

Dental Students' Awareness of the Importance of Communication Skills

Diş Hekimliği Öğrencilerinin İletişim Becerilerinin Önemi Konusundaki Farkındalıkları

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ABSTRACT

INTRODUCTION: Good communication between oral health care providers and their patients plays an important role in the success of dental treatment provided. The aim of the present survey was to investigate the awareness of the dental students on the importance of communication skills and their willingness to be trained for improving their skills.

METHODS: A questionnaire including 22 questions to evaluate students' awareness of communication skills and their approach towards gaining communication skills was prepared and 3rd, 4th, and 5th year students were reached via sending an online link. The findings were evaluated statistically by Kruskal-Wallis test, Wilcoxon test and Correlation analysis.

RESULTS: While 346 of the 491 students participated the survey, 301 students answered all the questions of the questionnaire, thus the overall response rate was 61.3%. The majority of the students were aware of the importance of communication skills and willing to gain these skills during their dental education. Different genders and different classes exhibited differences in attitudes towards the evaluated aspects.

DISCUSSION AND CONCLUSION: Overall, the students seem to be aware of the importance of the communication skills for their career and they are willing to gain these skills during their training in the dental school.

Keywords: Communication skills, awareness, dentistry, student, questionnaire

ÖZ

GİRİŞ ve AMAÇ: Ağız sağlığı hizmeti sağlayıcıları ve hastaları arasındaki iyi iletişim, sağlanan tedavinin başarısında önemli bir rol oynar. Bu araştırmanın amacı, diş hekimliği öğrencilerinin iletişim becerilerinin önemi konusundaki farkındalıklarını ve bu becerilerini geliştirmek için eğitim alma isteklerini araştırmaktır.

YÖNTEM ve GEREÇLER: Öğrencilerin iletişim becerilerine yönelik farkındalıklarını ve iletişim becerilerini kazanma yaklaşımlarını değerlendirmek için hazırlanan ve 22 sorudan oluşan anket, 3., 4. ve 5. sınıf öğrencilerine online bağlantı gönderilerek ulaştırıldı. Bulgular Kruskal-Wallis testi, Wilcoxon testi ve Korelasyon analizi ile istatistiksel olarak değerlendirildi.

BULGULAR: 491 öğrenciden 346'sı ankete katılırken, 301 öğrenci anketteki tüm soruları yanıtladı, böylece genel yanıt oranı %61,3'tü. Öğrencilerin çoğunluğu iletişim becerilerinin öneminin farkındaydı ve bu becerileri diş hekimliği eğitimleri sırasında kazanmaya istekliydiler. Öğrencilerin cinsiyeti ve öğrenim dönemi, değerlendirilen yönere yönelik tutumlarda farklılıklar gösterdi.

TARTIŞMA ve SONUÇ: Diş hekimliği öğrencilerinin kariyerleri için iletişim becerilerinin öneminin farkında oldukları ve bu becerileri eğitimleri sırasında kazanmaya istekli oldukları görülmektedir.

Anahtar Kelimeler: İletişim becerileri, farkındalık, diş hekimliği, öğrenci, anket

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INTRODUCTION

Interpersonal communication is defined as the process of sending, receiving, and interpreting information through verbal and non-verbal channels between people. It is known that health care workers who are constantly in contact with different people need good communication skills, which are in the context of transferable skills.¹ A successful clinical dental practice also requires more than professional knowledge and technical skills.² Patients evaluate the professional success of dentists according to the communication they build up and the individual attention they receive.²

Research shows that good communication between patients and physicians has several benefits, such as achieving better clinical results, increasing patient satisfaction, decreasing anxiety levels of patients and the possibility of making formal complaints.³ In addition, positive communication between patients and dentists facilitates positive behavioural changes, such as increased awareness of the importance of oral health, better adherence to physician recommendations, and increased retention of treatment.⁴ Furthermore, patients expect more explanations from dentists to participate in the decision-making process about treatment plan.⁵ In order to fulfil all these expectations, dentists should be able to ask the correct questions, listen effectively, and provide clear and understandable information while communicating with their patients.⁵

Students just begin to clinical practice experience anxiety and lack of confidence because they have deficiencies in communication skills with patients. Approaches that increase communication skills are important for dentistry students to have stable self-confidence and to provide dental treatments competently.⁶ According to the national regulations in many countries, it is accepted that a well-trained dentist should be competent in communication skills.^{7,8} National organizers of education programs recommend training of undergraduate students for communication skills.^{9,10} Although the importance of communication skills in dentist-patient interaction and the necessity of training on this field are known, there is no consensus and clarity on how to gain these skills.¹¹ However, examples of curriculum models or course designs that include traditional passive teaching methods and active teaching methods are available in the literature.^{1,12,13}

Attitudes play an important role in explaining and predicting behaviours.¹⁴ Dentistry students' attitudes towards communication skills can be an indicator of perceived importance and a determinant of their motivation level also affecting communication behaviours in the clinical setting with their patients and the dental team.¹⁵ Therefore, students' awareness about the importance of communication skills and developing positive attitudes throughout their undergraduate

education is as important as gaining knowledge about communication.^{16,17} Thus, there is a timely need to investigate students' attitudes and awareness on this issue.¹⁶ Few studies are available that evaluated students' views and attitudes on a national basis.¹⁸

Most of the published studies have indicated an overall openness and willingness of dentistry students to gain communication skills.^{11,18,19} In the light of this information, we hypothesized that dentistry students would be willing to gain these skills as long as they know the importance of professional communication skills. The aim of this study was to evaluate the level of awareness of students studying in the School of Dentistry, Ege University about communication skills and their attitude towards gaining these skills, and finally to investigate the relationship between these inferences and demographic characteristics.

Variables of the study

The independent variables of the study were the demographic characteristics of the students (gender and the study year), their awareness of the importance of communication skills. The dependent variable was their willingness to gain communication skills.

MATERIALS and METHODS

A questionnaire including 22 questions was created to collect data in this research. The first part of the questionnaire included two questions about the demographic characteristics of the participants, the second part under the title of importance, included 10 questions to evaluate students' awareness of communication skills, whereas the last part under the title of demand, included 10 questions to evaluate students' approach towards gaining communication skills (Table 1 and 2). The survey was approved by the Medical Research Ethics Committee, School of Medicine, Ege University with the date of 21/08/2020 and the number of 20-8.1T/38. The survey was initiated after obtaining the ethical approval. While all the questions in the questionnaire were closed-ended, a total of 16 questions, including nine questions from the importance section and seven questions from the demand section, were evaluated on a five-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree) (Table 1).

In the present study, the intentional sampling method, which is an improbable sampling method was used. The improbable sampling methods are characterised by unequal chance of individuals to take part in the study sample, the personal willingness and subjective standards of judgement play a role in determining the sample size. The intentional sampling method enables selecting a sample that fits to the purpose of the study and is frequently used particularly in clinical studies involving real patients.²⁰

Tablo 1. Önem ve İstek başlığı altındaki likert tipi sorular

| | Önem | İstek |
|----|---|---|
| 1. | İyi iletişim becerisi, bir diş hekiminin sahip olması gereken özelliklerden biridir. | Lisans döneminde iletişim becerileri ve motivasyonel görüşmeye yönelik eğitim olması gereklidir. |
| 2. | İletişim becerileri ve motivasyonel görüşmeye yönelik eğitim almak arkadaşlarımla olan grup içi uyumumu artırır. | İletişim becerileri ve motivasyonel görüşmeye yönelik eğitim almanın ilginç ve eğlenceli olacağını düşünüyorum. (|
| 3. | İletişim becerileri ve motivasyonel görüşmeye yönelik eğitim almak hastalarla olan iletişim geliştirir. | İletişim becerileri ve motivasyonel görüşmeyi öğrenmenin kolay olduğunu düşünüyorum ve bir eğitim ihtiyacı hissetmiyorum. |
| 4. | İletişim becerileri ve motivasyonel görüşmeye yönelik eğitim almak hastaların kaygı, korku, beklenti ve şikayetlerini anlamaya yardımcı olur. | Klinik uygulamalar sırasında motivasyonel görüşme için yeterli zamanım olmadığını düşünüyorum. |
| 5. | İletişim becerileri ve motivasyonel görüşme tarzını öğrenmenin diş hekimliği becerilerini de geliştireceğini düşünüyorum. | Muayene sırasında hastalara açık uçlu sorular sormaktansa kapalı uçlu (evet/hayır cevaplı) sorular sormayı tercih ederim. |
| 6. | İletişim becerisi kazanmak sadece mesleki anlamda değil yaşam boyunca hayatın her alanında faydalıdır. | Hastaları ağız bakımı ve diş hekimliği uygulamaları konusunda motive etmek beni mutlu ediyor. |
| 7. | İletişim becerileri ve motivasyonel görüşme bütün diş hekimliği uygulamalarında fayda sağlar. | Mezuniyet sonrası dönemde iletişim becerileri ve motivasyonel görüşmeye yönelik kurslara katılmayı düşünüyorum. |
| 8. | Motivasyonel görüşme tarzının kaygı seviyesi yüksek olan hastaların tedaviye ikna edilmesi için kaçınılmaz olduğunu düşünüyorum. | |
| 9. | İletişim becerileri ve motivasyonel görüşme kullanmadan periodontal tedavinin başarılı olmayacağını düşünüyorum. | |

Tablo 2. Önem ve İstek başlığı altındaki likert tipi olmayan sorular

| Sorular | Cevap Seçenekleri | | | | |
|--|--|--|----------------------------------|----------------------------|-------------------------------------|
| Hangileri için motivasyonel görüşmenin faydalı olacağını düşünürsünüz? | Ağız bakımı alışkanlıklarını değiştirmede | Stresle baş etmede | Tütün ürünü tüketimini azaltmada | Alkol tüketimini azaltmada | Diyet alışkanlıklarını değiştirmede |
| İletişim becerilerine yönelik bir eğitimin hangi dönemde ya da dönemlerde verilmesini tercih edersiniz? | 1. sınıf | 2. sınıf | 3. sınıf | 4. sınıf | 5. sınıf |
| İletişim tekniklerini öğrenmenin en iyi yolunun hangisi olduğunu düşünürsünüz? | Klinik stajlardan önce müfredat içindeki teorik ders | Teorik ders ile birlikte pratik uygulama dersi | Sadece pratik uygulama dersi | Mezuniyet sonrası kurslar | |
| Motivasyonel görüşme ve iletişim tekniklerini kullanma konusunda hissettiğiniz engelleri en fazladan en aza doğru sıralayınız. | Hastaya bağlı kişisel faktörler | Zaman sınırlaması | Ortama bağlı faktörler | Hekime bağlı faktörler | |

The students studying in the Dental School are the universe of the present study and the study sample is the 3rd, 4th, and 5th year students studying in School of Dentistry, Ege University. During the first two years, the dentistry students gain professional formations and practice in the clinics during the following three years. Considering this schedule, the 3rd, 4th, and 5th year students were included in the present study. The research population consists of 491 students studying in the third, fourth, and fifth year in School of Dentistry, Ege University in the 2020-2021 academic year.

The questionnaire data were obtained in March 2021 by contacting with all the students. The "eSurvey Creator" infrastructure was used as the face-to-face education was delayed due to the Covid-19 pandemic and the survey was sent to the students via a link. Another reason for using the online survey technique was to reach as many as students in a shorter time period, lack of published information on the parameters particularly related to the aim of the present study, and unlikelihood of obtaining these parameters in the present experimental and observational conditions.²¹ Furthermore, the pandemic conditions also emphasised the advantages of online survey as online surveys enable easy and fast data collection due to the technology development and dissemination of internet. In order to ensure the participation of as many students as possible, the link was shared with the students three times. The questionnaires were kept anonymous, and participation in the study was on a voluntary basis. The survey had a cover page stating the purpose of the study, the anonymity and confidentiality of the answers. Students' voluntarily filling out the questionnaire via the link was considered a confirmation of their willingness to participate in the study, as the questionnaire was anonymous.

Statistical analysis

The findings were analysed using SPSS software (SPSS Inc. version 21 IBM, Chicago, ABD). The number, percentage, mean and standard deviations of all variables were determined by the descriptive statistics. Chi-square test was applied to compare nominal and ordinal data. The normality in continuous variables was examined with the Shapiro-Wilk test and the data did not show normal distribution ($p < 0.05$). Therefore, non-parametric tests were used in the study. Kruskal-Wallis test was used for the comparisons between the groups, and Wilcoxon test was used for the repeated measurements. The averages of the survey questions measuring a certain parameter were calculated using a Likert scale. The relationship between the dependent and the independent variables (grade and gender) was determined by linear regression analysis. Spearman Rho rank correlation test was used to determine the correlation between the dependent variables. The upper limit for statistical significance was taken as 0.05.

RESULTS

While 346 of the 491 students participated the survey, 301 students answered all the questions of the questionnaire, thus the overall response rate was 61.3%. Evaluations were based on the answers given by these 301 students, of whom 179 (59.5%) were female and 122 (40.5%) were male. Looking at the classes of the students, 84 (27.9%) were in the 3rd, 103 (34.2%) were in the 4th, and 114 (37.9%) were in the 5th year with the response rates of 45.6%, 68.6%, and 72.6%, respectively (Table 3).

Table 3: Distribution of survey participants according to the class and gender.

| | n | (%) |
|-----------------------|-----|---------|
| Class (n=301) | | |
| 3rd year | 84 | (27.9%) |
| 4th year | 103 | (34.2%) |
| 5th year | 114 | (37.9%) |
| Gender (n=301) | | |
| Male | 122 | (40.5%) |
| Female | 179 | (59.5%) |

When the Likert-type expressions under the title of importance were analysed, the majority of responses were positive in all expressions in all the three classes and in both genders. When the responses of the students in the three classes were compared, a significant difference was found only in the expression "I think that periodontal treatment will not be successful without using communication skills and motivational interviewing." Third year students gave more "neutral" answer to this statement. When the answers of the female and male students were compared, male students chose the "neutral" answer at a higher rate at the expression of "Training on communication skills helps to understand the anxiety, fear, expectation, and complaints of the patients."

When the Likert-type expressions under the title of demand were analysed, most of the students in all three classes and in both genders expressed positive opinions about the necessity and fun of training in communication skills. Positive, negative, and neutral response rates to the statement "I don't feel the need for training in communication skills" were similar in the three classes. While the female students gave the response of strongly disagree and disagree at the highest rate, the male students gave the answer of strongly agree and agree response at the highest rate to the same statement. Most of the students in all three classes and in both genders stated that they don't have enough time for motivational interviewing, they prefer to ask closed-ended questions to their patients, but also that motivating their patients

make them happy. Positive and neutral response rates to the statement "I'm planning to attend communication skills courses in the post-graduation period" were similar in all three classes and in both genders. When the responses were compared among classes, 3rd grade students answered, "I strongly agree" at a lower rate to the statement, "I think that I do not have enough time for motivational interviewing during clinical applications." On the other hand, to the statement that "I am happy to motivate patients about oral care and dental practices." 3rd year students gave the answer "I have no idea" more frequently. When the responses of female and male students were compared, male students answered, "I have no idea" at a higher rate to the statements, "I think that I do not have enough time for motivational interview during clinical applications." and "I am happy to motivate patients about oral care and dental practices."

Most of the students in all three classes and both genders chose "3rd year" as the best timing of training on communication skills. More 3rd and 4th year students compared to the 5th year students chose "1st grade" and "2nd year" for communication skills training. More female than male students chose the "4th year" as the best timing for training of communication skills. Majority of the students in all three classes and both genders chose "Practical application along with the theoretical course" as the best way to learn communication techniques. There was no significant difference between different year students or genders.

When the response distributions of the final question "Rank the barriers, you feel in using motivational interviewing and communication techniques from the most to the least." were examined according to the year

and gender of the students, the barriers that the students felt in using motivational interviewing and communication techniques were scored similarly. It was seen that the factors related to environment were ranked lower than those related to time and patient in all classes and both genders ($p < 0.05$), and factors related to the clinician were ranked lower than those related to the environment, patient, and time limitation ($p < 0.05$).

The effects of the independent variables on the dependent variables "Importance" and "Demand" were examined, and it was seen that the gender and year of the students did not have a significant effect on the dependent variables. When the relationship between "Importance" and "Demand" dependent variables was analysed, a significant positive relationship was found (Table 4). When the relationship between dependent variables and independent variables was analysed separately, there was a significantly positive relationship between all classes and both genders and "Importance" and "Demand". However, the relationship between "Importance" and "Demand" was higher in the female students and 4th year students compared to the other groups (Table 5).

Table 4: The correlation between "Importance" and "Demand"

| | | Demand |
|------------|--------------------------|---------|
| Importance | Spearman Rho Correlation | 0.520** |
| | Sig. (2-tailed) | 0.000 |

Table 5: The correlation between the students' class and gender and dependent variables

| | | Demand | |
|------------|--------------------------|--------------------------|---------|
| Importance | 3rd year | Spearman Rho Correlation | 0.449** |
| | | Sig. (2-tailed) | 0.000 |
| | 4th year | Spearman Rho Correlation | 0.658** |
| | | Sig. (2-tailed) | 0.000 |
| | 5th year | Spearman Rho Correlation | 0.440** |
| | | Sig. (2-tailed) | 0.000 |
| Male | Spearman Rho Correlation | 0.482** | |
| | Sig. (2-tailed) | 0.000 | |
| Female | Spearman Rho Correlation | 0.540** | |
| | Sig. (2-tailed) | 0.000 | |

DISCUSSION

In the present study, awareness of the students at Ege University, School of Dentistry about communication skills and their tendency to gain these skills were evaluated by a questionnaire. The overall response rate of the questionnaire was 61.3% with 301 participants and

this response rate is lower than those of previous studies reporting 62%-88% response rates.^{18,22-24} This difference may be explained by the difficulty of reaching and communicating with students due to the distant education conditions during the Covid-19 pandemic.

Female participants (59.5%) were more than males and 27.9% of the participants were in the 3rd, 34.2% in the 4th, and 37.9% were in the 5th year. The highest response rate was obtained in the 5th year (72.6%), and the lowest in the 3rd year (45.6%). A previous survey reported distribution of the 1st, 2nd, 3rd, and 4th year students as 23.5%, 26.7%, 31.3%, and 18.5%, respectively. The response rates of the 1st, 2nd, 3rd, and 4th year students were 71.3%, 92.9%, 89.4%, and 58.4%, respectively. The differences in participation rates of different classes may indicate the differences in their level of interest in the subject.¹⁸ In the present study, the higher participation rate of the 5th year students may be explained by their increased consciousness about being prepared to stand alone after graduation. The distant learning conditions during the Covid-19 pandemic may also have a role in this finding.

It was hypothesised that students would be willing to gain communication skills as long as they know the importance of the issue for their careers. The present finding of a significant positive correlation between "Importance" and "Demand" variables indicates that the hypothesis is valid. Laurence et al. examined students' attitudes under four factors and described the internal consistency of the items in the factors and the significant correlations between the factors as an indicator of suitability of the tool used.¹⁸ Due to the differences in content, the present findings cannot be directly compared with those of the aforementioned study. Thus, the findings should be evaluated with precaution and should not be generalised.

According to the present findings, there was a significant positive correlation between both genders' responses and between "Importance" and "Demand" sections. However, the relationship between "Importance" and "Demand" was found to be higher in female students. In similar surveys on the attitudes of dentistry students, female students reported more positive attitudes than male students.^{17,18,22} However, gender-based inconsistencies were observed in two studies in Canada and Malaysia.^{19,25} The fact that female students are more interested in the collaborative physician-patient relationship model and that experiential learning methods used in teaching communication skills are more suitable for the learning style of women may be the reason for more positive responses obtained in the present study.¹⁶ On the other hand, the less positive responses of the male students may be due to their sceptical approach to communication skills and education possibly related with their lack of knowledge or that they think they already have these skills.² These discrepancies in findings on gender among studies indicate a need for larger-scale surveys.

When the correlations between the year of education and the variables of "Importance" and "Demand" were examined, a positive relationship was found in all classes.

However, the relationship between "Importance" and "Demand" was higher in 4th year students compared to the others. Laurence et al. reported that there was a significant decrease in the positive scores of students from the 1st year to the 3rd and a slight increase was observed in 4th year students.¹⁸ Woelber et al. suggested that students' views on communication skills are similar in different classes.²⁶ Two other studies have shown that students' positive attitudes gradually decrease towards the senior class.^{17,22} The present findings differed from those of previous surveys. The highest "Importance" and "Demand" correlation reported by the 4th-year students may be explained by their awareness of the importance of communication skills in their first clinical year. It has been reported that increasing clinical experience leads to changes in students' attitudes towards communication skills.¹⁶ However, this view contradicts the decreasing positive responses of 5th year students in the present survey. The reason for the decrease in positive opinions in the senior class may partly explained by the difficult internship conditions required for graduation and can be explained by the Covid-19 pandemic may cause an ambiguous career situation after graduation. In addition, the increased clinical experience and more patient contact of the 5th year students may have caused them feel competent in communication skills.¹⁷ Although, the "Communication Skills" course at Ege University, School of Dentistry is provided in the 3rd year, the 3rd year students reported the lowest "Importance" and "Demand" relationship in our study. Third-year students' less positive responses may be attributed to that they have not yet had clinical experience and that they take the relevant course via distance education due to the Covid-19 pandemic. It is thought that the possible impact of the Covid 19 pandemic on "Importance" and "Demand" relationship reported by 5th and 3rd grade students partially negatively affects the validity of the study's hypothesis.

According to the findings of the present survey, most of students think that the best way to learn communication techniques is "Practice along with theoretical course". In another survey, most of the dentists preferred an equal portion of practical training and theoretical courses as the best way of gaining communication skills.²⁶ The present findings provide further support for this preference. A recent case report showed the positive results of didactic content supported by various active learning strategies on students' communication skills.¹³

In this study, the two most important barriers for using communication techniques were patient-related factors and time limitations. In another survey, dentistry students reported indifferent and reluctant attitudes of patients as the most important barrier for effective communication.²⁷ A study comprising dental hygienists, difficulty, and time-consuming character of the technique, together with patient resistance were reported

as the major barriers.²⁸ The present findings are consistent with those of the two studies.

There are some limitations of the present study. Firstly, as the participation was on a voluntary basis, those students who are interested in communication topics may have participated causing some sort of bias. Secondly, cultural, and local factors are likely to affect the findings and we are not able to compare our findings as this is the first survey performed in Turkey on this special topic. Thirdly, the number of Likert type questions under the title of "Importance" and "Demand" was not equal, and this fact may have caused the "Demand" title, which has few questions, not to be fully reflected in the responses. On the other hand, participating the survey was not time-consuming as the questions and answers were short, suggesting that reliable information could be obtained.

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