

INTERDENTAL CLEANING AIDS KNOWLEDGE, AWARENESS AND PRACTICES AMONG JAZAN UNIVERSITY STUDENTS, SAUDI ARABIA

Mona A. Kamil¹, Ruaa O. Bashir²

1. Department of Preventive Dental sciences Periodontics division, College Of Dentistry, Jazan University, Jazan, Saudi Arabia.

2. Intern doctor, College Of Dentistry, Jazan University, Jazan, Saudi Arabia.

ABSTRACT:

Aim: To evaluate the knowledge and practice of inter-dental aids among Students of Jazan university.

Background: Information about the oral health knowledge and behavior among Saudi students is inadequate. This makes it important to have an understanding of interdental cleaning practices employed by college students.

Methodology: Questionnaire based study was conducted to know the knowledge and practice about inter-dental cleaning aids among Jazan university Students. 352 students participated in the study. Respondents had same demographic data. Recorded data was analyzed in SPSS. The significance was taken for P-value ≤ 0.05 .

Results: 35.5% of the participants knew that tooth brushing alone was not sufficient to clean all tooth surfaces. 1.8% knew that; dental floss should be used customarily along with tooth brushing every day. 4.1% of the participants' are using dental floss, 80% of them use it when they feel food impaction. 97.3% are using the traumatic interdental cleaning picks. However only 21.2% have the right belief; that regular flossing was important & should be routinely.

Conclusion: The study concluded that there was lack of knowledge of interdental cleaning and negligible inappropriate practice. This data can serve as a guide to implement mass educative programs providing information regarding interdental cleaning.

Keywords: interdental cleaning, periodontal disease and dental floss



INTRODUCTION:

The corner stone in planning oral health promotion will be to conduct analysis of the condition. This will include assessment of the students' level of knowledge about oral health, their practices, misconceptions and their willingness to implement their knowledge.^[1] Knowledge on oral health promotes good oral hygiene practices. The methodologies of oral hygiene ranges from brushing, inter-dental cleaning, and use of mouth wash and tongue hygiene. Inter-dental cleaning is just as essential as brushing to prevent dental disease by eliminating the interdental plaque.^[2] Burden of oral health diseases remains high all over the world. This could be mainly because of the lack of acceptance of healthy oral

habits that are vital in controlling the most common oral diseases.^[3] If appropriate instructions on brushing and flossing are given, patients would be more likely to adhere to these practices.^[4] Information about the oral health knowledge, attitudes, and behavior among Saudi students is inadequate. Moreover their interest on dental care, preventive methods and periodontal health was deprived, and this constitutes major challenge to oral health. However students have effective role in spreading of knowledge and they are known to play a significant leadership on their family, relatives and to an extent on the larger community. ^[3] Knowledge, attitude, and practice regarding interdental aids are necessary for personal oral hygiene. It is

well known that gingivitis was more frequent and more severe in interdental areas. Interdental areas are unapproachable to tooth brush. [5] Interdental area is the most common site of plaque retention and the most inaccessible to toothbrushes; this could be complemented by the use of dental floss daily. [6] Both the American Dental Association and the British Dental Association recommended the daily use of dental floss in addition to brushing. [7] [8] Lack of information, and financial difficulties were reasons for non-adherence with oral hygiene regimens. [9] Studies have shown that dental floss alone was more effective than a manual toothbrush for effective interdental plaque removal but still its use even as an adjunct was not encouraged throughout the world. In fact, reports show that only a small part of the population uses dental floss on a daily basis [10], and its use is higher in developing countries [11]. Moreover studies had showed that there were significant differences between industrialized countries and developing countries with respect to oral health behavior; lower socioeconomic status was associated with a lower frequency of daily flossing. [12] Also educational level influence the oral health habits. [13] Majority of the patients preferred the tooth pick in place of the dental floss or the single tufted brush. The reason given was that they were convenient to carry and quick and simple to use. [14] The main reasons to refrain from using dental floss are the cost, time consuming and manual dexterity. And on a constant; people will be refraining from the practice. Health education programs regarding interdental aids are necessary to create awareness and adequate

training. [15] Reports suggest that dentists are not advising dental floss routinely to every patient. This could be explained in terms of that no adequate importance was given to it in the dental curriculum. Majority of the dentists cited lack of awareness, availability, and cost as the major factors affecting floss usage. Lack of training in the dental education programs may have an impact on the prescription patterns as well. [16]

MATERIALS AND METHODS:

The study design was a cross-sectional survey using a self-administered, structured and pre-validated close ended questionnaire that evaluate the knowledge, beliefs and attitude of Jazan university students towards interdental cleaning. Questionnaire was designed by a team of dental professionals after a thorough literature review. Questionnaire was prepared in English language and translated to Arabic language for the convenience of the study population. The questionnaire was designed to be comprehensible and was pretested on a group of ten students who were requested to complete the questionnaire. The pre-test focused on the student's ability to understand the vocabulary used in the questionnaire.

Four hundred questionnaires were distributed randomly among Jazan university students; kingdom of Saudi Arabia. Total of 352 students participated and responded to the study. Demographic data for participants; equal students' gender participation (176 male and 176 females) and age range of 20-24 years old. Exclusion criteria were medical and dental students, and those

who refused to take part in the study. The study was carried out in the month of March-June 2016. Consent was obtained from all the individuals who participated in the study. Confidentiality and anonymity of the respondents were assured. Care was taken that students did not duplicate each other's answers by asking each one to answer separately maintaining some space between them. Assessment of patient's interdental cleaning knowledge included 8 items, close-ended (yes or no) responses were preferred in this study. The participants reported to use dental floss are further questioned about the awareness and practices of interdental cleaning.

Data were processed and analyzed by means of the Statistical Package for Social Sciences version 20 (SPSS) using Chi-square test. The significance was taken for P-value ≤ 0.05 . Descriptive statistics was used to summarize the sample and responses of the questionnaire.

Ethical considerations: The study proposal was submitted to the College of Dentistry Jazan University, Research committee for ethical clearance and written informed consent was obtained from the participants prior to study commencement. Participants were assured of the confidentiality of their responses.

RESULTS AND DISCUSSION:

The demographic data of the study participants were almost the same (equal gender participation, same age range and level of education). Female students showed better knowledge and practices, but the P value was not statistically

significant, therefore the mean percent of male and female respondents were calculated. 35.5% of the participants knew that tooth brushing alone was not sufficient to clean all tooth surfaces and to maintain oral health, this is higher than that reported by the study of Naematollahi H. and Ebrahimi M (26.5%)^[12]. but lower than that reported by Mythri and Gowrapura (82%)^[15]. When the students are asked if they knew any ideal aid that clean dental plaque from interdental spaces; only 25.8% they have positive answer. 21.2% of the present study participants' heard about dental floss, 4.3% knew that dental floss was essential to remove plaque and debris from interdental area. However; only one participant had seen a person using dental floss. 1.8% knew that the use of dental floss should be used customarily along with tooth brushing every day as the rest of the participants use it to remove impacted food debris. 75.3% of the present study participants' belief that dental floss harms the interdental gingiva which is higher than the result of Shazia et al (24.3%).^[6] 4.1% of the participants' are using dental floss which is in agreement with the finding of Al Sadhan SA.(5.1%).^[17] Goryawala; negligible^[11] and El Bcheraoui study report (6.3%)^[4], Peker I and Alkurt (3%)^[18], Ehizele et al (8.5%).^[1] And in contrast with Peeran et al study which reported interdental cleaning was prevalent in Jazan area (21.5%).^[13] An overwhelming majority of the participants prefer using the traumatic wooden interdental cleaning picks (97.3%), which was higher than the finding of Ehizele et al (84.7%)^[1], Fatin study finding (37%)^[9], the results of Al-Johani H. (35.6%)^[8] and the finding of

Neamatollahi H, and Ebrahimi M. (52%)^[12]. Only 10.5% of the present study participants reported dentist was the source for their information concerning oral health, oral hygiene practices including interdental cleaning which was lower than that reported in text books and the finding of Ehizele et al (32.8%)^[1]. The 4.1% of the participants who reported to use interdental cleaning are further questioned about their awareness and practices. Frequency of using dental floss in the present study was (10%, 5%, and 14%) once, twice, three times respectively. These results are lower than the study report by Johani H. (34%, 11%, and 17%) respectively^[7] and 80% use dental floss only when they feel food impaction. Beliefs: when the students are asked about their belief about dental flossing; 25.4% of the participants reported it was OK to floss, but I should stop immediately if gums start bleeding, 53.4% reported that flossing was fine if it makes my mouth feel fresher but has nothing to do with health of the mouth. However 21.2% reported that regular flossing was important & should be routine and shouldn't be stopped, if gums bleed. Our study results concerning the use of dental floss in Saudi young population compared to results of majority of studies finding conducted in past years^[17]; carry bad witness that no

growth in knowledge or good practices had occurred throughout the past time.

CONCLUSION

In conclusion, the overall knowledge about the interdental aids in KSA was poor and the practice was negligible. Most frequently, this occurs due to lack of information and the wrong beliefs and misconception about interdental cleaning.

Study limitations: Our study data are self-reported and thus are subject to social desirability biases. Our study was based on small sample size and not representative and dental examination was not done; these limitations should be solved in future study.

Recommendation: Formulate strategies to develop and implement mass educative programs providing information regarding interdental cleaning.. Dental professional should make every power to educate the public; the benefits and importance of regular interdental cleaning. Intensive dental educational programs in schools. Strong measures should be taken to heighten the dental awareness, correct the wrong beliefs and perfect the practices. Future studies with large sample may be conducted.

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TABLES:

Table (1) showing the mean percent of male and female participants’ knowledge of interdental cleaning:

	Percent
1) Do you know that; tooth brushing alone was not sufficient to clean all tooth surfaces,	
Yes	35.5%
No	64.5%
2) Do you know the recommended aid that clean sides between teeth?	
Yes	25.8%
No	74.2%
3) Have you heard about dental floss?	
Yes	21.2%
No	68.8%
4) Do you know that dental floss was essential to remove plaque and debris from interdental area?	
Yes	4.3%
No	95.7%
5) Do you know that; the use of dental floss should be used customarily along with tooth brushing every day?	
Yes	1.8%
No	98.2%
6) Have you used dental floss?	
Yes	4.1%
No	95.9%
7) Do you think dental floss harms the interdental gingiva	
Yes	75.3%
No	24.7%
8) Have you used wooden or rubber interdental cleaning picks?	
Yes	97.3%
No	2.7%

Table (2) showing the mean percent of male and female participants' practices and beliefs of interdental cleaning:

	Percent
1) The frequency of using interdental cleaning aid	
Once	10%
Twice	5%
Irregular	14%
When I feel food impaction	80%
2) Your dentist was the source for your information concerning oral health, oral hygiene practices including interdental cleaning.	
Yes	10.5%
No	89.5%
3) What is your beliefs about dental flossing	
It was OK to floss, but I should stop immediately if gums start bleeding.	25.4%
Flossing was fine if it makes your mouth feel fresher but has nothing to do with health of the mouth.	53.4%
Regular flossing was important & should be routine and I shouldn't be stop it, if gums bleed.	21.2%

FIGURES:

Figure (1) showing the percent of participant' using tooth picks and other interdental cleaning aid

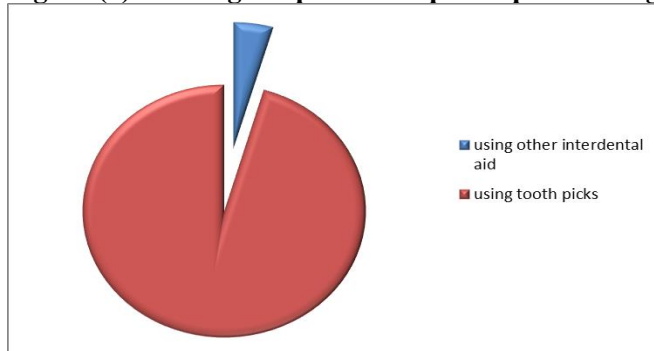


Figure (2) showing the percent of participants who knew that tooth brushing alone is not enough to clean all tooth surfaces

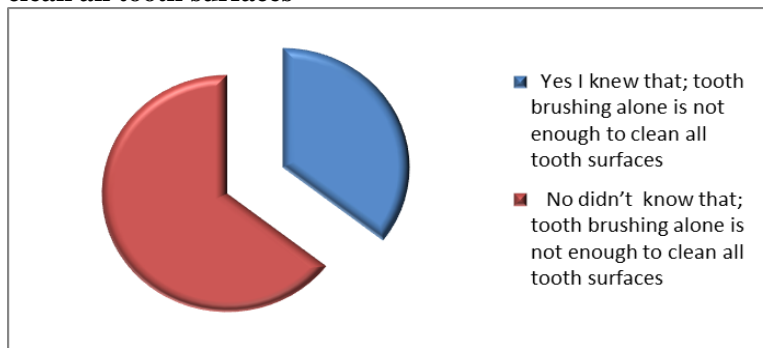


Figure (3) showing the frequency of interdental cleaing

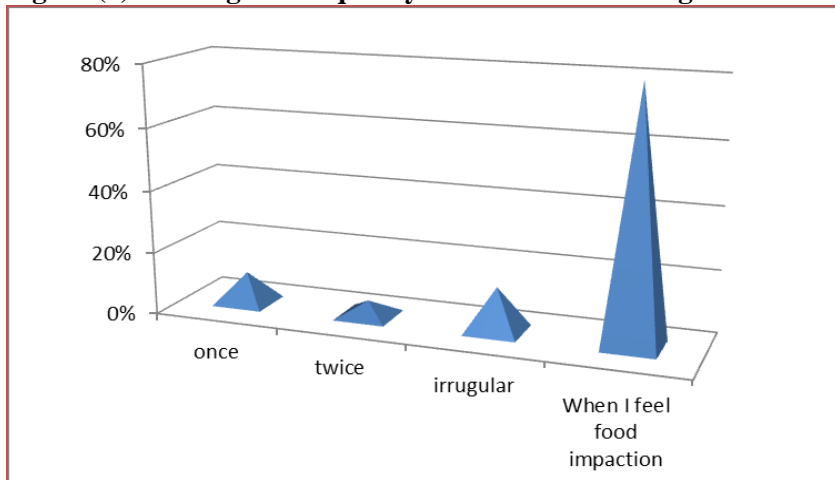


Figure (4) showing the study participants' beliefs about dental flossing:

