



# The Relationship between Job Satisfaction and Professional Ethics among the Iranian Physicians: A Cross-Sectional Study

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## Abstract

**Background:** Job dissatisfaction among physicians leads to reduced quality of medical services and patient dissatisfaction. Adherence to professional ethics within medical groups can play a leading role in patient satisfaction and, ultimately, increase physicians' motivation and enthusiasm. This study was conducted to assess physicians' job satisfaction and professional ethics.

**Methods:** In total, 130 physicians working at Sayad Shirazi, 5 Azar, and Taleghani hospitals in Gorgan participated in the study in 2023. The sampling method in this study was stratified random sampling. The data were collected using Akbari's Professional Ethics Questionnaire and Alaghemand's Occupational Satisfaction Questionnaire. Data analysis was performed using Pearson correlation coefficients, independent t-tests, and one-way analysis of variance in SPSS version 23.

**Results:** The average age of the physicians participating in the study was  $40.76 \pm 6.86$  years. In total, 85 (65.4%) of the participants were female. The average overall job satisfaction score was  $84.31 \pm 11.22$  (out of 135), and the average overall professional ethics score was  $78.73 \pm 6.90$  (out of 100). A statistically significant positive relationship was observed between job satisfaction and professional ethics of physicians ( $r=0.4$ ;  $P$  value=0.001).

**Conclusion:** The job satisfaction of the studied physicians was evaluated at a lower than average level and the professional ethics of physicians was evaluated at a higher than average level, and as the job satisfaction of physicians increases, their professional ethics also increases. Therefore, in order to be able to increase the level of professional ethics of physicians, university and hospital managers should pay more attention to their job satisfaction and provide mechanisms to improve it. In this regard, necessary training and incentives should be provided at the beginning and during service.

**Keywords:** Job satisfaction, Ethics, Physicians, Hospitals

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## Introduction

Human resources constitute the foundation of healthcare services, representing one of the organization's most valuable assets and critical contributors to overall productivity (1-2). Job satisfaction (JS) is defined as an individual's attitudes due to job experiences (3).

JS may improve not only physicians' personal health but also the quality of patient care (4). Physicians who are more satisfied with their jobs exhibit greater work commitment and higher productivity (5). Dissatisfaction was a predictor of prescribing drugs with more side effects (6). Dissatisfaction is also a reason for leaving medical work (7) or starting a new overseas (8).

Morality is a set of spiritual and inner qualities of a human being that appear in the form of actions and behaviors that arise from the inner nature of man (9). In the professional dimension, ethics are the rules and the standards that are enacted in a profession and direct

the behavior of staff in their performance capacity area (10). Professional ethics (PEs) are standards that regulate the behavior of individuals or groups in professional settings. It, like values, provides guidance on how a person responds to others and surrounding organizations, and is often defined as a set of rules that a specified group of people follows. (11).

Professional ethics serve as a powerful motivator, significantly enhancing job satisfaction. According to the principles of organizational socialization, the deeper employees integrate professional ethics into their workplace identity and embrace these values as part of themselves, the greater their overall job satisfaction tends to be (12).

Physicians often experience conditions in which their professional operation is merged with moral consideration arising from other domains of the physician's life sphere, such as family and friends, or from general morality



relevant to all humans. (13). Physicians' PEs have a significant position in the current health care disputes, such as research ethics, Artificial Intelligence, end-of-life matters, biosecurity or pandemic planning (14-15).

Low JS compromises loyalty and performance in adhering to ethical standards. Ethics and JS are closely linked, but studies are typically concentrated on one side of this influence: ethics on JS. Although this area of research is essential, few studies have examined the relationship between professional ethics and job satisfaction, particularly within the medical profession. Therefore, in the current study, we aim to elucidate the bidirectional relationship between PEs and JS among physicians working in teaching hospitals, which has been largely overlooked or given insufficient attention in prior studies.

## Methods

### *Study design, setting, and participants (including inclusion criteria)*

In this cross-sectional survey, physicians working in teaching hospitals in Gorgan, Golestan Province, Iran, were included: specialists, faculty and non-faculty members, General Practitioners (GPs), and Medical residents. In total, 130 physicians working at Sayad Shirazi, 5 Azar, and Taleghani hospitals in Gorgan participated in the study in 2023.

### *Sample size and sampling method*

To estimate the sample size to determine the relationship between physicians' job satisfaction and professional ethics, given that the correlation coefficient between the general items of the questionnaire was estimated to be 0.3 according to a similar study (16), and considering the probability of a type I error of 0.05 and a power of 0.90, and also adding 5% for greater certainty according to the standard formula below (sample size formula for correlation studies), the required sample size was determined to be 130 people.

$$n = \frac{(Z_{1-\frac{\alpha}{2}} + Z_{1-\beta})^2}{(\omega)^2} + 3$$

$$\omega = \frac{1}{2}Ln \frac{1+r}{1-r}$$

The sampling method in this study was a stratified random method. Within each stratum, participants were selected via simple random sampling, in which lots were drawn from a list of physicians at each hospital. Individuals were included in the study by considering the inclusion and exclusion criteria. Inclusion criteria included willingness to participate in the study and informed consent. Exclusion criteria included failure to complete the questionnaire correctly.

### *Data collection tools and methods*

A 3-part questionnaire was used for data gathering. The first part presents the participants' demographic characteristics (Age, gender, marital status, work experience, type of employment, and faculty status). The second part comprises the Physicians' Job Satisfaction Questionnaire (PJSQ), developed by Alaghemand et al (17). To measure physicians' job satisfaction (PJS). The PJSQ is a Likert-type questionnaire comprised of 27 items, each rated on a scale from 1 (very low) to 5 (very much). The items in this inventory are subdivided into six categories: Communication with the patient, Communication with the staff, Management, Communication with colleagues, Satisfaction with the medical profession, and Satisfaction with income. The total score of the questionnaire ranges from 27 to 135.

The third part involves the Physicians' Professional Ethics Questionnaire (PPEQ), which was developed by Akbary Borang et al (18). This section has 20 items that measure five dimensions. The PPEQ employs a Likert-type scale. The scale ranges from "1" to "5", with each number representing a different level of agreement or disagreement. The items in this inventory are subdivided into 5 categories: physician and community; communication with the colleague; secrecy; education and research; and the financial relationship between physician and patient. Participants are asked to rate their agreement with various statements regarding their PPEs. Higher scores indicate greater PEs, and the total score is calculated by summing the individual item scores, providing an overall measure of PEs for participants. The total score of the questionnaire ranges from 20 to 100.

Also, the reliability of the scales in this study was confirmed by Cronbach's alpha coefficient (0.78 for PJSQ and 0.71 for PPEQ).

### *Data analysis*

To analyze the data, descriptive statistics (frequencies and percentages for qualitative data; means and standard deviations for quantitative data) and Pearson correlation coefficients were computed using SPSS version 23. To normalize the scores of some research dimensions for better interpretation of the results and comparison with other dimensions, first the difference between the average scores of each person was obtained from the lowest score and then divided by the range of scores, resulting in a number between 0 and 1, and a score of 0.5 was considered as the average score.

## Results

In total, 85 (65.4%) of the physicians were female. The mean age was  $40.76 \pm 6.86$  (26-56); The average work experience was  $10.86 \pm 6.63$  (1-25); 109 (83.8%) of the participants were married; 96 (73.8%) of the participants are medical specialists. Regarding the employment type,

95 (73.1%) are officially employed and 35 (26.9%) are per-case and other forms of employment. Table 1 shows the socio-demographic characteristics of the physicians.

As shown in Table 2, the average PJS score is  $0.47 \pm 0.22$  (below average), whereas the average PPE score is  $0.65 \pm 0.17$  (above average). This table shows that, among the PJS dimensions, the highest and lowest scores are for “communication with colleagues” ( $0.52 \pm 0.19$ ) and “satisfaction with income” ( $0.31 \pm 0.27$ ), respectively. The same ranking for PPE dimensions is observed for “physician and community” ( $0.80 \pm 0.21$ ) and “financial relationship between physician and patient” ( $0.62 \pm 0.22$ ). Based on Table 3, the total score of PJS has a direct

significant relationship with the total score of PPE. The total PJS score shows significant direct relationships with all dimensions except “physician and community” and “secrecy.” On the other hand, total score of PPE has significant direct relationship with all dimensions except “satisfaction with income”.

**Discussion**

Results demonstrated that PEs are at a moderate level. This finding is consistent with the results reported by Banihashemi et al (19) and Bahar-Moghaddam et al (20) but the level of job satisfaction was reported to be higher in the studies of Faghieh Abdollahi (21) and Mohammadi et al (22).

Results demonstrated that JS is at a low level in the study population. The results of Mohammadi et al which indicate that JS is weak, are consistent with those of the current study (22). Consistent with current research, Kowal et al found that IT professionals in Poland are only marginally satisfied with their jobs (23). Low satisfaction rates may be attributable to long-term exposure of physicians to a stressful work environment, which, in turn, leads to burnout, a significant factor in reducing JS. According to a study by Kabir et al there is a substantial relationship between JS and job burnout (24).

“Communication with Colleagues” received the highest ratings among the dimensions of JS. This finding is consistent with the study of Goetz (25) and inconsistent with the study of Kamalasalvi and Mahalakshmi (26). Stobbe and colleagues also demonstrated that physicians who receive regular feedback from their colleagues tend to experience higher levels of job satisfaction(27).

The lowest score across the various aspects of job satisfaction was observed for the dimension of “Satisfaction with income.” According to Herzberg’s theory, earning an income does not inherently lead to satisfaction; however,

**Table 1.** Distribution of demographic characteristics of physicians participating in the study in 2023

Variables	Frequency	Percent	PJS Mean ± SD	PPE Mean ± SD
<b>Gender</b>				
Male	45	34.6	84.64 ± 12.60	77.67 ± 7.19
Female	85	65.4	84.14 ± 10.50	79.29 ± 6.86
<b>Job title</b>				
Specialist	96	73.9	85.74 ± 10.22	79.02 ± 6.52
Resident	28	21.5	89.83 ± 11.90	77.07 ± 7.80
General practitioner	6	4.6	89.84 ± 11.96	81.83 ± 9.81
<b>Employment</b>				
Officially employed	95	73.1	85.79 ± 10.30	78.89 ± 6.51
Others	35	26.9	80.44 ± 12.67	78.30 ± 8.22
<b>Marital status</b>				
Single	21	16.2	87.09 ± 15.65	79.19 ± 10.38
Married	109	83.8	83.78 ± 10.16	78.64 ± 6.20
<b>Faculty member</b>				
Yes	50	38.5	82.24 ± 8.45	76.94 ± 6.40
NO	80	61.5	85.61 ± 12.53	79.85 ± 7.15

**Table 2.** Descriptive indicators of the PJS & PPE in general and by dimensions in the physicians participating in the study in 2023

Variables	Mean	SD	Median	Min.	Max.	Normalization Mean ± SD
Satisfaction with income	8.93	4.33	8	4	20	0.31±0.27
Satisfaction with the medical profession	17.11	3	17	11	24	0.47±0.23
Communication with the colleague	13.5	2.06	13	10	20	0.35±0.21
PJS Management	14.16	2.91	14	8	20	0.51±0.24
Communication with the staff	15.16	1.89	15	10	20	0.52±0.19
Communication with the patients	15.43	3	15	9	22	0.49±0.23
Total scores of PJS	84.31	11.22	84	61	111	0.47±0.22
physician and community	13.35	1.68	14	7	15	0.80±0.21
Communication with the colleague	16.64	1.59	17	9	19	0.76±0.16
Secrecy	12	1.85	12	6	15	0.67±0.21
PPE Education and research	24.01	2.44	24	13	30	0.65±0.14
Financial relationship between physician and patient	12.71	3.11	12	4	18	0.62±0.22
Total scores of PPEs	78.73	6.99	84	61	111	0.65±0.17

**Table 3.** Correlation coefficient and significance level in examining the relationship between PJS and PPE and their dimensions

	Correlation coefficient and significance level	Physician Professional Ethics					Total scores of PPE
		Physician and community	Communication with the colleague	Secrecy	Education and research	Financial relationship between physician and patient	
Satisfaction with income	r	-0.144	0.100	-0.139	-0.109	0.447	0.122
	P value	0.102	0.260	0.115	0.217	<b>&lt;0.001</b>	0.205
Satisfaction with the medical profession	r	0.055	0.234	0.073	0.212	0.463	0.365
	P value	0.535	<b>0.007</b>	0.412	<b>0.016</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>
Communication with the colleague	r	0.109	0.199	0.160	0.282	0.437	0.407
	P value	0.216	<b>0.023</b>	0.069	<b>0.001</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>
Physician Job Satisfaction	r	-0.015	0.043	-0.029	0.064	0.442	0.209
	P value	0.562	0.630	0.746	0.470	<b>&lt;0.001</b>	<b>0.017</b>
Communication with the staff	r	0.113	0.148	0.325	0.369	0.207	0.368
	P value	0.119	0.093	<b>&lt;0.001</b>	<b>&lt;0.001</b>	<b>0.018</b>	<b>&lt;0.001</b>
Communication with the patients	r	0.014	0.029	0.131	0.274	0.255	0.254
	P value	0.875	0.745	0.137	<b>0.002</b>	<b>0.003</b>	<b>0.004</b>
Total scores of PJS	r	-0.011	0.181	0.078	0.219	0.596	0.400
	P value	0.898	<b>0.039</b>	0.380	<b>0.012</b>	<b>&lt;0.001</b>	<b>&lt;0.001</b>

Bold numbers are statistically significant

insufficient income can result in dissatisfaction (28).

Regarding professional ethics, the relationship between physicians and society received the highest ratings. As Gross (29) emphasizes, ethics is driven by the idea of being a responsible neighbor, a good community member, or a virtuous citizen, combined with a commitment to societal norms and authority. Salarvand et al (30) also highlighted that dedication to one's country and society constitutes a fundamental aspect of ethical conduct.

Among the aspects of professional ethics, the "financial relationship between physicians and patients" received the lowest scores. Medical tariffs are revised annually by the Supreme Insurance Council. However, the composition of this council means that the Iranian Medical System Organization lacks sufficient influence to effectively support the views of the medical community. Insurance organizations consistently face significant challenges, including numerous fragmented insurance funds and a lack of coordinated decision-making processes for healthcare financing. These issues lead to inefficiencies in health financing strategies (31).

The results indicated a clear and meaningful connection between job satisfaction and professional performance, with each positively influencing the other. Iqbal and colleagues found that higher levels of professional ethics are associated with greater job satisfaction. Similar conclusions have been drawn in various other studies (32-36). Additionally, research by Banihashemi et al (19) and Aghaei Motlaq (32) demonstrated a strong, direct, and significant link between ethical practices and employee job satisfaction. When employees perceive that ethics are upheld in their work environment, they tend to feel more

satisfied and content. In organizations where managers uphold ethical principles, performance evaluations are conducted fairly and transparently, with rewards and penalties that are appropriate and accepted by employees. This ethical approach fosters a sense of security among staff, thereby enhancing overall job satisfaction.

This study also encountered some limitations. In a cross-sectional investigation, it is inherently challenging to identify the key factors influencing outcomes definitively. Consequently, the findings serve as a foundation for future research and intervention efforts. Data collection relied on self-reported questionnaires, which may be subject to bias because participants may have been hesitant to respond honestly due to potential repercussions. To address this, participants were assured of their anonymity and confidentiality to encourage truthful responses.

For future studies, it is advisable to explore practical strategies to enhance physicians' job satisfaction and foster professional ethics through qualitative research. Additionally, developing targeted interventions to address these areas and periodically assessing their effectiveness will be essential for monitoring progress and making necessary improvements.

### Conclusion

The job satisfaction of the studied physicians was assessed as below average, whereas their professional ethics was evaluated as above average. As physicians' job satisfaction increases, their professional ethics also improve. Therefore, to enhance physicians' professional ethics, university and hospital managers should pay greater attention to job satisfaction and implement mechanisms to improve it. In

this regard, necessary training and incentives should be provided at the beginning and during service.

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#### Author's Contribution

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#### Availability of Data and Materials

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

#### Competing Interests

The authors have no conflicts of interest to declare.

#### Ethical Approval

The current study was approved by the Ethics Committee of Golestan University of Medical Sciences (IR.GOUMS.REC.1402.429). We obtained written informed consent from the participants. We also confirm that all methods were performed in accordance with the relevant guidelines and regulations, consistent with the principles outlined in the Declaration of Helsinki.

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