E.S.E., G.Z.Ö., M.T.E., Design: E.S.E., G.Z.Ö., M.T.E., Data Collection or Processing: E.S.E., Y.U. Analysis or Interpretation: E.S.E., G.Z.Ö., Literature Search: E.S.E., G.Z.Ö., M.T.E., Y.U., Writing: E.S.E., G.Z.Ö., M.T.E., Y.U.

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