

## Burnout, job satisfaction and depression in the healthcare personnel who work in the emergency department

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### ABSTRACT

**Objective:** This study aimed to determine the levels of depression, job satisfaction and burnout and the variables that could be related to them in the healthcare personnel who were working in the emergency department in the sample from the city of Gaziantep. **Methods:** Study sample included a total of 347 participants, including doctors, nurses, healthcare officers, paramedics and emergency medical technicians (EMTs), who have been working in the emergency department of Gaziantep University Medical Faculty Hospital, in the emergency departments of the state hospitals and 112 emergency services located in the city center of Gaziantep. In the study, we used socio-demographic data form, Maslach Burnout Inventory (MBI), Minnesota Satisfaction Questionnaire (MSQ) and Beck Depression Inventory (BDI). **Results:** Of the workers of emergency department, 18.5% (n=50) were working in the university hospitals, 40% (n=108) in the state hospitals and 41.5% (n=112) in 112 emergency services. Of the workers, 23.3% (n=63) were doctors, 31.5% (n=85) were nurses and 45.2% (n=122) were paramedics. Healthcare personnel who were working in the state hospital had significantly higher emotional exhaustion (EE) and BDI scores and significantly lower personal accomplishment (PA) scores compared to the workers of 112 emergency department. Paramedics had significantly lower EE scores compared to both doctors and nurses. In terms of age, it was found that 18-24 age group had significantly lower MBI-EE subscores compared to 25-29 and 30-34 age groups and that 40 and over age group had significantly higher BDI scores compared to 18-24 age group. All scales, except MBI-PA, were significantly different between the subjects who willingly chose the job and those who unwillingly chose the job. Again, all scales, except MBI-PA, were significantly different between the subjects who gave the answer of "I am satisfied with my work environment" and those who gave the answer of "I am not satisfied with my work environment". **Discussion:** Evaluating the mental health and working conditions of the people who work in a unit under an intense work pressure, which requires efficient, proper and rapid intervention to the patients, would help to improve the quality of the services given in this field. (*Anatolian Journal of Psychiatry*. 2013;14:122-8)

**Key words:** burnout, job satisfaction, emergency department personnel

## Acil serviste çalışan sağlık personelinde tükenmişlik, iş doyumu ve depresyon

### ÖZET

**Amaç:** Bu çalışmanın amacı Gaziantep ili örnekleminde acil serviste çalışan sağlık personelinin depresyon, iş doyumu ve tükenmişlik düzeylerinin ve bunlarla ilişkili olabilecek değişkenlerin saptanmasıdır. **Yöntem:** Çalışma-

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manın örneklemini Gaziantep Üniversitesi Tıp Fakültesi Hastanesi Acil Servisi, devlet hastaneleri acil servisleri ve 112 acil tıp hizmetlerinde çalışan doktor, hemşire, sağlık memuru, paramedik ve acil tıp teknisyeni (ATT) toplam 347 kişi oluşturmaktadır. Araştırmada sosyodemografik veri formu, Maslach Tükenmişlik Ölçeği (MTÖ), Minnesota İş Doyum Ölçeği (MİDÖ) ve Beck Depresyon Ölçeği (BDÖ) kullanılmıştır. **Sonuç:** Acil servis çalışanlarının %18.5'i (s=50) üniversite hastanesinde, %40'ı (s=108) devlet hastanelerinde ve %41.5'i (s=112) 112 acil servis hizmetlerinde çalışmaktaydı. Çalışanların %23.3'ü (s=63) doktor, %31.5'i (s=85) hemşire ve %45.2'si (s=122) paramedik olarak görev yapmaktaydı. Devlet hastanesinde çalışan sağlık personelinin 112 acil servis çalışanlarına göre duygusal tükenme (DT) ve BDÖ puanları anlamlı derecede yüksek, kişisel başarı (KB) puanları ise anlamlı derecede düşüktü. Paramedik grubunun hem doktor hem de hemşirelere göre DT puanı anlamlı derecede düşüktü. Yaş açısından, 18-24 yaş grubunun 25-29 ve 30-34 yaş gruplarına göre MTÖ-DT alt ölçeğinde anlamlı düzeyde düşük puan aldığı, 40 ve üstü yaş grubunun ise BDÖ puanının 18-24 yaş grubuna göre anlamlı düzeyde yüksek olduğu bulunmuştur. Deneklerden mesleği isteyerek seçen grupla isteyerek seçmeyen grup arasında MTÖ-KB hariç tüm ölçeklerde anlamlı derecede fark saptandı. Deneklerden "Çalışma ortamından memnunuz." yanıtını veren grupla "değilim" yanıtını veren grup arasında da MTÖ-KB hariç tüm ölçekler arasında anlamlı düzeyde fark vardı. **Tartışma:** Acil servis gibi yoğun çalışan ve hastalara etkin, doğru ve hızlı müdahale edilmesi gereken bir birimde çalışan kişilerin tükenmişlik düzeyleri ve iş doyumlarını etkileyen faktörlerin belirlenmesi ve bu etkenlerle ilgili gerekli düzenlemelerin yapılması verilen sağlık hizmetinin kalitesinin artırılmasına yardımcı olacaktır. (*Anadolu Psikiyatri Derg.* 2013;14:122-8)

**Anahtar sözcükler:** Tükenmişlik, iş doyumu, acil servis çalışanları

## INTRODUCTION

The concept of "burnout", which has been firstly introduced by Freudenberger in 1974, was later defined by Maslach ve Jackson as the depersonalization of the individuals toward the people that they encounter for occupational reasons, emotional exhaustion, and diminished personal accomplishment.<sup>1,2</sup> "Emotional exhaustion" is the feeling of depletion or being overloaded that result from the work, "depersonalization" includes the attitudes and behaviors deprived from emotion toward the people to whom the subject offers care and service, regardless of the fact that these people are unique individuals; "diminished personal accomplishment" implicates the failure to overcome the problems and considering himself/herself inadequate.<sup>3</sup>

"Burnout syndrome" was reported to be more commonly seen in those who work by having personal contact with others, especially under the pressure due to excessive demands, and the studies for this issue were generally conducted on the occupational groups like advocates, doctors, nurses and teachers.<sup>4-7</sup>

Job satisfaction, which is thought to affect the burnout syndrome and evaluated along with the burnout, is defined as the gladness or emotional satisfaction that the worker achieves as a result of the evaluation about his/her work or working life.<sup>8</sup>

Healthcare personnel, who work in the emergency room, generally work under stressful conditions in noisy and crowded working

places. In addition, occasional adversity experienced in the diagnosis of the admitting patients, encountering sorrowful situations such as death, safety problems occurring in the working place, and the fact that, similarly to healthcare personnel, the admitting patients are also under stress and seek an immediate solution, place an additional stress load to healthcare personnel who work in the emergency department. The fact that low job satisfaction and high burnout levels of the emergency department personnel, which have a quite important and critical role by the service that they give, is a predictable risk factor.<sup>9</sup>

This study aims to evaluate the levels of burnout, job satisfaction and depression and the likely related variables in the healthcare personnel that work in the emergency departments located in the city center of Gaziantep. The number of subjects<sup>10</sup> and occupation groups<sup>11</sup> is few and health care centers<sup>12</sup> where the studies were done are limited in studies that were constructed in Turkey. The difference of present study than the other similar studies: the present study (i) was constructed with more subjects, (ii) includes different occupation groups that serve in emergency area, (iii) contains different health care centers such as university hospital, state hospitals, 112 emergency services.

## METHODS

We enrolled a total of 347 subjects, including doctors, nurses, health staff, paramedics and

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emergency medical technicians who were working in the emergency department of Gaziantep University Medical Faculty Hospital, in the emergency departments of state hospitals and in the 112 emergency services in the city center of Gaziantep. Due to several reasons; such as taking off from the work, having a disease report, unwillingness to participate to the study and lack of data in the measures only 270 subjects complete the study. Emergency department personnel were divided into 3 subgroups by their roles as doctors, nurses (nurses and health officer) and paramedics (emergency medical technicians and paramedics). Approval of the study was given by the ethics committee of the Gaziantep University. A written informed consent was obtained from the participants.

### Materials

**Sociodemographic Data Form:** It is a form developed by the investigators, which contains 10 questions to obtain the information about age, occupation, gender, marital status and working place.

**Maslach Burnout Inventory (MBI):** The MBI comprises three subscales: emotional exhaustion, depersonalization and personal accomplishment. The Turkish version of this inventory was adopted by Ergin and each item of the Turkish version is scored 0 for "never" and 4 for "always," but the items of lack of personal accomplishment are reversed.<sup>6</sup>

**Beck Depression Inventory (BDI):** The Beck Depression Inventory was devised in 1961 by Beck et al. and was revised in 1971.<sup>13</sup> This inventory includes 21 items. Questions are rated on a 4-point scale between 0 and 3, and diagnostic ranges are determined. It is a self-report questionnaire that is widely used to assess the incidence and severity of depressive symptoms in the community.<sup>14</sup> Since the cross-cultural application of this inventory for the Turkish people in 1988.<sup>15</sup>

**Minnesota Satisfaction Questionnaire (MSQ):** The MSQ was developed by Weiss et al.<sup>16</sup> and is a well regarded measure of job satisfaction that has been used in various studies. Baycan performed a validation and reliability analysis of the Turkish version of the MSQ as part of her postgraduate thesis.<sup>17</sup> The short form of the MSQ includes 20 items that are relevant to a number of job facets; respondents indicate their degrees of relative satisfaction using a 5-point, Likert-type scale

ranging from 1 (very dissatisfied) to 5 (very satisfied).

### Statistical analysis

The study data was analyzed by SPSS 17 for Windows. The comparison of two groups was performed by Student t test and three group comparisons by One Way ANOVA. Tukey test was used for post-hoc analysis. Pearson correlation coefficient was also used for determining the correlation between two groups.

## RESULTS

270 of 347 (77.8%) emergency department workers who were enrolled to the study, 61.5% were women and 38.5% were men. The mean age of participants was 29.22±6.92. Of the participants, 61.5% were married and 38.5% were single. Of the emergency department personnel, 18.5% were working in the university hospital, 40% in the state hospitals and 41.5% in 112 emergency services. Of the workers, 23.3% were doctors, 31.5% were nurses and 45.2% were paramedics. Of the study group, 76.7% stated to have willingly chosen their job and 68.5% to be content with the working environment. For the study group, mean BDI score was 11.19±8.72, mean MSQ score was 65.7±15.41, mean MBI-EE score was 14.28±8.2, mean MBI-D score was 6.53±4.29 and mean MBI-PA score was 18.94±6.49. There was no statistically significant correlation between gender and marital status, and MBI and MSQ.

It was found that, among the occupational groups, the paramedics had significantly lower MBI-EE subscores compared to both doctors and nurses and had significantly higher MSQ scores compared to nurses (Table 1). In the analysis done by working places of the subjects, MBI-EE and BDI scores were significantly higher and MBI-PA scores were significantly lower in those who were working in a state hospital compared to those who were working in 112 emergency services, whereas no difference was detected between those who were working in the university hospital and those who were working in other institutions (Table 2).

In the analysis performed by the age of the subjects, it was found that MBI-EE subscores were significantly lower in 18-24 age group compared to 25-29 and 30-34 age groups and that BDI score was significantly higher in over

**Table 1.** Comparisons of the MBI, MSQ, BDI scores between occupational groups

Occupation	MBI-EE	MBI-D	MBI-PA	MSQ	BDI
Doctor (n=63)	16.23±9.46	7.42±4.73	17.87±7.14	67.73±16.19	12.36±7.47
Nurse (n=85)	15.65±7.87	6.75±4.12	19.81±5.87	62.07±14.92	12.04±10.49
Paramedic (n=122)	12.32±7.31	5.92±4.11	18.90±6.52	67.19±15.01	10.00±7.84
F	6.72	2.72	1.62	3.53	2.13
p	0.001	0.067	0.199	0.030	0.120

**Table 2.** Comparisons of the MBI, MSQ, BDI scores between place of work

Place work	MBI-EE	MBI-D	MBI-PA	MSQ	BDI
University hospital (n=50)	15.78±8.73	7.84±5.12	18.02±6.83	63.94±16.37	11.74±7.55
State hospital (n=108)	15.23±8.85	6.29±4.09	17.87±7.59	64.01±16.56	13.50±9.37
112 emergency (n=112)	12.71±7.02	6.18±4.01	20.39±4.74	68.12±13.53	8.73±7.95
F	3.67	2.87	4.87	8.81	2.37
p	0.027	0.058	0.008	0.095	0.000

**Table 3.** Comparisons of the MBI, MSQ, BDI scores between age groups

Age groups	MBI-EE	MBI-D	MBI-PA	MSQ	BDI
18-24 (n=51)	11.35±7.12	5.96±4.87	19.60±5.78	67.05±16.34	8.86±9.37
25-29 (n=113)	15.24±7.60	7.07±4.11	18.97±6.24	64.65±14.34	11.48±7.77
30-34 (n=55)	16.10±9.22	7.07±4.63	18.43±7.06	64.05±16.62	12.00±8.15
35-39 (n=36)	12.16±7.70	5.22±3.52	17.97±7.29	69.33±12.85	10.36±7.19
≥40 (n=15)	15.46±10.31	5.66±3.26	20.73±6.77	66.40±20.63	16.00±15.17
F	3.50	1.90	0.70	2.32	0.89
p	0.008	0.111	0.592	0.469	0.057

40 age group compared to 18-24 age group (Table 3). When an evaluation is done by employment time of the subjects working in the emergency department, those who worked in the emergency service for maximum 1 year had significantly higher MBI-PA scores compared to those who worked for 5 to 9 years, significantly lower BDI scores compared to those who

worked for at least 10 years and significantly higher MSQ scores compared to those who worked for 2 to 4 years. BDI scores were significantly lower compared to those who worked for at least 10 years and MSQ scores were significantly higher compared to those who worked for 2 to 4 years (Table 4).

**Table 4.** Comparisons of the MBI, MSQ, BDI scores between working time

Working time	MBI-EE	MBI-D	MBI-PA	MSQ	BDI
≤1 year (n=77)	13.93±8.12	6.11±4.79	20.68±4.46	68.44±14.87	8.84±7.82
2-4 year (n=93)	15.36±8.68	7.12±4.24	18.77±6.55	61.81±15.09	12.19±8.33
5-9 year (n=67)	13.86±7.70	6.76±3.94	17.76±7.19	66.98±14.89	11.19±7.81
≥10 year (n=33)	12.93±7.97	5.39±3.69	17.78±8.09	67.69±17.03	13.87±12.04
F	0.93	1.68	3.02	3.19	3.39
p	0.423	0.171	0.030	0.024	0.018

**Table 5.** Comparisons of the MBI, MSQ, BDI scores between 'willingly choose job' and 'satisfied work environment' situations

	MBI-EE	MBI-D	MBI-PA	MSQ	BDI
Willingly choose job					
Yes (n=207)	13.32±7.96	6.08±4.16	19.25±6.71	68.39±14.47	10.47±8.03
No (n=63)	17.46±8.22	8.03±4.41	17.93±5.65	56.88±15.23	13.55±10.41
p	0.000	0.002	0.159	0.000	0.014
Satisfied work environment					
Yes (n=185)	11.40±6.94	5.44±3.70	18.55±7.01	70.29±13.85	9.74±8.66
No (n=85)	20.57±7.18	8.90±4.55	19.57±5.19	55.72±13.90	14.36±8.04
p	0.000	0.000	0.282	0.000	0.000

All scales, except MBI-PA, were significantly different between the subjects who willingly chose the job and those who unwillingly chose the job. Again, all scales, except MBI-PA, were significantly different between the subjects who gave the answer of "I am satisfied with my work environment" and those who gave the answer of "I am not satisfied with my work environment" (Table 5).

When the correlation of MBI-EE subscale was evaluated, it showed a significant and negative correlation with MSQ ( $r=-0.563$ ,  $p=0.000$ ) and a significant and positive correlation with MBI-D ( $r=0.663$ ,  $p=0.000$ ).

## DISCUSSION

In this study, gender and marital status were found to have no effect on depression, burnout and job satisfaction. Among the studies conducted in our country to investigate the burnout, some studies reported the gender as an efficient factor,<sup>7,18,19</sup> whereas others found it to have no effect.<sup>4,20</sup> In our study, marital status was also found to have no significant effect on burnout and job satisfaction. There were studies that showed that marital status was effective on burnout and job satisfaction,<sup>19,21</sup> as well as other contradicting studies.<sup>18,22</sup> In a study performed on emergency service personnel, gender and marital status were found to have no effect on burnout and job satisfaction.<sup>12</sup>

Age factor was found to be significant for MBI-EE and depression scores. It was revealed that 18-24 age group experienced less emotional exhaustion compared to 25-29 and 30-34 age groups and had significantly lower depression scores compared to over 40 age group. When

working time was considered, those who worked in the emergency service for less than one year had lower depression scores compared to those who worked for at least 10 years, a higher personal accomplishment compared to those who worked for 5 to 9 years and a higher job satisfaction compared to those who worked for 2 to 4 years. These results demonstrated that healthcare personnel who were working in the emergency service had a higher personal accomplishment and job satisfaction within one year and that the level of burnout increased and job satisfaction decreased with prolonged employment time. For this issue, Erol et al. conducted a study on residents and they reported that the level of burnout decreased and job satisfaction increased with advanced age and prolonged employment time.<sup>18</sup> In the study performed on the nurses by Barutçu et al., the investigators reported that the level of burnout decreased with advanced age and prolonged employment time.<sup>23</sup> The difference observed in our results might be explained with the fact that the first one-year period might be too short to feel work-related stress that would result in burnout syndrome. Hence, in a previous study, nurses who had worked for less than one year were excluded from the study due to this reason.<sup>24</sup>

In analysis performed by the occupations, it was found that paramedics had significantly higher job satisfaction compared to nurses and had less emotional exhaustion compared to both doctors and nurses. This result may be attributed to several reasons. Paramedic position is a new field of occupation in our country. Therefore, employment time in the occupation and mean age of all paramedics were smaller compared to nurses and doctors. On the other

hand, as paramedics begin to their career following high school education or a two-year education in a college, they begin to work at an earlier age. Therefore, comparing the results with each other may be misleading. More objective results will be obtained in the new studies that will be conducted in the next years.

When the effect of the hospital in which the subject was working was evaluated, it was found that the workers of state hospitals were more depressive, had a lower personal accomplishment and a greater emotional exhaustion compared to healthcare personnel who were working in 112 emergency services. This result might be attributed to more oppressive and controlled working environment of the worker of state hospital and, in contrast, for the workers of 112 emergency services, to greater freedom and the ability to take initiatives to resolve the problems.

It was found that emergency department personnel who willingly chose their job had less emotional exhaustion, desensitization and depression and higher job satisfaction compared to those who unwillingly chose their job. These results demonstrated that willingly choosing the job had a prominent effect on burnout and job satisfaction. As seen in our study, similarly in many studies, significant effect that willingly choosing the job had on emotional exhaustion and desensitization indicated that whether willingly or unwillingly choosing the job markedly predicted the burnout.<sup>4,25-28</sup>

“Satisfaction with work environment” was detected to be another factor that showed a

marked effect on burnout, job satisfaction and depression. As an expected result, a person who is not satisfied with his/her work environment will experience burnout syndrome extensively, will be desensitized toward the patients of whom he/she takes care and will have a low level of job satisfaction. Hence, Taycan et al. reported high depression levels and burnout syndrome rates in the nurses who were not satisfied with their working life.<sup>25</sup>

The limitation of study: Our study was constructed just only in one city, the work sufficient criterion that affected the burn out at most was not evaluated and absence of control group.

Consequently, evaluating the mental health and working conditions of the people who work in a unit with an intense work pressure, which requires efficient, proper and rapid intervention to the patients, would help to improve the quality of the services given in this field. It is critical to determine the levels of burnout, job satisfaction and depression of the emergency service personnel and to establish and properly adjust the factors that affect these levels. For example, several adjustments such as the assignment of the people with willing to work in the emergency field in the emergency department, increasing the knowledge and the experience of the workers through vocational trainings within the first years, during which burnout is relatively less common, ensuring the improvements to increase the job satisfaction of the workers will help the emergency services to proceed better.

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