

EVALUATION OF ORAL AND MAXILLOFACIAL SURGEONS' AND RESEARCH ASISSTANTS' ATTITUDES OF DEFENSIVE DENTISTRY

AĞIZ, DİŞ VE ÇENE CERRAHLARI VE ARAŞTIRMA GÖREVLİLERİNİN DEFANSİF DİŞ HEKİMLİĞİ TUTUMLARININ DEĞERLENDİRİLMESİ

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Öz

Amaç

Defansif tıp uygulamaları kavramı, klinik karar süreçlerinde öncelikle hekimlerin olası hukuki işlemlerden korunmayı amaçlaması olarak tanımlanmaktadır. Günümüzde gelinen noktada sağlık uygulamalarını konu edinen yasal süreçlerin artması hekimlerin klinik uygulamalarında defansif tıp uygulamalarını daha sık kullanmalarına neden olmaktadır. Bu çalışmanın amacı ağız, diş ve çene cerrahları ve araştırma görevlilerinin defansif diş hekimliği tutumlarını ve bu tutumları etkileyen faktörleri araştırmaktır.

Gereç ve Yöntem

Ocak-Şubat 2021 tarihleri arasında çeşitli kurumlarda görev yapan 146 ağız, diş ve çene cerrahisi (ADÇÇ) uzmanı/araştırma görevlisine çevrimiçi anket formu ulaştırıldı, anket formunu eksiksiz dolduran ve çalışmaya dahil edilme kriterlerini karşılayan 63 diş hekimi (%43,1) çalışmaya dahil edildi. Katılımcıların yaşı, cinsiyeti, faaliyet gösterdikleri kurum veya özel kuruluş, hekim-hasta ilişkisinde geçirdikleri süre, malpraktis davası geçmişi, önümüzdeki 10 yıl içinde malpraktis davasıyla karşılaşp karşılaşmayacaklarına ilişkin düşünceleri ve defansif diş hekimliği konusundaki bilgi düzeyleri sorgulandı. Çalışmaya dahil edilme kriterleri

ADÇÇ alanında en az 1 yıl hizmet vermiş olmak ve halen bu alanda hasta-hekim ilişkisi içerisinde olmak olarak belirlendi.

Bulgular

Çalışmaya katılan hekimlerin %47,6'sının çok yüksek düzeyde, %41,3'ünün yüksek düzeyde ve %11,1'inin orta düzeyde defansif diş hekimliği uyguladıkları saptanmış olup, ortalama defansif diş hekimliği skoru $46,25 \pm 7,42$ olarak bulunmuştur. Ortalama defansif diş hekimliği skorlarının çalışılan kurum, dava geçmişi ve gelecek 10 yıldaki dava beklentisine bağlı olarak değişim gösterdiği saptanmıştır. ($p < 0,05$)

Sonuç

ADÇÇ uzmanları ve araştırma görevlilerinin yaygın şekilde defansif diş hekimliği uyguladığı sonucuna ulaşılmıştır. Öte yandan çalışmamızda ADÇÇ uzmanlarının ve araştırma görevlilerinin defansif diş hekimliği kavramı hakkında yeterli bilgiye sahip olmadığı tespit edilmiş olup, mezuniyet öncesi müfredatta defansif diş hekimliği kavramına yer verilmesinin faydalı olacağını düşünmekteyiz.

Anahtar Kelimeler: Ağız,Diş ve Çene Cerrahisi, Defansif Diş Hekimliği, Sağlık Hukuku

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Abstract

Objective

The concept of defensive medicine practices can be described as the physicians primarily aiming to protect themselves from possible legal actions in clinical decision processes. At the point reached today, the increase in legal processes dealing with health practices causes physicians to use defensive medical practices more frequently in their clinical practice. The aim of this study is to investigate the defensive dentistry attitudes of oral and maxillofacial surgeons (OMFS) and research assistants and the factors affecting these attitudes.

Materials and Methods

146 OMFS specialists/research assistants working in various institutions were contacted between January-February 2021, and 63 dentists (43.1%), who responded by filling out the survey and met the inclusion criteria, were included in the study. The participants' age, gender, institution or private establishment where they operate, time spent in the physician-patient relationship, history of malpractice lawsuits, thoughts on whether they will face malpractice lawsuits in the next 10 years, and their level of knowledge on defensive dentistry

were recorded. Inclusion criteria for the study were determined as having served at least 1 year in the field of OMFS and still being in a patient-physician relationship in this field.

Results

It was concluded that 47.6% of the physicians participating in the study applied defensive dentistry at a very high level, 41.3% at a high level, and 11.1% at a moderate level, while the mean defensive dentistry score was found as 46.25 ± 7.42 . It has been determined that the mean defensive dentistry scores vary depending on the institution, litigation history and the anticipation of litigation in the next 10 years.

Conclusion

OMFS specialists and research assistants commonly practice defensive dentistry. On the other hand, it has been determined that OMFS specialists and research assistants do not have sufficient knowledge about the concept of defensive dentistry, therefore we think that including training on the concept of defensive dentistry in graduate or post-graduate programs would be beneficial.

Keywords: Oral and Maxillofacial Surgery, Defensive Dentistry, Health Law

Introduction

The concept of defensive medicine practices can be described as the physicians primarily aiming to protect themselves from possible legal actions in clinical decision processes (1). This concept is essentially divided into two as positive and negative defensive medicine practices (2). Positive defensive medicine practices are defined as requiring additional examination, imaging, or consultation from patients solely for the purpose of protection from legal processes, without seeking medical benefit, while negative defensive medicine practices are defined as physicians refraining from applying treatment procedures with high complication rates and avoiding treatment of patients with complicated problems (3).

At the point reached today, beside the increase in the number of health law cases, especially in developed countries, the number of studies carried out in this field is expanding at an increasing pace (4,5). On the other hand, the increase in legal processes dealing with health practices causes physicians to use

defensive medical practices more frequently in their clinical practice, consequently leading to an inevitable increase in medical expenses (6,7). While the estimated cost of malpractice lawsuits filed against physicians in the USA in 2002 was reported to be about 6.3 billion dollars, defensive medical practices were estimated to cause a burden of 60 to 108 billion dollars to the health system (4).

As expected, surgical branches frequently face such cases. The retrospective study of Jena et al. conducted between 1991 and 2005, including 40,916 physicians working in 25 different specialties, reported that the rate of facing legal proceedings in a year was 19.1% for physicians providing services in the branch of neurosurgery, followed by cardiovascular surgery with 18.9% and general surgery with 15.3% (5).

Malpractice cases in the field of dentistry make up approximately 7-8% of medical malpractice cases (8). Dentistry practices are in the low-medium risk group in terms of malpractice and legal processes (9). Dentistry practices are legally treated under the title of medical practices in our country, just as well as

the whole world, so the concept of defensive dentistry is seen as a sub-title of the concept of defensive medicine practices (10).

Oral and maxillofacial surgery (OMFS) practices need to be performed with utmost care and attention, as they are the most invasive operations of dentistry and the mistake that may occur is usually irreversible. Compared to general dentistry practices and other branches, OMFS can be considered as the riskiest branch in terms of complications, malpractice, and permanent tissue damage. In the study carried out by Perea-Perez et al. in Spain between 2000-2010, 4149 claims that led to legal processes were reviewed and 415 claims that met the inclusion criteria were examined. 40% of these claims were classified as complications, 40% as malpractice, and the remaining 20% as accidents, and the distribution by branches revealed that 50.3% (n: 209) was OMFS practices (problems related to local anesthesia, implantology and oral surgery) followed by endodontics with 20.76%, and prosthetic dental treatment with 12.53% (11).

According to the 27648 numbered "Communiqué on the procedures and principles regarding the institutional contribution in the compulsory liability insurance for medical malpractice" published by the Ministry of Health of the Republic of Turkey on July 21, 2010, in the Official Gazette, general dentistry practices are in the 2nd level risk group, oral and dentoalveolar surgery practices are in the 3rd level, and maxillofacial surgery operations are in the 4th level risk group (12). For this reason, the branch of Oral and Maxillofacial Surgery can be evaluated to be in the medium-high risk group since it performs the most invasive operations of dentistry, including maxillofacial surgical operations. Reviewing the previous studies on this subject revealed that general dentistry and specialties were examined, but there were no accessible studies considering oral and maxillofacial surgeons. This study aims to determine the defensive dentistry attitudes of oral and maxillofacial surgeons and research assistants who perform the riskiest operations in terms of complications and malpractice among dentistry practices and to reveal which factors are affected by these attitudes.

Materials and Methods

In our study, a 5-point Likert-type survey prepared by Başer et al. (10), whose validity-reliability tests were carried out, consisting of 4 questions about demographic data, 4 questions about malpractice case history, and knowledge level about defensive

dentistry, and 12 propositions about positive and negative defensive dentistry attitudes was applied online. The ethics committee approval required for the study was obtained from the Suleyman Demirel University Faculty of Medicine Clinical Research Ethics Committee with the decision dated 30.12.2020 and numbered 407.

Within the scope of the study, 146 OMFS specialists/ research assistants working in various institutions were contacted between January-February 2021, and 63 clinicians (43.1%), who responded by filling out the survey and met the inclusion criteria, were included in the study. Total scores were determined for each participant by scoring the propositions that measure the defensive dentistry attitudes of the participants as "Strongly disagree" (1 point), "Disagree" (2 points), "Undecided" (3 points), "Agree" (4 points), "Strongly agree" (5 points). The total scores were categorized as very high (60-48 points), high (47-36 points), moderate (35-24 points), low (23-12 points) and the attitude levels of the participating physicians about defensive medicine practices were tried to be determined. The participants' age, gender, institution or private establishment where they operate, time spent in the physician-patient relationship, history of malpractice lawsuits, thoughts on whether they will face malpractice lawsuits in the next 10 years, and their level of knowledge on defensive dentistry were recorded. Inclusion criteria for the study were determined as having served at least 1 year in the field of OMFS and still being in a patient-physician relationship in this field.

SPSS 22.0 (IBM®, Chicago, Illinois, US) program was used for data analysis. First of all, the percentage distributions of the answers given to the statements questioning the defensive dentistry attitudes of the participants were determined separately for each question using descriptive statistical methods. Whether the variables fit the normal distribution was assessed with the Kolmogorov-Smirnov test, and the homogeneity of the variances was evaluated with the Levene test. The Student's t-test was used to determine the relationship between demographic data and the mean total scores, while the Kruskal Wallis and Mann Whitney U tests were used to evaluate the data with non-normal distribution, that is the relationship between the institution and the time spent in the patient-physician relationship and the total scores. The level of statistical significance was set as $p < 0.05$. Obtained results were presented as mean \pm standard deviation or number (n) and percentage (%).

Results

A total of 63 oral and maxillofacial surgeons/research assistants with a mean age of 30.98 ± 4.27 , 25 of whom were women (39.7%), were included in our study. It was concluded that 47.6% of the physicians participating in the study applied defensive dentistry at a very high level, 41.3% at a high level, and 11.1% at a moderate level, while the mean defensive dentistry score was found as 46.25 ± 7.42 .

The mean defensive dentistry score was 45.96 ± 7.7 in female dentists and 46.44 ± 7.32 in male dentists participating in our study, and there was no statistically significant difference between the two groups ($p > 0.05$). When the participants were asked "Have you been sued for malpractice during your medical profession?", the mean defensive dentistry score of 7 physicians who answered "Yes" was 49.66 ± 5.38 , while the mean score of dentists who answered "No" was 45.41 ± 7.64 . It was determined that there was a statistically significant difference between the two groups ($p < 0.05$). On the other hand, when the participant dentists were categorized according to their answers to the question "Do you think you will be sued for malpractice in the next 10 years?", the mean defensive dentistry score of the physicians who answered "Yes" (n: 35, 55.5%) was 48.37 ± 6.46 , and of the dentists who answered "No" (n: 28, 44.5%) was 43.6 ± 7.79 , unveiling a statistically significant difference between the two groups ($p < 0.05$) (Table 1).

The distribution of the answers given to the propositions, in which positive and negative defensive dentistry attitudes were questioned, in the survey is presented in Table 2.

Evaluation of the participating physicians' patient-physician relationship duration showed that 14 physicians (22.2%) had a patient-physician relationship for "1-3 years", 26 physicians (41.2%) "4-7 years", 11 physicians (17.4%) "8-10 years", and 12 physicians (19%) for 10 years or more. When the comparison between the physician-patient relationship and the defensive dentistry scores was examined, it was found that the defensive dentistry scores increased as the time spent in the physician-patient relationship increased, but there was no statistically significant difference between the groups ($p > 0.05$) (Table 3).

Classification of the participating physicians according to the institutions they worked in pointed out that 28 physicians were university staff, 18 physicians were employed in the ministry of health, and 17 physicians in private clinics. While the mean defensive dentistry score of the physicians working as university staff was found to be 42.53 ± 7.01 , it was determined as 50.5 ± 6.93 in the physicians employed in the ministry of health, and 47.88 ± 5.65 in the physicians working in private clinics. The difference between the mean of the categorical data was found to be statistically significant, and the Mann - Whitney U test was applied to determine from which groups the present

Table 1

Mean defensive dentistry scores by gender, litigation history and anticipation of litigation in the next 10 years.

| | | N (%) | Mean score | Standard deviation | Standard error | p value |
|---|--------|----------|------------|--------------------|----------------|---------|
| Gender | Female | 25(39.7) | 45.96 | 7.70 | 1.54 | 0.803 |
| | Male | 38(60.3) | 46.44 | 7.32 | 1.18 | |
| Litigation history | Yes | 7 (11.1) | 49.66 | 5.38 | 1.55 | 0.046* |
| | No | 56(88.9) | 45.41 | 7.64 | 1.07 | |
| Anticipation of litigation in the next 10 years | Yes | 35(55.5) | 48.37 | 6.46 | 1.09 | 0.010* |
| | No | 28(44.5) | 43.60 | 7.79 | 1.47 | |

*:p<0,05

Table 2 The distribution of the answers given to the propositions.

| | Proposition number | Strongly disagree(1) | Disagree(2) | Undecided(3) | Agree(4) | Strongly agree (5) | Total |
|-----------------------|--------------------|----------------------|-------------|--------------|------------|--------------------|-------|
| Positive Propositions | 1 | 3 (%4.8) | 1 (%1.6) | 8 (%12.7) | 15 (23.8) | 36 (%57.1) | 63 |
| | 2 | 1 (%1.6) | 1 (%1.6) | 4 (%6.3) | 22 (%34.9) | 35 (%55.6) | 63 |
| | 3 | 0 (%0.0) | 1 (%1.6) | 7 (%11.1) | 14 (%22.2) | 41 (%65.1) | 63 |
| | 4 | 18 (%28.6) | 7 (%11.1) | 5 (%7.9) | 18 (%28.6) | 15 (%23.8) | 63 |
| | 5 | 0 (%0.0) | 0 (%0.0) | 7 (%11.1) | 16 (%25.4) | 40 (%63.5) | 63 |
| | 6 | 4 (%6.3) | 7 (%11.1) | 8 (%12.7) | 20 (%31.7) | 24 (%38.1) | 63 |
| | 7 | 0 (%0.0) | 4 (%6.3) | 14 (%22.2) | 9 (%14.3) | 36 (%57.1) | 63 |
| Negative Propositions | 8 | 1 (%1.6) | 5 (%7.9) | 22 (%34.9) | 12 (%19) | 23 (%36.5) | 63 |
| | 9 | 12 (%19) | 11(%17.5) | 20 (%31.7) | 7 (%11.1) | 13 (%20.6) | 63 |
| | 10 | 9 (%14.3) | 8 (%12.7) | 16 (%25.4) | 12 (%19) | 18 (%28.6) | 63 |
| | 11 | 8 (%12.7) | 5 (%7.9) | 14 (%22.2) | 18 (%28.6) | 18 (%28.6) | 63 |
| | 12 | 6 (%9.5) | 5 (%7.9) | 17 (%27.0) | 8 (12.7) | 27 (%42.9) | 63 |

Table 3

Mean defensive dentistry scores of dentists according to the time spent in patient-physician relationship.

| Patient-physician relationship duration | N | Meanscore | Standard deviation | Standard error | p value |
|---|------------|-----------|--------------------|----------------|---------|
| 1-3 year(s) | 14 (%22.2) | 42.42 | 8.20 | 2.19 | 0.196 |
| 4-7 years | 26 (%41.2) | 47.03 | 7.13 | 1.39 | |
| 8-10 years | 11 (%17.4) | 47.32 | 8.61 | 2.59 | |
| 10+ years | 12 (%19) | 48.58 | 4.64 | 1.33 | |
| Total | 63 (%100) | 46.25 | 7.42 | .93 | |

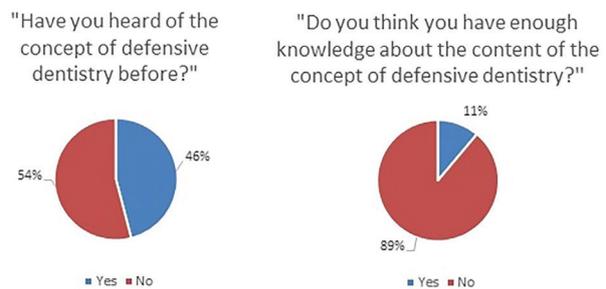
Table 4 Average defensive dentistry scores of dentists working in different institutions.

| Institutions | N | Mean score | Standard deviation | Standard error | p value |
|--------------------|----|------------|--------------------|----------------|---------|
| University | 28 | 42.53 | 7.01 | 1.32 | 0.001* |
| Ministry of Health | 18 | 50.50 | 6.93 | 1.63 | |
| Private clinics | 17 | 47.88 | 5.65 | 1.37 | |
| Total | 63 | 46.25 | 7.42 | .93 | |

*:p<0,05

Graphic 1

The knowledge levels of the participants about defensive dentistry.



difference originated. According to the results of this test, the defensive dentistry scores of the physicians working in university hospitals were statistically significantly lower than the scores of physicians working in the ministry of health and private clinics ($p < 0.05$), while there was no statistically significant difference between the scores of physicians working in the ministry of health and private clinics ($p > 0.05$) (Table 4).

In the study, the knowledge levels of the participants about defensive dentistry were also questioned. In response to the question "Have you heard of the concept of defensive dentistry before?", 29 participants (46%) answered "Yes", while 34 participants (54%) answered "No". In response to the question "Do you think you have enough knowledge about the content of the concept of defensive dentistry?" 7 participants (11.1%) answered "Yes", while 56 participants (88.9%) answered "No" (Graphic 1).

Discussion

Dentists providing services in the field of OMFS perform many different surgical procedures, especially dentoalveolar surgical operations and dental implantology, carrying risks for permanent

or temporary neurosensory disorders, aesthetic dissatisfaction, permanent hard and soft tissue losses, facial scarring, and iatrogenic injury (13). In this respect, OMFS specialization differs from general dentistry and other dentistry branches, therefore, defensive attitudes in this field should be evaluated separately, as in other surgical branches.

There are many studies in the literature examining the defensive attitudes of different surgical branches. In their study published in 2007, Upadhyay et al. reported that among orthopedics and traumatology specialists who performed knee arthroplasty, 78% of physicians faced at least one malpractice lawsuit during their professional life (14). In the survey conducted by Yan et al. in 2017, a questionnaire was sent to 136 neurosurgeons, and 45 physicians who provided feedback were included in the study. In this study, the rate of physicians who faced complaints in the last 3 years was reported as 71.1%, while the rate of physicians who requested additional imaging with a defensive attitude was 64%, and the rate of physicians who referred patients to higher centers for defensive reasons was reported as 28.9% (15). In the study published by Çalırkoğlu et al. in 2020, in which they examined the defensive attitudes of physicians serving in various surgical disciplines, the

rate of participants who exhibited at least 1 defensive attitude was reported as 94.2%, while the rate of participants who had at least one lawsuit process in the past was reported as 24.7% (16). Studdert et al. reported in their study on high-risk branches (emergency medicine, general surgery, neurosurgery, gynecology, orthopedics and traumatology, and radiology) that 87% of the participants had an experience of complaints or lawsuit, and 93% of the physicians showed defensive attitudes. In this study, the most used method among defensive attitudes was reported as an additional imaging request (43%) (2).

Non-evidence-based examination and imaging requests, spending more time on complicated procedures, providing detailed information about the procedure to be performed, keeping patient records in more detail are some of the positive defensive medicine practices (17). In our study, the rate of participation in the proposition "I prescribe most of the drugs I can to my patients within the indications in order to be protected from legal problems", which is one of the suggestions of positive defensive dentistry, was 90.5%, whereas "I request examinations other than those I deem necessary in order to be protected from legal problems (X-ray request, etc.)" was 80.9%. While the rate of agreement with the proposition "I want more consultation about complications that may develop in my patients in order to be protected from legal problems" in our study was determined as 88.9%, the rate of the participants who answered "I agree" and "I totally agree" to the proposition "I refer my patients to more high-level health institutions in order to be protected from legal problems." was determined as 52.4%. While the rate of agreement with the proposition "I explain the surgical procedures in more detail to my patients in order to be protected from legal problems" was 88.9%, 69.8% of the participating physicians agreed with the proposition "I spend more time with my patients in order to be protected from legal problems". The rate of agreement with the proposition "I keep patient records (consent form, etc.) in more detail in order to be protected from legal problems" was 71.4%. The rate of additional imaging requests we obtained in our study is higher than the rates reported in the studies of Studdert et al. and Yan et al. It can be considered that this result may be due to the fact that radiological imaging is used in almost every patient since the majority of operations and pathologies in the OMFS field occur in hard tissues such as bones and teeth. In the study of Başer et al. (10), in which 66 dentists working in the Ministry of Health participated, the rate of dentists who refer to a higher level health institution due to their defensive attitudes was reported as 87.9%, while

this rate was 52.4% in our study. It can be assumed that as a natural result of OMFS specialists and research assistant physicians being in the last link of the referral chain, they apply less to the alternative of referral to a higher level health institution.

The behaviors of avoiding complicated patients or complicated procedures due to defensive attitudes of physicians are defined as negative defensive medicine practice (18). In our study, the rate of agreement with the proposition "I avoid patients with a high probability of litigation in order to protect myself from legal problems", which is one of the propositions questioning the level of negative defensive dentistry, was determined as 55.5%. While the rate of agreement with the proposition "I refrain from patients with complex medical problems in order to avoid legal problems" was 31.7%, the rate of agreement with the proposition "I refrain from treatment protocols with high complication rates in order to avoid legal problems" was 47.6%. While the rate of agreement with the proposition "I tend to prefer non-interventional protocols instead of interventional treatment protocols in order to avoid legal problems" was 57.2%, the rate of agreement with the proposition "I feel apprehension in my practice as malpractice gets more coverage in the media" was found to be 55.6%. The rate of participation in the negative defensive dentistry statements obtained in the study is lower than the rates reported by Başer et al. It may have arisen due to the fact that specialist physicians frequently encounter complicated cases and patients during their residency training in tertiary healthcare institutions, and therefore they are experienced in the management of complicated cases.

It was concluded that 88.9% of the OMFS specialists and research assistants participating in our study practiced defensive dentistry at high and very high levels. In the study of Başer et al., this rate was reported as 78.8% in dentists. In the light of this information, it can be stated that OMFS specialists and research assistants have a higher level of defensive dentistry compared to dentists, and they have a very common defensive attitude, similar to the rates reported in studies on high-risk medical surgery branches (2,16).

In our study, it is seen that 7 participants (11.1%) answered "Yes" to the question "Have you been sued due to malpractice during your medical profession?" This rate was reported as 1.5% among dentists participating in the study of Başer et al. Based on these results, it can be said that the risk of malpractice lawsuits that may be faced during OMFS applications is high compared to general dentistry and low

compared to medical surgery branches. This result is compatible with the definition of "3rd level high-risk branch" for OMFS experts and research assistants, stated in the "Communiqué on the procedures and principles regarding the institutional contribution in the compulsory liability insurance for medical malpractice". On the other hand, a statistically significant difference was found between the defensive dentistry scores of the participating physicians with and without a litigation history ($p < 0.05$). This result supports the view that past lawsuits affect the defensive attitude of physicians (5).

In the current literature, there are very few studies dealing with the defensive attitudes of dentists. The study conducted by Başer et al. on 66 dentists in 2014 reported that 45.5% of dentists applied very high, 33.3% high, 15.2% moderate, and 6.1% poor defensive dentistry. (10) The mean defensive dentistry score of the dentists participating in this study was 44.96 ± 10.07 . In our study, it was concluded that 47.6% of the participant dentists applied very high, 41.3% high, 11.1% moderate defensive dentistry, and the mean defensive dentistry score was 46.25 ± 7.42 . Although OMFS specialists and research assistant dentists have higher defensive dentistry scores compared to the dentists working in the ministry of health, it is seen that the mean defensive dentistry scores are similar.

The study published by Saruhan et al. in 2018, which included 120 dentists, reported that defensive dentistry attitudes are common among dentists. In this study, the question "What is your risk of encountering a medical malpractice lawsuit?" was answered "high" by 39% of the participants, "very high" by 13%, and "extremely high" by 20% (19). In our study, 55.5% of the participants answered "Yes" to the question "Do you think you will be sued for malpractice in the next 10 years?" In addition, it was concluded that physicians who expect litigation in the future have statistically significantly higher defensive dentistry scores. Considering that the primary purpose of defensive attitudes is to be protected from legal processes, it can be said that this result is not surprising.

Analysis of the defensive dentistry scores of the physicians working in different institutions revealed that the physicians working as university staff have statistically significantly lower defensive dentistry scores compared to the physicians working in the ministry of health and private clinics, and there was no statistically significant difference between physicians working in the ministry of health and working in private clinics. It can be said that this difference may be due to the fact that the faculty of dentistry is a tertiary health

care institution, and the consultant physicians/faculty members can be consulted within the institution instead of referral to a different institution. Moreover, analysis of the relation between the time spent in the patient-physician relationship and the defensive dentistry scores of the participating physicians showed that the defensive dentistry scores of the physicians increased as the time spent in the patient-physician relationship increased, but this difference was not statistically significant. Along with this finding, considering that the majority of the physicians working as university staff (71.4%) are research assistants, it can be said that the shorter time spent in patient-physician relationships compared to specialist physicians may also have contributed to this situation.

When the participants' level of knowledge on defensive dentistry was assessed with the question "Have you heard of the concept of defensive dentistry before?" , 29 of them (46%) answered "Yes", 34 of them (54%) answered "No". In response to the question "Do you think you have enough knowledge about the content of the concept of defensive dentistry?" , 7 participants (11.1%) answered "Yes", while 56 participants (88.9%) answered "No". Based on these results, it can be asserted that awareness and knowledge levels about defensive dentistry should be improved.

Conclusion

As in all surgical branches, malpractice and complications are frequently encountered in the OMFS branch. It is an expected situation that the defensive attitudes of "high risk" branches, where malpractice and complications are more common, will increase in direct proportion to the risk that they face. In our study, we concluded that since the OMFS branch is riskier than general dentistry, OMFS specialists and research assistants commonly practice defensive dentistry. On the other hand, it has been determined that OMFS specialists and research assistants do not have sufficient knowledge about the concept of defensive dentistry, therefore we think that including training on the concept of defensive dentistry in graduate or post-graduate programs would be beneficial.

Ethical Approval

The ethical committee approval was obtained from the Suleyman Demirel University Faculty of Medicine Clinical Research Ethics Committee with the decision dated 30.12.2020 and numbered 407.

Conflict of Interest

The authors have no conflicts of interest to declare.

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