

**EVALUATION OF WORKLOAD, EMOTIONAL EXHAUSTION LEVELS AND PROFESSIONAL SATISFACTION OF PHYSICIANS: THE CASE OF KONYA \***

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**ABSTRACT**

The aim of this study was to evaluate the workload, emotional exhaustion levels and professional satisfaction of physicians. The data were collected through the online questionnaire filled out by 356 physician participants using the convenience sampling method. While 51.1% of the physicians participating in the study were female, 68.0% of them were married, 61.8% of them aged between 24 and 34 years, and 72.8% of them had a working year of 1-10 years. There was no significant difference between workload, emotional exhaustion and professional satisfaction averages and gender and marital status. A significant difference was found between working year and the average workload. It appeared that there was a moderate, positive and statistically significant relationship between the workload and emotional exhaustion. In conclusion, an attempt to evaluate the workload, emotional exhaustion levels and professional satisfaction of physicians was made in the study. According to the results obtained in the study, it was observed that the physicians working between 1 and 10 years had higher level of workload compared to physicians with a working year of 11 years and more. According to another result which is parallel with the literature, a moderate, positive and statistically significant relationship was found between the workload and emotional exhaustion. It was determined that the physicians in the 35-45 age group had higher levels of workload, had more emotional exhaustion and had more professional satisfaction compared to the physicians in the other age group.

**Keywords:** Workload, emotional exhaustion, professional satisfaction, physician

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## **1. INTRODUCTION**

The work life, which is one of the living areas, has a very important place for many people. The link between a person's health and work life is in a strong interaction (Öztürk et al.,2007). Since human factor is the focal point of the occupational subject of health workers, it has higher effects on employee health than other occupational groups. The reactions resulting from this effect stand out as work related stress, work related tension, boredom and exhaustion (Sünter et al., 2006). Burnout is an important issue for the working life and is more common especially in occupational groups such as physician, nursing, psychologist, physiotherapist, social service specialist, teacher and managers who have face-to-face relationship with people (Ünal et al., 2001; Gül et al.,2014; Sayıl et al.,19989; Çan et al., 2006; Düzyürek et al.,1992).

The concept of burnout, that was first introduced by Freudenberger (1974 and 1975), was later described by Maslach and Jackson (1981). With the broadest expression in the literature, burnout is a situation which affects the employees in occupational groups with intense communication with people and in which people become unable to perform their current works as required after losing their internal resources, and it has three components: emotional exhaustion, depersonalization, personal achievement (Öztürk et al.,2012; Balçioğlu et al.,2008). In particular, emotional exhaustion is expressed as the most basic dimension of burnout and is defined as the depletion of emotional resources and decreased energy of the individual (Çapri, 2006; Shirom et al.,1989). Furthermore, there are many reasons for emotional exhaustion for the individual, such as qualifications of the profession, organizational characteristics, demographic characteristics, job attitudes and job characteristics (Maslach et al., 2001). When these factors were considered, it was determined that job characteristics and workload were the most important determinants among the determinants of burnout (Bolat,2011). In short, workload is expressed as the roles that are excessively assumed by employees, and various pressures that affect employees' performance (Çelik et al., 2013). In individuals with excessive workload, fatigue, decrease in job performance, job dissatisfaction, quitting, depression and other psychological problems are observed together with burnout. (Demir et al., 2003; Ersoy et al., 2001; Schmitz et al., 2000). Therefore, the individual is dissatisfied with the work and life. In this context, since human factor is the focus of the occupation of physicians, who assume an important task in terms of protecting and improving health in the health sector, the work-related stress and tension they experience, weariness, and occupational burnout as well as their satisfaction with their profession in physicians must be emphasized more. Thus, the study aims at evaluating the workload of physicians, their levels of burnout and job satisfaction. The study conducted in line with the purpose of the research is believed to be contributing to the literature as no similar studies were found investigating physicians in this context and no study was come across in the literature review related to the relationship between Workload, Emotional Exhaustion and Professional Satisfaction, and in which these three variables were investigated in combination. The study is important in that it will contribute to the national literature and will guide similar studies.

## 2. METHOD

An online questionnaire consisting of four parts was prepared for this study. The data of the research were collected between 08.07.2019 and 06.09.2019. In the first part, participants were asked to answer questions about demographic information such as age, gender, marital status, and the year of specialty in their working life and their preferences for specialty. The other parts included a total of 20 questions consisting of 9 questions aimed at measuring emotional exhaustion, 6 questions aimed at measuring professional satisfaction and 5 questions aimed at measuring the level of workload. The Emotional Exhaustion subscale consisting of 9 statements of the Maslach Burnout Inventory, that was developed by Maslach and Jackson (1986) and the validity and reliability study of which was performed by Ergin (1992) in Turkey, was used to determine the emotional exhaustion levels of the physicians who participated in the questionnaire. This subscale is a scale with high validity and reliability that is used in many studies. Another scale used in the study was the Professional Satisfaction Scale with tested validity and reliability that was prepared by Yüksel (2013) in the master's thesis entitled "The effect of emotional exhaustion in accountants on professional satisfaction and intention to quit". The part of the "Swedish Demand-Control-Support Questionnaire (Job Stress Scale)", that was developed by Karasek et al. (2000) to explain job-related burnout, adapted to Turkish by Demiral et al. (2007) in our country, and was another scale used in the study, related to workload was used. The Cronbach Alpha Coefficient of the scales and questionnaire used in the study was found to be 0.721. Furthermore, the population of the study consisted of 4208 physicians in Konya according to Health Statistics Yearbook 2017 data published by the Ministry of Health in 2018. In the study, table of acceptable sample sizes for specific populations created by Altunışık et al. (2012) was used to determine the sample size. The population in question consists of 4208 individuals, and a sample group of 354 individuals for 5,000 individuals in the closest upper population group in the sampling table was considered appropriate, and thus 356 physicians were included in the study through convenience sampling method. The data obtained in the study were analyzed in the SPSS (Statistical Package for Social Sciences) statistical analysis program, and descriptive statistics, variance analysis, independent samples t-test, correlation and regression analysis were performed on the data.

## 3. RESULTS

The results related to physicians participating in the study are presented in the following table.

**Table 1. Demographic Data of the Participants**

Gender	Number (n)	Percentage (%)	Area of Expertise	Number (n)	Percentage (%)
Female	182	51.1	Surgical Medical Sciences	53	14.9
Male	174	48.9	Basic Medical Sciences	30	8.4
Marital status	Number (n)	Percentage (%)	Internal Medical Sciences	273	76.7
Married	242	68.0	Working year	Number (n)	Percentage (%)
Single	114	32.0	1-10	259	72.8
Age	Number (n)	Percentage (%)	11+	97	27.2
24-34	220	61.8	<b>Total</b>	<b>356</b>	<b>100</b>
35-45	89	25.0			
46-56	47	13.2			

According to Table 1, while 51.1% of the physicians participating in the study were female, 68.0% of them were married, 61.8% of them aged between 24 and 34 years, and 72.8% of them had a working year of 1-10 years. Furthermore, when the areas of expertise of the participants were examined, it was determined that 76.7% of them worked in the field of Internal Medical Sciences.

**Table 2. t Test of the Differences between Some Demographic Variables and Workload, Emotional Exhaustion and Professional Satisfaction Averages**

Gender	n	Mean	Sd	t	p	n
Workload	Female	182	2.98	0.76	-0.233	0.81
	Male	174	3.00	0.82		
Emotional exhaustion	Female	182	2.79	0.62	0.306	0.76
	Male	174	2.77	0.68		
Professional Satisfaction	Female	182	2.47	0.65	0.209	0.83
	Male	174	2.45	0.81		
Marital status	n	Mean	Sd	t	p	
Workload	Married	242	3.01	0.78	0.58	0.56
	Single	114	2.95	0.80		
Emotional exhaustion	Married	242	2.79	0.68	0.58	0.54
	Single	114	2.75	0.57		
Professional Satisfaction	Married	242	2.42	0.76	-1.36	0.17
	Single	114	2.54	0.68		
Working year	n	Mean	Sd	T	p	
Workload	1-10	259	3.05	0.77	2.23	0.02
	11+	97	2.84	0.82		
Emotional exhaustion	1-10	259	2.81	0.63	1.56	0.11
	11+	97	2.69	0.68		
Professional Satisfaction	1-10	259	2.42	0.67	-1.56	0.12
	11+	97	3.57	0.89		

As it is seen in Table 2, t-test analysis was performed between the gender, workload, emotional exhaustion and professional satisfaction averages of the participants. According to the analysis results, there was no significant difference between workload, emotional exhaustion and professional satisfaction averages and gender and between workload, emotional exhaustion and professional satisfaction averages and marital status ( $p>0.05$ ). There was no significant difference between working year and emotional exhaustion and professional satisfaction averages, however, a significant difference was found between working year and the workload average. It was observed that the physicians working between 1 and 10 years had higher level of workload compared to physicians with a working year of 11 years and more.

**Table 3. Correlation Analysis of the Relationship between Workload and Emotional Exhaustion**

		1	2
<b>1. Workload</b>	r		
	p		
<b>2. Emotional exhaustion</b>	r	0.521**	
	p	0.000	
<b>3. Professional Satisfaction</b>	r	0.097	-0.021
	p	0.069	0.687

As it is seen in Table 3, correlation analysis was performed between workload and emotional exhaustion. According to the results of the analysis, there was a moderate, positive and statistically significant relationship between workload and emotional exhaustion ( $r: 0.521$  and  $p < 0.001$ ). In short, emotional exhaustion levels of physicians increased as their workload increased.

**Table 4. Regression on the Relationship between Workload and Emotional Exhaustion**

<b>Dependent Variable</b>	<b><math>\Delta R^2</math></b>	<b>Independent variable</b>	<b>B</b>	<b>Std. Error</b>	<b>t</b>	<b>F</b>
		<b>Constant term</b>	0.947	0.198	4.787**	
<b>Workload</b>	0.279	<b>Emotional exhaustion</b>	0.633	0.055	11.620**	69.817
		<b>Professional Satisfaction</b>	0.48	0.48	2.393**	

The proposed model was statistically significant ( $p < 0.001$ ). According to the results of the regression analysis, the values of  $\Delta R^2$  (percentage of variance explained) and F (significance level of the regression model) indicated that emotional exhaustion and professional satisfaction could be explained by workload.

Anova test was performed to for the difference between the ages of the participants and their workload, emotional exhaustion and professional satisfaction averages, and a significant difference was found ( $p < 0.05$ ). According to the Post-Hoc test performed between workload and age, it was observed that physicians in the 35-45 age group had higher levels of workload, had more emotional exhaustion and had more professional satisfaction compared to the physicians in the 46-56 and 24-34 age range.

One-way variance test was performed between physicians' working areas and their workload, emotional exhaustion and professional satisfaction averages. According to the analysis, while no significant difference was found between emotional exhaustion and working area, it was observed that there was a significant difference between workload and professional satisfaction and working area. According to the Post-Hoc test performed between working area and workload, it was determined that the physicians working in the field of Surgical Medical Sciences had higher levels of workload and also had more professional satisfaction compared to the physicians working in the fields of Basic Medical Sciences and Internal Medical Sciences.

**Table 5. Anova Test on the Differences between Some Demographic Variables and Workload, Emotional Exhaustion and Professional Satisfaction Averages**

<b>Age</b>		<b>n</b>	<b>Mean</b>	<b>Sd</b>	<b>F</b>	<b>p</b>
<b>Workload</b>	<b>24-34</b>	220	3.00	0.76	6.04	0.003
	<b>35-45*</b>	89	3.14	0.84		
	<b>46-56*</b>	47	2.65	0.73		
<b>Emotional exhaustion</b>	<b>24-34</b>	220	2.77	0.62	1.86	0.15
	<b>35-45*</b>	89	2.87	0.68		
	<b>46-56*</b>	47	2.65	0.72		
<b>Professional Satisfaction</b>	<b>24-34</b>	220	2.37	0.64	4.78	0.009
	<b>35-45*</b>	89	2.65	0.84		
	<b>46-56*</b>	47	2.51	0.88		
<b>Working area</b>		<b>n</b>	<b>Mean</b>	<b>Sd</b>	<b>F</b>	<b>p</b>
<b>Workload</b>	<b>Basic Medical Sciences *</b>	30	2.68	0.72	3.48	0.032
	<b>Internal Medical Sciences</b>	273	2.99	0.75		
	<b>Surgical Medical Sciences *</b>	53	3.16	0.94		
<b>Emotional exhaustion</b>	<b>Basic Medical Sciences</b>	30	2.67	0.61	1.39	0.25
	<b>Internal Medical Sciences</b>	273	2.77	0.63		
	<b>Surgical Medical Sciences</b>	53	2.90	0.76		
<b>Professional Satisfaction</b>	<b>Basic Medical Sciences *</b>	30	2.22	0.73	1.67	0.00
	<b>Internal Medical Sciences</b>	273	2.39	0.62		
	<b>Surgical Medical Sciences *</b>	53	2.97	1.04		

#### **4. DISCUSSION AND CONCLUSION**

In this study, an attempt to evaluate the workload, emotional exhaustion levels and professional satisfaction of physicians was made. According to the results of the study, it was determined that there was no significant difference between workload, emotional exhaustion and professional satisfaction averages and gender. When the relationship between emotional exhaustion and gender in the literature was examined, in the studies conducted by Dikmetaş (2011) and Schweiter (1994) on physicians, in the study conducted by Yaman and Urgan (2002) on assistant physicians specializing in family practice, and in the study carried out by Kuh (2017) on 411 healthcare professionals working in emergency services in Denizli province, no significant relationship was

found between emotional exhaustion and gender, while in the study conducted by Ergin (1993) in which he examined exhaustion in 552 physicians and nurses, and in the studies conducted by Maslach (2001), Cordes (1993) and Budak (2005), it was determined that emotional exhaustion was at a higher level in females than males. When the relationship between gender and workload was examined in the literature, in the collaborative study conducted by Ceylan (2019) and Boz (2019), they did not find a significant relationship between gender and workload levels. Furthermore, according to the results of the studies conducted by Yakut (2011) and Tan (2012), no significant relationship between gender and professional satisfaction. Besides, in the present study, no significant difference was found between the mean scores of workload, emotional exhaustion and professional satisfaction and marital status. While Sayıl (1998), in his study on physicians and nurses, did not find a significant difference between emotional exhaustion and marital status, Öztürk (2012), Kocabıyık (2008) and Yavuzyılmaz (2007) determined in their studies that the level of exhaustion was higher in single physicians. Ceylan (2019), Bolat (2011) and Boz (2019) concluded in their research that in parallel with the work done, there was no significant difference between marital status and workload levels. No significant difference was found between working year and emotional exhaustion and professional satisfaction, but a significant difference was identified between working year and workload average. In the studies conducted by Karlıdağ (2000), Özyurt (2006), Freeborn (2001), Çam (1995), Ergin (1993), and Erol (2007), they determined that as the years of working as a physician increased, the levels of emotional exhaustion decreased significantly. Gözüm (2005), Sayıl (1998), Doğan (2005) and Işık (2005) did not observe a significant difference in the exhaustion levels of employees according to their working period. According to another result obtained in the study, it appeared that there was a moderate, positive and statistically significant relationship between workload and emotional exhaustion. In parallel, in the study of Tayfur (2012), the relationship between workload and emotional exhaustion was found to be quite strong, and it was determined that the level of feeling emotionally exhausted by the employees increased as the workload increased. The studies carried out by Cordes (1993), Bolat (2011), Lourel (2008) and Leiter (2010) support this result. In the study, no relationship was found between emotional exhaustion and professional satisfaction, however, in the studies of Yüksel (2013) and Shepdor (2011), it was argued that the professional satisfaction of the employees with emotional exhaustion decreased. A significant difference was found between the ages of the participants and their workload, emotional exhaustion and professional satisfaction averages. It was observed that physicians in the 35-45 age group had higher levels of workload, had more emotional exhaustion and had more professional satisfaction compared to the physicians in the 46-56 and 24-34 age range. In the study carried out by Erol (2007), it was also argued that emotional exhaustion levels of physicians would increase as their age increased.

One of the most important results obtained in this research is that as the workload of physicians increases, their emotional exhaustion levels also increase. Undoubtedly, the profession of medicine is an occupation that has a vital impact on human health. The fact that physicians working in Turkey have additional duties and responsibilities such

as scientific research, training, administrative work and academic studies as well as healthcare services such as examining patients and performing surgeries cause working conditions to appear heavy and risky. The increasing workload and long working hours mostly resulting from insufficient equipment and limited number of health personnel and low wages on top of all these adversities lead physicians to feel professional dissatisfaction and have low motivation. For this reason, in order for physicians to be productive in their professions, their intensive working tempo should be lowered, their working environments should be improved, and their current workload should be reduced. In this way, their professional satisfaction can be increased, and their emotional exhaustion can be diminished. Policies regarding the improvement of working environment and conditions should be developed. As such, it can be ensured that exhaustion in the working life of the physicians is prevented and their job commitment is high. By ensuring this, the success of physicians in their job can be increased and their feeling of satisfaction with their job and professional satisfaction levels may be positively affected. Another noteworthy issue is the low number of health professionals in general and physicians in particular in our country. Although the numbers continued to increase day by day since the early years of the Republic, the targeted number has not been reached in the number of healthcare professionals and physicians. Assuming that the low number of physicians per capita is the reason for the high workload of physicians, employing more physicians can be a solution. If the training period is also taken into account, since it will take a long time before it is realized, this solution can be implemented as a long-term plan. In addition, smaller but effective changes can be made to reduce the workload on physicians in the short run. For example, jobs performed by physicians in health institutions which mostly have bureaucratic characteristics can be turned over to other healthcare professionals or medical secretaries. Specialization programs for nurses, midwives and health officers can be organized in the form of specialization training, enabling them to take a more active role in the provision of health services. In this way, it is thought that the workload of physicians can be reduced. Emotional exhaustion stemming from heavy workload will also be reduced. On the other hand, the high level of professional satisfaction of physicians who can work more effectively with less workload would be an expected result.



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