

# Research Paper: Medical Malpractices in Tehran Public Hospitals Referred to the Forensic Medicine Commission of Tehran Province in 2018: An Analytical Review



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## ABSTRACT

**Background:** The current status of medical malpractice in Tehran medical centers remains unclear. However, understanding the situation may help the authorities carefully plan, continuously monitor, and consequently be sensitive to eliminate the shortcomings. Thus, the present study aimed at investigating the existing problems in this respect.

**Methods:** In the present descriptive and cross-sectional study, all patients complaining of the medical staff of public hospitals affiliated to 3 Medical Sciences Universities (i.e., Tehran, Iran, Shahid Beheshti, & Baqiyatallah) were evaluated concerning demographic characteristics, physicians' genders, the type of hospital, the type of specialty, the type of staff, and reason for complaint (disability, death). The necessary information was collected using a data collection form. The obtained results were analyzed in SPSS using the Chi-square and Fisher's Exact tests.  $P < 0.01$  was considered significant.

**Results:** Most filed complaints were against hospitals affiliated to Tehran and Shahid Beheshti Universities of Medical Sciences, and 66% against private centers. Most cases won in the court were against general practitioners, dentists, general surgeons, and hospital technicians. The number of malpractices proven for teaching hospitals was significantly lower than that of non-teaching ones. Given the prevalence of plastic surgery in Iranian society, the number of complaints filed from female patients was two-thirds of males, almost 50% aged 21-40 years. For some reason, more than three-fourths of wrongful death complaints concerned female patients.

**Conclusion:** The medical malpractice complaints in hospitals are an integral part of physicians and nursing staff's work; as the saying goes: an oral dictation has no errors.

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## 1. Introduction

No one denies that physicians, like other ordinary people, inadvertently error in their practices; however, there was a general belief until years ago that physicians, these spiritual beings, never make an error [1]. This belief has long since changed. No individual or system is free from error, and mistakes may occur despite utmost efforts by doctors and medical staff [2, 3]. Perhaps it was because patients seemed to be less aware of physicians' errors and physicians were less likely to confess their diagnostic-therapeutic mistakes. Some research on medical errors significantly altered these beliefs [4, 5]. Studies indicated that medical errors could significantly harm patients. Numerous studies were subsequently performed to precisely investigate the aspects of medical errors [3, 4]. Physicians can never be sure of never facing a negligence claim. According to the law and professional ethics, the physician or medical staff should attempt all diagnostic procedures, including history-taking or physical examination, requesting clinical and paraclinical tests. If necessary, consult with colleagues when facing a patient, and start treatment after making the definite diagnosis based on standards. Otherwise, they commit medical malpractice. Medical malpractice is not limited to physicians and includes medical staff. Still, even after taking all these measures, the physician cannot make a definite diagnosis, or treatment outcomes are undesired. Due to the involvement of various biological factors that are somehow out of the physician's control. Standard protocols are practically ineffective under such circumstances. Accordingly, the physician should apply all his skills and experiences. Three primary conditions should be considered in proving medical malpractice: The individual should be the physician's patient, and the physician must have accepted to take care of him. The physician must have attempted unacceptable actions respecting medical criteria or commonly not performing practices that should be done as accepted medical procedures (the lack of observing scientific and technical standards). The patient has an injury as the measure should not be taken or lack of doing what should have been performed [5-9]. Notably, the study of medical malpractice in various specialties is one of the research priorities.

## 2. Materials and Methods

In the present descriptive and cross-sectional study, complaints referred to the Forensic Medicine Commission of Tehran Province filed against public hospitals

affiliated to Tehran, Iran, Shahid Beheshti, and Baqiyatallah Universities of Medical Sciences in 2018 were evaluated in detail, and their information was collected in a researcher-made form. The census or convenience sampling methods were used in the present study. Due to the high volume of complaints, medical fields with less than 50 complaints in 2018 (Toxicology, radiotherapy, radiology, physical medicine, psychiatry, neurology, traditional medicine, & pharmacy) were excluded. Complaints had been repeated several times. Only the result of the last commission was considered, and cases finalized by the Forensic Medicine Commission of Tehran Province were included in the study.

Furthermore, the age and gender of the complaining patients, physicians specialty and gender, the university, type of medical center (public/private/office), degree of innocence or guilt by specialty, the reason for complaint (disability, death), and season were evaluated. The Chi-square and Fisher's Exact tests were used in SPSS to analyze the data. All information extracted from the medical files remained confidential based on the Declaration of Helsinki. Moreover, the study protocol was approved by the Research Committee of the Clinical Research Development Unit of Shohada-e-Tajrish Hospital in Tehran and the Ethics Committee of Shahid Beheshti University of Medical Sciences (ethics code: IR.SBMU.RETECH.REC.1398.477 dated 29/10/2018). One of the limitations of this study is the lack of admission patients rate in medical centers covered by these universities and a significance level of 0.05 was considered for interpreting the relationships between the given variables.

## 3. Results

Out of 3792 lawsuits, 61% were filed by females and 39% by males, and the difference was significant. The mean±SD age of complainants was 40±17 years ( $P<0.028$ ) (Table 1). The majority of complainants belonged to the age group of 31-40 years.

Among the 4 Medical Sciences Universities studied, the majority of complaints were filed against Tehran University of Medical Sciences (38%), followed by Shahid Beheshti (28.5%), Iran (23.5%), and Baqiyatallah universities (9.5%); there was a significant difference among the universities in this regard ( $P<0.083$ ) (Table 2).

The number of complaints against teaching and non-teaching hospitals was 1380 and 2412, respectively; the number of won lawsuits filed against teaching hospitals was significantly lower than non-teaching ones (33.5% vs. 66.5%) ( $P<0.01$ ).

**Table 1.** Age distribution of complainants referred to the forensic medicine commission of Tehran Province in 2018 (according to the WHO)

Age Group, y	No. (%)	P
<17	234(6.2)	>0.04
18-25	642(16.9)	>0.02
25-65	2318(61.1)	<0.001
66-79	527(13.9)	>0.03
80-90	71(1.9)	>0.05
Total	3792(100)	-

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**Table 2.** Frequency distribution of complainants in Medical Sciences Universities in Tehran

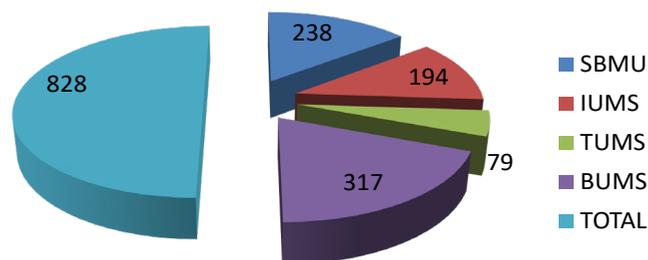
Name of the University	No. (%)	P
Shahid Beheshti	238 (28.7)	<0.001
Iran	194 (23.4)	<0.01
Baqiyatallah	79 (9.5)	>0.02
Tehran	317 (38.3)	<0.003
Total	828 (100)	<0.008

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**Table 3.** Frequency of complaints and won cases according to the specialty

Specialty	Number of Cases Filed	Percentage of Cases Filed	Number of Won Cases	Percentage of Won Cases to All Cases Filed for the Specialty	Percentage of Won Cases to all Cases Filed
Dentistry	380	8	205	10.5	54
General practitioner	431	9	341	18	79
Emergency medicine	84	1.5	36	%2	43
Internal medicine	269	5.5	65	3.5	24
Cardiovascular medicine	197	4	50	2.5	25.5
Pediatric medicine	105	2	32	1.5	30.5
Dermatology	92	1.75	48	2.5	52
Orthopedic surgeon	313	6.5	91	4.6	29
Gynecological and obstetrical surgery	395	8	117	6	29.5
General surgery	569	12	277	14.5	48.5
Plastic surgery	223	4.75	61	4	27.5
ophthalmic surgery	149	3	12	5	8
ENT surgery	338	7	98	5	29
Neurosurgery	242	5	66	3.5	27.5
Urology	88	2	26	1.5	29.5
Heart surgery	52	1	10	5	19
Oral and maxillofacial surgery	89	2	7	4	8
Anesthesiology	194	4	68	3.5	35
Nursing staff	274	5.5	106	5.5	38.5
Technical manager	372	7.5	196	%10	52.5
Total	4856	100	1912	-	100

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**Figure 1.** Claimed Malpractice and Medical Universities in Tehran

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The number of male physician defendants was 4 times higher than that of female ones (80% vs. 20%), indicating a significant difference in terms of the physician's gender ( $P < 0.03$ ).

However, 76% of the cases were filed for disability and 24% for wrongful death. Of which 51% were acquitted and 49% sentenced at least for one of the treatment team members; there was no significant difference between the two groups. Moreover, 73% of wrongful death cases concerned female patients ( $P > 0.3$ ).

No significant difference was found in the number of complaints filed in different seasons ( $P > 0.04$ ) (20% spring, 32% summer, 22% autumn, & 26% winter).

Additionally, 34% of complaints were filed against public hospitals, 45% against private hospitals, and 21% against offices, outlining a significant difference ( $P < 0.002$ ).

According to [Table 3](#), most complaints were against general surgeons, followed by general practitioners, obstetricians and gynecologists, and dentists. The main reasons for filing a case against general reactionaries and general surgeons were skincare practices and plastic surgeries without adequate skills, respectively. In general, 51.25% of lawsuits were against surgeons, 35.6% won ( $P < 0.01$ ).

The highest number of won cases to the total lawsuits ( $n=1912$ ; 53%) was against general practitioners, general surgeons, dentists, and technical managers of hospitals, and the highest number of won cases to complaints filed in a particular field was against general practitioners, followed by dentists, technical managers, general surgeons, and emergency medicine specialists ( $P < 0.003$ ) ([Figure 1](#)).

The most noteworthy point in complaints against general surgeons and general practitioners and their conviction was their practice in plastic surgery and skin and

hair care services, respectively. Thus, 67% of cases filed against general surgeons and 73% against general practitioners fell into these areas ( $P < 0.01$ ).

#### 4. Discussion

The present study was conducted on hospitals affiliated with 4 prominent medical sciences universities in Tehran. The obtained results indicated that most complaints were against those affiliated to Tehran and Shahid Beheshti Universities; however, no similar study was performed thus far, which can be due to differences in the number of such centers or inadequate surveillance over them. Moreover, no similar study was conducted worldwide and in Iran on filed complaints against teaching and non-teaching hospitals anywhere. A disadvantage of this study is the lack of access to the number of patients admitted to the hospitals these universities cover. However, the number of filed complaints and won cases in non-teaching hospitals was almost twice that of teaching. Despite unignorable high-quality, tireless efforts of faculty members and the small number of teaching centers, the lack of an experienced and qualified attending specialist in the forensic commissions affects the issued vote. The age of the studied patients and the gender of physicians and patients were matched to other studies in this field [10-13]. Most recent studies performed in different countries on medical malpractice are limited to a certain specialty, not comprehensively in a particular region or country; the majority are review studies.

A study in Taiwan [14], from 2002 to 2013, revealed that most complaints filed for medical malpractices were against gynecological and obstetric surgeons (10.7%) and orthopedists (9.4%), 40% for surgical malpractices, and 46.3% for wrongful deaths; however, in the present study, the most complaints were against general practitioners, general surgeons, and dentists. Furthermore, the rate of complaints against the surgical group was 51.25%, and the number of won cases filed against this group was 35.6%. In a study in Shanghai [15], from 1990 to 2015, similar to the present study, the number of male

complainants was more than female ones (1.6 vs. 1), the majority belonged to the age group of 50-70 years. A review study in Iran [16], from 1990 to 2018, signified that of 3977 cases filed for medical malpractice against medical staff, 36% won, the main reason was the inadequate skill of the physician (30.4%), primarily gynecological and obstetric surgeons and orthopedic specialists (64.4% in total); 64% of complaints were against physicians. The reason for the difference between the results of the present and latter studies was the study type and scope, as well as the data collection method, so that in the present study, the high number of convicted general surgeons and general practitioners was due to their involvement in plastic surgeries as well as skin and hair care practices; however, another reason for dentists and general practitioners was the lack of a homogeneous member (general practitioner and dentist) in the Forensic Commission to defend fellows' rights. In a study in Turkey [17], from 1993 to 1998, most medical malpractices were committed by obstetricians and gynecologists, general surgeons, general practitioners, respectively, and 39.6% of cases happened in public hospitals.

Additionally, 59% of complaints were for wrongful deaths, 21% for temporary disability, and 20% for permanent disability. However, in the present study, 34% of complaints were against public hospitals, 24% for wrongful death cases; other findings were close to those of other studies. The distinction between the present study and others is reviewing lawsuits in detail, the analysis of the medical staff involved, and their role in the medical malpractice occurred. In most filed cases, various specialties, and general practitioners, as the first physician to visit, were reported, the case not found in similar studies. It is suggested to prevent the loss of the rights of general practitioners and dentists by inviting a general practitioner or dentist to the forensic commission meetings, especially in large cities, like Tehran, where only specialists, usually faculty members, attend. It is recommended that general practitioners and general surgeons not attempt skincare practices and plastic surgeries while not having adequate skills and being certified by a reputable board.

## 5. Conclusion

According to the present research results, with the increase in the awareness of patients and rise of economic problems in the society of Great Tehran, and the influx of patients to public hospitals in Tehran, if Iran's macro policies of health are not reformed and insurance companies empowered, the trend of complaining against the medical staff of hospitals affiliated to medical universi-

ties worsen. Using a GP and one Expert as an Official representative of the general practitioners and various specialized associations in meetings of forensic commissions is among the most critical tools for promoting justice in the results of commissions

## Ethical Considerations

### Compliance with ethical guidelines

All information extracted from the medical files remained confidential based on the Declaration of Helsinki. Moreover, the study protocol was approved by the Research Committee of the Clinical Research Development Unit of Shohada-e-Tajrish Hospital in Tehran and the Ethics Committee of Shahid Beheshti University of Medical Sciences (Code: IR.SBMU.RETECH.REC.1398.477).

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### Author's contributions

All authors equally contributed to preparing this article.

### Conflict of interest

The authors declared no conflict of interest.

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