

ORIGINAL RESEARCH

Factors Affecting Burnout and Job Satisfaction of Physicians at Public and Private Hospitals: A Comparative Analysis

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Purpose: The purpose of this study is to investigate and analyze the impact of physicians' burnout levels on their job satisfaction, the factors related with burnout and job satisfaction, and to see whether there is a difference between public and private hospital physicians.

Methods: A cross-sectional survey design was adopted and conducted on 160 physicians in Aydin/Turkey. Personal Information Form, Maslach Burnout Inventory, and Minnesota Job Satisfaction Scale were used. Independent samples t-test, one-way analysis of variance (ANOVA), and correlation analysis were conducted.

Results: A negative relationship between burnout and job satisfaction among physicians was determined. Female private hospital physicians have significantly higher levels of burnout compared to male physicians. Married public hospital physicians' job satisfaction is significantly higher than single physicians. Public hospital physicians have significantly higher levels of burnout compared to private hospital physicians, as well as a significant lower level of job satisfaction.

Conclusion: The physicians have high burnout and low satisfaction levels. For this reason, burnout levels of the physicians should be determined and measures should be taken to reduce it. A possible reason of female physicians having higher levels of burnout in private hospital could be the result of the unique, demanding organizational factors, culture, climate and expectations, including worklife balance issues on working women. An important finding of the study showed that public hospital physicians have higher burnout levels and lower job satisfaction levels than private hospital physicians, largely attributed to the demanding workload and the burdensome bureaucratic processes they must navigate.

Keywords: healthcare professionals, burnout, job satisfaction, public hospital, private hospital, comparative analysis

Introduction

Burnout is characterized as a scenario in which employees feel highly worn out as individuals, resulting in repercussions such as failure due to stress and intensity, and depersonalization to work. The quality of service provided by healthcare providers has been seen to diminish when burnout levels rise.² As a result, measuring burnout levels in healthcare personnel is critical in order to improve healthcare quality by preventing this situation.³

Job satisfaction is dependent on various factors related to positive and negative emotions and attitudes toward work. Job-related expectations and strong motivation have been seen to influence attitudes toward work. It has been observed that job satisfaction remains stable and consistent for certain employees within organizations, regardless of the specific characteristics of the job. Changes in salaries, position, working conditions, and goals all have an impact on employees' iob satisfaction.4

In addition to negatively impacting employees, burnout also has detrimental effects on factors that boost employee motivation, such as job satisfaction, thereby causing harm to the organization in which they work.⁵

Freudenberger coined the phrase "burnout" in 1974.⁶ In professional life, burnout is described as a condition of mental and physical weariness,⁷ and is seen as a worldwide issue. Burnout has been shown to have the ability to exacerbate the harmful impacts of work-related stress. As a result, burnout has an impact on both people's physical and psychological health, as well as the effectiveness of organizations.^{8–11} Burnout is seen as a societal phenomenon that has an impact on organizations, individuals, and their surroundings. According to a study on this issue, burnout causes major problems, job loss, numerous social problems, and psychiatric ailments.¹² Gender, age, marital status, family structure, education, social support level, workload, working system, societal and individual work difficulties are cited as factors influencing burnout.¹³

Burnout in the healthcare industry is critical owing to the unique circumstances of the population they serve. Burnout is prevalent among healthcare workers and it has been seen that physician burnout leads to poor judgment in patient care and lowers health-care quality. 14-16 Number of patients, the nature of the profession, excessive responsibility and workload, insufficient number of healthcare workers, and a lack of free time for healthcare providers are the reasons of burnout among healthcare providers. 17

The concept of burnout is defined as the lack of professional fulfillment and the cooling off in one's profession as a result of experienced stress. Burnout can have serious consequences for individuals, affecting their work life as well as personal and family life. Examples of personal outcomes include individuals feeling physically exhausted, a decrease in feelings of accomplishment, and negative effects on self-esteem. Emotional exhaustion, which is closely related to occupational burnout, can also impact individuals' family life, leading to conflicts and detachment within the family. ¹⁹

Within the literature, studies aiming to measure the levels of burnout and job satisfaction among physicians are evident. A research conducted to measure the levels of burnout and job satisfaction among doctors revealed that there were no significant differences in job satisfaction, as well as the three sub-dimensions of burnout: depersonalization, emotional exhaustion, and personal accomplishment, based on doctors' gender, age, marital status, and academic status. Although the finding of low levels of burnout among doctors is promising, the research indicates that doctors still feel significantly inadequate in terms of personal accomplishment.²⁰

When the results of another study on physicians were examined, it was discovered that physicians with a working life of 6–10 years had higher depersonalization dimension scores, while physicians with a working life of more than 10 years had higher personal accomplishment dimension scores. Psychiatrists who did not take enough initiative in carrying out their tasks were seen to have significant levels of burnout and low job satisfaction.²¹

The results of a study conducted to determine the relationship between job satisfaction, burnout, and stress levels among doctors showed that 34% of doctors experienced high levels of emotional exhaustion, 14% exhibited depersonalization, and 32% had low levels of personal accomplishment.²² In terms of job satisfaction, 92% of doctors were found to be satisfied with their work. It was determined that workplace-related issues were influential in the dimension of emotional exhaustion, patient-related factors in depersonalization, and financial problems and issues related to personal life in the dimension of personal accomplishment. Doctors with low levels of job satisfaction tended to have higher levels of depersonalization and emotional exhaustion.²²

The job satisfaction and burnout of physicians are critical elements affecting both the well-being of healthcare professionals and the quality of healthcare they provide. These aspects of physician well-being are not uniform across the profession and are heavily influenced by a range of socio-demographic factors. Central to this discourse is the role of age. Younger healthcare professionals are consistently found to be more prone to burnout, a trend observed across various studies.^{23–27} In contrast, older professionals often report higher job satisfaction,^{28,29} suggesting a potential correlation between experience and resilience to burnout.

Gender differences further complicate the landscape. Numerous studies indicate higher burnout levels among female professionals, ^{27,30–34} revealing a gender-specific vulnerability. However, the findings of McMurray et al²⁹ intriguingly contrast with this trend by suggesting higher job satisfaction among female physicians, pointing to a complex interaction between gender, job satisfaction, and burnout.

Marital status and income level are also pivotal in this context. Married individuals often experience lower levels of burnout, ^{23,25} while those with higher income levels tend to exhibit greater job satisfaction. ^{30,35,36} This link suggests that financial stability and social support systems might play protective roles against burnout.

The influence of the work environment, including hospital load and working hours, further intersects with these sociodemographic factors. Physicians in high-load hospitals and those with longer working hours report increased burnout, ^{24,26,37} highlighting the impact of workplace demands on well-being. This is particularly relevant in the comparison between public and private healthcare settings, where differing workloads and resource availability might contribute to variations in burnout and satisfaction levels.

Lastly, lifestyle factors, such as engagement in social activities, emerge as significant. Time spent on social activities is linked to decreased burnout, ^{38,39} suggesting that work-life balance is a crucial element in mitigating job-related stress. Job satisfaction among physicians appears to be a protective factor against burnout, transcending clinical specialties and other factors. ⁴⁰

The impacts of socio-demographic factors on job satisfaction and burnout among physicians are multifaceted and complex. The primary aim of this study is to conduct a comprehensive comparative analysis of burnout and job satisfaction among physicians working in public and private hospitals in Turkey, considering key socio-demographic factors such as gender, age, marital status, number of children, years of experience, institution type, and working situation. Understanding the intricacies of how these socio-demographic variables relate to physicians' well-being is crucial. This research addresses this need by building on the existing body of knowledge, which often overlooks the nuanced relationship between these factors and the work experiences of physicians in different healthcare settings. These factors are known to shape the daily routines, work-life balance, and job expectations of physicians, yet a comprehensive comparative analysis is absent from the current literature. By investigating into these distinctions, it is aimed to provide invaluable insights into the unique challenges faced by physicians in public and private hospitals and the way these factors collectively influence their burnout and job satisfaction. The importance of this research lies in its potential to provide actionable insights for healthcare policymakers, hospital administrators, and medical professionals. Understanding how these factors uniquely impact physicians' experiences and satisfaction can inform targeted interventions and strategies to alleviate burnout and improve job satisfaction, ultimately leading to enhanced physician well-being and the delivery of high-quality patient care. Furthermore, it is expected that the results obtained will provide suggestions for studies to be carried out on related issues.

Therefore, the purpose of this study is to investigate and analyze the impact of physicians' burnout levels on their job satisfaction, the factors related with burnout and job satisfaction, and to see whether there is a difference between public and private hospital physicians.

Burnout Syndrome

In 1974, Freudenberger defined burnout syndrome as a state of exhaustion that occurs in an individual's internal resources due to feelings of failure, depletion, decreased energy and power, or unfulfilled desires.⁶

Burnout has been found to be more prevalent in jobs that demand face-to-face interactions with people.⁴¹ The research findings indicate that professionals who work with people are at a higher risk of burnout when their sense of responsibility toward individuals outweighs their sense of responsibility toward objects.⁴² Burnout is more prevalent in physicians, nurses, teachers, attorneys, academics, bankers, police officers, child care providers, social workers, and other professional groups working in the service sector.^{43–47}

There have been many studies and definitions on the notion of burnout since the original formulation. Christina Maslach created the most widely used and recognized description of burnout today, as well as the Maslach Burnout Scale, which bears her name. According to Maslach, burnout is defined as a syndrome characterized by physical exhaustion, prolonged fatigue, feelings of hopelessness and helplessness, and negative attitudes toward work, life, and other people. It is observed in individuals who are exposed to intense emotional demands inherent in their work and who are constantly required to interact with others.⁴¹

Burnout is commonly defined as a three-dimensional concept, as outlined by Maslach and Jackson.⁴¹ According to their definition, burnout encompasses emotional exhaustion, depersonalization, and personal accomplishment. Emotional exhaustion refers to the depletion of emotional and physical resources, resulting in a lack of energy for work. Depersonalization involves adopting a negative and uncaring attitude toward various job aspects, reflecting a disconnection at both emotional and cognitive levels, while personal accomplishment entails feelings of incompetence,

a sense of not achieving or being productive in one's work. Maslach and Jackson⁴¹ state that these dimensions are independent of each other and can manifest at any time.

Burnout emerges as one of the most significant challenges individuals face in their professional lives in the modern world. It has been determined that multiple factors contribute to the development of burnout. These factors can be classified into two categories: individual and organizational. Individual factors are those that arise from within the individual, while organizational factors are external influences from the individual's environment.⁴⁸

When examining studies related to burnout, it is observed that demographic variables are significant determinants of burnout. ⁴¹ The main individual factors that contribute to burnout include gender, age, marital status, ethnicity, educational level, family status, individual expectations, personality traits, external and internal locus of control, empathy skills, self-sufficiency, and excessive self-interest. ⁴⁹

Defined as the emotional, physical, and mental exhaustion that occurs after prolonged engagement in an emotionally demanding work environment for individuals working within an organization, burnout is influenced more by organizational variables such as work environment and profession rather than individual factors.⁵⁰ Within the literature, it has been determined that there are various classifications regarding organizational factors that affect burnout.⁵¹

Job Satisfaction

Job satisfaction has been identified as the most debated notion in the literature of social psychology, organizational behavior, and industrial/organizational psychology. ^{52–56} Job satisfaction is seen as essential for firms to fulfill their objectives and guarantee long-term organizational growth and employee productivity. ^{57–59} Job satisfaction is a concept that holds great importance for both organizations and researchers. Individuals evaluate whether they are compatible with the organization they work for and these evaluations are based on their internal and external reactions. It is observed that these reactions can be positive, negative, favorable, or unfavorable. ^{60,61}

Job satisfaction is defined as the overall positive feelings and emotional attitudes individuals have toward their jobs. ^{62,63} When individuals have high job satisfaction, it can be said that they enjoy their work and have positive attitudes toward it. Vroom ⁶⁴ refers to job satisfaction as the alignment of individuals' acquired role in the work environment and the impact of their role within the organization on their perception of their work.

Researchers have traditionally investigated the idea of job satisfaction from two main perspectives: internal research, that is, research focused on the work itself on the basis of the employee, and external job satisfaction, focusing on the environmental factors of the work.^{60,65}

When examining the factors that influence job satisfaction, it has been determined that job satisfaction is a complex construct influenced by various factors.⁶⁶ The concept of job satisfaction varies from employee to employee due to individual differences. Factors that influence job satisfaction can be categorized as intrinsic satisfaction and extrinsic satisfaction.⁶⁷ Intrinsic satisfaction factors are related to the nature of the job itself and include achievement, confidence, independence, success, feedback, a sense of control, and other similar emotions derived from the job. Extrinsic satisfaction factors are not directly related to the job itself and have been identified as follows: good relationships with colleagues, praise from superiors, high salary, good working environment, high job security, and similar factors. In a study conducted by Glisson and Durick,⁶⁸ the main factors influencing job satisfaction were identified as the individual, job, and organizational characteristics of the employee.

Relationship Between Burnout Level and Job Satisfaction

One of the expanding and diverse study areas in the field of organizational behavior is the interaction between job satisfaction and burnout, which has highly important effects in organizational life. Many studies have confirmed that job dissatisfaction can contribute to high burnout, ^{69–72} and research on the relationship between job satisfaction and burnout has been particularly focused on the education and healthcare sectors. These sectors have been of particular interest due to the higher susceptibility of professionals in these fields to experience burnout syndrome. The demanding nature of their work and the emotional labor involved often contribute to higher levels of burnout, making it important to investigate the impact of job satisfaction on mitigating or preventing burnout in these industries. ^{73–77}

In exploring the association between burnout, job satisfaction, and mental health, Evans et al⁷⁸ discovered that social workers experienced very high levels of stress and emotional fatigue, as well as very low levels of job satisfaction. They said that the high stress and weariness were induced by heavy workload and a sense of worthlessness at work. Visser et al⁷⁹ discovered that 55% of Dutch medical professionals had high levels of stress when they explored the link between stress, satisfaction, and burnout. The study discovered a negative link between stress and job satisfaction, as well as job stress and job satisfaction being important predictors of emotional burnout.

Scanlan and Still⁷⁰ discovered a negative relationship between burnout and job satisfaction and a positive relationship between turnover intention in occupational therapists working in the field of mental health. While pay and praise in the workplace were linked to increased job satisfaction, excessive expectations on service users were linked to intention to leave and burnout. In their study measuring job satisfaction and burnout among academics, Naktiyok and Kaygın⁸⁰ found a moderate negative relationship between the two.

Yorulmaz et al⁸¹ discovered a moderate negative relationship between job satisfaction and emotional exhaustion and job satisfaction and decreased personal accomplishment in a meta-analysis study of teachers in Turkey, as well as a negative and low-level relationship between job satisfaction and depersonalization.

A study was conducted on health workers in Hungary and in this framework it was stated that job satisfaction was strongly related to burnout dimensions. Accordingly, it is seen that burnout increases while job satisfaction levels decrease.⁸²

When the results of research on the link between job satisfaction and burnout in the literature are evaluated, it is clear that the majority of them discovered a substantial negative association. Despite the uniformity of the findings, the impact magnitude of each study differs significantly. For example, Cimen et al⁸³ discovered a high level (-0.703) relationship between job satisfaction and burnout in their study of private nursing home employees, while Işıkay⁸⁴ found the relationship between job satisfaction and burnout as -0.221 in his study with nurses working in a public hospital, and Uzunkaya⁸⁵ found the relationship between the two variables as -0.110 as a very weak relationship in his study with nurses.

There are no contradicting results in the research studying the link between job satisfaction and burnout, and the two concepts have a typically negative association, while having varying impact sizes. Employees with high levels of job satisfaction are likely to suffer less burnout, and there will be a negative link between the two concepts even if their effect levels differ.

Research Methodology

Research Design

A cross-sectional survey design was adopted. The research data were collected with a 3-part measuring tool. The first part of the measurement tool consists of the Personal Information Form, in which the demographic characteristics of the participants are questioned whereas the second part consists of the Maslach Burnout Inventory developed by Maslach and Jackson to measure burnout levels. The third part involves the Minnesota Job Satisfaction Scale. All statistics were performed with IBM SPSS 26 package program.

The Turkish version of MBI provided by Mind Garden, Inc. with purchase of the English version, and the Turkish version of Minnesota Job Satisfaction Scale provided free of charge by Vocational Psychology Research (VPR), University of Minnesota, are used to determine the burnout and job satisfaction levels in this study. The MBI is a Likert-type questionnaire comprised of 22 items, each rated on a scale from 1 (never) to 5 (always). In the assessment of values within this section, burnout levels are categorized as follows: very low between 1.00 and 1.80, low between 1.81 and 2.60, medium between 2.61 and 3.40, high between 3.41 and 4.20, and very high between 4.21 and 5.00. The items in this inventory are subdivided into three categories: emotional exhaustion (items 1, 2, 3, 6, 8, 13, 14, 16, 20), depersonalization (items 5, 10, 11, 15, 22), and personal accomplishment (items 4, 7, 9, 12, 17, 18, 19, 21). High scores on the emotional exhaustion and depersonalization subscales, as well as low scores on the personal accomplishment subscale, are indicative of burnout. For the personal accomplishment sub-dimension, the scores undergo reverse coding. The Minnesota Job Satisfaction Questionnaire employs a Likert-type scale to measure job satisfaction. The scale ranges

from "1" to "5", with each number representing a different level of agreement or disagreement. Participants are asked to rate their agreement with various statements regarding their job satisfaction. Higher scores indicate greater job satisfaction, and the total score is calculated by summing the individual item scores, providing an overall measure of job satisfaction for participants.

Sample items from the MBI include statements such as "I feel exhausted at the end of a long day in the hospital" for Emotional Exhaustion, "I find myself thinking of patients as 'cases' rather than individuals" for Depersonalization, and "I feel a sense of achievement in my role as a healthcare provider" for Personal Accomplishment. Sample items from the Minnesota Job Satisfaction Questionnaire include statements such as "I enjoy the actual work I do", "There are opportunities for advancement in my current job" and "I feel secure in my current position".

Population and Sample of the Research

This cross-sectional study was conducted from May 5, 2023 to May 30, 2023. The population of the study consists of physicians in public and private hospitals in Aydin province, Turkey. Within the scope of the research, there are 1891 healthcare providers in public and private hospitals in Aydin province, among which 275 of them constitute physicians. In the application of the questionnaires, simple random sampling method is used and the questionnaires requested to be completed on a voluntary basis. The sample size for this study was established using the Krejcie-Morgan⁸⁶ table, which indicated that with a population (N) of 275, a sample size (S) of 160 was appropriate. As a result, a sample of 160 was selected for this research, considering the population size of 275. The questionnaires were distributed during staff meetings and with the help of hospital administration. As a result of the application, 160 physicians, who volunteered to participate in the research and filled out the questionnaire, were involved in the study.

Ethics Statement

Prior to data collection, all participants were provided with verbal explanations regarding the study's purpose. Informed consent was acquired from each participant, emphasizing the voluntary nature of their involvement, and they were assured of their right to withdraw from the study at any point. No personally identifiable information was gathered from the participants. The Institutional Review Board (IRB) of Aydin County Health Department granted approval for the study before data collection (No.2023-05/915), and it adhered to the tenets of the Declaration of Helsinki for research involving human subjects. Furthermore, the study adhered to the ethical guidelines established by Turkish law (TR-IJ Evaluation Criteria, A-8). At the time of the study, the author was affiliated to the current institution in Kuwait.

Results

The reliability of the scales were confirmed by Cronbach's alpha coefficient test. The Maslach Burnout Scale was highly reliable at a level of 0.832, and the Minnesota Job Satisfaction Scale was highly reliable at a level of 0.798.

When the socio-demographic characteristics of the participants are examined in Table 1, it is seen that 51.3% are female and 48.7% are male; 44.4% are 26–30 years old; 68.8% of the participants were married; 66.3% of them work day and night, 35.6% have an experience for 15 years or more and 46.3% of the participants were working at private hospital.

When the scales in the applied questionnaire are examined in Table 2, it is seen that the average of the Minnesota Job Satisfaction scale is 2.3594 (low satisfaction), and the average of the Maslach Burnout scale is 3.7716 (high burnout).

Table 3 shows the independent groups t-test used to test and examine whether the burnout and job satisfaction levels of physicians differ for the gender variable according to the institution type. As a result of the analysis, it was seen that the burnout of physicians at public hospital did not differ according to the gender variable (p=0.676>0.05), whereas the burnout of physicians at private hospital had a significant difference according to the gender variable (p=0.003<0.05). Female physicians at the private hospital have higher burnout levels compared to male physicians.

There was no significant difference between job satisfaction levels of the physicians at public and private hospitals for the gender variable (p=0.924>0.05; p=0.493>0.05).

In Table 4, it is seen that the burnout and job satisfaction levels of the physicians at public hospital for the marital status variable had a significant difference (p=0.001<0.05; p=0.018<0.05). It was determined that single doctors had higher burnout levels than married doctors, and married doctors have higher job satisfaction than single doctors.

Table I Socio-Demographical Characteristics of the Participants

Gender	Frequency (f)	Percentage (%)
Female	82	51.3
Male	78	48.7
Age	Frequency (f)	Percentage (%)
21-25 years old	16	10.0
26-30 years old	71	44.4
31-35 years old	12	7.5
36-40 years old	8	5.0
41 years and older	53	33.1
Marital Status	Frequency (f)	Percentage (%)
Married	110	68.8
Single	50	31.2
Number of Children	Frequency (f)	Percentage (%)
0	51	31.9
ı	77	48.1
2	26	16.3
3	6	3.7
Work Situation	Frequency (f)	Percentage (%)
Daytime Only	54	33.7
Night and Day	106	66.3
Professional Experience	Frequency (f)	Percentage (%)
0-5 years	57	35.6
6-10 years	35	21.9
II-I5 years	П	6.9
15 years and above	57	35.6
Institution Type	Frequency (f)	Percentage (%)
Private	74	46.3
Public	86	53.7

 $\textbf{Note} \hbox{: Frequency (f): total number.}$

There was no significant difference between the burnout and job satisfaction levels of the physicians at private hospital for the marital status variable (p=0.054>0.05; p=0.311>0.05).

As a result of Table 5, it was concluded that the burnout and job satisfaction levels of the physicians for the work situation variable did not differ according to the institution type (p=0.115>0.05; p=0.869>0.05; p=0.113>0.05; p=0.375>0.05).

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Table 2 Mean and Standard Deviation Values of the Scales

Scales	Mean (X)	Standard Deviation (sd)
Maslach Burnout Scale	3.7716	0.11890
Minnesota Job Satisfaction Scale	2.3594	0.10760

Note: Mean (X): the average score of the scale.

Table 3 7-Test Analysis of Physicians' Burnout/Job Satisfaction Levels for the Gender Variable According to Institution Type

	Gender	Public Hospital						Private Hospital				
		N	х	sd	f	Р	N	х	sd	f	Р	
Job Satisfaction	Female	46	2.2742	0.4957	-0.095	0.924	36	4.3537	0.1170	0.276	0.493	
	Male	40	2.2695	0.5247			38	4.3654	0.0971			
Burnout	Female	46	3.7677	0.1226	0.000	0.676	36	2.2566	0.5535	3.00	0.003*	
	Male	40	3.7756	0.1154			38	2.1116	0.5594			

Note: *p<0.05.

Table 4 7-Test Analysis of Physicians' Burnout/Job Satisfaction Levels for the Marital Status Variable According to Institution Type

	Marital	Public Hospital					Private Hospital				
	Status	N	x	sd	f	р	N	х	sd	f	р
Job	Married	50	4.3859	0.1131	0.340	0.018*	60	4.4331	0.6429	1.01	0.311
Satisfaction	Single	36	4.3490	0.0882			14	4.6065	0.6789		
Burnout	Married	50	3.7508	0.1174	0.084	0.001*	60	3.1937	0.7258	-1.93	0.054
	Single	36	3.8173	0.1100			14	3.3181	0.7664		

Note: *p<0.05.

Table 5 *T*-Test Analysis of Physicians' Burnout/Job Satisfaction Levels for the Work Situation Variable According to Institution Type

	Work	k Public H			ital		Private Hospital				
	Situation	N	x	sd	f	р	N	х	sd	f	Р
Job	Daytime	25	4.3574	0.11049	0.099	0.869	29	4.7240	0.99061	0.907	0.375
Satisfaction	Night and day	61	4.3604	0.10662			45	4.8434	0.71612		
Burnout	Daytime	25	3.7508	0.11195	1.817	0.115	29	2.2762	0.59921	1.188	0.113
	Night and day	61	3.7822	0.12144			45	2.6766	0.18801		

Table 6 shows whether the burnout/job satisfaction levels of physicians differed according to their institution type. It is seen that the physicians working at public hospital have significantly higher burnout levels and lower job satisfaction than the physicians working at private hospital (p=0.036<0.05; p=0.001<0.05).

Table 6 T-Test Analysis of Physicians' Burnout/Job Satisfaction Levels According to Institution Type

	Institution Type	N	x	sd	f	р
Job Satisfaction	Public	86	3.0585	0.63228	− 3.43 l	0.001*
	Private	74	3.2017	0.66224		
Burnout	Public	86	2.2718	0.50911	2.094	0.036*
	Private	74	2.1993	0.55992		

Note: *p<0.05.

According to Table 7, it was determined that the burnout levels of the physicians who participated in the study did not show a significant difference depending on the age variable (p=0.364>0.05), whereas the job satisfaction of the physicians showed a significant difference according to the age variable (p=0.002<0.05). The job satisfaction of the physicians in the 31–35 age group is higher than the remaining.

Another result showed that the burnout levels of the physicians showed a significant difference depending on the variable of the number of children (p=0.029<0.05). The burnout levels of the physicians who did not have children were

Table 7 One-Way Test of Variance (ANOVA) Results for Physicians' Burnout and Job Satisfaction Levels by Age, Number of Children, and Years of Experience

			Burnout			Job Satisfaction				
Age	N		x	sd	F	р	x	sd	F	р
	Public	Private								
21–25	9	7	3.79	0.0845	1.089	0.364	4.37	0.0631	1.941	0.002*
26–30	44	27	3.78	0.1300			4.36	0.1150		
31–35	6	6	3.73	0.1494			4.40	0.0949		
36–40	5	3	3.78	0.1052			4.28	0.1437		
41>	35	18	3.75	0.1189			4.34	0.1002		
Number of Children	N		x	sd	F	р	x	sd	F	р
	Public	Private		•						
0	20	31	3.80	0.1293	3.093	0.029*	4.37	0.1154	0.932	0.427
1	44	33	3.74	0.1081			4.34	0.0979		
2	15	11	3.77	0.1164			4.35	0.1174		
3	4	2	3.71	0.1062			4.36	0.1169		
Experience	N	l	x	sd	F	р	x	sd	F	р
	Public	Private								
0-5 years	26	31	3.79	0.1149	1.542	0.206	4.38	0.0954	3.275	0.023*
6-10 years	25	10	3.77	0.1287			4.33	0.1121		
II-I5 years	9	2	3.71	0.1649			4.40	0.1136		
15>	35	22	3.75	0.1041			4.33	0.1089		

Note: *p<0.05.

Table 8 Correlation Analysis

		Burnout	Minnesota Job Satisfaction
Burnout	Pearson Correlation Sig. (2-tailed)	1	-0.203* 0.010
	N	160	160
Minnesota job satisfaction	Pearson Correlation	-0.203*	I
	Sig. (2-tailed)	0.010	
	N	160	160

Note: *Correlation is significant at the 0.05 level (2-tailed).

higher than those who had children. The job satisfaction of the physicians participating in the research did not show a significant difference depending on the number of children variable (p=0.427>0.05).

Lastly, the burnout levels of the physicians who participated in the research did not show a significant difference depending on the variable of professional experience (p=0.206>0.05). On the other hand, the job satisfaction of the physicians showed a significant difference depending on the variable of professional experience (p=0.023<0.05). The job satisfaction of the physicians with 11–15 years of experience is higher than the rest.

The significance value was less than 0.05 in the correlation analysis (Table 8), indicating a statistically significant negative relationship between burnout levels and job satisfaction. This suggests that higher levels of burnout are associated with lower levels of job satisfaction.

Discussion and Conclusion

This study was conducted to determine the relationship between burnout levels and job satisfaction of physicians. In this framework, a questionnaire was applied to the physicians working in public and private hospitals.

The results showed that there is a negative relationship between burnout levels of physicians and their job satisfaction (p=0.010<0.05). Physicians have high burnout and low satisfaction levels (3.77±0.11; 2.35±0.10). It is seen that, as the burnout levels of the physicians increase, their job satisfaction decreases. For this reason, burnout levels of the physicians should be determined and measures should be taken to reduce it. In the study conducted by Gençay⁸⁷ on Physical Education Teachers in 2007, it was determined that there was a decrease in job satisfaction as occupational burnout increased. Another study conducted by Ulucan et al⁸⁸ showed that there is a significant negative relationship between professional football players' occupational burnout level and job satisfaction levels. The study conducted by Piko⁸² on healthcare professionals in 2006 determined that as burnout increased, job satisfaction levels decreased, while in a study conducted by Öztürk et al⁸⁹ on healthcare workers it was determined that increased burnout decreased job satisfaction. These results support the result of the current study.

The results of the current study showed that the burnout levels of the physicians did not differ according to gender variable in public hospitals (p=0.676> 0.05), whereas there was a significant difference between the burnout levels of the physicians in private hospitals according to gender (p=0.003<0.05). Female physicians have higher levels of burnout compared to male physicians. The job satisfaction of the physicians in both public and private hospitals did not differ according to gender variable (p=0.924> 0.05; p=0.493> 0.05). Research by Öztürk et al⁸⁹ also determined that job satisfaction did not differ according to gender variable. On the contrary, the result of a study conducted by Avşaroğlu⁹⁰ showed that burnout levels did not differ in terms of gender variable. In the current study, a possible reason of female physicians having higher levels of burnout in private hospital could be the result of the unique, demanding organizational factors, culture, climate and expectations, including work-life balance issues on working women.

It was determined that the burnout levels of the physicians did not show a significant difference depending on the age variable (p=0.364>0.05), which is consistent with the studies by Cagan and Gunay,⁹¹ Glasberg et al,⁹² Kiekkas et al,⁹³ Popa et al,⁹⁴ and Sharma et al,⁹⁵ where they did not find any significant influence of age on the burnout scores of the healthcare providers. Job satisfaction showed a significant difference according to the age variable (p=0.002<0.05). For

this reason, in order to increase the commitment of the physicians to their institutions, the necessary training and orientations should be provided in order to reduce their burnout levels and increase their job satisfaction.

It was determined that burnout and job satisfaction levels of the public hospital physicians differed according to marital status variable (p=0.001<0.05; p=0.018<0.05). The burnout levels of single doctors were higher than married doctors and job satisfaction levels of married doctors were higher than single doctors.

It was seen that the burnout level of the physicians did not show a significant difference depending on the duration of professional experience variable (p=0.206>0.05); but their job satisfaction showed a significant difference depending on the duration of professional experience variable (p=0.023<0.05). The physicians with 11–15 years of experience had higher job satisfaction levels. The finding regarding the relationship between burnout and duration of professional experience is consistent with the findings of Pavelková and Bužgová, and Molero-Jurado et al, where they found that the degree of burnout among healthcare workers did not depend on length of experience.

The burnout levels of the physicians showed a significant difference depending on the number of children variable (p=0.029<0.05), wherein the physicians who did not have children have higher burnout levels than those physicians who had children. It was determined that job satisfaction did not show a significant difference depending on the number of children variable (p=0.427>0.05). In their studies, Shahnazi et al, ⁹⁸ Atif et al, ⁹⁹ and Al-Eisa et al, ¹⁰⁰ also stated that, there was no significant correlation between job satisfaction and the number of children. This suggests that factors other than family responsibilities might be more influential in determining job satisfaction among physicians.

It was determined that there was no difference in the burnout and job satisfaction levels of the public and private hospital physicians according to the working style variable (p=0.115>0.05; p=0.869>0.05; p=0.113>0.05; p=0.375>0.05). This finding is consistent with the study of Chamberlain et al, ¹⁰¹ in which the working style was not significantly associated with job satisfaction. One important finding of the study showed that public hospital physicians have higher burnout levels and lower job satisfaction levels than private hospital physicians (p=0.036<0.05; p=0.001<0.05). This result is similar to studies by Ozyurt et al. ¹⁰² Lim and Pinto, ¹⁰³ Böhle et al ¹⁰⁴ and Kosan et al ¹⁰⁵ where they found higher burnout levels of physicians working at public hospitals compared to private hospitals. Employment within private hospitals is renowned for offering a lucrative income. Instances of burnout could potentially be mitigated due to the absence of institutional shortcomings, the fulfillment of expectations, and the likelihood of serving patients with higher socioeconomic statuses. Conversely, burnout appears to be more prevalent among personnel in public hospitals, largely attributed to the demanding workload and the burdensome bureaucratic processes they must navigate. ¹⁰⁵

Theoretical Implications

The findings of this study have significant theoretical implications for understanding the relationship between burnout levels and job satisfaction among physicians. First and foremost, the observed negative correlation between burnout and job satisfaction reaffirms the existing literature on occupational burnout and its adverse impact on job-related well-being. The study aligns with prior research conducted in various occupational settings, emphasizing the importance of addressing burnout as a key determinant of job satisfaction.

Furthermore, this study contributes to the existing body of knowledge by highlighting gender-related differences in burnout levels, particularly in the context of private hospitals. The higher burnout levels among female physicians in private hospitals may indicate the need for more gender-sensitive interventions and support mechanisms tailored to the unique challenges faced by women in healthcare professions. This gender-specific finding underscores the importance of considering gender dynamics in the study and management of burnout and job satisfaction.

Additionally, the age-related variations in job satisfaction emphasize the dynamic nature of job-related well-being. Understanding how age influences job satisfaction can assist in developing career-span-specific interventions and support programs. By recognizing that physicians at different career stages may have distinct job satisfaction needs, healthcare institutions can tailor their strategies to foster a more satisfying work environment for all physicians.

Managerial Implications

The practical implications of this study hold substantial significance for healthcare institutions and management. One of the key managerial takeaways is the importance of recognizing the detrimental impact of burnout on physicians' job

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satisfaction. Acknowledging this link prompts healthcare administrators and managers to prioritize burnout prevention and mitigation strategies. These might include the implementation of stress-reduction programs, workload management, and enhanced emotional support systems for physicians.

Moreover, the findings related to the impact of marital status and professional experience suggest that interventions targeting these demographic factors can enhance job satisfaction. For instance, healthcare organizations could consider offering career development opportunities and mentorship programs to boost the job satisfaction of physicians at different stages of their careers. Similarly, institutions can explore strategies to support single physicians and those with families, acknowledging the different challenges they may face.

The substantial difference in burnout and job satisfaction levels between public and private hospital physicians highlights the importance of considering workplace factors. Healthcare organizations can use this insight to improve working conditions, reduce bureaucratic burdens, and provide a supportive work environment for public hospital physicians. Additionally, recognizing that private hospitals tend to offer more favorable conditions can guide public hospitals in adopting best practices to enhance job satisfaction and reduce burnout among their staff.

This study's theoretical and managerial implications underscore the importance of addressing burnout and promoting job satisfaction among physicians to ensure their well-being and the quality of healthcare services. These implications can guide healthcare institutions in developing more effective policies and strategies to support their medical staff and ultimately enhance the overall healthcare system.

Limitations and Suggestions for Future Research

This study has several limitations. First, the study results were derived from a limited sample. Similar surveys with higher sample sizes may provide different results. Second, the physicians participating in this study were mainly from the public and private hospitals in Aydin province. To enhance generalizability, future research might include physicians from different institution types from other cities in Turkey. Third, the study mainly focuses on individual characteristics and their relationship with burnout and job satisfaction. In the future, studies revealing the organizational factors associated with burnout would contribute to the literature.

Further studies incorporating social support in healthcare workers and focusing on some other behavioral and organizational variables such as work-life balance, turnover intention, and organizational climate would also contribute to the literature.

A significant limitation of this study pertains to the heterogeneous composition of the sample group. Inclusion of physicians from various specialties, diverse institutions, and distinct income levels and working conditions rendered it impractical to make conclusive inferences about specific physician groups or working conditions.

Disclosure

The author reports no conflicts of interest in this work.

References

- 1. Adriaenssens J, De Gucht V, Maes S. Determinants and prevalence of burnout in emergency nurses: a systematic review of 25 years of research. Int J Nurs Stud. 2015;52(2):649–661. doi:10.1016/j.ijnurstu.2014.11.004
- Van Bogaert P, Kowalski C, Weeks SM, Van Heusden D, Clarke SP. The relationship between nurse practice environment, nurse work characteristics, burnout and job outcome and quality of nursing care: a cross-sectional survey. *Int J Nurs Stud.* 2013;50(12):1667–1677. doi:10.1016/j. ijnurstu.2013.05.010
- 3. Al Sabei S, Leodora J, Ross AM, et al. Nursing work environment, turnover intention, job burnout, and quality of care: the moderating role of job satisfaction. *J Nurs Scholarsh*. 2019;52(1):95–104. doi:10.1111/jnu.12528
- 4. Schultz DP, Schultz SE. Psychology and Industry Today: An Introduction to Industrial and Organizational Psychology. New York: Macmillan Publishing Company; 1998.
- 5. Maslach C, Schaufeli WB, Leiter MP. Job burnout. Ann Rev Psychol. 2001;52:397-422. doi:10.1146/annurev.psych.52.1.397
- 6. Freudenberger HJ. Staff burnout. J Social Issues. 1974;30:159–165. doi:10.1111/j.1540-4560.1974.tb00706.x
- 7. Freudenberger HJ. Staff burn-out. J Healthc Qual. 1982;4(4):6–8. doi:10.1111/j.1945-1474.1982.tb00486.x
- 8. Jiang H, Huang N, Jiang X, Yu J, Zhou Y, Pu H. Factors related to job burnout among older nurses in Guizhou province, China. *Peer J.* 2021;9: e12333. doi:10.7717/peerj.12333
- 9. Metlaine A, Sauvet F, Gomez-Merino D, et al. Sleep and biological parameters in professional burnout: a psychophysiological characterization. *PLoS One*. 2018;13(1):1–15. doi:10.1371/journal.pone.0190607

 Vachon M, Papineau M, Dupuis G, Roberge P. Associations between systemic quality of life and burnout among French Canadian workers. Soc Indic Res. 2019;142(3):1193–1210. doi:10.1007/s11205-018-1944-x

- 11. Vázquez-Cabrera FJC. A and C. Burnout syndrome in an international setting. Burn Expert Prev Context Living Work. 2013;July:1-257.
- 12. Kim SO, Moon SH. Factors influencing turnover intention among male nurses in Korea. *Int J Environ Res Public Health*. 2021;18(18):9862. doi:10.3390/ijerph18189862
- 13. Cimiotti JP, Aiken LH, Sloane DM, Wu ES. Nurse staffing, burnout, and health care-associated infection. Am J Infect Control. 2012;40 (6):486–490. doi:10.1016/j.ajic.2012.02.029
- De Hert S. Burnout in healthcare workers: prevalence, impact and preventative strategies. Local Reg Anesth. 2020;13:171–183. doi:10.2147/ LRA S240564
- 15. Dinibutun SR. Factors associated with burnout among physicians: an evaluation during a period of COVID-19 pandemic. *J Healthc Leadersh*. 2020; Volume 12:85–94. doi:10.2147/JHL.S270440
- Shanafelt TD, Bradley KA, Wipf JE, Back AL. Burnout and self-reported patient care in an internal medicine residency program. Summary Patients Ann Intern Med. 2002;136(5):129.
- 17. Kondro W. The view from the north. CMAJ. 2012;184(13):895–896. doi:10.1503/cmaj.109-4262
- 18. Duman N, Sak R, Sak I. Examination of teachers' professional burnout levels and organizational cynicism attitudes. YYU Fac Educ J. 2020;17 (1):1098–1127.
- Demerouti E, Bakker AB, Peeters MCW, Breevaart K. New directions in burnout research. Eur J Work Organ Psychol. 2021;30(5):125–195. doi:10.1080/1359432X.2021.1979962
- 20. Kurcer MA. Job satisfaction and burnout levels of Harran University faculty of medicine physicians. J Harran Univ Fac Med. 2005;2(3):10-36.
- 21. Havle NM, Ilnem C, Yener F, Gümüş H. Burnout and job satisfaction in psychiatrists working in Istanbul and their relationship with various variables. *Thinking Man Mag.* 2008;21(1–4):4–13.
- 22. Elit LK, Trim IH, Mand-Bains H, Sussman J, Grunfeld E. Job satisfaction, stress and burnout among Canadian gynecologic oncologists. *Gynecologic Oncol*. 2004;94(1):134–139. doi:10.1016/j.ygyno.2004.04.014
- 23. Tarcan M, Hikmet N, Schooley B, Top M, Tarcan GY. An analysis of the relationship between burnout, socio-demographic and workplace factors and job satisfaction among emergency department health professionals. *Appl Nurs Res.* 2017;34:40–47. doi:10.1016/j.apnr.2017.02.011
- Alrawashdeh HM, Al-Tammemi AA, Alzawahreh MK, et al. Occupational burnout and job satisfaction among physicians in times of COVID-19 crisis: a convergent parallel mixed-method study. BMC Public Health. 2021;21:1–8. doi:10.1186/s12889-021-10897-4
- 25. Yue Z, Qin Y, Li Y, et al. Empathy and burnout in medical staff: mediating role of job satisfaction and job commitment. *BMC Public Health*. 2022;22(1):1–3. doi:10.1186/s12889-022-13405-4
- 26. Busis NA, Shanafelt TD, Keran CM, et al. Burnout, career satisfaction, and well-being among US neurologists in 2016. Neurology. 2017;88 (8):797–808. doi:10.1212/WNL.000000000003640
- 27. LaFaver K, Miyasaki JM, Keran CM, et al. Age and sex differences in burnout, career satisfaction, and well-being in US neurologists. Neurology. 2018;91(20):e1928–e1941. doi:10.1212/WNL.000000000006497
- 28. Wang X, Li C, Chen Y, et al. Relationships between job satisfaction, organizational commitment, burnout and job performance of healthcare professionals in a district-level health care system of Shenzhen, China. *Front Psychol.* 2022;13:992258. doi:10.3389/fpsyg.2022.992258
- 29. McMurray JE, Linzer M, Konrad TR, Douglas J, Shugerman R, Nelson K; SGIM Career Satisfaction Study Group. The work lives of women physicians: results from the physician work life study. *J Gen Intern Med*. 2000;15:372–380. doi:10.1111/j.1525-1497.2000.im9908009.x
- 30. Alqarni T, Alghamdi A, Alzahrani A, Abumelha K, Alqurashi Z, Alsaleh A. Prevalence of stress, burnout, and job satisfaction among mental healthcare professionals in Jeddah, Saudi Arabia. *PLoS One*. 2022;17(4):e0267578. doi:10.1371/journal.pone.0267578
- 31. Chiron B, Michinov E, Olivier-Chiron E, Laffon M, Rusch E. Job satisfaction, life satisfaction and burnout in French anaesthetists. *J Health Psychol.* 2010;15(6):948–958.
- 32. Shanafelt TD, West CP, Sloan JA, et al. Career fit and burnout among academic faculty. Arch Intern Med. 2009;169(10):686–691. doi:10.1001/archinternmed.2009.70
- Kassam A, Horton J, Shoimer I, Patten S. Predictors of well-being in resident physicians: a descriptive and psychometric study. J Grad Med Educ. 2015;7(1):70–74. doi:10.4300/JGME-D-14-00022.1
- 34. Chou LP, Li CY, Hu SC. Job stress and burnout in hospital employees: comparisons of different medical professions in a regional hospital in Taiwan. *BMJ Open*. 2014;4(2):e004185. doi:10.1136/bmjopen-2013-004185
- 35. Yao H, Wang P, Tang YL, et al. Burnout and job satisfaction of psychiatrists in China: a nationwide survey. BMC Psychiatry. 2021;21:1. doi:10.1186/s12888-021-03568-6
- 36. Abdulghafour YA, Bo-Hamra AM, Al-Randi MS, Kamel MI, El-Shazly MK. Burnout syndrome among physicians working in primary health care centers in Kuwait. *Alexandria J Med.* 2011;47(4):351–357. doi:10.1016/j.ajme.2011.08.004
- 37. Shanafelt TD, Balch CM, Bechamps GJ, et al. Burnout and career satisfaction among American surgeons. *Ann Surg.* 2009;250(3):463–471. doi:10.1097/SLA.0b013e3181ac4dfd
- 38. Toker I, Ayrık C, Bozkurt S, Tur FC, Basterzi AD, Hacar S. Factors affecting burnout and job satisfaction in Turkish emergency medicine residents. *Emerg Med Open J.* 2015;1(3):64–71. doi:10.17140/EMOJ-1-111
- Bovier PA, Arigoni F, Schneider M, Gallacchi MB. Relationships between work satisfaction, emotional exhaustion and mental health among Swiss primary care physicians. Eur J Public Health. 2009;19(6):611–617. doi:10.1093/eurpub/ckp056
- 40. Renzi C, Tabolli S, Ianni A, Di Pietro C, Puddu P. Burnout and job satisfaction comparing healthcare staff of a dermatological hospital and a general hospital. *J Eur Acad Dermatol Venereol*. 2005;19(2):153–157. doi:10.1111/j.1468-3083.2005.01029.x
- 41. Maslach C, Jackson SE. The measurement of experienced burnout. J Organ Behav. 1981;2:99-113. doi:10.1002/job.4030020205
- 42. Ensari H, Tuzcuoglu S. The role of personality traits in the professional disability of the administrators and faculty members of the faculties of Marmara University. *Suggestion J.* 1995;2(11):51–63.
- 43. Aslan D, Kiper N, Karaağaoğlu ET, Stump F, Cengiz M, E ÖS. Burnout Syndrome and Affecting Factors in a Group of Physicians Registered with Medical Chambers in Turkey. Ankara: Turkish Medical Chambers Association Publications; 2005.
- 44. Bryne BM, Hall LM. An investigation of factors contributing to teacher burnout: the elementary, intermediate, secondary and postsecondary school environments. Washington, DC; 1989.

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- 45. Ergin C. Examination of burnout and various stress sources in academicians. Hacettepe Univ J Fac Lett. 1995;12(1-2):37-50.
- 46. Maslach C, Zimbardo PG. Burnout The Cost of Caring. New Jersey, Englewood Cliffs: Prentice-Hall, Inc; 1982
- 47. Perlman B, Hartman EA. Burnout: summary and future research. Hum Relat. 1982;35(4):283-305. doi:10.1177/001872678203500402
- 48. Sürgevil-Dalkılıç O. Burnout Syndrome in Working Life: Techniques to Combat Burnout. Ankara: Nobel; 2014.
- 49. Şeker M. Burnout Syndrome in Lawyers: Sivas Province Central District Sample [Master Thesis]. Sivas: Sivas Cumhuriyet University, Institute of Educational Sciences; 2019.
- 50. Maslach C, Leiter P. The Truth About Burnout. San Francisco: Jossey-Bass; 1997.
- 51. Schaufeli W, Greenglass ER. Introduction to special issue on burnout and health. Psychol Health. 2001;16:501–510. doi:10.1080/08870440108405523
- 52. Alotaibi AG. Antecedents of organizational citizenship behavior: a study of public personnel in Kuwait. *Public Pers Manag.* 2001;30 (3):358–384. doi:10.1177/009102600103000306
- 53. Cribbin JJ. Effective Managerial Leadership. New York: American Management Association; 1972.
- 54. Davis K. Human Behavior at Work. New Delhi: Tata McGraw Hill Publications; 1982.
- 55. Lloyd S, Hamner WC. Individual versus systems rewards: who's dissatisfied why and what's their likely response. *Acad Manage J.* 1979;22 (4):781–802.
- 56. Parnell JA, Crandall W. Propensity for participative decision-making, job satisfaction, organizational commitment, organizational citizenship behavior, and intentions to leave among Egyptian Managers. *Multinatl Bus Rev.* 2003;11(1):36–73. doi:10.1108/1525383X200300003
- 57. Deutsch M. Equity, equality, and need: what determines which values will be used as determinants of distributive justice? *J Social Issues*. 1975;31:137–149. doi:10.1111/j.1540-4560.1975.tb01000.x
- 58. Locke EA. The nature and causes of job satisfaction. In: *The Handbook of Industrial and Organizational Psychology*. IL, Chicago: Rand McNally; 1976:1297–1349.
- 59. Siegel L, Lane IM. Psychology in Industrial Organizations. Homewood, IL: Irwin; 1974.
- 60. Feldman DC, Arnold HJ. Managing Individual and Group Behavior in Organizations. McGraw-Hill Book Company; 1985.
- Judge TA, Hulin CL, Dalal RS, Satisfaction J, Affect J. The Oxford Handbook of Industrial and Organizational Psychology. New York: Oxford University Press; 2009.
- 62. Erdoğan İ. Organizational Behavior in Business Management. Vol. 6. Istanbul: İ.Ü. Faculty of Business; 1996.
- 63. Oshagbemi T. Overall job satisfaction: how good are single versus multiple- item measures? *J Manag Psychol*. 1999;14(5):388–403. doi:10.1108/02683949910277148
- 64. Vroom V. Work and Motivation. New York. West, M.A: Wiley Publication; 1964.
- 65. Bogler R. The influence of leadership style on teacher job satisfaction. Educ Adm Q. 2001;37(5):657-681. doi:10.1177/00131610121969460
- 66. Coomber B, Barriball KL. Impact of job satisfaction components on intend to leave and turnover for hospital-based nurses: a review of the research literature. *Int J Nurs Stud.* 2007;44:297–314. doi:10.1016/j.ijnurstu.2006.02.004
- 67. Porter L, Lawler E. Managerial Attitudes and Performance. Homewood, Illinois: The Dorsey Press; 1968.
- 68. Glisson C, Durick M. Predictors of job satisfaction and organizational commitment in human service organizations. *Adm Sci Q.* 1988;33 (1):61–81. doi:10.2307/2392855
- 69. Liu J, Zheng J, Liu K, et al. Workplace violence against nurses, job satisfaction, burnout, and patient safety in Chinese hospitals. *Nurs Outlook*. 2019;67(5):558–566. doi:10.1016/j.outlook.2019.04.006
- 70. Scanlan JN, Still M. Job satisfaction, burnout and turnover intention in occupational therapists working in mental health. *Aust Occup Ther J.* 2013;60(5):310–318. doi:10.1111/1440-1630.12067
- 71. Wang H, Jin Y, Wang D, Zhao S, Sang X, Yuan B. Job satisfaction, burnout, and turnover intention among primary care providers in rural China: results from structural equation modeling. *BMC Fam Pract*. 2020;21(1):1–10. doi:10.1186/s12875-020-1083-8
- 72. Zhang Y, Feng X. The relationship between job satisfaction, burnout, and turnover intention among physicians from urban state-owned medical institutions in Hubei, China: a cross-sectional study. *BMC Health Serv Res.* 2011;11(1):1–13. doi:10.1186/1472-6963-11-235
- 73. Celik Y, Kilic I. Relationships between job satisfaction, occupational burnout and quality of life in nurses. *Kocatepe Med J.* 2019;20 (4):230–238
- 74. Kumaş G, Yalçın SÖ, Öztunç G. Burnout and job satisfaction levels of oncology nurses: an example of adana. *Mersin Univ Fac Med Lokman Hekim J Med Hist Folkloric Med*. 2019;9(2):256–265.
- 75. Orhan U, Komsu UC. The effect of self-efficacy perceptions and burnout levels on academics' attitudes towards learning and job satisfaction. *Anadolu Univ J Social Sci.* 2016;16(3):1–18.
- 76. Şeşen H. The effect of perception of justice on burnout: testing the mediating role of job satisfaction with structural equation modeling. *J Def Sci.* 2010;9(2):67–90.
- 77. Yücel I. The relationship between job satisfaction and burnout and the effect of perceived organizational support on this relationship-an application in the health sector. *J Acad Perspect*. 2012;33:1–20.
- 78. Evans S, Huxley P, Gately C, et al. Mental health, burnout and job satisfaction among mental health social workers in England and Wales. *Br J Psychiatry*. 2006;188(1):75–80. doi:10.1192/bjp.188.1.75
- 79. Visser MR, Smets EM, Oort FJ, Ve De Haes H. Stress, satisfaction and burnout among Dutch medical specialists. CMAJ. 2003;168(3):271–275.
- 80. Naktivok A, Kaygin E. An application on academic staff to determine burnout and job satisfaction levels. J Social Hum Sci. 2012;4(1):23-32.
- 81. Yorulmaz YI, Colak I, Altinkurt Y. A meta-analysis of the relationship between teachers' job satisfaction and burnout. *Eurasian J Educ Res*. 2017;17(71):175–192. doi:10.14689/ejer.2017.71.10
- 82. Piko B. Burnout, role conflict, job satisfaction and psychological health among Hungarian health care staff: a questionnaire survey. *Int J Nurs Stud.* 2006;43:311–318. doi:10.1016/j.ijnurstu.2005.05.003
- 83. Çimen M, Şahin B, Akbolat M, Işık O. A study on the burnout and job satisfaction levels of personnel working in a private care center. *Acibadem Univ J Health Sci.* 2012;3(1):21–23.
- 84. Işıkay C. The mediating role of organizational justice perception in the relationship between burnout and job satisfaction: a study on nurses. *J Int Social Res.* 2019;12(63):1075–1084. doi:10.17719/jisr.2019.3299

85. Uzunkaya SO. The Relationship Between Burnout and Job Satisfaction Levels of Nurses and Their Quality of Work Life [Master's thesis]. Istanbul: Halic University Institute of Health Sciences; 2010.

- 86. Krejcie RV, Morgan DW. Determining sample size for research activities. Educ Psychol Meas. 1970;30(3):607–610. doi:10.1177/001316447003000308
- Gencay OA. Investigation of physical education teachers' job satisfaction and occupational burnout in terms of some variables. Kastamonu J Educ. 2007;15(2):765–780.
- 88. Ulucan H, Adiloğulları İ, Ünver D. Examination of the relationship between occupational burnout and job satisfaction of professional football players. *J Phys Educ Sport*. 2014;8(1):93–103.
- 89. Öztürk Z, Çelik G, Örs E. The relationship between burnout and job satisfaction in healthcare professionals: a public hospital example. *Int J Health Manag Strategies Res.* 2020;6(2):328–349.
- 90. Avşaroğlu S, Deniz M, Kahraman A. Investigation of life satisfaction, job satisfaction and occupational burnout levels of technical teachers. Selcuk Univ J Social Sci Inst. 2005;14:115–129.
- 91. Cagan O, Gunay O. The job satisfaction and burnout levels of primary care health workers in the province of Malatya in Turkey. *Pak J Med Sci.* 2015;31(3):543. doi:10.12669/pjms.313.6795
- 92. Glasberg AL, Eriksson S, Norberg A. Burnout and 'stress of conscience' among healthcare personnel. J Adv Nurs. 2007;57(4):392–403. doi:10.1111/j.1365-2648.2007.04111.x
- 93. Kiekkas P, Spyratos F, Lampa E, Aretha D, Sakellaropoulos GC. Level and correlates of burnout among orthopaedic nurses in Greece. *Orthop Nurs*. 2010;29(3):203–209. doi:10.1097/NOR.0b013e3181db53ff
- 94. Popa F, Arafat R, Purcărea VL, Lală A, Popa-Velea O, Bobirnac G. Occupational burnout levels in emergency medicine-a stage 2 nationwide study and analysis. *J Med Life*. 2010;3(4):449.
- 95. Sharma A, Sharp DM, Walker LG, Monson JR. Stress and burnout in colorectal and vascular surgical consultants working in the UK National Health Service. *Psycho-Oncology*. 2008;17(6):570–576. doi:10.1002/pon.1269
- 96. Pavelková H, Bužgová R. Burnout among healthcare workers in hospice care. Cent Eur J Nurs Midwifery. 2015;6(1):218–223. doi:10.15452/CEJNM.2015.06.0006
- 97. Molero Jurado MD, Pérez-Fuentes MD, Gázquez Linares JJ, Simón Márquez MD, Martos MÁ. Burnout risk and protection factors in certified nursing aides. *Int J Environ Res Public Health*. 2018;15(6):1116. doi:10.3390/ijerph15061116
- 98. Shahnazi H, Daniali SS, Sharifirad G. Job satisfaction survey among health centers staff. *J Educ Health Promot*. 2014;3. doi:10.4103/2277-9531 127546
- 99. Atif K, Khan HU, Maqbool S. Job satisfaction among doctors, a multi-faceted subject studied at a tertiary care hospital in Lahore. *Pak J Med Sci*. 2015;31(3):610. doi:10.12669/pjms.313.7402
- 100. Al-Eisa IS, Al-Mutar MS, Al-Abduljalil HK. Job satisfaction of primary health care physicians at capital health region, Kuwait. Middle East J Fam Med. 2005;3(3):1.
- 101. Chamberlain SA, Hoben M, Squires JE, Estabrooks CA. Individual and organizational predictors of health care aide job satisfaction in long term care. *BMC Health Serv Res.* 2016;16(1):1–9. doi:10.1186/s12913-016-1815-6
- 102. Ozyurt A, Hayran O, Sur H. Predictors of burnout and job satisfaction among Turkish physicians. J Assoc Physicians. 2006;99(3):161-169.
- 103. Lim RCH, Pinto C. Work stress, satisfaction and burnout in New Zealand radiologists: comparison of public hospital and private practice in New Zealand. *J Med Imaging Radiat Oncol*. 2009;53(2):194–199. doi:10.1111/j.1754-9485.2009.02063.x
- 104. Böhle A, Baumgärtel M, Götz ML, Müller EH, Jocham D. Burn-out of urologists in the county of Schleswig-Holstein, Germany: a comparison of hospital and private practice urologists. J Urol. 2001;165(4):1158–1161. doi:10.1016/S0022-5347(05)66454-3
- 105. Kosan Z, Calikoglu EO, Guraksin A. Levels of burnout and their associated factors among physicians working in Northeast Anatolia. *Niger J Clin Pract*. 2018;21(7):875–881. doi:10.4103/njcp.njcp_298_17

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