



ORIGINAL ARTICLE

# Malpractice fear and job satisfaction among final-year medical students: A cross-sectional study

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## Abstract

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This descriptive cross-sectional study aimed to examine the relationship between fear of malpractice and job satisfaction among final-year medical students who had completed their emergency medicine internship. The study was conducted during the 2024-2025 academic year at a single medical faculty and included 78 volunteer senior medical students. Data were collected through an online survey using a sociodemographic questionnaire, the Malpractice Fear Scale, and the Job Satisfaction Scale. Statistical analyses were performed using SPSS version 25.0 and included descriptive statistics, group comparisons, and Pearson correlation analysis. The results showed that fear of malpractice was highly prevalent among participants, with 60.3% reporting high levels of malpractice-related anxiety. A substantial proportion of students stated that concerns about potential complaints or lawsuits influenced their clinical decision-making and led to defensive medical practices, such as requesting additional tests or consultations. Despite the high level of malpractice fear, job satisfaction levels were generally moderate to high, and 44.9% of participants reported high job satisfaction. A negative but statistically insignificant correlation was found between fear of malpractice and job satisfaction ( $p=0.165$ ). These findings indicate that malpractice-related anxiety begins during undergraduate medical education, particularly in high-risk clinical settings such as emergency medicine, and may influence early

professional behavior. Although job satisfaction appears to be preserved, addressing malpractice fear during medical training is important. Educational interventions focusing on ethics, communication skills, medico-legal awareness, and patient safety may help reduce malpractice-related anxiety and support sustainable professional development.

## Introduction

The educational process for medical students is a complex journey shaped not only by academic knowledge but also by emotional resilience. Students approaching the final stage of their education, in particular, not only put their theoretical knowledge into practice during their clinical training period, when they actively participate in healthcare delivery, but also face intense psychological pressure. The fear of making mistakes during this process can trigger professional anxieties in students, leading to a decline in their job satisfaction levels [1,2].

Malpractice is defined as the situation where harm occurs to a patient as a result of healthcare professionals' practices that fall outside professional standards. Today, this phenomenon has become one of the most important legal issues facing healthcare services [3]. The increase in malpractice lawsuits in recent years has created serious pressure not only on physicians but also on medical students. This situation has led students to be more cautious in their clinical decision-making processes [4]. The defensive approach observed in clinical settings may lead students to request unnecessary tests or additional consultations [5]. Fear of malpractice not only causes such behavioral outcomes but may also affect job satisfaction, professional commitment, burnout levels, and psychological well-being [6].

In the literature, it has been reported that fear of malpractice reduces job satisfaction, particularly among emergency department physicians [7]. Similarly, studies conducted with nurses and medical students have revealed that concerns about malpractice are closely related to professional motivation and ethical decision-making processes [8,9]. Furthermore, extraordinary periods such as the COVID-19 pandemic have further intensified this fear among students, along with uncertainty and increased risk perception [10].

Ethical dilemmas, role ambiguities, inadequate counseling, and lack of support encountered by medical students during their clinical training are among the factors that trigger fear of malpractice. Such difficulties can also negatively affect students' professional satisfaction [11,12]. Defensive approaches observed in clinical practice settings can hinder students' professional identity development, leading to a decline in job satisfaction in the long term [12].

The aim of this study is to analyze the relationship between these two variables in medical interns and to reach conclusions that can guide medical education policies based on the findings.

## Materials and Methods

### Ethical approval

Ethical approval for this study was obtained from the Harran University Clinical Research Ethics Committee (Ethics Committee Approval No: HRU/25.14.75). All procedures were conducted in accordance with the ethical principles of the Declaration of Helsinki. Participation was voluntary, and anonymity and confidentiality of the participants were ensured throughout the study. Permission for the use of the Turkish versions of the measurement tools was obtained from the original authors via e-mail.



## Research design and participants

This study was designed as a descriptive, cross-sectional investigation to evaluate the relationship between fear of medical malpractice and job satisfaction among final-year medical students. The study population consisted of sixth-year medical students enrolled at a state university during the 2024–2025 academic year who had completed their emergency medicine internship. The aim was to include the entire target population. A total of 78 students who voluntarily agreed to participate and completed the questionnaire fully were included in the analysis.

## Data collection process

Data were collected using an online questionnaire created via the Google Forms platform. The survey link was distributed to eligible students through e-mail and social media channels. Prior to participation, students were informed about the purpose of the study and data privacy principles. The questionnaire was completed anonymously, and no identifying personal information was collected.

## Measurement tools

The data collection form consisted of three main sections:

**Sociodemographic information form:** This form included questions regarding age, gender, history of receiving malpractice-related training, experiences with complaints or lawsuits, and environmental exposure to malpractice-related issues.

**Malpractice Fear Scale (MFS):** The Malpractice Fear Scale was originally developed by Katz et al. and later adapted into Turkish by Uğrak and Işık [13,14]. The scale consists of six items rated on a 5-point Likert scale. Higher scores indicate greater fear of malpractice. In the present study, the Cronbach's alpha coefficient of the scale was 0.857.

**Job Satisfaction Scale (JSS):** The Job Satisfaction Scale was developed by Judge et al. and translated into Turkish by Keser and Öngen Bilir [15,16]. The short form of the scale consists of five items assessing overall job satisfaction, with higher scores indicating greater professional satisfaction. In this study, the Cronbach's alpha coefficient was 0.880.

## Statistical analysis

Data analysis was performed using the SPSS 25.0 program. Descriptive statistics including frequency, percentage, mean, and standard deviation were calculated. The distribution characteristics of the data were evaluated using the Kolmogorov–Smirnov test; the Mann–Whitney U test was used for variables that did not show a normal distribution, and the Independent Samples T Test was used for those that did. ANOVA was applied for comparisons between three or more groups, and the Tukey test was applied when significant differences were observed. The relationships between variables were examined using Pearson correlation analysis, and  $p < 0.05$  was accepted as the significance level.

## Results

The mean age of the 78 students participating in the study was found to be  $24.51 \pm 1.41$  years. Forty (51.3%) of the participants were female, and 38 (48.7%) were male. No significant difference was found in the mean malpractice fear scores according to gender ( $p=0.717$ ), nor was any difference observed in the job satisfaction scale scores according to gender ( $p=0.242$ ). The MFS and JSS scores according to the participants' education and experience levels related to malpractice are summarized in Table 1.



**Table 1.** Comparison of Malpractice Fear Scale scores and Job Satisfaction Scale scores according to participants' training and experience related to malpractice.

	n (%)	Malpractice Fear Scale Mean $\pm$ SD	<i>p</i>	Job Satisfaction Scale Mean $\pm$ SD	<i>p</i>
<b>Gender</b>					
Female	40 (51.3)	21.17 $\pm$ 5.14	0.717	17.20 $\pm$ 4.01	0.242
Male	38 (48.7)	20.76 $\pm$ 4.85		18.37 $\pm$ 3.90	
<b>Received complaints during Emergency Department internship?</b>					
Yes	24 (30.8)	21.46 $\pm$ 4.71	0.570	16.92 $\pm$ 3.39	0.213
No	54 (69.2)	20.76 $\pm$ 5.11		18.15 $\pm$ 4.23	
<b>Attended congress/seminar/training on malpractice?</b>					
Yes	17 (21.8)	19.41 $\pm$ 6.19	0.144	18.47 $\pm$ 4.50	0.418
No	61 (78.2)	21.41 $\pm$ 4.54		17.57 $\pm$ 3.88	
<b>Attended congress/seminar/training on physicians' rights and responsibilities?</b>					
Yes	46 (59)	20.37 $\pm$ 5.24	0.178	18.13 $\pm$ 3.96	0.479
No	32 (41)	21.84 $\pm$ 4.49		17.25 $\pm$ 4.01	
<b>Any malpractice lawsuit in family or close circle?</b>					
Yes	6 (7.7)	19.83 $\pm$ 8.06	0.397	17.17 $\pm$ 3.97	0.940
No	72 (92.3)	21.07 $\pm$ 4.70		17.82 $\pm$ 4.04	

Among the items on the Malpractice Fear Scale, the highest average scores were for “I feel pressure in my daily professional practice due to the threat of malpractice lawsuits” (3.65  $\pm$  1.10), “I occasionally seek a second opinion from a senior specialist to reduce the risk of being sued” (3.64  $\pm$  1.07), and “I believe that relying on clinical judgment rather than technology when making a diagnosis is becoming increasingly risky from a medico-legal perspective” (3.62  $\pm$  1.16). The average score for the item “I am concerned about being involved in a malpractice lawsuit in the next 10 years” was found to be 3.54  $\pm$  1.12. Among the items of the Job Satisfaction Scale, the highest average score was for the item “Medicine provides me with a meaningful purpose” (3.90  $\pm$  0.95), followed by “I want to continue practicing medicine in the future” (3.82  $\pm$  1.02). The distribution of responses to the MFS and JSS items is presented in Table 2.

**Table 2.** Participants' responses to the Malpractice Fear Scale and Job Satisfaction Scale.

Statement	Strongly Disagree n (%)	Disagree n (%)	Partly Agree n (%)	Agree n (%)	Strongly Agree n (%)	Mean ± SD
<b>Malpractice Fear Scale</b>						
Due to legal developments in healthcare delivery. I had to make significant changes in my professional practice.	2 (2.6)	23 (29.5)	20 (25.6)	30 (38.5)	3 (3.8)	3.12 ± 0.97
I am worried that I will be involved in a malpractice lawsuit within the next 10 years.	5 (6.4)	5 (6.4)	30 (38.5)	19 (24.4)	19 (24.4)	3.54 ± 1.12
I feel pressured in my daily professional practice due to the threat of malpractice lawsuits.	3 (3.8)	7 (9)	26 (33.3)	20 (25.6)	22 (28.2)	3.65 ± 1.10
Sometimes I request certain tests and consultations just to avoid malpractice.	4 (5.1)	7 (9)	36 (46.2)	15 (19.2)	16 (20.5)	3.41 ± 1.07
I occasionally seek higher specialist opinion specifically to reduce the risk of being sued.	2 (2.6)	5 (6.4)	36 (46.2)	11 (14.1)	24 (30.8)	3.64 ± 1.07
From a medicolegal perspective, relying on clinical judgment rather than technology in making diagnoses has become increasingly risky.	5 (6.4)	4 (5.1)	31 (39.7)	14 (17.9)	24 (30.8)	3.62 ± 1.16
<b>Job Satisfaction Scale</b>						
I want to continue practicing medicine in the future.	2 (2.6)	6 (7.7)	18 (23.1)	30 (38.5)	22 (28.2)	3.82 ± 1.02
Overall, I am satisfied with this profession.	1 (1.3)	11 (14.1)	25 (32.1)	32 (41)	9 (11.5)	3.47 ± 0.92
I enjoy my daily work.	2 (2.6)	13 (16.7)	27 (34.6)	31 (39.7)	5 (6.4)	3.31 ± 0.92
I feel professionally fulfilled.	3 (3.8)	17 (21.8)	24 (30.8)	24 (30.8)	10 (12.8)	3.27 ± 1.07
Medicine provides me with a meaningful purpose.	1 (1.3)	6 (7.7)	15 (19.2)	34 (43.6)	22 (28.2)	3.90 ± 0.95

According to their MFS scores, 60.3% (n=47) of participants reported high levels of anxiety, while 30.8% (n=24) reported moderate levels. According to their JSS scores, 46.2% (n=36) reported moderate job satisfaction, while 44.9% (n=35) reported high levels of job satisfaction. It was determined that the majority of those with high levels of malpractice fear had moderate or high levels of job satisfaction. No significant difference was observed when comparing the MFS and JSS score groups ( $p=0.165$ ) (Table 3).

**Table 3.** Comparison between groups based on Malpractice Fear Scale and Job Satisfaction Scale.

Job Satisfaction Scale Groups	Low n (%)	Moderate n (%)	High n (%)	Total n (%)	<i>p</i>
<b>Malpractice Fear Scale Groups</b>					
<b>Low</b>	2 (2.6)	1 (1.3)	4 (5.1)	7 (9)	0.165
<b>Moderate</b>	1 (1.3)	10 (12.8)	13 (16.7)	24 (30.8)	
<b>High</b>	4 (5.1)	25 (32.1)	18 (23.1)	47 (60.3)	
<b>Total</b>	7 (9)	36 (46.2)	35 (44.9)	78 (100)	

## Discussion

This study evaluated the relationship between medical school sixth-year students' fear of malpractice and job satisfaction. The findings indicate that students' fear of malpractice is high, while their job satisfaction is moderate to high. It is understood that during clinical training, students are highly sensitive to legal responsibilities, even though they maintain their professional satisfaction.



The literature indicates that legal pressures alter physicians' clinical decision-making processes, leading to both individual and systemic consequences. Studdert et al.'s research found that students experience similar pressures and are affected by this situation while constructing their professional identities [4]. Furthermore, the majority of students stated that the risk of a potential complaint or lawsuit caused them to be more cautious in their medical decisions. This suggests that defensive approaches begin to be internalized during the student period.

A large proportion of participants stated that they were hesitant to make certain medical decisions due to the potential for complaints or lawsuits. This situation indicates that students have begun to internalize defensive practices during their education. In a study conducted in the US by Johnston et al., medical students observed that faculty members were concerned about this issue and stated that this situation was reflected in their own behavior [12].

In our study, no statistically significant difference was found in scores for fear of malpractice and job satisfaction based on gender. Indeed, the literature indicates that female physicians may experience higher levels of stress, emotional exhaustion, and depressive symptoms; similarly, female medical students have been shown to report higher anxiety in certain clinical situations [17,18]. However, the fact that our study included only interns, the limited duration of professional experience, and the relatively small sample size may have prevented the potential gender differences reported in the literature from being demonstrated in this sample. Therefore, the current finding does not suggest that a gender-related effect does not exist, but rather that such an effect could not be demonstrated with sufficient statistical power in the present sample.

Findings related to job satisfaction reveal that students' commitment to their profession continues. This result shows that students find medicine meaningful and that their motivation to continue their profession persists. Job satisfaction has been found to be closely related to variables such as burnout, professional commitment, and intention to leave the job [6].

This study found a negative, though statistically insignificant, relationship between fear of malpractice and job satisfaction ( $p=0.165$ ). This finding does not imply that no relationship exists, but rather suggests that the current sample size ( $n=78$ ) may have been insufficient to demonstrate this relationship. Therefore, statistical insignificance should not be interpreted as the absence of a real relationship. This result indicates that the effect of fear of malpractice on job satisfaction needs to be more clearly demonstrated through larger, multicenter studies.

It should also be considered that pandemic conditions may affect students' perceptions. Previous studies have reported that increased burnout and somatic symptoms among healthcare workers during the COVID-19 period negatively affected job satisfaction [19]. Similarly, an increase in death anxiety and perceived uncertainty has been observed among health students [10]. It is understood that extraordinary situations such as the pandemic can affect not only clinical practice but also job satisfaction and psychological well-being.

Bilgin et al. study showed that health sciences students have insufficient knowledge about medical errors and patient safety, and that this increases their anxiety levels [9]. The fear of malpractice has not only a psychological dimension but also an educational one. The fact that a significant proportion of participants had not previously received training on this subject may reinforce students' fear of making mistakes.

This study has several important limitations. First, the research was conducted at a single center and included only medical students at one medical school. Therefore, the direct generalizability of the findings to different universities, different educational settings, or different healthcare systems is limited. Second, the relatively small sample size may have reduced not only generalizability but also the

statistical power for subgroup analyses and identifying relationships between variables. Third, since the data were collected via a self-report-based online survey, information biases such as social desirability bias and recall bias cannot be completely ruled out. Fourth, due to the study's cross-sectional design, causal inferences regarding the direction of the relationship between fear of malpractice and job satisfaction cannot be made. For these reasons, larger, multi-center studies are needed to more robustly validate the findings.

## Conclusion

This study sheds light on a significant psychosocial challenge faced by senior medical students during their professional development. Anxiety related to malpractice appears to emerge before graduation, particularly in high-risk clinical settings such as emergency medicine. Notably, the fact that 78.2% of participants had not attended any conference, seminar, or educational event related to malpractice points to a potentially significant gap in undergraduate medical education. Therefore, reducing the fear of malpractice may require not only individual support mechanisms but also structured curriculum interventions focused on patient safety, ethics, effective communication, medical-legal awareness, and physicians' rights and responsibilities. Strengthening medical education in these areas can help reduce anxiety stemming from malpractice, limit defensive behaviors, and support more sustainable professional development in future physicians.

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## Conflict of interest

The authors have no conflicts of interest to declare.

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