

# Evaluation of burnout and job satisfaction among family physicians working in the earthquake region

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## ABSTRACT

**Aims:** The study aims to determine and evaluate the levels of professional burnout and job satisfaction among family physicians working in Adıyaman. We aimed to evaluate the factors affecting these levels.

**Methods:** This research is a descriptive cross-sectional study. 185 family physicians (86%) agreed to participate in the survey. The survey was added to Google Forms, and the link to the survey was sent to individuals' personal emails after obtaining verbal consent via cell phones. After verbal verification, data were collected via Google Forms between March 15, 2024, and May 15, 2024.

**Results:** Family physicians working in towns and villages experience lower levels of burnout and higher job satisfaction ( $p < 0.001$ ). Additionally, we found that physicians with lighter work demands ( $p < 0.001$ ), those who perceive the payment system as fairer ( $p = 0.003$ ,  $p < 0.001$ ), those who feel less stressed ( $p < 0.001$ ), and those who maintain a hopeful outlook on the future ( $p < 0.001$ ), also experience reduced burnout and increased job satisfaction.

**Conclusion:** The study identified that factors such as the geographical location where family physicians practice, their workload, and the physical condition of their work environment, alongside psychosocial factors like their sense of security, professional satisfaction, and perceived stress levels, significantly impact occupational burnout and job satisfaction. To enhance the effectiveness and longevity of the family medicine system, which is pivotal in primary health care, it is crucial to consider improvements in physical conditions and psychological and social well-being.

**Keywords:** Family medicine, burnout, professional satisfaction

## INTRODUCTION

Family physicians' job satisfaction and burnout significantly impact their personal and professional lives. Job satisfaction reflects individuals' overall attitudes toward their jobs and is influenced by various elements.<sup>1</sup> Identifying job satisfaction and burnout levels is crucial for improving the quality of healthcare services and ensuring the well-being of healthcare professionals.<sup>2</sup> The Maslach Burnout Inventory (MBI) is one of the most frequently used measurement tools in this field and is widely used to assess the burnout levels of healthcare workers.<sup>3,4</sup>

Family physicians' work environments and demands significantly impact their job satisfaction and burnout. Studies have shown that increased work demand and inadequate working conditions lead to high levels of burnout and low job satisfaction among healthcare professionals.<sup>5,6</sup> Notably, there are significant differences in job satisfaction and burnout levels between physicians working in rural and urban areas.<sup>7</sup> Physicians working in rural areas often experience higher

job satisfaction and lower burnout due to lower population density and less complexity. In contrast, those in urban areas face higher work demands and stress.<sup>8,9</sup>

Other important factors affecting family physicians' job satisfaction and burnout include physical workplace conditions, performance evaluation systems, and professional expectations.<sup>10,11</sup> Well-equipped and ergonomic working environments enable physicians to perform their jobs more comfortably and efficiently.<sup>12</sup> Similarly, fair and transparent performance evaluation systems can increase physicians' motivation and job satisfaction.<sup>13</sup> Managing healthcare professionals' job-related expectations and providing a positive outlook for the future can enhance job satisfaction and reduce burnout.<sup>14,15</sup>

Recent studies also highlight the complex relationship between job satisfaction, burnout, and healthcare outcomes. High levels of burnout are associated with reduced job performance and patient care quality. In contrast, interventions aimed at

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improving workplace support and reducing job stress have been shown to enhance job satisfaction and lower burnout rates among healthcare workers.<sup>16,17</sup> Moreover, fostering a supportive work environment and encouraging work-life balance are essential strategies to mitigate burnout and enhance job satisfaction among physicians, as evidenced by recent literature.<sup>18</sup>

Determining family physicians' satisfaction and burnout levels working in earthquake zones and understanding the sociodemographic characteristics affecting these factors can improve healthcare professionals' general health and working conditions after a disaster. Improvements made in this regard can support healthcare professionals in providing more efficient and satisfying services, thereby positively contributing to public health. In Türkiye, primary health care services are delivered by two main groups of physicians: general practitioners, who undergo six years of medical education, and family physicians, who complete an additional three years of specialized training following their initial medical education.<sup>19</sup> This study aims to determine the working conditions, work demand, professional satisfaction, and burnout levels of family physicians working in earthquake-affected zones who experienced the 2023 Türkiye earthquake centered in Kahramanmaraş and the factors affecting these aspects.

## METHODS

This research is a descriptive cross-sectional study. Ethical approval for the study was obtained from the Ethics Committee of Ankara University (Date: 03.04.2024, Decision No: 06/29). All procedures were carried out in accordance with the ethical rules and the principles of the Declaration of Helsinki. The aim was to reach all 215 family physicians in Adıyaman province, with no sampling calculated. However, 185 family physicians (86%) agreed to participate in the survey. The survey was added to Google Forms, and the link to the survey was sent to individuals' emails after obtaining verbal consent via cell phones. After verbal verification, data were collected via Google Forms between March 15, 2024, and May 15, 2024. No time limit was applied when answering the survey.

The survey consists of four sections: The first section, 'Demographic Information Form,' has 11 questions; the second section has 11 questions related to family medicine; the third section, MBI has 22 items; and the fourth section, 'Job Satisfaction Scale,' has 36 items.

To determine the job satisfaction of family physicians, a survey developed by Paul E. Spector in 1997 consisting of 9 dimensions (salary, promotion, supervisors, fringe benefits, contingent rewards, operating conditions, coworkers, nature of work, communication) and 36 items was used.<sup>1</sup> This survey was adapted to Turkish by Yelboğa<sup>2</sup> in 2009, with a Cronbach's alpha reliability coefficient of 0.78. The six-point Likert scale ranges from "strongly disagree" to "strongly agree." The minimum score from the scale is 36, and the maximum score is 216; there is no specific cut-off point for the scale, with higher scores representing higher job satisfaction. Negative item scores were reversed and combined with positive items.

The Burnout inventory, developed by Maslach and Jackson<sup>3</sup> in 1981, is a seven-point Likert-type scale. Translated into Turkish by Ergin in 1992, this scale adjusts the original seven-point response options to range from "0 never" to "4 always." The scale is divided into three sub-dimensions: emotional exhaustion (9 questions), depersonalization (5 questions), and reduced personal accomplishment (8 questions). Emotional exhaustion is scored between 0-36, depersonalization between 0-20, and reduced personal accomplishment between 0-32. The total scale score determines the level of burnout. Questions in the reduced personal accomplishment sub-dimension are reverse-scored, and the higher the scores in emotional exhaustion and depersonalization, the higher the level of burnout; the higher the score in the reduced personal accomplishment dimension, the lower the sense of personal accomplishment.<sup>4</sup>

## Statistical Analysis

Analyses in the study were performed using SPSS for Mac 29 and Jamovi 2.4 (The Jamovi project, 2023). Descriptive statistics were summarized using mean  $\pm$  standard deviation, median, number, and percentage values. Normal distribution was assessed with Shapiro-Wilk tests. Student's t-test, One Way ANOVA, or Welch's t-test were applied for the analysis of continuous variables with normal distribution. For continuous variables not normally distributed, the Mann-Whitney U test and the Kruskal-Wallis test were used. Bonferroni and Tamhane's T2 corrections were employed in post-hoc analyses. Correlation between scale scores was evaluated using Pearson and Spearman correlation tests, depending on the distribution. A p-value of  $<0.05$  was considered statistically significant.

## RESULTS

Most participants (83.8%) are general practitioners, and 69.7% are male. The average age of the participants is  $38.9 \pm 8.9$  years, while the average professional experience is  $12.9 \pm 9.1$  years, and the average professional experience in family medicine is  $7.4 \pm 5.3$  years. 80.5% of the participants are married, and 53.5% work in the city center. The average emotional exhaustion score of the participants is  $20.3 \pm 7.7$ , the average depersonalization score is  $6.8 \pm 3.6$ , the average personal accomplishment score is  $19.3 \pm 4.1$ , and the average Maslach burnout score is  $46.5 \pm 9.5$ . The average job satisfaction score is  $111.2 \pm 25.8$ .

The Cronbach's alpha coefficient of the Maslach Scale is 0.91, and for the job satisfaction scale, it is 0.80.

According to the workplace, the Maslach burnout score of physicians working in towns was significantly lower compared to those working in provincial and district centers (town-provincial  $p < 0.001$ , town-district  $p = 0.003$ ) (Table 1).

There was a statistically significant difference in the Maslach burnout score among those who found the physical conditions at their workplace sufficient, insufficient, or undecided. However, post-hoc analysis revealed no statistically significant differences between these three groups. The Maslach burnout score showed significant differences based on opinions about family medicine practice. Those who rated family medicine practice as poor or very poor had significantly different

**Table 1. The relationship between the participants' Maslach burnout scale and job satisfaction and their sociodemographic characteristics**

		n	%	Maslach burnout		Job satisfaction	
				Mean±SD	p-value	Mean±SD	p-value
Occupation	General practitioner	155	83.8	46.7±9.3	0.484	111.4±25.8	0.779
	Family medicine specialist	30	16.2	45.4±10.5		110±26.6	
Gender	Male	129	69.7	46.9±9.8	0.339	110.3±27.8	0.461
	Female	56	30.3	45.5±8.9		113.1±20.6	
Marital status	Married	149	80.5	46.5±9.7	0.874	110.8±25.7	0.438
	Single	33	17.8	46.6±8.7		114.2±26.6	
	Divorced/widowed	3	1.6	43.6±9.6		95±23.8	
	No	15	8.1	49.9±8.7		102.5±24.8	
Workplace	City center	99	53.5	47.5±8.9	<0.001	108.6±25.0	<0.001
	District center	49	26.5	48.3±10.9		105.1±26.1	
	Town/village	37	20.0	41.4±7.6		126.1±22.7	
Total years in profession	10 years or less	94	50.8	45.8±9.9	0.317	113.1±25.0	0.307
	More than 10 Years	91	49.2	47.2±9.1		109.2±26.7	
Years as family physician	6 years or less	96	51.9	45.2±9.6	0.064	113.7±25.7	0.174
	More than 6 Years	89	48.1	47.8±9.3		108.5±25.8	

SD: Standard deviation

burnout scores compared to those who rated it as good or very good (very good-poor  $p=0.010$ , very good-very poor  $p<0.001$ , good-very poor  $p<0.001$ , good-poor  $p<0.001$ , undecided-very poor  $p=0.003$ ) (Table 2).

The burnout score also varied significantly with the physicians' work demands. Physicians who thought their work demands were too heavy had significantly higher burnout scores than those who found their work demands manageable ( $p<0.001$ ). Similarly, those who perceived their job stress as higher than necessary had significantly higher burnout scores ( $p<0.001$ ). Future expectations influenced burnout scores, with decreasing optimistic expectations leading to significantly higher burnout scores compared to unchanged or increasing expectations (unchanged-decreased  $p<0.001$ , increased-decreased  $p=0.002$ ) (Table 2).

Job satisfaction scores differed significantly with workload, with lower scores for those feeling their workload was too heavy ( $p<0.001$ ). Higher perceived job stress also led to significantly lower job satisfaction ( $p<0.001$ ). Future expectations influenced job satisfaction, with decreasing optimism leading to lower scores ( $p<0.001$ ) (Table 2).

## DISCUSSION

Our study has detailed factors affecting family physicians' job satisfaction and burnout. The findings obtained from family physicians working in Adiyaman, Türkiye, which has just passed the one-year mark since experiencing a major earthquake, can mainly shed light on projects to be developed related to primary healthcare services post-disaster.

The present study found that physicians working in small towns had significantly lower emotional exhaustion scores, depersonalization scores, and Maslach burnout scores than those working in provincial and district centers; their job satisfaction scores were significantly higher. Physicians working in smaller and quieter settlements might be less affected by high work demand and stress. This finding is

consistent with the literature, indicating that healthcare professionals working in areas with lower population density and less complexity may have higher job satisfaction.<sup>7</sup> The ability to establish closer and more personal relationships with the community in rural areas might increase professional satisfaction for physicians.

The present study found that those who considered the physical conditions at their workplace inadequate had significantly higher burnout scores and lower job satisfaction scores than those who found them adequate. These findings are consistent with a study conducted by Aras et al.<sup>8</sup> in 2018. Inadequate physical conditions can increase physicians' stress levels and decrease job satisfaction. It is known that well-equipped and ergonomic working environments enable physicians to perform their jobs more comfortably and efficiently. Increasing the operating expenses provided for the construction or rental of family health centers by the state could address this issue.

In the present study, those who rated the family medicine practice as poor or very poor had significantly higher burnout scores and lower job satisfaction scores than those who rated it as good or very good. As highlighted in Yılmaz's<sup>9</sup> study, these findings indicate the need to develop new projects to address the shortcomings of the family medicine practice by considering the demands of healthcare professionals.

In the present study, those who felt they could not handle the work demand had significantly higher burnout and lower job satisfaction scores than those who felt they could handle the work demand or found it manageable. Excessive work demands can negatively affect healthcare professionals' physical and mental health, reducing productivity and impacting the quality of patient care. These findings are consistent with the results presented by West et al.,<sup>10</sup> and Dyrbye et al.<sup>11</sup> Implementing new regulations to reduce the work demand of family physicians would increase satisfaction for both family physicians and their patients.

**Table 2. The relationship between the participants' Maslach burnout scale and job satisfaction and several variables**

		n	%	Maslach burnout		Job satisfaction	
				Mean±SD	p-value	Mean±SD	p-value
Are the physical conditions at your workplace adequate?	Yes	71	38.4	44.8±10.7	0.020	118.0±25.6	0.001
	No	98	53.0	48.3±8.5		104.7±24.9	
	Undecided	16	8.6	43.1±8.1		120.3±23.7	
How do you find the family medicine practice?	Very bad	18	9.7	56.6±6.0	<0.001*	80.7±12.9	<0.001
	Bad	42	22.7	50.7±7.7		94.7±21.0	
	Good	78	42.2	42.3±8.0		125.1±19.9	
	Very good	11	5.9	41.8±7.8		133.6±21.7	
	Undecided	36	19.5	46.9±10.5		108.7±22.6	
How do you assess your workload?	Less than you can handle	11	5.9	41.5±12.7	<0.001	133.0±29.2	<0.001
	As much as you can handle	73	39.5	42.0±7.5		122.8±19.9	
	More than you can handle	101	54.6	50.3±8.8		100.4±24.3	
How do you assess your job stress?	None	5	2.7	47.2±13.8	<0.001	141.4±34.1	<0.001
	As much as it should be in work life	87	47.0	41.1±7.3		123.0±20.9	
	Too much	93	50.3	51.5±8.4		98.5±23.1	
How have your future expectations changed since starting work as a family physician?	Decreased	107	57.8	49.8±9.2	<0.001	101.1±24.3	<0.001
	Unchanged	56	30.3	41.6±8.1		123.2±22.3	
	Increased	22	11.9	42.6±7.6		129.8±17.7	
Do you feel secure as a family physician?	Yes	26	14.1	37.4±9.2	<0.001	140.3±18.7	<0.001
	No	136	73.5	49.1±8.5		102.4±22.6	
	Undecided	23	12.4	41.2±6.9		130.0±14.7	
Do you think the performance evaluation system is fair?	Yes	16	8.6	40.9±12.8	0.003*	133.5±17.6	<0.001
	No	138	74.6	47.9±9.2		105.2±25.5	
	Undecided	31	16.8	43.2±7.0		126.2±17.5	
With which group do you face the most issues in your professional communication?	Patients and their relatives	127	68.6	47.4±9.6	0.085	110.6±26.5	0.057
	Supervisors	44	23.8	45.2±8.6		107.8±23.9	
	Colleagues	14	7.6	42.0±10.1		126.5±22.0	
Do you think working as a family physician has contributed to your medical notion?	Yes	98	53.0	44.1±9.1	0.001	119.5±24.9	<0.001
	No	59	31.9	49.6±10.3		97.9±21.9	
	Undecided	28	15.1	48.3±6.6		110.1±25.9	
If you were a new graduate from medical school, would you join the family medicine system under the current conditions?	Yes	77	41.6	42.1±8.7	<0.001	125.1±21.2	<0.001
	No	74	40.0	50.6±9.4		97.5±23.9	
	Undecided	34	18.4	47.4±7.3		109.2±23.5	
Are you considering leaving your current job?	Yes	69	37.3	52.5±8.1	<0.001	95.2±21.9	<0.001
	No	75	40.5	41.0±8.8		125.6±23.0	
	Undecided	41	22.2	46.2±6.7		111.5±21.1	
Do you think the medical profession suits your personality?	Yes	122	65.9	45.2±9.5	0.022	116.1±25.7	<0.001
	No	32	17.3	50.1±10.2		93.9±24.0	
	Undecided	31	16.8	48.0±7.7		109.5±20.2	

SD: Standard deviation

Consistent with the study by Selamu et al.,<sup>12</sup> the present study found that those who considered work stress to be more than it should be had significantly higher burnout scores and lower job satisfaction scores compared to those who found work stress to be at an appropriate level. Stress management and supportive working environments can help physicians

experience less burnout and more job satisfaction.<sup>10,11</sup> Regular training and seminars organized by the Ministry of Health to help family physicians cope with stress would be beneficial, and including nurses and other staff working in the family health centers in these training sessions could improve efficiency.



Parallel to West's<sup>13</sup> study, the present study found that family physicians with decreased optimistic expectations for the future had significantly higher burnout scores and lower personal accomplishment and job satisfaction scores than others. Managing professional expectations and providing a positive outlook for the future can increase job satisfaction and reduce burnout for family physicians.<sup>9</sup> Special regulations for family physicians in earthquake-affected areas like Adıyaman, where the effects of the 2023 Türkiye earthquake are still evident, could provide a solution.

In the present study, family physicians who did not feel secure had significantly higher burnout scores and lower personal accomplishment and job satisfaction scores than others. These findings are similar to Rassolian et al.<sup>14</sup> Ensuring physicians feel secure at their workplace can help them perform better and experience less burnout. Preventing violence in healthcare can make healthcare professionals feel more secure and increase their productivity.

In the present study, those who found the performance system in family medicine unfair had significantly higher burnout scores and lower job satisfaction scores than others. These findings align with the results of a study conducted by Cagan et al.<sup>15</sup> Physicians who find the performance system unfair have higher burnout and lower job satisfaction scores, highlighting the impact of performance evaluation systems on healthcare professionals. A fair and transparent performance evaluation system can increase physicians' motivation and job satisfaction.<sup>9</sup>

In the present study, those who felt working in family medicine did not contribute to their medical notion had significantly higher burnout scores and lower personal accomplishment and job satisfaction scores than those who felt it contributed to their medical notion. A work environment where prioritizing professional meaning and personal contribution can increase physicians' job satisfaction. Our findings, in line with West et al.'s<sup>10</sup> study, indicate the need for new regulations for family medicine practice.

Consistent with the study by Altan and Şahin,<sup>20</sup> the present study found that those who would still choose family medicine if newly graduated had significantly lower burnout scores and higher job satisfaction scores than those who would not choose it again or were undecided. Our study shows that being satisfied with their career choice can make physicians more committed and motivated in their work. Creating opportunities for medical students to get to know different specialties better during their education could help them make informed choices for personal and professional satisfaction.<sup>21</sup>

Consistent with the study by Wang et al.,<sup>22</sup> those who considered quitting their job had higher burnout scores and lower job satisfaction scores compared to those who did not consider quitting or were undecided. Measures to increase job satisfaction in earthquake-affected areas could reduce the intention of physicians to leave their profession and prevent burnout.

In the present study, those who felt that the medical profession suited their personality had significantly lower burnout scores

and higher personal accomplishment and job satisfaction scores than those who felt it did not suit their personality or were undecided. The alignment between personal skills and professional expectations can help physicians find more satisfaction in their work. Therefore, projects that help children and adolescents choose careers suited to their abilities and interests should be developed before university. The pre-university education curriculum could be revised to help students better understand themselves.<sup>23</sup>

### Limitations

The survey was administered via a participation link sent to the participants' email addresses rather than through face-to-face interactions. Consequently, it is assessed that data security was adequately maintained. However, since the study was confined to the Adıyaman province, the results cannot be generalized to a broader population. Further research in this area is needed to provide insights that can lead to more effective and satisfactory practices for physicians.

## CONCLUSION

The study identified that factors such as the geographical location where family physicians practice, their workload, and the physical condition of their work environment, alongside psychosocial factors like their sense of security, professional satisfaction, and perceived stress levels, significantly impact occupational burnout and job satisfaction. To enhance the effectiveness and longevity of the family medicine system, which is pivotal in primary health care, it is crucial to consider improvements in physical conditions and psychological and social well-being.

## ETHICAL DECLARATIONS

### Ethics Committee Approval

Ethical approval for the study was obtained from the Ethics Committee of the Ankara University (Date: 03.04.2024, Decision No: 06/29).

### Informed Consent

All individuals verbally consent to participate in the study.

### Conflict of Interest Statement

The authors have no conflicts of interest to declare.

### Financial Disclosure

The authors declared that this study has received no financial support.

### Data Availability Statement

Data will be available upon reasonable request from the corresponding author.

### Author Contributions

All the authors declare that they have all participated in the design, execution, and analysis of the study and that they have approved the final version.

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