

Opinions of Oral and Maxillofacial Surgeons Related to Dental Malpractice

Ağız ve Çene-Yüz Cerrahlarının Dental Malpraktis ile İlgili Görüşleri

Ömer EKİCİ^a

^aDepartment of Oral and Maxillofacial Surgery, Afyonkarahisar Health Sciences University Faculty of Dentistry, Afyonkarahisar, TURKEY

ABSTRACT The aim of this study is to explain the concept of dental malpractice, to reveal the knowledge and opinions of oral and maxillofacial surgery specialists about dental malpractice and to investigate whether these opinions differ according to demographic characteristics. This is a descriptive, cross-sectional survey conducted from January to December 2019 in Turkey. In order to measure and evaluate the views of oral and maxillofacial surgeons on dental malpractice, a questionnaire consisting of 22 questions was prepared after the literature review. One hundred and twenty four oral and maxillofacial surgeons working in public and private sectors were included in the study. 6.5% of the participants stated that judicial and administrative investigations and/or lawsuits have been filed against them due to dental malpractice. While 12.9% of the participants stated that they had sufficient knowledge about the concept of dental malpractice, only 6.5% stated that they had knowledge about the legal regulations related to malpractice. While 93.5% of the participants found their profession risky in terms of dental malpractice, the rate of those who had occupational liability insurance was found to be 80.6%. Of participants 87.1% think that the distinction of malpractice-complication is not made clearly. This study reveals that although oral and maxillofacial surgeons in Turkey have serious concerns about dental malpractice, they do not have sufficient knowledge about dental malpractice and the current legal regulations. So, oral and maxillofacial surgeons should strengthen their professional education and update their knowledge of medical ethics and health law-related issues.

Keywords: Malpractice; ethics; dentistry; oral and maxillofacial surgery

ÖZET Bu çalışmanın amacı dental malpraktis kavramını açıklamak, ağız ve çene yüz cerrahisi uzmanlarının dental malpraktis hakkındaki bilgi ve görüşlerini ortaya koymak ve bu görüşlerin demografik özelliklere göre değişip değişmediğini araştırmaktır. Türkiye’de Ocak-Aralık 2019 tarihleri arasında yapılan tanımlayıcı, kesitsel bir çalışmadır. Ağız ve çene yüz cerrahlarının dental malpraktis konusundaki görüşlerini ölçmek ve değerlendirmek için literatür taramasından sonra 22 sorudan oluşan bir anket hazırlandı. Kamu ve özel sektörde çalışan 124 ağız ve çene yüz cerrahı çalışmaya dahil edildi. Katılımcıların%6,5’i dental malpraktis nedeniyle kendilerine karşı adli ve idari soruşturma ve/veya dava açıldığını belirtmiştir. Katılımcıların% 12,9’u dental malpraktis kavramı hakkında yeterli bilgiye sahip olduklarını belirtirken, sadece%6,5’i malpraktis ile ilgili yasal düzenlemeler hakkında bilgi sahibi olduklarını ifade etmiştir. Katılımcıların % 93,5’i dental malpraktis bakımından mesleğini riskli bulurken, mesleki sorumluluk sigortası olanların oranı %80,6 olarak bulunmuştur. Katılımcıların %87,1’i malpraktis-komplikasyon ayrımının tam yapılmadığını düşünmektedir. Bu çalışma, Türkiye’deki ağız ve çene yüz cerrahlarının dental malpraktis ile ilgili ciddi endişeleri olmasına rağmen, dental malpraktis ve mevcut yasal düzenlemeler hakkında yeterli bilgiye sahip olmadıklarını ortaya koymaktadır. Bu yüzden, ağız ve çene yüz cerrahları malpraktis iddialarından kaçınmak için mesleki eğitimlerini güçlendirmeli, tıp hukuku ve etiği ile ilgili konulardaki bilgilerini sürekli olarak güncellemelidir.

Anahtar Kelimeler: Tıbbi kötü uygulama; etik; diş hekimliği; ağız ve çene yüz cerrahisi

Malpractice is derived from the Latin word “male” and “praxis”, which means “bad, incorrect application”. In general, malpractice is defined as the faulty, defective practices of a member of the profession, which occur when performing their profession.

The World Medical Association defines malpractice as occurred harm that a result of the failure of the physician to perform standard current practice, lack of skills or treatment to the patient during treatment.¹ The Turkish Medical Association describes malprac-

Correspondence: Ömer EKİCİ
Afyonkarahisar Health Sciences University Faculty of Dentistry, Department of Oral and Maxillofacial Surgery,
Afyonkarahisar, TURKEY/TÜRKİYE
E-mail: dromerekici@hotmail.com



Peer review under responsibility of Türkiye Klinikleri Journal of Medical Ethics, Law and History.

Received: 05 Feb 2020

Received in revised form: 04 Jun 2020

Accepted: 13 Jun 2020

Available online: 15 Oct 2020

2146-8982 / Copyright © 2020 by Türkiye Klinikleri. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

tice as “any damages that are caused by health services” and “any defect in medical applications”.² The term dental malpractice is used for cases of incorrect procedures by members of the dental profession. Although the legal definition of malpractice in dentistry differs from country to country, it is generally referred to as problems arising from neglect, misdiagnosis or delayed diagnosis/treatment in various areas of dentistry.³

Dentists, like all other healthcare professionals, are responsible for the misconduct and damages caused during their medical practice. It is reported that the most common and most destructive errors in dental practice are in oral and maxillofacial surgery.⁴ Oral and maxillofacial surgery patients may have poor past experience with surgical procedures. It is stated that it is inevitable for this patient group to complain of neglect or wrong application during the treatment and the complaints in this area are high in relation to this situation.⁵ In a study of dental malpractice cases in Turkey, it was reported to be mostly related to prosthetic and surgical patients.³ Particularly important aesthetic value and costly treatments such as prosthetics and implantology are predominantly subject to malpractice cases.⁶ Peter et al. reported that as the most common claims of malpractice in the craniofacial surgery included intraoperative negligence (69.0%), permanent deficits (54.8%), requiring additional surgery (52.4%), missed/delayed diagnosis of a complication (42.9%), disfigurement/scarring (28.6%), postoperative negligence (28.6%), and inadequate informed consent (20.6%).⁷ Also, failure to diagnose a fracture (19.0%) and cleft-reparative procedures (14.3%) were the most frequently litigated entities in their study. Persistence or recurrence of the disease as a result of errors or delays in diagnosis are other alleged reports.⁸ Improper dental treatment, improper method, errors leading to paresthesia, neglect in complications management and implant placement errors are listed as the most common errors in oral and maxillofacial surgery.⁴

Various cases of dental malpractice lawsuits have been published in different countries. It is difficult to provide a general explanation of the prevalence or incidence of dental neglect worldwide, as various countries have specific regulations and laws

on dental neglect. In the central part of Brazil, there were 24 cases between 2008 and 2010, while in Kerman, Iran there were 64 claims between 2000 and 2011.^{9,10} In Rome, Italy there were 458 claims between 2001-2015, and Guangzhou, China between 2008 and 2012, there were 541 claims between 2 million dental treatments.^{11,12} In Australia, there were about 15 cases of oral and maxillofacial surgery and general dentistry (oral surgery procedures) over a 20-year period, while in Finland there were 852 claims about tooth extraction over a 14-year period.^{13,14} There is no accurate data on the number of dental malpractice in Turkey and it is limited only to cases discussed in the High Health Council (HHC). A review of the 1548 decisions made by the HHC on medical malpractice cases indicated very few decisions related to dentistry (n=14; 0.9%). Five of them were related to oral surgery and two cases resulted in death. In 8 of these 14 decisions, neglect and inadequate treatment were detected and dentists found defective.¹⁵ Between 2001-2007, there were 14 cases of dental malpractice cases discussed in the HHC. These cases were mostly related to prosthetics and surgery, and according to the case results, it was decided that dentists were defective in 9 of 14 cases.³ HHC decisions refer only to the number of dental malpractice cases the subject of criminal courts, however there may be many dental malpractice cases that have been reviewed in civil courts other than criminal courts. Civil cases in Turkey is governed by provisions Turkish Civil Code and Turkish Code of Obligations. Therefore, total dental malpractice cases in Turkey should be considered to be higher.

Increased incidents of malpractice have a range of detrimental implications for general health, social, and economic aspects. Medical malpractice may harm patients' health, and patients may be injured or killed. Medical malpractice is the third most common cause of death, and nearly 400,000 people die each year from medical malpractice in the United States of America(USA).¹⁶ In Italy, more than 15,000 cases are opened annually against physicians. Approximately €10 billion (\$15.5 billion) is spent to compensate people who are rendered disabled as a result of treatment or diagnosis.¹⁷ Medical malpractice costs to the National Health System in the United Kingdom

(UK) £1.3 billion.¹⁸ The physical, financial, and social costs of medical malpractice are estimated to be between \$17 million and \$29 million in the USA.¹⁹ Nalliah analyzed increases in the number of malpractice payments against healthcare staff over the 11-year period between 2004 and 2014 and found that 11.2% of malpractice payments in the U.S. were against dentists. Interestingly, although malpractice payments to healthcare professionals, especially non-dentists, are decreasing, payments to dentists are rising. Between 2004 and 2014, the number of malpractice payments for all healthcare professionals excluding dentistry decreased by 35.8%, while payments against dentists and dental hygienists only dropped by 13.5%. Moreover, in the period of 2012-2014, the number of payments made to non-dentist health professionals decreased by 7.8%, while it increased by 8.1% against dentists and dental hygienists.²⁰

Each individual has the right to medical treatment according to “The Universal Declaration of Human Rights”.²¹ The concept of ‘patient rights’ originates from this text. Patient rights were first stated in the USA in the 1970s.²² The first document outlining patient rights is the Lisbon Declaration adopted by the World Medical Association in 1981.²³ “Patient Rights Regulations” were first issued in Turkey in 1998 by the Official Gazette of the Republic of Turkish.²⁴ An updated final form was published in 2014.²⁵ This legislation defines the rights of patients and includes regulations on patient communication and development of patient rights councils. The Communication Center (SABİM) was founded by the Ministry of Health of the Republic of Turkey for patient communications in 2004. Patient complaints may be submitted to SABİM by telephone via the “Alo 184” line, online or in-person at a contact unit for patients. Bostan et al. noticed that 36640 complaints reported on the “Alo 184” line between 2004 and 2009.²⁶

Due to the lack of legal regulations in the field of medicine; in cases related to legal or criminal liability arising from medical practices, the provisions of the Turkish Code of Obligations regarding the unfair act and contractual liability or the provisions of the Turkish Criminal Code regarding neglect, carelessness,

and inexperience in the profession are applied.²⁷ In the new Turkish Penal Code (TCK), which was published in the official newspaper on 12 October 2004 and came into force on 1 June 2005, the penalty amounts of the law articles restricting the rights and freedoms of the former TPC were significantly increased. Some articles of the law (21,22, 83,85,89 etc.) regulate the penalties to be given in case of injury or death of a person due to intent, negligence etc. It is seen that the penalty rates have increased significantly compared to the old Turkish penal code”.²⁷ Yilmaz et al. stated that there has been a significant increase in the defensive medical practices of physicians in the field of surgical specialties since the adoption of this law.”²⁸ Compulsory Financial Liability Insurance for Medical Errors” came into force in 2010 to compensate for the harm suffered by patients due to medical malpractice. In the insurance system, where there are four risk groups, while dentists are in the 2nd risk group, oral and maxillofacial surgeons are in the 3rd risk group.²⁹

In recent years, there has been a rapid increase in medical malpractice lawsuits. Patients tend to seek more rights in recent years due to the advances in terms of patient rights and the increasing awareness of patients on the subject. Oral and maxillofacial surgeons can face both civil cases and criminal proceedings based on malpractice. Oral and maxillofacial surgeons should know and practice the current ethical principles and legal regulations in Turkey (Table 1). This education should start from the student years and continue throughout professional life. Dental students take the course “Ethics in Dentistry” in the final year of the undergraduate curriculum. It is observed that courses such as “forensic medicine” and “health law” are compulsory or optional in the undergraduate curriculum in some faculties of Turkey. However, the core curriculum of oral and maxillofacial surgery residency does not contain compulsory lectures about medical evidence, medico-legal situations, and related legislation/regulation.

Increases in cases linked to medical malpractice in Turkey and worldwide in recent years are a major concern. Especially with the TPC coming into force, the issue of malpractice in medicine and dentistry has

TABLE 1: Legal regulations on duties and responsibilities of oral and maxillofacial surgeons.

Date	Number	Law/regulation
11.04.1928	1219	Law on the Execution of the Style of Tababet and Subsistence Arts
24.04.1930	1593	Law of General Sanitary
13.01.1960	4/12578	Regulation of Medical Deontology
12.01.1961	10705	Law on Socialization of Health Services
07.06. 1985	3224	Law of Turkish Dentists Association (TDB)
07.05.1987	3359	Basic Law of Health Services
20.05.1991	20876	Disciplinary Regulations of TDB and Dentists' Chambers
01.08.1998	23420	Regulation of Patient Rights
26.9.2004	5237	Turkish Penal Code
26.04.2014	28983	Regulation on Specialization Training in Medicine and Dentistry
08.05.2014	28994	Amendment of Patient Rights Regulation
03.02.2015	29256	Regulation on Private Health Facilities Providing Oral-Dental Health

become increasingly important and started to be discussed among physicians. Although there has been a significant increase in the compensation cases filed against dentists in recent years, there are very few studies in the literature in dental practice and maxillofacial surgery about dental malpractice.^{10,11,14,15,30,31} Malpractice claims related to maxillofacial surgery have been analyzed in several countries.³⁰⁻³³ There are no other studies in the literature that evaluate the opinions oral and maxillofacial surgeons related to dental malpractice. The aim of this study is to discuss the concept of dental malpractice and evaluate the knowledge and views of oral and maxillofacial surgeons regarding dental malpractice.

MATERIAL AND METHODS

This is a cross-sectional descriptive survey conducted from January to December 2019 in Turkey. The study was approved by the Ethics Committee of Faculty of Medicine, Afyonkarahisar University of Health Sciences (2019/8-231). The study was carried out in accordance with the Declaration of Helsinki principles. A questionnaire was prepared by the researcher to measure and evaluate the opinion and attitudes of oral and maxillofacial surgeons regarding dental malpractice. The questionnaire consisted of demographic data and questions measuring the level of knowledge and opinion about malpractice. Questions about the opinion and attitudes were evaluated with a 5-point Likert scale. These thirteen questions are “I totally

agree (5 points)”, “I agree (4 points)”, “I am undecided (3 points)”, “I disagree (2 points)”, “I totally disagree (1 point)”. For the nine questions that measure the level of knowledge, yes-no options representing 50% groups were used. The validity and reliability of the questions were confirmed with the pre-test method by a pilot group of 20 oral and maxillofacial surgeons. The questionnaire sent to oral and maxillofacial surgeons working in dental faculties and various hospitals in Turkey via e-mail. The data obtained were transferred to Statistical Package for the Social Sciences (SPSS-version 22) software and analyzed. Independent Samples t-Test and ANOVA were used to determine whether the opinions of the participants changed according to the age, gender, working experience and working place of the participants. After ANOVA, Least Significant Difference (LSD), a multiple comparison test (Post-Hoc), was used to find the cause of the difference between groups. The mean difference was considered significant at the 0.05 level.

RESULTS

In the reliability analysis, the internal consistency of the scale was found to be high (Cronbach alpha=0.78,2). One hundred and twenty four valid questionnaires were attained from oral and maxillofacial surgeons. Table 2 shows the distribution of participants according to age, gender, marital status, working experience and working place. 53.2% of the

TABLE 2: Demographic characteristics of the participants.

Demographic Data	Number (n)	Percentage (%)
Age		
≤ 30 years	19	15.3
30-39 years	66	53.2
40-49 years	29	23.4
50 years old ≤	10	8.1
Gender		
Male	72	58.1
Female	52	41.9
Maritals status		
Married	88	71
Single	36	29
Working experience		
1-5 years	76	61.2
6-10 years	32	25.8
11-15 years	8	6.5
15-20 years	8	6.5
Working place		
Ministry of Health	24	19.4
University	68	54.8
Private sector	32	25.8
Total	124	100

participants were in the 30-40 age range, 58.1% were male, 71% were married and 61.3% of the participants had less than 5 years of working time. Also, almost half of the maxillofacial surgeons (54.8%) were working in universities.

Table 3 shows the number and percentage distributions of the participants' answers to the questions about dental malpractice and the mean scores of each answer. When the average scores are examined, it is seen that the answers given to the first three questions and seventh questions have the highest average, and the twelfth question has the lowest average. Almost all of the participants think that the number of malpractices has increased and they are more likely to encounter malpractice cases any time while practicing your profession.

Of the participants, 74.2% think that malpractice cases will negatively affect their medical performance. 38% of the participants stated that filing malpractice lawsuits against themselves or their colleagues will affect their way of doing their profes-

TABLE 3: Opinions and attitudes of participants about dental malpractice.

Questions	I totally agree (5) n (%)	I agree (4) n (%)	I undecided (3) n (%)	I disagree (2) n (%)	I totally disagree (1) n (%)	χ
1. Do you believe there has been an increase in the number of malpractice cases	68 (54.8%)	48 (38.7%)	8 (6.5%)	-	-	4.4
2. Do you believe that the distinction between complication and malpractice cannot be made clearly?	48 (38.7%)	60 (48.4%)	4 (3.2%)	8 (6.5%)	4 (3.2%)	4.1
3. Do you think you are at risk of facing a malpractice case at any time while practicing your profession?	28 (22.6%)	92 (74.2%)	-	4 (3.2%)	-	4.2
4. Do you think you can be sued for malpractice about you in the next 10 years?	16 (12.9%)	36 (29%)	56 (45.2%)	16 (12.9%)	-	3.4
5. Do you think that malpractice cases will have a negative effect on your medical performance?	24 (19.4%)	68 (54.8%)	-	32 (25.8%)	-	3.7
6. Does opening malpractice lawsuits to you or your colleagues affect the way you do your profession?	19 (15.3%)	26 (23.4%)	28 (22.6%)	44 (35.5%)	4 (3.2%)	3.1
7. Does a malpractice suit cause negative impression and loss of reputation about your profession and person?	40 (32.3%)	76 (61.3%)	8 (6.5%)	-	-	4.6
8. Do you feel uneasy about your dental / surgical practices as the malpractice cases are taking place excessively in the media?	24 (19.4%)	44 (35.5%)	40 (32.3%)	16 (12.9%)	-	3.6
9. Does occupational liability insurance for malpractice make your job more comfortable?	4 (3.2%)	76 (61.3%)	24 (19.4%)	16 (12.9%)	4 (3.2%)	3.5
10. Do you plan to take out additional insurance for malpractice?	12 (9.7%)	44 (35.5%)	28 (22.6%)	36 (29%)	4 (3.2%)	3.2
11. Do you afraid of making mistakes in your surgical procedures?	8 (6.5%)	68 (54.8%)	36 (29%)	8 (6.5%)	4 (3.2%)	3.5
12. Do you think that a document prepared as ediy "I accept all dental surgery procedures and complications that may occur "relieves the physician of the responsibility?	16 (12.9%)	68 (54.8%)	28 (22.6%)	8 (6.5%)	4 (3.2%)	2.3
13. In order to avoid malpractice lawsuits, do you avoid patients who are likely to complain?	8 (6.5%)	44 (35.5%)	28 (22.6%)	44 (35.5%)	-	3.1

sion. 54.9% of the participants stated that they were worried about their surgical applications due to the excessive media coverage of malpractice cases. Almost all of the participants (93.6%) reported that the malpractice case will cause a negative impression and loss of reputation about themselves and their professions.

Of the participants, 87.1% think that the distinction between complication malpractice cannot be made clear. Interestingly, 67.7% of the participants thought that obtaining informed consent from the patient saved the physician from responsibility. Similarly, 61.3% of the surgeons stated that they were afraid of making mistakes in their surgical procedures. Surprisingly, 42% of the participants stated that they avoided patients who were likely to complain to avoid malpractice cases. As a result of these findings, it can be said that some of the oral and maxillofacial surgeons turned to defensive dentistry practices in order to avoid malpractice cases.

Table 4 shows whether the responses given by the participants change according to the demographic variables. When it is examined whether there is a dif-

ference according to gender, there was no difference between gender according to the Independent sample t-test in the study ($p=0.391$). ANOVA test was used to determine whether the opinions of the participants changed according to the age, working year and working place of the participants. Accordingly, while there was no significant difference between the participants in terms of age and working experience, there was a significant difference in terms of working place. According to the post hoc analysis, it was seen that the difference was due to the dentists working in the private sector. The mean scores of the opinion and attitudes of private working dentists were found to be significantly higher than the physicians working in the Ministry of Health and universities. Accordingly, it can be said that physicians working in private sector are more concerned about dental malpractice than physicians working in public sector. It can be considered that patients who are treated in private treatment institutions have higher expectations and naturally their satisfaction of the services may be more difficult. However, it is hard to make definitive, general judgments with the limited findings of this study.

TABLE 4: Variation of results according to demographic characteristics.

Demographic characteristics	n	\bar{x}	SD	p	Post hoc
Gender					
Male	72	46.9	6.408	0.391	
Woman	52	46.0	6.408		
Age					
Under 30 years	19	49.1	8.521	0.084	
30-39 years	66	45.4	8.521		
40-49 years	29	46.7	8.521		
50 years and older	10	48.7	9.092		
Working experience					
1-5 years	76	46.8	6.832	0.195	
6-10 years	32	45.0	5.518		
11-15 years	8	47.0	1.069		
15-20 years	8	50.0	1.069		
Working place					
Ministry of Health	24	45.0	3.387	0.037*	1-2 p= 0.486
University	68	46.0	5.496		1-3 p= 0.020*
Private sector	32	48.8	8.238		2-3 p= 0.030*
Total	124	46.5	6.141		

n=Number; \bar{x} =Mean; SD: Standard deviation; p=Significant level.

* The mean difference is significant at the 0,05 level.

Table 5 shows the rate of participants' involvement in dental malpractice, whether they have medical malpractice insurance, the level of knowledge regarding the concept of dental malpractice and current legal regulations and the need for training. 6.5% of the participants stated that judicial and administrative investigation and lawsuits were filed against them due to dental malpractice. While 93.5% of the participants stated that their profession was risky in terms of dental malpractice, 80.6% stated that they had professional liability insurance. While 12.9% of the participants stated that they had sufficient knowledge about the concept of dental malpractice, only 6.5% stated that they had knowledge about the legal regulations related to malpractice. 19.4% of the participants stated that they had received training on dental malpractice before graduation and 12.9% stated that they received training after graduation. 90.3% of them stated that they wanted to get more information and education about dental malpractice.

DISCUSSION

The rapid development of patient rights, as well as human rights, led to the development of medical law. The concept of malpractice has been discussed in many aspects, especially in developed countries, for the last 30 years. In Turkey, especially the last 10-15 years has begun to be more widely discussed with the entry into force of the Turkish Penal Code. The malpractice issues in dentistry in Turkey has been less investigated and discussed than medical malpractice.

As with physicians, dentists have criminal, compensation and administrative responsibilities due to dental interventions. With this study which addressing the malpractice issues in dentistry in Turkey, the first time in oral and maxillofacial surgeon has examined the opinions of malpractice.

How dentists should treat the patient and what they should pay attention to is determined by written documents such as national and international conventions, declarations, medical ethics, and deontological rules, laws, and regulations, as well as unwritten rules such as general codes of conduct, customs and traditions. In fact, it is assumed that a contract called a power of attorney agreement has been signed between the patient and the physician from the first encountering. According to this agreement, the physician promises to do his best for the health of the patient and to fulfill all of his responsibilities within the medical and ethical rules.

In today's understanding of the law, physicians and dentists apply their work within the framework of the concept of allowed risk." Therefore, every medical/dental intervention and surgical procedure has risks. While the medical or dental procedures are performed according to the standards and all kinds of precautions are taken, the damages that cannot be prevented are called complications; malpractice is considered to be a practice that does not comply with the standards arising from carelessness, lack of knowledge and skills or negligence and causes harm to the patient.³⁴ The dentists or maxillofacial sur-

TABLE 5: Knowledge and experience level of the participants about dental malpractice.

Questions	Yes	No
	n (%)	n (%)
1. Have you ever been prosecuted for malpractice during your medical life?	8 (6.5%)	116 (93.5%)
2. Have you been subjected to administrative review/investigation for malpractice during your medical life?	8 (6.5%)	116 (93.5%)
3. Do you have a medical malpractice insurance policy?	100 (80.6%)	24 (19.4%)
4. Do you have enough information about the legal regulations related to medical malpractice?	8 (6.5%)	116 (93.5%)
5. Do you have enough information about the concept of dental malpractice?	16 (12.9%)	108 (87.1%)
6. Have you received adequate training in prevention/reduction of dental malpractice prior to graduation?	24 (19.4%)	100 (80.6%)
7. Have you received adequate training in dental malpractice after graduation?	16 (12.9%)	108 (87.1%)
8. Do you think that your profession is at risk for dental malpractice?	116 (93.5%)	116 (93.5%)
9. Would you like more information and training on dental malpractice?	112 (90.3%)	12 (9.7%)

geons cannot be held responsible for a complication that occurs during his/her professional activities, within the framework of general dental practice. However, 87.1% of the physicians who participated in present study think that the distinction of malpractice-complication is not made clear. There is no specific medical malpractice law and medically specialised court in Turkey. Nearly 90% of the participants reported in a previous study among neurosurgeons that they believed it was not possible to differentiate complications from malpractice with the valid legal system in Turkey in existing courts. The concepts of neglect and conscious negligence in the Turkish Penal Code do not meet the conditions for complications and malpractice. In addition, there is a court specializing in the field of health in Turkey.³⁵ In conducted among obstetricians and gynecologists in Turkey, most participants supported the implementation of specific medical malpractice laws and supported the creation of specialized medical courts.³⁶

According to the Universal Declaration of Human Rights, bodily integrity is a basic right.¹⁵ Informed consent is one of the prerequisites for good medical practice and is based on the principle of autonomy, which is one of the basic principles of medical ethics. It is also stated in the Ministry of Health Patient Rights Regulation (articles 15, 18, 22, 24, 25, 26, 31) that informed consent should be applied as a right of the patient before medical procedures to be performed on the patient.³⁷ The patient's health status and diagnosis, the type of treatment proposed, the chance and duration of success, the risks of the treatment method for the patient's health, the use and possible side effects of the given medicines, the consequences of the disease if the patient does not accept the recommended treatment and possible treatment options illuminate the risks on issues.³⁸ The human body, which is considered basically un-touchable, constitutes the field of application of the physician. No treatment may be done without the patient's consent. Therefore, the patient's consent in medical interventions is required for compliance with the law. Informed consent does not necessarily have to be written in writing, but on the contrary, it is recommended that written consent should

be obtained in invasive procedures such as oral and maxillofacial surgery in terms of the burden of proof when claims arise. 67.7% of the participants think that the informed consent signed by the patient will free the physician from responsibility. In a case of medical errors such as carelessness, recklessness, and neglect, this signature of the patient will not relieve the physician from responsibility and accountability. In addition, informed consent should be applied in a manner that is understandable to the patient, in accordance with the social and mental state of the patient. In the survey carried out by Turla et al.³⁹ in 306 patients who underwent surgery, 89.9% of the patients stated "why they should have surgery," but 74.2% said they "didn't find this explanation satisfactory". Oral and maxillofacial surgeons must receive appropriate, valid consent before an operation. In receiving consent from patients, it is important that conversations on any potential intervention are clearly recorded in the clinical records. Paperwork relating to consent, including copies of signed consent documents, should form part of the patient's health record and should be safely maintained as per current legislation.⁴⁰

Dentists have criminal, legal, administrative, professional and ethical responsibilities. Like all physicians, oral and maxillofacial surgeons are required to know the current laws and rules related to the profession and strictly follow them. In this study, while 12.9% of the participants stated that they had sufficient knowledge about the concept of dental malpractice, only 6.5% stated that they had knowledge about the legal regulations related to malpractice. It was observed that the physicians were not aware of the legislation and regulations in Turkey. Medical malpractice insurance is mandatory for all physicians in Turkey. Oral and maxillofacial surgery is a high-risk branch in dentistry, and they pay for malpractice insurance more than dentists. However, 19.4% of physicians do not have professional liability insurance. Also, 15% of the participants reported that taking professional liability insurance for malpractice does not make their job more comfortable.

In order to be able to talk about the responsibility of the physicians arising from the treatment, med-

ical practice must be unlawful and defective, and the resulting damage should be the result of this defective application. Medical malpractice may also occur in the form of intent or neglect. The physician should not harm the patient in any way during medical interventions. The situation of the person who causes harm is explained by the concept of responsibility. This responsibility may result from deliberate or carelessness, lack of care, failure to comply with the rules of medicine, failure to apply scientific methods in diagnosis and treatment or inexperience.⁴¹ According to a study examining malpractice cases between 2013 and 2017, the most common reasons for medical malpractice lawsuits in Turkey were poor medical intervention (55.4%), healthcare providers' lack of care and attention (16%), defective medical intervention (14.8%), misconduct (7.4%), and failure to obtain informed consent (3.7%).⁴²

Medical faults cause physicians and other medical personnel to lose motivation; patient's loss of faith in healthcare workers; and discontent with the health system in the community.⁴³ In the present study, 74.2% of the participants stated that malpractice cases will have a negative effect on their medical performance. 76% of the participants stated that they were afraid of making mistakes in their surgical operations. In the study of Yıldırım et al., it was observed that 66.7% of the physicians thought that the anxiety of filing a lawsuit due to malpractice would harm the health service, and 69.7% of the physicians were hesitant to intervene in patients due to anxiety of malpractice.⁴⁴ In the Tümer study, it was stated that professional burnout and a recessive (defensive) approach to the patient were detected, especially in surgical branches.⁴⁵

Özmen et al. presented the measures to be taken to prevent medical malpractice under 4 headings: institutional, educational, public, and ethical.⁴⁶ A few of these suggestions are to provide a modern working environment with a small number of patients, to give importance to education before and after graduation, to create sensitivity and awareness regarding respect of the rights of physicians in the society and the media, and to train the physicians according to ethical rules. In the study, 80.6% of the maxillofacial surgeons stated they had not received training on dental

malpractice before graduation and 87.1% stated that they had not received training after graduation. Yılmaz et al. also indicated that training healthcare professionals on patient rights are helpful.²⁸ In the study of Yıldırım et al.⁴⁴ The participants stated that they learned their knowledge about the legal regulations regarding medical malpractice with the highest rate of 22.2% from congress and symposium activities, 20.4% from their colleagues and 8.3% in the process of medical education. So, it would also be useful to organize sessions on specific legal issues at symposia and congresses.

This study has some limitations. The results of the study can be generalized only to a certain degree for oral and maxillofacial surgeons in Turkey, that's why that similar studies should be done on a larger scale.

CONCLUSION

This study reveals that oral and maxillofacial surgeons are worried about the increase of malpractice claims and it negatively affects their job performance. Also, it is seen that surgeons have insufficient knowledge about malpractice and related legal regulations. The basic way to prevent malpractice is only possible if dentists are aware of their legal, administrative, professional and ethical responsibilities and reflect this to their dental practice. Oral and maxillofacial surgeons should strengthen their professional training and constantly update their knowledge on issues related to medical law and ethics in order to avoid the claims of dental malpractice. Health law and ethics should take more in the education curriculum. Good medical practices, lessons to be learned from errors, risk management, patient rights issues should be addressed in special sessions in professional congresses and symposia. In addition, the enactment of malpractice law and the establishment of special courts will lead to a faster and more precise conclusion of malpractice cases and will play an important role in reducing the problems and concerns physicians experience in this field. Further studies are needed for addressing the current status of malpractice in dentistry, its causes, its implications of socioeconomic and cultural for patients, physicians, health systems, and society.

Source of Finance

During this study, no financial or spiritual support was received neither from any pharmaceutical company that has a direct connection with the research subject, nor from a company that provides or produces medical instruments and materials which may negatively affect the evaluation process of this study.

Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

This study is entirely author's own work and no other author contribution.

REFERENCES

1. WMA. World medical association statement on medical malpractice. Available from: [\[Link\]](#)
2. Sayek F. TTB Raporları/Kitapları: 2009 Sağlıkla İlgili Uluslar arası Belgeler. Turkish Medical Association. Available from: [\[Link\]](#)
3. Karaarslan B, Şirin Karaarslan E, Çelik S, Ertaş E, Çelik N. [Evaluation of malpractice cases in dentistry which was discussed in high health council during 2 1-2 7 years]. Türkiye Klin J Dental Sci. 2010;16(2):142-8.
4. Kiani M, Sheikhzadi A. A five-year survey for dental malpractice claims in Tehran, Iran. J Forensic Leg Med. 2009;16(2):76-82. [\[Crossref\]](#) [\[PubMed\]](#)
5. Henderson SJ. Risk management in clinical practice Part 11. Oral surgery. Br Dent J. 2011;8;210(1):17-23. [\[Crossref\]](#) [\[PubMed\]](#)
6. Montagna F, Cortesini C, Manca R, Montagna L, Piras A, Manfredini D, et al. [Epidemiology of dental professional liability]. Minerva Stomatol. 2011;60(4):179-93. [\[PubMed\]](#)
7. Svider PF, Eloy JA, Folbe AJ, Carron MA, Zuliani GF, Shkoukani MA, et al. Craniofacial surgery and adverse outcomes: an inquiry into medical negligence. Ann Otol Rhinol Laryngol. 2015;124(7):515-22. [\[Crossref\]](#) [\[PubMed\]](#)
8. Badenoch-Jones EK, White BP, Lynham AJ. The Australian litigation landscape - oral and maxillofacial surgery and general dentistry (oral surgery procedures): an analysis of litigation cases. Aust Dent J. 2016;61(3):310-6. [\[Crossref\]](#) [\[PubMed\]](#)
9. Castro ACC, Franco A, Silva RF, Portilho CDM, Oliveira HCM. Prevalence and content of legal suits founded on dental malpractice in the courts of Midwest Brazil. Rev Bras Odontol Leg. 2015;2(1):46-52. [\[Crossref\]](#)
10. Hashemipour MA, Movahedi Pour F, Lotfi S, Gandjalikhan Nassab AH, Rahro M, Memaran Dadgar M, et al. Evaluation of dental malpractice cases in Kerman province (2000-2011). J Forensic Leg Med. 2013;20(7):933-8. [\[Crossref\]](#) [\[PubMed\]](#)
11. Manca R, Brui V, Napolitano S, Marinelli E. A 15 years survey for dental malpractice claims in Rome, Italy. J Forensic Leg Med. 2018;58:74-7. [\[Crossref\]](#) [\[PubMed\]](#)
12. Liu Z, Zhang Y, Asante JO, Huang Y, Wang X, Chen L, et al. Characteristics of medical disputes arising from dental practice in Guangzhou, China: an observational study. BMJ Open. 2018;8(2):e018738. [\[Crossref\]](#) [\[PubMed\]](#)
13. Badenoch-Jones EK, White BP, Lynham AJ. The Australian litigation landscape – oral and maxillofacial surgery and general dentistry (oral surgery procedures): an analysis of litigation cases. Aust Dent J. 2016;61(3):310-6. [\[Crossref\]](#) [\[PubMed\]](#)
14. Koskela S, Suomalainen A, Apajalahti S, Ventä I. Malpractice claims related to tooth extractions. Clin Oral Investig. 2017;21(2):519-22. [\[Crossref\]](#) [\[PubMed\]](#)
15. Ozdemir MH, Saracoglu A, Ozdemir AU, Ergonen AT. Dental malpractice cases in Turkey during 1991-2000. J Clin Forensic Med. 2005;12(3):137-42. [\[Crossref\]](#) [\[PubMed\]](#)
16. Makary MA, Daniel M. Medical error-the third leading cause of death in the US. BMJ. 2016;3;353:i2139. [\[Crossref\]](#) [\[PubMed\]](#)
17. Traina F. Medical malpractice: the experience in Italy. Clin Orthop Relat Res. 2009;467(2):434-42. [\[Crossref\]](#) [\[PubMed\]](#)
18. Donaldson L. An organisation with a memory. Clin Med (Lond). 2002;2(5):452-7. [\[Crossref\]](#) [\[PubMed\]](#)
19. Linda T Kohn, Janet M Corrigan, Molla S Donaldson. To err is human: building a safer health system. Institute of medicine (US) committee on quality of health care in America. Washington (DC): National Academies Press (US); 2000. [\[PubMed\]](#)
20. Nalliah RP. Trends in US malpractice payments in dentistry compared to other health professions - dentistry payments increase, others fall. Br Dent J. 2017;13;222(1):36-40. [\[Crossref\]](#) [\[PubMed\]](#)
21. Universal declaration of human rights. United Nations. Available from: [\[Link\]](#)
22. Görkey Ş. Patient Rights. Hatemi H, Doğan H, editörler. Medikal Etik. 2003;4:100-26.
23. WMA. WMA eclaration of Lisbon on the rights of the patient. Available from: [\[Link\]](#)
24. Resmî Gazete (01.08.1998, Sayı: 23420), 98/11444 sayılı Hasta Hakları Yönetmeliği; 1998. p.1-192.
25. Resmî Gazete (08.05.2014, Sayı: 28994) sayılı Hasta Hakları Yönetmeliğinde Değişiklik Yapılmasına Dair Yönetmelik; 2014. [\[Link\]](#)
26. Bostan S, Kılıç T, Çiftçi F. [Comparative analysis of patient complaints via sabim line in the ministry of health]. Glob J Econ Bus Stud. 2014;3(5):43-51.
27. Türk Ceza Kanunu. Kanun Numarası: 5237, Kabul Tarihi: 26.09.2004, Yayımlandığı Resmî Gazete Tarihi: 12.10.2004, Yayımlandığı Resmî Gazete Sayısı: 25611.
28. Yılmaz A, Demiral G, Şahin G, Yener O, Kocataş A, Bölük S, et al. [The impact of Turkish penal code (TPC) which entered into force in 2005 on surgeons]. J Forensic Med. 2013;27(3):158-72. [\[Crossref\]](#)
29. Resmî Gazete (21.07.2010 Sayı:27648) sayılı Tıbbi Kötü Uygulamaya İlişkin Zorunlu Mali Sorumluluk Sigortası Genel Şartları; 2010. Available from: [\[Link\]](#)
30. Gulati A, Herd MK, Nimako M, Anand R, Brennan PA. Litigation in national health service oral and maxillofacial surgery: review of the last 15 years. Br J Oral Maxillofac Surg. 2012;50(5):385-8. [\[Crossref\]](#) [\[PubMed\]](#)
31. Marei HF. Medical litigation in oral surgery practice: lessons learned from 20 lawsuits. J Forensic Leg Med. 2013;20(4):223-5. [\[Crossref\]](#) [\[PubMed\]](#)
32. Di Lorenzo P, Paternoster M, Nugnes M, Pantaleo G, Graziano V, Niola M. Professional dental and oral surgery liability in Italy: a comparative analysis of the insurance products offered to health workers. Open Med (Wars). 2016;2;11(1):256-63. [\[Crossref\]](#) [\[PubMed\]](#)

33. Bordonaba-Leiva S, Gómez-Durán EL, Balibrea JM, Benet-Travé J, Martín-Fumadó C, Bescos Atin C, et al. Twenty four years of oral and maxillofacial surgery malpractice claims in Spain: patient safety lessons to learn. *Oral Maxillofac Surg*. 2019;23(2):187-92. [[Crossref](#)] [[PubMed](#)]
34. Polat G. *Tıbbi Uygulama Hataları, Klinik-Sosyal-Hukuksal-Etik Boyutları*. 1. Baskı. Ankara: Seçkin Yayıncılık; 2005. p.598.
35. Solaroglu I, İzci Y, Yeter HG, Metin MM, Keles GE. Health transformation project and defensive medicine practice among neurosurgeons in Turkey. *PLoS One*. 2014;21;9(10):e111446. [[Crossref](#)] [[PubMed](#)]
36. Küçük M. Defensive medicine among obstetricians and gynaecologists in Turkey. *J Obstet Gynaecol*. 2018;38(2):200-5. [[Crossref](#)] [[PubMed](#)]
37. Resmî Gazete (01.08.1998, Sayı:23429) sayılı Hasta Hakları Yönetmeliği; 1998. p.67-76.
38. Aydınlatılmış Onam Kılavuzu. [Cited 2020 Apr 27]. Available from: [[Link](#)]
39. Turla A, Karaarslan B, Kocakaya M, Pekşen Y. [The determination of the status of sufficient information given]. *Türkiye Klinikleri J Foren Med*. 2005;2(2):33-8.
40. Data Protection Act 2018. Available from: [[Link](#)]
41. Karaarslan B, Şirin Karaarslan E, Çelik S, Ertaş E, Çelik N. [Evaluation of malpractice cases in dentistry which was discussed in high health council during 2001-2007 years]. *Türkiye Klinikleri J Dental Sci*. 2010;16(2):142-8.
42. Yalcin Balcik P, Cakmak C. The evaluation of malpractice cases arising from aesthetic intervention in Turkey based on supreme court case law. *Int J Health Plann Manage*. 2019;34(1):e885-e95. [[Crossref](#)] [[PubMed](#)]
43. Top M, Gider Ö, Taş Y, Çimen S. [Physicians' assessments about casual factors of medical errors: a field study from Kocaeli province]. *Hacettepe Journal of Health Administration*. 2008;11(2):161-200.
44. Yıldırım A, Aksu M, Çetin İ, Şahan A. [Knowledge of and attitudes towards malpractice among physicians in Tokat, Turkey]. *Cumhuriyet Med J*. 2009;31(4):356-66.
45. Tümer AR. [Evaluation of general surgical litigations discussed in health council between 1995-2000]. *Turkish Journal of Surgery*. 2003;19(1):11-6.
46. Özmen P, Şahin S, Çetin M, Türk YZ. [Medical malpractice: sight of the physicians at the Gülhane Military Medical Academy]. *Iran J Public Health*. 2015;44(4):590-2.