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Burnout in health sector: Sample of public hospital

Feyza Nazik¹, Emine Yilmaz¹, Halim Tatli²

¹Bingol University, Faculty of Health Sciences, Department of Nursing, Bingol, Turkey

²Bingol University Faculty of Economics and Administrative Sciences

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Abstract

The burnout is an emotionally negative reaction activated in individuals in response to difficulties encountered with in the work place. The aim of study was to assess the presence of burnout levels and related factors among health workers in Bingol Public Hospital. This study was carried out in caregivers in Bingol. Of the 230 health workers in the hospital, 161 were surveyed. The socio-demographic questionnaire form and Maslach Burnout Inventory were used to collect data. The mean age of participants was 32.8 ± 7.5 years. Of the respondents, 62.1% was nurse. The mean scores taken by the respondents in the emotional exhaustion, depersonalization, and personal accomplishment sub-scales of the burnout inventory were 18.8 ± 6.8 , 6.6 ± 3.6 , and 21.1 ± 4.1 respectively. The mean depersonalization score of the nurses was 7.0 ± 3.3 , whereas the mean depersonalization score of other healthcare workers (technicians, clinical secretary, etc.) was 5.1 ± 3.9 ($p < 0.05$). The mean emotional exhaustion score of the female staff was 20.0 ± 6.8 , whereas it was 17.5 ± 6.7 for the male staff ($p < 0.05$). Correlation analysis indicated that emotional exhaustion increases with increasing weekly working hours. It was found that gender, profession, weekly working hours, and having children were effective on burnout. It is recommended to extend social support provided to employees as well as regulating the working hours.

Keywords: Health sector, burnout, hospital

Introduction

Burnout is one of the significant elements that affect the today's working life adversely. Starting as a reaction to the stressors related to the job, it is a process that affects the behaviors and habits of employees negatively [1]. Burnout consists of three components: emotional exhaustion, depersonalization, and personal accomplishment. Emotional exhaustion subscale is the most important determinant of burnout and it indicates how people feel exhausted and overwhelmed emotionally. Being emotionally exhausted, the individuals keep themselves from people psychologically in the next stage by restricting their relationship with the people in their circle. The depersonalization subscale is the act of exhibiting attitudes and behaviors deprived of emotions by the individuals against the people to whom they give service. The individuals are approached as objects rather than a human. On the other hand, in the personal accomplishment subscale, individuals feeling incompetent in business and human relations start to consider themselves as insufficient for carrying out their work [2,3]. The other most significant point related to the

concept of burnout is that it is more prevalent among occupations

that require face-to-face relationship with others [4]. The risk of burnout among professionals working with people is higher as the sense of responsibility towards people is more than the sense of responsibility towards objects [2]. Healthcare personnel are at risk in terms of burnout due to nature of their professions. When examining the factors causing burnout in healthcare professionals, following factors can be regarded such as unclear job definition of some professions; lack of organizational support; performance of the same job by individuals having education at different levels; working system (shift); working with low salary; excessive weekly working duration and a larger number of patients [5,6]. In the studies investigating the burnout level of the healthcare professionals in Turkey, it was found that female professionals experienced emotional exhaustion more intense than the male professionals; and as number of watches and weekly working period increased, emotional exhaustion and depersonalization also increased [7,8]. The studies have revealed that the burnout levels of nurses are higher than the other healthcare professionals since they communicate with patients for a longer period and these patients are individuals who are children, elderly, and even terminally ill ones losing their health [1,2,5]. In the study conducted by Tunç on doctors and nurses, it was revealed that while doctors had a low burnout level, nurses had a moderate burnout level [5].

*Corresponding Author: Emine Yilmaz, Bingol University, Faculty of Health Sciences, Department of Nursing, Bingol, Turkey
E-mail: emine.tog@hotmail.com

It was found that burnout levels of nurses working in the intensive care clinic of the oncology hospital were high [9]. In the study conducted by Gandi et al., on 2245 nurses, it was determined that the burnout level of the nurses was high and especially emotional exhaustion was higher in female nurses than male nurses [1]. It was found in the study conducted abroad with 114 nurses that especially emotional exhaustion was higher among female nurses; as the working years increased, the depersonalization increased; and on those working in more stressful services such oncology, pediatrics, and emergency department, the burnout level was even more [2]. Studies have reported that burnout shall cause great cost both individually and organizationally. For instance, some of results of burnout are impaired health of the individual, deteriorated social life and family relations, decreased performance, and increased absenteeism and leave of employment [1,2,4-8,10]. In the study conducted by Kanai et al., on 100 nurses, it was determined that burnout was at high level, and especially emotional exhaustion; and with increasing burnout, job satisfaction and motivation decreased [11]. These results indicated that as a consequence of burnout, this situation could affect not only these individuals but also individuals to whom they provided care. Burnout is considered as an occupational hazard in people-oriented professions such as healthcare personnel [12]. The purpose of this study is to examine the burnout levels of health workers in terms of some variables in order to properly intervene in burnout.

Materials and Methods

This is a descriptive study. The study was carried out at Bingöl Public Health. The permission was obtained from Bingöl Association of Public Hospitals. The number of people working at the hospital is 230 people. 161 health workers who agreed to complete the questionnaire and filled it completely were included in the survey. A questionnaire was performed between 31.01.2016 and 01.03.2016. The socio-demographic questionnaire form and Maslach Burnout Inventory were used to collect data.

Descriptive Questionnaire Form

The personal information form prepared by the researcher in the context of the literature includes ten questions. The study data were collected during face to face interviews with workers by authors. Each interview lasted for approximately 10 min.

Maslach Burnout Inventory

Burnout syndrome was measured using the Maslach Burnout Inventory (MBI) for health workers. MBI comprises 22 items grouped into three domains; emotional exhaustion (9 questions), depersonalization (D) (5 question) and personal accomplishment (PA) (8 question). The emotional exhaustion (EE) subscale defines the burnout level of an individual according to her/his job and work overload including exhaustion weariness and decrease in emotional energy. The depersonalization (DP) subscale assesses the degree to which and individual responds emotionally to those with whom he/she works. The personal accomplishment (AP) dimension assesses the degree to which the employee feels a sense of accomplishment or success in his/her job. For each question, participants were required to rate their experiences on a 5 point likert scale ranging from 0 to 4. High scores for the first two dimension indicate high burnout, while third dimension suggest that the level of burnout is high. The MBI was translated into Turkish language by Ergin [13]. Reliability of the MBI among Turkish physicians and nurses were

confirmed by Ergin Cronbach alpha values 0.83, 0.65 and 0.72 for EE, D and PA respectively

Alpha values of EE, DP and AP in this study were 0.81, 0.65 and 0.73 respectively.

Statistical Analysis

For analysis, SPSS 15 program was used. Normal distribution of the variables was tested using Kolmogorov-Smirnov analysis. Mean and Standard deviations were given in descriptive analyzes. For comparisons between groups were made using the independent T test and one way anova analysis. The correlations between burnout dimension and continuous variables were calculated using the Pearson test. A $p < 0.05$ was accepted as significant.

Results

Demographic and working status of health workers are presented in Table 1. According to Table 1, 53.4% of the health workers are female (86) and 68.3% are married (110). The mean age is 32.8 ± 7.5 and the working hours is 40.6 weekly. 51.6% remain night shift and the monthly number of night shift is 6.7.

Table 1. Descriptive values of demographic and work variables

Categorical variables		n (%)
Gender	Women	86(53.4)
	Men	75(46.6)
Marital status	Married	110(68.3)
	Single	51(31.7)
Have a child	Yes	98(89.1)
	No	12(10.9)
Job	Physician	21(13.0)
	Nurse	100(62.1)
	Other	40(24.8)
Nightshift	Yes	83(51.6)
	No	78(48.4)
Continuous variables		Mean (SD)
Age		32.8(7.5)
Number of children		1.9(0.8)
Working time in work(year)		9.0(5.4)
Working hours (weekly)		40.6(4.0)
Number of nightshift (monthly)		6.7(2.3)

Note: SD= Standard deviation

Table 2 shows descriptive statistics of occupational burnout in health workers. The minimum score of emotional exhaustion scale was 0, the maximum was 35, and the average total score was 18.8. Depersonalization scores ranged from 0 to 19 and average score of 10.6. While personal accomplishment scores ranged from 10 to 32, an average score of 21.1.

Table 2. Descriptive statistics of occupational burnout in health workers

Dimension	Mean (SD)	Min.	Max.
Emotional exhaustion (ED)	18.8±6.8	0	35
Depersonalization (D)	6.6±3.6	0	19
Personal accomplishment (PA)	21.1±4.1	10	32

Table 3 shows the correlation between subscales of burnout inventory and categorical variables in health workers. As is seen in Table 3, the emotional exhaustion scores of the female health workers were significantly higher than male ones. There was no significance among gender, depersonalization and personal accomplishment. No correlation was found between marital status and the subscales of the burnout inventory. Emotional exhaustion of health workers with children was significantly lower than those who did not have children ($p<0.05$). Similarly, having children

significantly increased personal accomplishment in professionals.

While the emotional exhaustion scores of the nurses were significantly higher than other health workers, the depersonalization scores of nurses and doctors were significantly higher than the other health worker. Whereas those working at the night shift had significantly higher emotional exhaustion, there was no significance on depersonalization and personal accomplishment scores.

Table 3. Relation between burnout dimension and categorical variables

Categorical variables	Emotional exhaustion		Depersonalization		Personal accomplishment	
	Mean (SD)	p value	Mean(SD)	p value	Mean(SD)	p value
Gender						
Female	20.0(6.8)	0.023	6.6(3.5)	0.863	20.6(4.0)	0.077
Male	17.5(6.7)		6.5(3.8)		21.7(4.1)	
Marital status						
Married	19.0(6.8)	0.630	6.6(3.4)	0.891	21.1(4.5)	0.950
Single	18.4(7.1)		6.6(4.1)		21.1(3.2)	
Have a child						
Yes	18.6(6.6)	0.051	6.3(3.3)	0.022	21.4(4.5)	0.008
No	22.6(7.3)		8.7(4.0)		19.0(2.9)	
Job						
Physician	19.0(6.6)	0.005	7.5(4.0) ¹	0.011	21.6(2.7)	0.476
Nurse	20.0(6.5) ¹		7.0(3.3) ²		21.3(4.3)	
Other	15.9(7.1) ¹		5.1(3.9) ¹²		20.5(4.2)	
Nightshift						
Yes	19.9(6.4)	0.036	6.9(3.9)	0.330	21.6(3.8)	0.110
No	17.7(7.1)		6.3(3.3)		20.6(4.3)	

The Pearson's correlation analysis was used to evaluate the correlations between burnout subscales and continuous variables among health workers and the results are presented in Table 4. As is seen in Table 4, there was a positive significant correlation between the weekly working hours and emotional exhaustion ($r=0.223$, $p<0.01$). No significant correlation was found between the other variables and emotional exhaustion. No significant correlation of depersonalization and personal accomplishment

scores with the continuous variables was found.

Table 5 shows analysis results made to determine whether or not some personal variables of the workers are an important predictor of emotional exhaustion levels within the scope of the study. It was determined that being other health workers and having children among the variables were important predictors. Gender and being on duty were not significant predictors.

Table 4. Spearman's correlation coefficients between burnout dimension and continuous variables

Continuous variables	Emotional exhaustion	Depersonalization	Personal accomplishment
Age	-0.067	-0.028	0.064
Number of children	-0.180	-0.029	0.091
Working time in work	0.018	0.027	-0.018
Working hours	0.223**	0.036	0.060
Number of nightshift	0.096	0.099	-0.132

Table 5. Results of linear multiple regression analysis to determine the estimates of emotional exhaustion level of health workers

Predictive variables	B	Standart error	β
Constant	13.025	3.477	
Gender (Girl=0, Boy=1)	1.486	1.325	0.110
Job**			
Doctor	0.753	1.920	0.039
Another	-3.385	1.727	-0.210*
Have a child (yes=1, no=0)	-4.309	2.054	-0.198*
Nightshift (yes=1, no=0)	0.216	1.388	0.016

Note: $R^2=0.10$ ($p=0.036$) * $p<0.05$

**Because the variable of profession was a categorical variable and since these variables were coded as slack variable, the variable category "nursing" was considered as a reference variable and excluded from the analysis.

Discussion

In this study, the burnout levels of the secondary care health workers as well as the occupational and personal characteristics affecting burnout were examined. The results of this study showed that health workers in second level of medical care had a relatively low means emotional exhaustion and depersonalization while they had high means personal accomplishment. In the study conducted by Kaya et al., on the primary care staff, it was found that the emotional exhaustion score was 14.63 ± 6.38 , the depersonalization score was 4.02 ± 3.15 , and the personal accomplishment score was 10.80 ± 4.62 [14]. On the other hand, in another study conducted on physicians, emotional exhaustion, depersonalization, and personal accomplishment scores were found respectively as 15.48 ± 6.70 , 5.51 ± 3.51 , and 22.06 ± 4.05 [15]. In another study conducted on physicians in Korea, the rates of emotional exhaustion and depersonalization were 37% and 21% [16]. The worker accomplishment rate, on the other hand, was high. In a study conducted on physicians in Yemen, the burnout levels were determined to be high [17]. In the province of Bingöl, the burnout scores were higher than the other provinces. This differences might be derived from culturel differences between health workers and region community, low health workers morale, low efficiency inequity in distribution manpower.

In this study, females were significantly suffering from emotional exhaustion. It was found in other studies conducted in Turkey that women experienced more emotional exhaustion [14,18,19]. However, in the study by Yakut et al., no significance was found between gender and emotional exhaustion [20]. There are other studies indicating that there is no significance in terms of gender [21,22]. In these studies, it is possible to see that emotional exhaustion may affect both genders. In Korea, on the other hand, burnout in the primary care worker was found to be higher in favor of men [16].

In the review by Thomas, the fact that the depression is more prevalent on women for a lifetime may be a factor, leading to burnout [23]. Emotional exhaustion was higher among women in the present study, which may be associated with the gender roles of women in society. Ongoing duties of women such as household chores and child care outside the hospital, their personal structure different from men and their emotional structure would pave the way for their exhaustion. In the present study, emotional exhaustion and depersonalization were prevalent among those having no children. In addition, the worker accomplishment of those having children was high. In the study by Taycan et al., those having children had higher personal accomplishment [24]. Şerik et al., revealed that as number of children increased, emotional exhaustion and depersonalization decreased [25] on the other hand, Erol et al., also indicated that those having children experienced less emotional exhaustion and depersonalization [26]. The results of the study by Yaman et al., are similar with the results of the present study. It can be asserted that having children improved the time management and solution skills of people, increased social support and thus protect against burnout [22].

Based on the results of the study, nurses experienced significantly more emotional exhaustion than the other health workers. It was also found in the other studies that the group experiencing burnout

at most among health workers was nurses [27,28]. Nurses are the occupational group that spends most of the time with the patients and their relatives. Intense and long working hours, unhealthy individuals receiving service, and working with individuals having chronic or fatal diseases are among the reasons of the high burnout and increased depersonalization among nurses.

In the present study, it was found that the health workers that were working at night shift and had intensive working hours experienced emotional exhaustion at higher rate. Studies conducted on nurses also reveal that emotional exhaustion is high among employees working at shifts [29,30]. In the literature review by Günüşen and Üstün, it was stated that working at shifts and having increased working hours were significant factors causing job related burnout [31]. It is known that having sleep disorders may pave the way for the burnout process [32]. People working at shifts are negatively affected from psychological, social, and biological aspects. At the night shift, factors such as working with few people, having an increased work load, lack of communication, and disturbed sleep process affect people negatively and increase burnout. Intense and stressful working hours would lead individuals to stay away from work and have burnout.

While no significant correlation was found between the time spent in the profession and burnout in the present study, in a meta-analysis study conducted in the USA, a negative correlation was determined between the working period and burnout [33]. The period spent on the profession may increase the skills of individuals to cope with problems and may decrease burnout.

No significant correlation was found between marital status and burnout subscales in the present study. Taycan et al., found no significant correlation between the emotional exhaustion and depersonalization subscales [24]. However, in the literature there are studies indicating that single ones are at risk in terms of depersonalization [31].

Based on the results of the present study, it was seen that there were individual and organizational factors that affect burnout among individuals. Being a woman and having no children were the demographic characteristics that increase burnout. Being a nurse, being at night shift, and long working hours were, on the other hand, found to be the organizational factors that increase burnout. Taking precautionary measures against burnout for health workers would increase job satisfaction and the quality of care while they perform their professions. Improving the shift conditions and working hours of the workers may decrease burnout. The employees may be provided with training for coping strategies.

Conclusion

Other suggestions may involve applications for decreasing the work load of the workers experiencing more burnout, especially the nurses, as well as increasing the number of personnel.

Competing interests

The authors declare that they have no competing interest

Financial Disclosure

The financial support for this study was provided by the investigators themselves.

Ethical approval

Before the study, permissions were obtained from local ethical committee.

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