

Patients' perceptions and preferences of oral and maxillofacial surgeons in a university dental hospital

Purpose

There is a lack of information regarding the dental patient's point of view of oral and maxillofacial surgeons (OMFSs). The aim of this study was to evaluate the perceptions and preferences of a group of university dental hospital patients for OMFSs.

Materials and methods

This study was based on patients' self-assessment using a questionnaire. A total of 530 patients were enrolled for the study. The patients' preferences regarding the surgeons' age, gender, religion, race and experience were determined and compared statistically.

Results

A total of 506 questionnaires were considered as complete and used in the analysis. Female patients preferred female practitioner more than male patients did ($p=0.002$), but no significant difference was found between male and female patients regarding preference for the age ($p=0.464$), ethnicity ($p=0.926$) and religion ($p=0.261$) of the OMFS. The educational status of the patients did not have an effect on the gender preference for the OMFS ($p=0.114$); however, educational status significantly affected the preferences for the ethnicity and religion of the practitioners ($p=0.001$).

Conclusion

Today patient expectations and perceptions take place in post graduate education programs. In this study we determined a wide range of different factors for choosing an OMFS. The diversity of these factors may affect the quality of the health service and thus must be considered in determining the content of oral and maxillofacial curriculum.

Keywords: Educational status; patient perception; patient preference; practitioner gender; oral and maxillofacial surgeon

Introduction

Each medical practitioner has a unique personality profile depending on his/her birthplace, cultural status, and living conditions, as well as financial status. This variety of factors influences patients' demands and the service provided by the health care professionals; therefore, there appears to be a great challenge to deliver an effective and patient-sensitive health service. A few studies have focused on the demographic details of the medical and dental health care providers by considering patients' preferences and perceptions. Patients' preferences for their dentist mainly focus on the health care professionals' ability to communicate, express empathy, and manage pain. Other personal factors including gender, age, ethnicity, and attire may also influence the patient's perception (1-8). Besides, the physical environment of the dental office or quality of the

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service given (timeliness, communication, following recent scientific developments) may play a role in the patients' decision when choosing a dentist (1, 4, 5, 9). All of these aforementioned factors may affect the patient's decision or may be perceived as reflecting the 'quality of the dental service'. The quality of the health service is defined as a multifactorial concept including patient safety, patient experience, access and clinical effectiveness (1, 2, 5, 9). Standards and guidelines regarding health service quality focus on patient oriented, efficient and equitable facilities from which all patients can benefit.

Recent studies have mainly focused on the qualifications of general dentists; however, to our knowledge there is no previous research regarding the interaction between the patient and the oral and maxillofacial surgeons (OMFS). The aim of this study was therefore to evaluate patients' perceptions of and preferences of OMFS in a university dental hospital. The null hypothesis of the study is: OMFS related variables have no effect on the patients' perception and preferences.

Materials and methods

Sample selection

This study used a randomized, experimental, between-subjects design to assess patients' preferences and perception of OMFSs. Ethical approval was obtained from the İstanbul Medipol University ethical committee (No: 108400987-75). Between the years of 2015 and 2016, a total of 530 patients whom had been referred to oral and maxillofacial department of İstanbul Medipol University Dental Hospital with an initial treatment plan indicating the need for oral surgical procedures were randomly included in the study. Subjects who are illiterate, undergoing psychiatric/psychological therapy and/or psychiatric medication, under 18 years of age and unwilling to participate in the study were excluded.

Administration of the questionnaire

As our hospital is located in the center of İstanbul, it can be considered an urban academic dental center. Patients were randomly selected among those who had been given an appointment by the oral and maxillofacial surgery department but not yet seen an OMFS. Consenting patients completed the questionnaire in the waiting room prior to their first visit to our clinic in order to prevent bias that may result from the treatment outcome and from their impression of attendant OMFS. The multiple choice questionnaire consisted of three sections. The first part included basic demographic information about the participants; (i.e. age, gender, educational level). The second part included the presence of a dentist or an OMFS in the family, and any history of oral and maxillofacial surgical intervention. The third part consisted of questions and statements to assess the patients' preferences for, and perceptions of an OMFS such as gender, age, race, religion, professional experience and so on.

Statistical analysis

The study's data were assessed using the IBM Statistical Package for the Social Sciences (SPSS) Statistics 22 program (IBM Corp.; Armonk, NY, USA). The compliance of the variables with a normal distribution was assessed using the Shapiro-Wilks test. Descriptive statistical methods (mean, standard deviation, frequency) were used and one-way Anova and Tukey's Honestly Significant Difference post-hoc test were employed in the comparison of the quantitative data and comparison of inter-group data. Student's t test was used to compare two groups showing a normal distribution. For the comparison of the qualitative data, the χ^2 test, Fisher's exact test and Yates Continuity Correction were used. The level of $p < 0.05$ was considered statistically significant.

Results

Twenty-four forms were excluded during the assessment procedure due to incomplete questionnaires or patients' voluntary withdrawal from the study. Consequently, 506 questionnaires were considered as complete and were used in the analysis. The age range of the patients varied from 18-75 years with a mean age of 33.7 ± 12.38 years. One hundred and ninety-three patients were males (38.1%) whereas 313 were females (61.9%). The educational background of the patients was primary school graduate ($n=128$, 25.3%), high school graduate ($n=158$, 31.2%), university graduate ($n=197$, 38.9%), and postgraduate ($n=23$, 4.5%).

Eighty patients stated that there is a general dentist in their family (15.8%), an OMFS ($n=15$, 3%), both ($n=31$, 6.1%), none ($n=344$, 68%), or that had no idea ($n=36$, 7.1%). The majority of patients previously had an oral and maxillofacial surgical procedure ($n=366$, 72.3%), whereas others either had not had such an operation ($n=129$, 25.5%) or did not remember at that time ($n=11$, 2.2%) (Table 1).

Regarding the physical and professional features of an OMFS, 64 patients preferred a physically strong OMFS (12.6%), 419 (82.8%) preferred a staff OMFS (rather than a post graduate student), 169 (33.4%) preferred an OMFS that was suggested by the family or friends and 81 (16%) preferred a competent OMFS whereas 22 (4.3%) could not decide (Table 2).

Fifty patients (9.9%) preferred a female OMFS, 77 (15.2%) preferred a male OMFS, 357 (70.6%) stated they would accept both genders and 22 (4.3%) could not decide. When the patients' age preference for the OMFS was analyzed, 196 patients (38.7%) preferred an OMFS between 35-50 years of age, 71 (14%) preferred an OMFS between 25-35 years of age, 28 (5.5%) preferred an OMFS between 50-65 years of age and two (0.4%) preferred over 65 years of age, whereas 188 (37.2%) declared that the age of the practitioner did not matter and 21 (4.2%) were hesitant. Of all of the patients 341 (67.4%) indicated that the ethnic background of the OMFS did not matter, 140 (27.7%) indicated that being of the same ethnicity was an important factor in their preference for an OMFS, whereas 25 patients (4.9%) were hesitant. The religion of the OMFS was not indicated to be an important factor by some patients ($n=328$, 64.8%), whereas others preferred an OMFS of the same religion as their own ($n=151$, 29.8%) and the other patients were hesitant ($n=27$, 5.3%) (Table 3).

Table 1. Demographic characteristics of the patients and their previous experience towards oral and maxillofacial surgery

	n	%
Age (years)		
14-19	45	8.9
20-29	176	34.8
30-39	133	26.3
40-49	93	18.4
Over 50	59	11.7
Gender		
Male	193	38.1
Female	313	61.9
Educational status		
Primary school	128	25.3
High school	158	31.2
University	197	38.9
Post graduate	23	4.5
Any general dentist/OMFS in the family or among friends?		
General dentist	80	15.8
OMFS	15	3
Both	31	6.1
None	344	68
No idea	36	7.1
Previously OMF surgical procedure?		
Yes	366	72.3
No	129	25.5
No idea	11	2.2

OMFS: oral and maxillofacial surgeons

Table 2. Patients' preferences for oral and maxillofacial surgeons

	n	%
Physically strong	64	12.6
A university staff	419	82.8
Suggested by the family or friends	169	33.4
Middle aged competent	81	16
No idea	22	4.3

There was a significant difference between male and female participants when considering the gender preference for an OMFS. Female patients preferred a female practitioner more than male patients did ($p=0.002$), but no significant difference was found between male and female patients considering the preference for the age ($p=0.464$), ethnicity ($p=0.926$) or religion ($p=0.261$) of the OMFS.

The educational status of the patients did not make a difference in the gender preference for the OMFS ($p=0.114$); however, their educational status did significantly affect preference for the ethnicity and religion of the practitioners ($p<0.05$). Primary school graduates significantly preferred an OMFS of the same ethnicity as their own ($p=0.001$). Further-

more, primary school graduates preferred an OMFS of the same religion as their own ($p=0.001$).

There was no significant difference between male and female patients in terms of age preference for the practitioner ($p=0.464$). Regarding educational status of the patients, there was not a significant difference between the education of the patients and the preference for the practitioner's age ($p=0.07$).

The gender of the patients did not significantly affect preference for a physically strong OMFS ($p=0.698$), a staff OMFS ($p=0.158$), or a competent OMFS ($p=0.636$); however, female patients preferred an OMFS that was suggested by the family or friends significantly more than males did ($p=0.042$). The education status of the patients did not significantly affect preference for a physically strong OMFS ($p=0.813$), or an OMFS that was suggested by the family and friends ($p=0.176$); however, the preference rate for a competent OMFS ($p=0.003$) or a staff OMFS ($p=0.006$) was significantly lower in primary school graduates than in the other school graduates.

Discussion

The factors affecting a patient's preference for a health care provider may influence their health needs, quality of life,

Table 3. Demographic characteristics of an oral and maxillofacial surgeons preferred by the patients

	n	%
Practitioner's gender		
Female	50	9.9
Male	77	15.2
No difference	357	70.6
Hesitant	22	4.3
Practitioner's age (years)		
25-35	71	14.0
35-50	196	38.7
50-65	28	5.5
Over 65	2	0.4
No difference	188	37.2
Hesitant	21	4.2
Practitioner's ethnicity		
The same ethnicity	140	27.7
No difference	341	67.4
Hesitant	25	4.9
Practitioner's religion		
The same religion	151	29.8
No difference	328	64.8
Hesitant	27	5.3

and satisfaction. The factors reported to be important when choosing a doctor are the doctor's competence, recommendation from someone well-known to the patient, quality of the service and interpersonal factors (1, 4, 10, 11). Patient perception and satisfaction are becoming more crucial when assessing the quality of the medical service provided. Patients take into account a variety of factors when choosing a health care provider (2, 12, 13). Patient satisfaction is multifactorial and the demographic features of the dental practitioner influence the preference and perception of the patients. Various factors have been investigated regarding patients' preference for doctors, including willingness to disclose information and discuss symptoms and general aspects of the doctor-patient relationship. Patients' tendency to prefer same-sex practitioners as well as their consideration of their ethnic background, communication skills, and experience are among the most emphasized points. Satisfaction and trust are interrelated concepts; the more the patient is satisfied, the more they trust the practitioner, thereby facilitating the performance of medical treatment and reducing anxiety (1, 2, 6-9, 12).

Ungureanu *et al.* (1) investigated factors affecting dental patients' choice of dentists. The most mentioned factors were the dentist's competence (22.22%), recommendation from someone known to the patient (20.56%) and quality of the service provided (19.72%). They applied their results to modify dental curricula in order to train dental students in a manner that will meet patients' expectations and increase patient satisfaction. The patient-doctor interaction should be emphasized during professional graduate and postgraduate

education. In a study conducted among parents of orthodontic patients, the parents showed a positive preference for orthodontists to wear formal attire or scrubs, to have controlled hair, and to have a nametag, and preferred younger women and older men (14). In our study, we did not evaluate patients' preference for OMFS attire, but the physically strong appearance of the surgeon did not influence the patients' choice.

The same-gender preference for health care providers among modern societies is relevant in up to 35% of patients (15). In this study, female patients preferred a female OMFS more than male patients did, which is probably due to better communication skills or a closer relationship between women. Furthermore, the conservative and Islamic nature of the general population may cause the hesitation of the female patients for male doctors. A study by Smith *et al.* (16) confirmed our results that indicate that the preference for female dentists by the patients may be attributable to empathy skills and the more time they spend with their patients. An interesting point is that it may be only female patients in our study who preferred female practitioners more compared to males. The general belief regarding female practitioners is that, they have better personal and emotional skills and the patients may participate more in consultations with female doctors (2, 3, 10, 12, 16).

The practitioner's age may influence the patient's preference, but there is a lack of evidence. Patients may prefer middle-aged or older practitioners because they feel that medical experience increases with age (2, 5, 14). Another question that needs to be answered is whether patients prefer practitioners

who are a similar age to themselves. Two studies have reported that patients prefer younger dentists which may be related to their up-to-date knowledge and following of recent scientific developments (12, 17).

One important issue in both the medical and dental health service is the ethnic and religious disparities. In this study the ethnic background of the practitioner included belonging to a specific ethnic society or language differences. Research studies suggest that patients are more satisfied if they have the opportunity to choose their practitioner (6, 8, 10). There is evidence that patient-doctor racial concordance exists to some extent in medicine and dentistry. Geographical accessibility, using the same language or socioeconomic status may be factors that influence same race preference. In the literature, it is suggested that patients particularly females tend to prefer practitioners from the same ethnic group so that they can communicate better and feel more relaxed (4-6, 8). The language and cultural concordance between the patient and practitioner is reported to be more important than the gender of the practitioner (5). A practitioner with similar values can be more reliable for the patients. In this study we noticed that the educational status of the patients affected their search for concordance with practitioners in terms of their ethnic background and religious beliefs. The ethnic and religious concordances were more important among primary school graduates than other school graduates. This may be due to an increase in conservatism and traditionalism that is parallel with a decrease in the level of education. In a study by Abghari *et al.* (18) it was indicated that a possible correlation existed between the increasing education level of the patient and the quality of training of their orthopedic surgeon. We may assume that as the level of education increases, patients have more demands related to quality and prestige, but those who had a lower education seek for more conservative factors. Some research results suggest that empathy and communication skills are also important for some patients besides the race or gender of the practitioner (4, 19, 20). The cultural competency curricula in postgraduate oral and maxillofacial surgery education should be redesigned or initiated if it is not present, taking into account the outcome measures of cultural competency instructions and patients' expectations.

Shah and Ogden (21) have emphasized that patients no longer perceive practitioners only in terms of being health care providers, but also consider the practitioner's social characteristics when making decisions. Patients preferences for and perceptions of an OMFS may be important for establishing reliable and good patient-doctor relations. This trust-based relation may enhance the quality of the health service and help to meet the needs of the patients.

Conclusion

Oral and maxillofacial surgery comprises of a multidisciplinary approach that has both dental and medical components. In some countries it is included in only dental programs, whereas in some countries both dental and medical degrees are required. Both undergraduate and graduate medical education should focus on patients' perception and preferences to build reliable interaction between practitioners and pa-

tients. Communication skills gain importance in this aspect; therefore, dental education programs need to be re-evaluated accordingly.

Ethics Committee Approval: Ethics committee approval was received for this study from the ethics committee of İstanbul Medipol University (No: 108400987-75).

Informed Consent: This is a questionnaire study. The participants joined to the study on voluntary basis. We have ethical approval but we did not need informed consent from the patients.

Peer-review: Externally peer-reviewed.

Author Contributions: GG and ÇD designed the study and generated the data. İK gathered and analyzed the data. GG and ÇD wrote the paper. All authors have approved the final version of this paper.

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Türkçe öz: Bir üniversite diş hastanesine başvuran hastaların oral ve maksillofasial cerrah algıları ve tercihleri. Amaç: Diş hekimliği hastalarının oral ve maksillofasial cerrahlar (OMFC) ile ilgili görüşlerine yönelik veri eksiktir. Bu çalışmanın amacı bir üniversite diş hastanesine başvuran bir grup hastanın OMFC ile ilgili algı ve tercihlerinin araştırılmasıdır. Gereç ve Yöntem: Bu çalışma özel hazırlanmış bir anket kullanılarak hastalardan elde edilen veriler üzerinde yapılmıştır. Toplam 530 hasta çalışmaya katıldı. Hastaların cerrahın yaşı, cinsiyeti, dini, etnik kökeni ve deneyimine yönelik tercihleri belirlenerek istatistiksel olarak karşılaştırıldı. Bulgular: Toplam 506 anket tam kabul edildi ve değerlendirilmeye alındı. Kadın hastalar erkek hastalara göre daha fazla kadın cerrah tercih etmekteydi ($p=0,002$) ancak, kadın ve erkek hastalar arasında cerrahın yaşı ($p=0,464$), etnik kökeni ($p=0,926$) ve dinine ($p=0,261$) ilişkin anlamlı bir tercih farkı yoktu. Hastaların eğitim seviyesi ile cerrahı cinsiyetine göre tercih etmek arasında anlamlı bir ilişki yoktu ($p=0,114$); ancak hastaların eğitim seviyesinin, cerrahın etnik kökenini ve dinini dikkate alarak tercih etme açısından anlamlı etkisi bulundu ($p=0,001$). Sonuç: Günümüzde mezuniyet sonrası eğitim programlarında hastaların beklentilerine ve algılarına yer verilmektedir. Bu çalışmada hastaların OMFC seçiminde pek çok faktörün etkili olduğu görüldü. Bu faktörlerin değişkenliği verilen sağlık hizmetinin kalitesini etkileyebilmektedir ve bu nedenle oral ve maksillofasial cerrahi eğitim programının içeriği belirlenirken göz önünde bulundurulmalıdır. Anahtar kelimeler: Eğitim seviyesi; hasta tercihi; hasta algısı; hekim cinsiyeti; oral ve maksillofasial cerrah

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