ORIGINAL RESEARCH ORİJİNAL ARAŞTIRMA

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Oral Health-Related Attitude, Knowledge and Behavior Among Dentistry, Medicine and Pharmacy Students: A Cross-Sectional Study

Diş Hekimliği, Tıp ve Eczacılık Öğrencilerinin Ağız Sağlığı ile İlgili Tutum, Bilgi ve Davranışları: Kesitsel Araştırma

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ABSTRACT Objective: There is lack of sufficient published data in Türkiye to describe and compare the knowledge and attitudes of students from various faculties regarding their oral healthcare. Aim of this research was to assess and compare self-reported attitudes, knowledge, and behaviors related to oral health among cohort of dentistry, medicine, and pharmacy students, with purpose of increasing awareness of oral and dental health among participants themselves and indirectly within their social circles. **Material and Methods:** This cross-sectional study included 354 preclinical students from the faculties of dentistry (n=127), medicine (n=113), and pharmacy (n=114). 28-question survey adapted from previous studies assessed oral health attitudes, knowledge, and behaviors. Survey was administered during scheduled class hours to ensure high response rate and consistent participation. Data were summarized using descriptive statistics, with Kolmogorov-Smirnov test applied to assess distribution, and Kruskal-Wallis, Mann-Whitney U, chi-square tests used for group comparisons. **Results:** Satisfaction with teeth colour and appearance of smiles in photographs showed similar results across all groups. Female students exhibited significantly higher sensitivity towards daily brushing, flossing, and mouthwash usage, while male students were more inclined towards smoking ($p<0.05$). Dentistry students, in particular, demonstrated clear preference for sugarfree chewing gum. Brushing technique held greater importance for dentistry participants compared to other groups. Additionally, individuals with knowledge about interdental cleaning aids were more prevalent in dentistry group. **Conclusion:** The finding that awareness among dentistry students is higher than that of students from other faculties is noteworthy, as dentistry students receive coursework in the same field.

Keywords: Health knowledge-attitudes-practice; dental students; oral hygiene; medicine; pharmacy

ÖZET Amaç: Türkiye'de, öğrencilerin ağız ve diş sağlığı hakkındaki bilgi ve tutumlarını tanımlayıp karşılaştıracak yeterli yayımlanmış veri bulunmamaktadır. Bu araştırmanın amacı, diş hekimliği, tıp ve eczacılık fakültelerinde öğrenim gören öğrencilerin, ağız sağlığı ile ilgili kendi beyanlarına dayalı tutumlarını, bilgilerini ve davranışlarını değerlendirmek ve karşılaştırmak; böylece katılımcıların kendilerinde ve dolaylı olarak sosyal çevrelerinde ağız ve diş sağlığı konusunda farkındalığı artırmaktır. **Gereç ve Yöntemler:** Bu kesitsel çalışmaya, diş hekimliği (n=127), tıp (n=113) ve eczacılık (n=114) fakültelerinin klinik öncesi döneminde bulunan 354 öğrenci dâhil edilmiştir. Öğrencilerin ağız sağlığına yönelik tutumları, bilgileri ve davranışlarını değerlendirmek amacıyla, önceki çalışmalardan uyarlanmış 28 soruluk bir anket kullanılmıştır. Anket, katılımın tutarlı olmasını sağlamak ve yüksek yanıt oranı elde etmek amacıyla ders saatlerinde uygulanmıştır. Veriler tanımlayıcı istatistiklerle özetlenmiş, dağılımın değerlendirilmesinde Kolmogorov-Smirnov testi, gruplar arası karşılaştırmalar için ise Kruskal-Wallis, Mann-Whitney U ve ki-kare testleri kullanılmıştır. **Bulgular:** Dişlerin renginden ve fotoğraflardaki gülüşün görünümünden memnuniyet tüm gruplar arasında benzer sonuçlar göstermiştir. Kadın öğrenciler, günlük fırçalama, diş ipi kullanımı ve ağız çalkalama konusunda erkek öğrencilere göre belirgin bir şekilde daha hassastır, erkek öğrenciler ise sigara içme eğiliminde daha yüksektir ($p<0,05$). Diş hekimliği öğrencileri özellikle şekersiz sakız kullanımı konusunda net bir tercih göstermişlerdir. Fırçalama tekniği, diğer gruplara kıyasla diş hekimliği katılımcıları için daha fazla önem taşımaktadır. Ayrıca, interdental temizlik yardımcıları hakkında bilgi sahibi bireyler diş hekimliği grubunda daha yaygındır. **Sonuç:** Diş hekimliği öğrencileri arasında farkındalığın, diğer fakültelerdeki öğrencilere göre daha yüksek olduğunun bulunması dikkate değerdir, zira diş hekimliği öğrencileri aynı alanda ders işlemektedirler.

Anahtar Kelimeler: Sağlık bilgisi-tutumları-uygulamaları; diş hekimliği öğrencileri; ağız hijyeni; tıp; eczacılık

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The need for oral care holds a significant position in contemporary society, as it has throughout history. However, many individuals lack the necessary knowledge to perform proper tooth brushing and oral care. Hence, it primarily falls upon oral health service providers to educate the public on oral care techniques. The oral health practices of this group, destined to become health care professionals, and their level of commitment to this matter are pivotal in providing us with insights into the transmission of correct oral health methods to society in the future. Furthermore, this same population will play a crucial role in enhancing the overall oral health of the community.[1,2]

Today, oral health care places a strong emphasis on disease prevention as opposed to expensive and invasive treatments.[3] Adopting appropriate and effective measures is key to maintaining optimal oral health. Numerous studies have established a direct relationship between good oral health and knowledge in this area.[4-6] Given that students studying dentistry, medicine, and pharmacy will come into contact with a diverse range of patients throughout their educational and professional journeys, it is imperative that they possess a substantial understanding of oral health. Consequently, students in these health science fields significantly advance community's oral and dental health. While there is a growing awareness of the importance of dental check-ups within society, it is noteworthy that such check-ups remain notably underutilized, particularly in comparison to other medical disciplines in developing countries.[7]

Recent literature underscores the pivotal role of health-care professionals' oral health-related awareness, knowledge, and habits in the maintenance of oral health. Studies indicate that healthcare professionals with higher awareness and understanding of oral health principles tend to practice and promote more effective oral hygiene behaviors, both personally and in patient care.[8] Furthermore, the incorporation of comprehensive oral health training in medical and pharmacy curricula has been shown to significantly improve the oral health outcomes of patients under their care.[9] These findings support the enhancement of oral health education among healthcare providers, suggesting a direct correlation between their oral health literacy and the overall oral health status of the populations they serve.[8,9] Consequently, bringing up robust oral health knowledge and practices among health-care professionals is crucial for advancing oral health maintenance strategies at both individual and community levels.

Dentistry students serve as crucial role models for promoting sound oral health practices in contrast to other university students, patients, and a substantial portion of the population.[10,11] As a result, they are inclined to invest their time and resources in maintaining oral hygiene.[12] In the current study, we assessed the knowledge and habits of medical and pharmacy students on the same subject, in addition to the group of dentistry students, who are already recognized for their intense motivation and knowledge of oral hygiene.

Therefore, this research aimed to evaluate and compare differences in self-reported oral health attitude, knowledge, and behavior among a group of dentistry, medicine, and pharmacy students. Additionally, the study aimed to enhance awareness of oral and dental health among the participants and indirectly within their social circles. Recognizing the critical role of future healthcare professionals in promoting oral health practices, our working hypothesis posits that there are significant differences in oral health knowledge, attitudes, and behaviors between students in these fields, with dentistry students displaying higher levels of awareness and better oral health practices due to their focused education. This study seeks to explore these potential disparities to inform targeted educational interventions across health disciplines.

MATERIAL AND METHODS

Dentistry, medicine, and pharmacy students studying at Altınbaş University participated in the current study. Particular attention was given to the selection of students in the pre-clinical semesters (1st and 2nd years). Students in their 3rd, 4th, and 5th years, who have begun their clinical internship training, were not included in the study. They were organized into groups based on their respective faculties. When conducting a power analysis for 3 groups with an effect

size of f medium (0.25), an alpha error probability of 0.05, and a power of 95%, it was determined that a minimum total of 251 participants is required for the study. In contrast with this requirement, a survey was administered to a total of 354 students, consisting of 127 dentistry students (Group 1), 113 medical students (Group 2), and 114 pharmacy students (Group 3). All students completed the research by providing written responses during designated periods while attending their departments and signed an informed consent form prior to participation. The study received ethical approval from the Ethics Committee of Clinical Research at İstanbul Aydın University (date: January 03, 2018, no: B.30.2.AYD.0.00.00-480.2/232). This study was carried out in accordance with the principles of the Declaration of Helsinki and the approval of the University ethics committee.

The questions used in this research were created through a combination of questions taken from studies by Gürcan et al., Halawany et al., and Singh et al.[2,13,14] Participants were presented with 10, 6, and 9 questions, respectively, categorized under the topics of oral habits, awareness, and knowledge as detailed in Table 1, Table 2, Table 3. In addition to these inquiries, 3 questions focused on self-assessment, requiring participants to provide their responses using a numerical scale rating system as presented in Table 4. All questions within the questionnaire, totaling 28 in all, were structured to elicit single-choice responses (Table 1, Table 2, Table 3, Table 4). Participation in this research was strictly voluntary.

Data were summarized using descriptive statistics (i.e., frequency and percentage). The Kolmogorov-Smirnov test was used in the distribution

TABLE 1: Students' Answers to the Oral Habit Questions

Oral Habit Questions	Response	Dentistry Total, n (%)	Medicine Total, n (%)	Pharmacy Total, n (%)	p value
How often do you clean your teeth?	Once a day	11.0	16.1	13.0	0.149
	Twice a day	77.2	69.6	62.6	
	>Twice	11.8	14.3	24.3	
Do you use dental floss?	Yes	37.0	31.2	41.7	0.227
	No	63.0	68.8	58.3	
Do you clean your tongue?	Yes	78.0	75.9	67.0	0.125
	No	22.0	24.1	33.0	
Do you use mouthwash?	Yes	49.6	58.0	60.0	0.222
	No	50.4	42.0	40.0	
Which chewing gum do you prefer?	Sugar-free	64.6[a]	35.7[b]	38.3[b]	0.000*
	Sugar-added	22.8	16.1	11.3	
	Xylitol-added	9.4	0.9	6.1	
	All	0.8	23.2	12.2	
	Don't prefer	2.4	24.1	32.2	
	0	19.7	23.2	21.7	
Frequency of sugar consumption daily?	1-2	64.6	63.4	61.7	0.691
	3-5	15.7	13.4	16.5	
Do you smoke?	Yes	20.5	17.9	26.1	0.259
	No	79.5	82.1	73.9	
What type of toothbrush do you use?	Manual	78.7[a]	77.7	81.7[b]	0.028*
	Electric	20.5	20.5	17.4	
	Sonic/ultrasonic	0.8	1.8	0.9	
How long do you clean your teeth each time?	1 minute	17.3	23.2	16.5	0.411
	≤2 minutes	48.0	45.5	54.8	
	>2 minutes	33.9	31.2	28.7	
Do you seek a routine dental visit for oral hygiene maintenance?	Once in a year	25.2	21.4	24.3	0.135
	Twice in a year	52.3	25.9	16.5	
	Only if a problem occurs	22.5	52.7	59.1	

*Values with p<0.05 were considered statistically significant. a, b: Different lowercase letters indicate differences between groups.

TABLE 2: Students' Answers to the Awareness Questions

Awareness Questions	Response	Dentistry Total, n (%)	Medicine Total, n (%)	Pharmacy Total, n (%)	p value
What type of brush do you use?	Hard	3.1	10.7	9.6	0.000*
	Soft	23.6[a]	73.2[b]	77.4[b]	
	Medium	68.5[a]	15.2[b]	13.0[b]	
	Never noticed	4.7	0.9	0.0	
Brushing technique?	Horizontal	23.6	9.8	13.0	0.000*
	Vertical	5.5	8.0	11.3	
	Circular	59.1[a]	27.7[b]	18.3[b]	
	All	2.4	54.5	57.4	
Which toothpaste do you prefer?	Fluoride-added	78.0[a]	63.4[b]	68.7	0.030*
	Non-fluoride	22.0	36.6	31.3	
Have you ever noticed bleeding in your gums?	Yes	36.7	56.2	49.6	0.473
	No	63.3	43.8	50.4	
Have you ever noticed bad breath?	Yes	37.2	44.6	49.6	0.719
	No	62.8	55.4	50.4	
How would you describe your present state of dental health?	Excellent	12.6	8.9	7.0	0.954
	Good	72.4	77.7	82.6	
	Moderate	14.2	13.4	10.4	
	Don't know	0.8	0.0	0.0	

*Values with p<0.05 were considered statistically significant. a, b: Different lowercase letters indicate differences between groups.

TABLE 3: Students' Answers to the Knowledge Questions

Knowledge Questions	Response	Dentistry Total, n (%)	Medicine Total, n (%)	Pharmacy Total, n (%)	p value
The importance of the brushing technique?	No matter what	6.3[a]	19.6[b]	14.8[b]	0.001*
	It's important	93.7	80.4	85.2	
Do you know what interdental aids are?	Yes	38.6[a]	25.0	22.6[b]	0.012*
	No	61.4	75.0	77.4	
Do you educate people about oral hygiene procedures?	Yes	52.8[a]	25.0[b]	38.3	0.000*
	No	47.2[a]	75.0[b]	61.7	
Do you know about the Xylitol?	Yes	14.2	7.1	12.2	0.217
	No	85.8	92.9	87.8	
Do you know about supplementary toothpaste?	Yes	20.5	18.8	20.9	0.914
	No	79.5	81.2	79.1	
Is Fluoride the most important factor for tooth susceptibility to decay?	Yes	46.5	52.7	51.3	0.710
	No	53.5	47.3	48.7	
The use of fluoride toothpaste begins at the age of	2	8.7	9.8	5.2	0.058
	3	7.1	23.2	14.8	
	6	33.9	24.1	33.0	
	10	30.7	30.4	23.5	
	Don't know	19.6	12.5	23.5	
Have you been trained in oral hygiene and dental health before starting the dental faculty?	Yes	30.7	29.5	22.6	0.502
	No	69.3	70.5	77.4	
Do you think oral hygiene is important for the overall health of the body?	Yes	81.9	75.9	76.5	0.383
	No	7.9	9.8	3.5	
	Don't know	10.2	14.3	20.0	

*Values with p<0.05 were considered statistically significant. a, b: Different lowercase letters indicate differences between groups.

TABLE 4: Students' Answers to the Self-Assessment Questions

Self Assessment Questions	Response	Dentistry Total, n (%)	Medicine Total, n (%)	Pharmacy Total, n (%)	p value
How important are the beauty of your teeth?	1	0	0.9	0	0.092
	2	4.7	0.9	0	
	3	0	0.9	0.9	
	4	0.8	0.9	0	
	5	9.4	11.6	7.0	
	6	5.5	3.6	8.7	
	7	12.6	14.3	7.8	
	8	18.9	20.5	21.7	
	9	18.1	12.5	8.7	
	10	29.9	33.9	45.2	
How pleased are you with the color of your teeth?	1	3.9	1.8	1.7	0.253
	2	1.6	2.7	0	
	3	3.1	2.7	2.6	
	4	4.1	4.5	3.5	
	5	5.4	22.3	14.8	
	6	6.5	18.8	19.1	
	7	10.5	18.8	25.2	
	8	22.3	13.4	13.9	
	9	24.7	7.1	8.7	
	10	17.9	8.0	10.4	
How pleased are you with your smile in photographs?	1	7.1	4.5	5.2	0.728
	2	3.1	3.6	2.6	
	3	2.4	1.8	1.7	
	4	3.9	2.7	4.3	
	5	10.0	20.5	15.7	
	6	10.7	8.9	10.4	
	7	15.7	14.3	16.5	
	8	15.2	17.0	22.6	
	9	19.2	9.8	7.0	
	10	12.7	17.0	13.9	

*Values with $p<0.05$ were considered statistically significant.

evaluation of the data, and the Kruskal-Wallis, Mann-Whitney U test and chi-square test were used in the analysis. All statistical analyses were performed using the Statistical Package for the Social Sciences Program (SPSS version 22.0 for Windows, Inc., Chicago, IL). The statistical significance level was set at $p<0.05$.

RESULTS

A total of 354 individuals participated in the study, comprising 219 female and 135 male students. When analyzed by faculty, the study included 75 female and 52 male students from the dentistry faculty, 76 female and 38 male students from the pharmacy faculty, and 65 female and 48 male students from the medical faculty. The median age of respondents in Group 1, Group 2, and Group 3 was 20, 20, and 19 years, respectively.

ORAL HABIT QUESTIONS

It was observed that female students exhibited significantly higher sensitivity towards daily brushing, flossing, and mouthwash usage. Conversely, male students were found to be more prone to smoking ($p<0.05$). It was observed that chewing gum and toothbrush preferences differed between the groups, when the answers were given by the participants in 3 different groups to the questions in these topics ($p<0.05$). While no difference was found between groups 2 and 3 in chewing gum preferences, Group 1

showed a more distinct preference for sugar-free gum ($p>0.05$). In terms of toothbrush preferences, a notable difference was observed between Group 1 and Group 3 ($p<0.05$), but no significant variation was detected between Group 2 and Group 3, or between Group 1 and Group 2 ($p>0.05$). Electric brush preference of Group 1 and 2 was higher than Group 3; manual brush preferences were found to be less ($p<0.05$). No statistical distinctions were found between the groups for the remaining 7 questions related to oral habits, as presented in Table 1 ($p>0.05$).

AWARENESS QUESTIONS

When assessing the types of toothbrushes used by the participants, strong evidence indicated a significant difference between Group 1 and Group 3, as well as between Group 1 and Group 2 ($p<0.05$). There was no difference between Groups 2 and 3 ($p>0.05$). The answers were very distinctive for Group 1, especially for the medium brush choice ($p<0.05$). When brushing techniques were evaluated, it was found that the circular brushing technique showed a significant difference in Group 1 compared to Group 2 and 3, with a response rate of 59.1% ($p<0.05$). In addition, an insignificant difference was observed between Groups 2 and 3 for the same question ($p>0.05$). When the toothpaste preferences of the groups were compared, it was observed that there was a significant difference between Group 1 and 2 in terms of fluoride paste use ($p<0.05$), while there was no difference between Group 1 and 3, Group 2 and 3 in the same parameter ($p>0.05$).

It was observed that all 3 groups provided similar responses to questions regarding their own experiences with gingival bleeding, coincidental bad breath, and self-assessments of their oral health ($p>0.05$). Nevertheless, upon closer examination of the responses, it became apparent that Group 1 had fewer issues related to gingival bleeding and bad breath in comparison to the other groups, although these differences did not reach statistical significance ($p>0.05$, Table 2).

KNOWLEDGE QUESTIONS

It was observed that the brushing technique was more important for Group 1 participants compared to other groups ($p<0.05$). Furthermore, there was no statistically significant difference between Group 2 and Group 3 regarding their belief that the brushing technique does not make a substantial distinction ($p>0.05$). Individuals with knowledge about interdental cleaning aids were more prevalent in Group 1, while Groups 2 and 3 exhibited a similar level of awareness in this regard ($p<0.05$). Group 1 provided a significantly higher number of "Yes" responses than Group 2 to the question, "Do you educate people about oral hygiene procedures?" ($p<0.05$). There was no significant difference between Group 1 and Group 3, as well as between Group 2 and Group 3, in terms of responses to the same question ($p>0.05$).

Participants in all 3 groups gave similar answers concerning the effects of xylitol, supplementary toothpaste, oral care awareness, and fluoride, and the age of using toothpaste containing it ($p>0.05$). An overview of all the questions and responses related to knowledge is presented in Table 3.

SELF ASSESSMENT QUESTIONS

For each question asked in this part of our research, participants were requested to provide a score between 1 and 10, with 1 indicating the most minor importance and 10 indicating the highest. In response to the question, "How important is the beauty of your teeth?" all three groups assigned comparable scores. Although the differences observed were not statistically significant, it was noted that participants in Group 3 placed a slightly higher emphasis on the beauty of their teeth ($p>0.05$). Regarding the questions "How satisfied are you with the color of your teeth?" and "How satisfied are you with your smile in photographs?" the responses from all 3 groups exhibited similarity ($p>0.05$), as indicated in Table 4.

DISCUSSION

Providing correct information for patients to improve their oral health and raising their awareness about protection from oral diseases can be counted among the duties of oral health providers and, when appropriate, medical doctors and pharmacists. Since dentistry, medicine, and pharmacy students will be the professional health workers of the future, it is essential to evaluate the tendencies and approaches of this

group on oral health in order to guide their future patients appropriately.

To the best of our knowledge, this study is the first of its kind to assess the oral health attitudes and practices of university students studying to become 3 distinct healthcare professionals in Türkiye. The study's findings indicated that students within each of the 3 groups demonstrated a conscientious approach to their oral health. These results hold promise for the future promotion of public awareness regarding oral health.

The removal of dental plaque plays a crucial role in maintaining oral health. Research has demonstrated that brushing teeth twice a day with fluoride toothpaste is an effective measure for preserving oral health.[15,16] In line with these findings, the majority of students participating in our study, across all 3 groups, reported brushing their teeth twice a day for a minimum of 2 minutes. Furthermore, when we examined the students' preferences for fluoride toothpaste usage, it was observed that dentistry students exhibited a stronger preference for toothpaste containing added fluoride compared to other student groups, which can be attributed to their department-specific education ($p<0.05$).

Regular interdental tooth cleaning using dental floss has been shown to prevent the development of gingivitis, periodontitis, and dental caries.[17] The appropriate use of dental floss relies on an individual's motivation.[18] Among the participants in our study, which included dentistry, medicine, and pharmacy students, the reported use of dental floss was 37%, 31.2%, and 41.7%, respectively ($p>0.05$). Nevertheless, it was observed that dentistry students possessed a higher level of knowledge regarding other interdental aids due to their educational background ($p<0.05$). Additionally, the majority of participants engaged in tongue cleaning, a practice beneficial in preventing bad breath.[19] This is not surprising for our participants with oral care sensitivity. It is thought that half of the participants used mouthwash with the effect of advertisements on various platforms.

Smoking is a significant risk factor for diseases in the oral cavity and periodontium.[20] In addition, smoking can cause discoloration of the teeth and gingiva.[21] Despite the fact that such effects are known and the majority of the participants in all groups state that they give importance to the beauty, color, and smile of their teeth, surprisingly, 20.5% of dental students, 17.9% of medical students, and 26.1% of pharmacy students stated their habit of smoking.

The choice of toothbrush type plays a significant role in reducing supragingival plaque, preventing gingival bleeding and periodontal diseases. Studies have indicated that sonic and electric toothbrushes are more effective in plaque removal than manual toothbrushes.[22,23] In contrast to this data, it was observed that approximately 78% of the students participating in our study used manual brushes, and approximately 20% used electric brushes. This might be attributed to the higher cost of electric and sonic toothbrushes in Türkiye, where the general population tends to allocate fewer resources to oral health.

When considering regular dental check-ups, it was observed that nearly half of the dentistry students visited the dentist twice a year, while approximately half of the medical and pharmacy students sought dental care only when confronted with a problem. The relatively low percentage of medical and pharmacy students seeking dental care can be attributed to Türkiye's oral health policy. The more frequent dental visits by dentistry students can be attributed to the awareness cultivated from the outset of their faculty education.

Various toothbrushing techniques, such as Bass, Stillman's, Fones, Charter's, horizontal, and others, were established long ago, with Bass and Roll techniques being the most commonly recommended among them.[24] In our study, it was evident that dentistry students employed the roll technique more frequently in comparison to students from other disciplines ($p<0.05$). Furthermore, it was observed that dentistry students placed a higher emphasis on the choice of medium-type brushes, which have been demonstrated to be effective in cleaning tooth surfaces, as well as the selection of toothbrush type, in contrast to their counterparts in other groups ($p<0.05$).[25] These tendencies can be attributed to the dentistry education curriculum, which provides students with these achievements.

It became evident that dentistry students, at a rate of 52.8%, were more proactive in educating individuals about oral hygiene procedures compared to the other groups ($p<0.05$). This inclination can be attributed to the heightened awareness of oral health acquired through their educational pursuits. Moreover, it was observed that information regarding the use of xylitol, supplementary toothpaste, and fluoride was consistent across all groups ($p>0.05$). This alignment may be explained by the advertising efforts on social media and television, as well as the increasing prevalence of preventive medicine practices in recent years. Furthermore, the majority of students in all groups share the belief that oral health has a significant impact on overall body health ($p>0.05$). Our findings align with the research conducted by Usman et al.[4]

Ehsan et al. highlighted that dentistry students demonstrate better oral health behaviors than their non-dentistry peers, emphasizing the role of education in shaping attitudes.[26] Similarly, our study found that dentistry students showed greater knowledge and engagement in oral health practices compared to medical and pharmacy students. These findings support the the importance of enhancing oral health education across all healthcare fields and suggest that larger, multi-center studies could provide more comprehensive insights.

The primary limitation of this study lies in its single-center nature, as it was carried out within the confines of a single university. Furthermore, another limitation to consider is the potential influence of students' responses on each other while conducting the survey. In addition, this study relied on self-reported data, which may introduce bias or inaccuracies in participants' responses. Future studies should aim to incorporate more objective evaluations, including clinical assessments alongside personal evaluations, to provide a more comprehensive understanding of oral health attitudes and behaviors.

CONCLUSION

The significant finding here is that the awareness level of dentistry students surpasses that of their peers from other faculties, which can be attributed to their shared coursework within the same field. This study underscores the vital role of targeted education in shaping future healthcare professionals' oral health practices and attitudes. It calls for a multidisciplinary approach to oral health education, aiming to equip all health-care students with the knowledge and habits necessary to promote oral health among their future patients and the wider community. It is important to have a comprehensive understanding of the oral health knowledge possessed by dentistry, medicine, and pharmacy students, as they will play a significant role in imparting information to patients in this area. In future studies, it would be beneficial to administer this survey to students participating in hospital or pharmacy internships to determine whether differences exist solely in the pre-clinical phase.

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Source of Finance

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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

Idea/Concept: *Meltem Mert Eren, Aliye Tuğçe Gürcan;* ***Design:*** *Aliye Tuğçe Gürcan;* ***Control/Supervision:*** *Mehmet Selim Yıldız, Meltem Mert Eren, Aliye Tuğçe Gürcan;* ***Data Collection and/or Processing:*** *Meltem Mert Eren, Aliye Tuğçe Gürcan;* ***Analysis and/or Interpretation:*** *Mehmet Selim Yıldız;* ***Literature Review:*** *Mehmet Selim Yıldız, Aliye Tuğçe Gürcan;* ***Writing the Article:*** *Mehmet Selim Yıldız;* ***Critical Review:*** *Mehmet Selim Yıldız, Aliye Tuğçe Gürcan;* ***References and Fundings:*** *Mehmet Selim Yıldız, Meltem Mert Eren, Aliye Tuğçe Gürcan;* ***Materials:*** *Meltem Mert Eren.*

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