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BURNOUT LEVEL OF NURSES IN A PRIVATE UNIVERSITY HOSPITAL

ÖZEL BİR ÜNİVERSİTE HASTANESİNDEKİ HEMŞİRELERİN TÜKENME DÜZEYİ

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Abstract

Introduction: Burnout is one of the most significant problems affecting the working lives of nurses.

Objective: This study was conducted to determine the burnout levels of nurses working in a private university hospital.

Methods: This was a cross-sectional descriptive study. The sample consisted of 121 volunteer nurses at the university hospital who met the sampling criteria. Data were collected using the Nurse Descriptive Form and the Burnout Scale-Short Form. Nurses filled out the data forms themselves. The significance value for the variables was $p<0.05$.

Results: In total, 70.2% of the nurses were female, and 76.0% were between 20 and 29 years old. Most of the nurses with 0–5 years of professional experience (76.1%) were between 20 and 29 years old. All the nurses experienced at least "exhaustion at the danger limit." However, nurses' gender, marital status, and education level were not associated with burnout levels ($p>0.05$). Nurses who had worked for 0–5 years (M=3.473, SD=1.212) had higher burnout scores than those who had worked longer (6–17 years; M=3,082, SD=0.923; $p>0.05$). The burnout scores of nurses between 20 and 29 years old who were not parenthoods, who had 0–5 years of nursing experience, and who worked over 51 hours per week were statistically higher ($p<0.05$). As the nurses' weekly overtime hours (M=4,159, SD=1,080) and number of night shifts increased (M=3,632, SD=1,113), their burnout scores also increased ($p<0.05$).

Conclusion: The fact that all of the nurses reported "exhaustion at the danger limit" indicates that institutional working conditions should be improved. The burnout scores of nurses showed a greater correlation with clinical characteristics. Young nurses with little experience working long hours may lead to higher burnout scores. Larger studies are required to elucidate the causes of burnout among nurses working at private hospitals.

Keywords: Nursing, burnout, clinical characteristics, sociodemographic characteristics.

Özet

Giriş: Hemşirelerin iş yaşamında tükenmişlik önemli sorunlardan biridir.

Amaç: Bu çalışmada özel bir üniversite hastanesinde çalışan hemşirelerin tükenmişlik düzeyinin belirlenmesi amacıyla planlandı.

Yöntemler: Kesitsel tanımlayıcı bir çalışmadır. Çalışmanın evreni örneklemini oluşturdu. Bu çalışmada örneklem kriterlerini karşılayan gönüllü 121 hemşire yer aldı. Veriler "Hemşire Tanıtıcı Formu" ve "Tükenmişlik Ölçeği-Kısa Formu" ile toplandı. Hemşireler veri formlarını kendileri doldurdu. Değişkenler için önemlilik değeri p<0,05.

Bulgular: Hemşirelerin %70,2'si kadın, %76,0'sı 20-29 yaş arasındaydı. Hemşirelerin meslek deneyim süresi 0-5 yıl olanların çoğu (%76,1) 20-29 yaş arasındaydı. Bu çalışmada tüm hemşirelerin tamamı en az *"tehlike sınırında tükenme"* yaşamaktaydı. Ancak, hemşirelerin cinsiyet, medeni durum ve eğitim seviyesi tükenmişlik düzeyi ile ilişkili değildi (p>0,05). Çalıştıkları kurum/ birimlerde, 0-5 yıl çalışan (ort ± ss) (3,473±1,212) hemşirelerin daha uzun süre çalışanlara (6-17 yıl) (3,082±0,923) göre tükenme puanı daha yüksekti (p>0,05). 20-29 yaş arasında olan, ebeveyn olmayan ve hemşirelik deneyim süresi 0-5 yıl arasında olan, haftalık 51 saatin üzerinde mesai yapan hemşirelerin tükenmişlik puanı ise istatistiksel olarak daha yüksekti (p<0,05). Hemşirelerin haftalık fazla mesai saatti (4,159±1,080) ve gece nöbet sayısı arttıkça (3,632±1,113) tükenmişlik puanı daha çok arttı (p<0,05).

Sonuç: Hemşirelerin tamamının "*tehlike sınırında tükenme"* bildirmesi kurumsal çalışma koşullarının iyileştirilmesi gerektiğini göstermektedir. Hemşirelerin tükenme puanı düzeyi klinik karakteristikler ile daha çok ilişki gösterdi. Genç hemşirelerin çalıştıkları kurumda daha uzun süreli mesailerle çalıştırılmaları ve hemşirelik deneyim sürelerinin daha az olması onların tükenme puanlarını artırmış olabilir. Özel hastanelerde çalışan hemşirelerin tükenme nedenlerinin açığa kavuşturulmasında daha büyük çalışmalar önerilir.

Anahtar kelimeler: Hemşirelik, tükenme, klinik karakteristikler, sosyodemografik karakteristikler.

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1. INTRODUCTION

Burnout consists of physical exhaustion, prolonged fatigue, failure, inefficiency, and negative attitudes toward work. It is seen in professions with intense emotional demands that require face-to-face work with other people (Maslach et al., 2001). Burnout is a significant problem that leads to biopsychosocial symptoms and reduces productivity (Tekir et al., 2016; Uçar et al., 2016).

As seen in every profession, it is also common in nursing, which requires face-to-face interactions with people. Nurses face time pressure, are responsible for other human lives, interact with a lot of people, and arguments arising from professional life; in addition, role conflicts can lead to stress and burnout (Çevik Tekin, 2021; Hamit et al., 2017).

Factors such as long working hours and high patient loads play a significant role in burnout among nurses. Decreases in the quality of care provided by nurses suffering from burnout are detrimental to both patients and the institutions where they work. For this reason, the quality of health services provided at institutions with a low incidence of burnout is high (Çevik Tekin, 2021; Efil et al., 2022; Xie et al., 2011). Decreases in the quality of care provided by nurses experiencing burnout negatively affect society's perceptions of nursing, which could discourage younger and future generations from choosing the profession According to reports, determining the levels and causes of burnout among nurses may raise awareness of the problem and facilitate problem-solving at the institutional or political level (Efil et al., 2022; Helvacı and Turhan, 2013; Matsuo et al., 2020). Although it can be said that the country's economy causes nurses to work under heavy conditions, it is difficult to prove this., as staff members may hesitate to disclose difficult working conditions due to work anxiety or participate in research on this issue.

This study was conducted to determine the burnout levels of nurses working at a private university hospital. The research questions that guided the study are as follows:

1. What is the burnout level of nurses?
2. Do socio-demographic factors impact burnout levels of nurses?
3. Do clinical characteristics impact burnout levels of nurses?

2. METHODS

2.1 Design

This was a descriptive cross-sectional study.

2.2 Setting

This study was conducted at a private university hospital between 20 January 2020 and 15 March 2020. This hospital was chosen because it is one of the largest private university hospitals in Turkey, and it differs from other large private hospitals owing to the large number of daily patient entrances and exits and the insufficient number of nurses. During the study period, the number of patients per nurse, excluding intensive care units and operating rooms, was 20–25. The number of patients per nurse in intensive care units was 2–4. Nurses work at least 45 hours per week, and their turnover rate is generally high.

2.3 Sample

The population of this study consisted of nurses working at the private university hospital where the study was conducted. At the outset of the study period, 190 nurses worked at the hospital. During the research process, the aim was to reach the entire population. At the time of the study, four of the nurses (2.1%) were on a long-term report (leave due to illness) for various reasons, four (2.1%) filled out the forms incompletely or lost them, 10 (5.3%) resigned from the institution in the first days of the study, 21 (11.0%) did not want to take part in the study due to workload, and 30 (15.7%) were working with the hospital via external nursing services. Therefore, the sample consisted of 121 nurses. The research population is 190, for studies in the social sciences, it is reported that the sample size is 120, with an acceptable error of 5% and a confidence level of approximately 95% (Sywalowsky 2009). Thus, the study was completed with 120 nurses of elderly patients.

The inclusion criterion for participants was currently working as a nurse at the hospital. Participation was voluntary. The exclusion criterion was failing to completely fill out the data forms.

2.4 Data collection

Two data collection tools were used: the Nurse Descriptive Form and the Burnout Scale-Short Form (BS-SF).

The nurse researcher explained the purpose of the research to the nurse interviewees, who were then given the forms to complete. Nurses who had time were expected to fill in the forms themselves and then return them. Completing them took 16-18 minutes. A timetable was created for nurses who reported that they did not have time to fill out forms, which was usually

set as 2 days. The nurses handed over the data forms to the clinic head nurse to give to the research nurse.

Dependent variables of the study: burnout level of nurses.

Independent variables: sociodemographic characteristics of the nurses; age, gender, education level, marital status, and number of children; work-life characteristics: professional position, occupation- institution/ unit experience period, and overtime period.

2.5 Data tools and measurements

The nurse introductory form was created based on the literature (Akyüz, 2015; Başar 2020; Can and Hisar 2019; Esen, 2019; Günüşen and Üstün, 2010; Kaçan et al., 2016; Laschinger and Fida, 2014). The first 5 questions of the form, which consisted of 12 questions, were about socio-demographic characteristics, such as age, gender, number of children, education level, and marital status, and 7 questions were about working conditions and occupational characteristics.

The Burnout Scale (BS) was originally developed by Pines and Aronson (1988). The original scale had 21 items, but Pines (2005) adapted it to make it easier to use and developed the burnout scale-short form (BS-SF), which has 10 items. Today, this short form is used more frequently (Pines and Aronson, 1988; Pines, 2005). While calculating the scale score, the items (3, 6, 19, and 20) placed on the scale as positive expressions of burnout were reversed, and the remaining items (1, 2, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, and 21) were scored straight. Burnout levels are evaluated according to the scores obtained: 2.4 and below *"very low burnout"*; 2.5-3.4 *"danger signal burnout"*; 3.5-4.4 *"experiencing burnout"*; and 4.5-5.4 *"severe burnout"*.

The first Turkish validity and reliability test of the BS was by Çapri (2006), and the second was done by Tümkaya (2009). The Turkish validity and reliability test of the BS-SF was done by Çapri (2013). The internal validity reliability coefficient of BS-SF items were .792 in the present study.

Çapri's permission was obtained for the scale to be used in the present study.

2.6 Ethical considerations

The study received ethics clearance (IRB: 13.01.2020-532) from the University's Non-Interventional Research Ethics Committee and Health Practice and Research Center Institution

Permission (decision no: 11.12.2019-8386) from the hospital. The researcher obtained written informed consent from all participants in the study.

2.7 Data analysis

Data were analyzed using SPSS for Windows 20.0 program. The findings were evaluated with a 95% confidence interval and a statistical significance level of $p < 0.05$.

Descriptive data (age, gender, marital status, parentage, working position, ...), frequency and mean (M), and standart deviation (SD) were presented. A comparison between burnout level and sociodemographic and clinical characteristics was completed with nonparametric tests. A difference t-test was used to compare quantitative data; a one-way analysis of variance (ANOVA) test was done in the case of more than two groups, and a Post Hoc test was used to determine the group that caused the difference.

3. RESULTS

In this section, the comparison of sociodemographic and clinical characteristics of nurses with burnout levels is presented.

Table 1. Sociodemographic and clinical characteristics of the participants (n=121)

Characteristics	n	%
Gender		
Female	85	70.2
Male	36	29.8
Age[Ω]		
20-29 years	92	76
30 years +	29	24.0
Marital status		
Married	48	39.7
Single	73	60.3
Parenthood		
Yes	34	28.1
No	87	71.9
Educational level		
High school	54	44.6
Associate degree	24	19.9
Bachelor/ master[¥]	43	35.5
Professional position		
Shift nurse	109	90.1
Responsible and/or executive nurse	12	9.9
Department		
Emergency and delivery room		
Operating room	17	14.0
Intensive care unit	39	32.3
Internal or surgical services/clinics	45	37.2
Nursing service manager	7	5.8
Other: emergency, obstetrics clinic	13	10.7
Nursing experience (years)		

0-5	70	57.9
6-11	36	29.8
12-17	15	12.3
Length of total employment in the hospital (years)		
0-5	81	67.0
6-17[≠]	40	33.0
Length of employment in clinic, unit, or department of the hospital (years)		
0-5	92	76.1
6+[∞]	29	23.1
Overtime period (hour/week)		
0-5	12	9.9
1-25	19	15.7
25-50	54	44.6
51 and +	36	29.8

[Ω]*Four nurses were between the ages of 40-49. The oldest nurse age in the study was 49.* [¥]*Five of the nurses were graduates.* [∞]*One nurse (0.8) had been working for more than 11 years.*

Table 1 shows the sociodemographic and clinical characteristics of the participants. According to Table 1, 70.2% of the nurses were female, 76.0% were between the ages of 20-29 years (the youngest was 20 years old, and the oldest was 49 years old), 60.3% were single, and only 35.5% had a bachelor's or master's degree. Of the nurses, 90.1% were shift nurses, 37.2% worked in internal medicine or surgical service, and 32.3% worked as intensive care nurses. The nursing experience period for 57.9% of the nurses in private university hospital was 0-5 years and 29.8% for 6-11 years. 67.0% of the nurses had 0-5 years length of total employment, and 76.1% had been working in a clinic, unit, or department of the hospital.

Table 2. Burnout level of nurses according to sociodemographic and clinical characteristics (n=121)

Characteristics		**Burnout level**	**Test**	***Value***
Gender	**n**	**Mean± SD**	***t***	***p***
Female	85	3.36±1.16	-0.524	0.601
Male	36	3.24±1.10		
Age				
20-29 years	92	3.48±1.18	5.231	**0.007**
30 years +	25	2.94±0.78		
Marital status			1.409	0.160
Married	73	3.44±1.20		
Single	48	3.14±1.03		
Parenthood			3.484	**0.01**
Yes	34	2.85±0.80		
No	87	3.51±1.20		
Educational level			0.639	0.492
High school	54	3.28±1.11		
Associate degree	24	3.27±1.27		
Bachelor/ master[¥]	43	3.14±0.94		
Professional position			0.719	0.082
Shift nurse	109	3.35±1.17		
Responsible and/or executive nurse	12	3.10±0.72		
Department			2.088[α]	0.008
Intensive care unit	39	3.69±1.05		
Operating room	13	3.37±1.15		
Nursing service manager	7	3.30±0.73		
Internal or surgical services /clinics	45	3.24±1.21		

Emergency and delivery room	17	2.66±0.88		
Nursing experience (years)			7.208 [α]	**0.001**
0-5	70	3.60±1.21		
6-11	36	3.12±0.89		
12-17	15	2.50±0.83		
Length of total employment in the hospital (years)			2.978	0.052
0-5	81	3.47±1.21		
6-17[≠]	40	3.08±0.92		
Length in clinic, unit, or department of the hospital (years)			2.307	0.090
0-5	92	3.44±1.16		
6-17[∞]	29	2.57±0.53		
Overtime period (hour/week)			3.947 [α]	**0.005**
0-5	12	3.15±0.99		
1-25	19	3.18±0.93		
25-50	54	3.14±1.18		
51and +	36	4.50±1.08		

[Ω]*Four nurses were between the ages of 40-49, and the oldest nurse in the study was 49.* [¥] *Five of the nurses were graduates.*
[∞]*One nurse had been working for more than 11 years.* [α] *ANOVA test*

The burnout level of nurses according to sociodemographic and clinical characteristics is shown in Table 2. In this study, the burnout score of all nurses was 2.5 and above in all variables. According to the sociodemographic characteristics of the nurses, only age and parenting status were associated with burnout. The 20-29 age nurses had higher burnout scores than the 30-39 age nurses (3.48±1.18/ 2.94±0.78; *danger signaling burnout,* ***p* = 0.007**), and those who did not have children had higher burnout scores than those who children did (3.51±1.20/ 2.85±0.80; ***p* = 0.01**), and the difference was statistically significant.

Although working in shifts increased the burnout score for nurses according to the clinical characteristics, this did not make a significant difference (p=0.082). However, the clinics where the nurses worked showed a significant difference in their burnout levels. Those working nurses in the intensive care unit (3.69±1.05; *experiencing burnout*) had higher burnout scores than those working in other clinics (*p*=0.008). Those with 0-5 years of service (3.60±1.21; *experiencing burnout*) had higher burnout scores than those with 6-11 years (3.12±0.89; *danger signaling burnout*) and more than 12 years (2.50±0.83; *danger signaling burnout*), and the difference was statistically significant (***p*=0.001**). The burnout score of nurses with 0-5 years of working years in the institution and unit (institution 3.47±1.21/unit 3.44±1.16; *danger signaling burnout*) was higher than those with 6-17 years of working years (institution 3.08±0.92/unit (2.57±0.53; *danger signaling burnout*); however, the difference was not statistically significant (*p*>0.05). The burnout score of nurses who worked more than 51 overtime hours per week (4.50±1.08; *severe burnout*) was higher than those who worked fewer overtime hours, and the difference was statistically significant (***p*=0.005**). Similarly, the burnout

scores of those with 3 (3.53±1.38; *experiencing burnout*) and 4-5 (3.63±1.11; *experiencing burnout*) weekly night shifts were much higher than those with fewer or no shifts, and the difference was statistically significant (***p*=0.007**).

4. DISCUSSION

4.1 Sociodemographic characteristics

In this study, since the burnout score of all nurses was above 2.5, that all of them experienced *danger signaling burnout*. As in this study, gender (Akyüz, 2015; Can and Hisar, 2019; Çankaya, 2017; Taycan et al., 2006; Tekir et al., 2016), marital status (Helvacı and Turhan, 2013; Kaçan et al., 2016; Kaya et al., 2010; Tekir et al., 2016), and educational level (Akpolat and Işık, 2008; Öztürk et al., 2014) did not show a relationship with the level of burnout. The data of the present study support the findings of previous studies. However, some studies have drawn attention to the relationship between gender and burnout by reporting that it is higher in female workers (Ahmadi et al., 2014; Alvares et al., 2020).

The other variables associated with the burnout level of nurses in this study were age and parenting characteristics. Most of the nurses in this study were young and had little professional experience. The burnout score was also significantly higher in those who were young and had less nursing experience.

Studies have shown that burnout related to work-life tends to decrease with increasing age (Balcı et al., 2013; Esen et al., 2019; Karsavuran, 2014). Young nurses also have more expectations in the first years of the profession, and not meeting them may lead to burnout (Alvares et al., 2020; Balcı, 2013; Esen et al., 2019; Gómez-Urquiza et al., 2017).

Some studies suggest that parenthood, which is one of the sociodemographic characteristics, has a positive effect on burnout levels. It is claimed that parenting increases certain communication skills, and communication with other parents and the social environment can provide support in coping with work stress and difficulties (Günüşen and Üstün, 2010). However, although it is claimed that nurses' different social life responsibilities help them cope with stressors, they are insufficient in reducing burnout caused by working life, as these nurses have scores of *burnout indicating danger*.

Previous studies have reported that the relationship between some sociodemographic characteristics of nurses and burnout, as well as the characteristics of the working environment should be further investigated (Paiva et al., 2017).

4.2 Clinical characteristics

In this study, while shift nurses experienced burnout, charge/managerial nurses had a risk score of "*danger signaling burnout"*. The fact that all nurses experience burnout, albeit at different levels, suggests that the common factor may be the working conditions of the institution. The burnout scores of shift or non-shift working nurses in the studies align with the findings of the present study (Durmuş et al., 2018; Friganović et al., 2017; Şentürk, 2014; Xie et al. 2011).

In this study, there was not a significant difference between the burnout scores of the nurses according to the clinics they work in. While the burnout scores of intensive care nurses showed that they experience burnout, other nurses were exhausted. Various studies have reported that the burnout levels of nurses may differ according to the clinics they work in. In these studies, attention is drawn to the difference between the nurse/patient ratio (workload) and the patient circulation rate (Alvares et al., 2020; Elshaer et al., 2017; Şentürk, 2014; Uçar et al., 2016).

In this study, long working hours (hour/week) influenced the burnout scores of young nurses. The fact that nurses have 51 or more weekly working hours indicates a serious burnout level. In addition, a low amount of work experience was a factor that increased the burnout score. The exhaustion levels of nurses represent a problem that corporate managers need to solve. Previous studies have pointed out that a nurse's workload causes burnout by increasing work stress, and it decreases organizational commitment (Demirel et al., 2017; Elshaer et al., 2017; Esen, 2019; Günüşen and Üstün, 2010; Laschinger and Fida 2014). As mentioned above there have been nurse resignations as well as the outsourcing of nursing services in the private university hospital. This situation may be indicative of burnout among nurses working in the institution.

5. CONCLUSION

The majority of the nurses in this study were young and had little working experience, with long working hours in the institution where they worked. These features played a decisive role in the levels of exhaustion. Moreover, all nurses, regardless of their sociodemographic and clinical characteristics, experienced at least "danger signal burnout".

It is recommended to carry out larger studies on this subject for more precise results in investigating the reasons for working long hours.

6. LIMITATIONS

The most important limitation of the study is that it was conducted on nurses working in a private university hospital, and the findings are only applicable to them. The inability to contact nurses who had recently resigned resignation as well as those who were too busy to complete the form resulted in losses in the sample, potentially liomiting the representative power of the sample.

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Conflicts of interest

The authors of this study declare that they have no conflicts of interest.

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