



DENTAL FLOSS; CONCEPT AND USE AMONG THE UNDERGRADUATE DENTAL STUDENTS

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ABSTRACT... Objectives: To assist the concept and use of dental floss among undergraduate dental students of Liaquat University of Medical & Health sciences, Jamshoro. **Study Design:** Cross-sectional, descriptive case series study. **Setting:** Institute of Dentistry, Liaquat University of Medical Health, Jamshoro, Pakistan. **Period:** June 2015 to December 2015. **Methodology:** In this study 192 students of BDS Department, Institute of Dentistry, Liaquat University of Medical & Health Science, Jamshoro were selected. Questions related to assess the knowledge 87.14% students knew what dental floss was. **Results:** 74.29% students knew that dental floss remove plaque from interdental areas, whereas 25.71% replied don't know. 48.57% of the students thought that dental floss should be customarily used along with tooth brushing every day, 24.29% of the students thought that dental floss harms the interdental gingiva, whereas majority 40% said that it would not harm the gingiva, 35.71% replied don't know. only 18.57% respondent thought that toothbrushes with advanced bristles designs would remove interdental plaque similar to dental floss, whereas majority (60%) of the respondent had no any idea about the effectiveness of two cleaning methods, practice of using dental floss 18.57% of students use interdental aids commonly floss and while 81.43% did not use dental floss. 27.14% of the study subjects use some other interdental aids like tooth picks to clean interdental areas, whereas 72.86% did not follow any other interdental cleaning practice. **Conclusion:** This study has focused light on the knowledge and practice of interdental aid, so further studies are needed. Finally, it could be concluded that awareness regarding dental floss needs to be bolstered in the population as preventive oral health care behavior.

Key words: Tooth brushing techniques, Dental Floss Oral health awareness

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INTRODUCTION

Interdental cleaning is removal of food debris & plaque between teeth. Plaque removal effectively & thoroughly is fundamental to every patient's self-care program. Certain teeth and gums related problems like tooth decay, periodontal disease and tooth loss are result of infrequent and ineffective interdental cleaning. Primary prevention & oral health promotion is the key to reduce the problems.¹ Dental plaque is major cause especially for periodontal problems. Although periodontal disease is preventable, its prevalence is increasing in the world. If left untreated, periodontal disease may lead to

tooth loss. Periodontal disease typically begins interstitially. Studies have shown that daily good oral hygiene is necessary for removal of dental plaque to prevent disease.² The mechanical method of plaque control is easiest and effective to prevent periodontal diseases. Tooth brush alone is relatively ineffective interdentally, so for preventing several dental conditions, use of interdental cleaning aids like dental floss, tufted dental floss, tooth picks, interdental brushes, interdental tips, wooden dental cleaners etc. are necessary.³

Among these, dental floss is more effective

in removing interdental plaque than manual toothbrush alone, these two in combination are effective for proper oral hygiene. Various reports suggest that only a minority of population is compliant flosses on a daily basis.⁴

As dental health is vastly an individualized notion, the aim of this study is to prevent, control/arrest oral diseases. The knowledge and practices of dental students toward their oral health care reflect their understanding the importance of dental procedure and improving the oral health of their own, & their families.⁶

METHODOLOGY

A descriptive cross sectional study was conducted on BDS students of both genders at Institute of Dentistry, Liaquat University of Medical & Health Sciences, Jamshoro. A briefing was given about the nature of the study, and the procedure of completing the questionnaire was explained to every participant individually. Students who refused to participate in this research were excluded. Prior to fill the pre-designed questionnaire their consent was obtained. All the information regarding the variables of study was collected through 07 closed ended questionnaires.

In this study population of 192 dental students of 1st year and 2nd year were enrolled from June 2015 to December 2015. Single researcher gathered questionnaire data by meeting individually either at campus or hostel. No tracking system was used to determine who responded and who did not, in order to ensure anonymity. The questionnaire required data on socio demographic characteristics, knowledge regarding what is dental floss, its efficacy in removing plaque from interdental areas etc. and their practices regarding use of dental floss. Data collection was done using the SPSS version 20.0 was used to analyze the data using descriptive statistics.

Descriptive statistics were computed and differences between groups were assessed and presented in the form of tables and Figures.

P-value \leq 0.05 was taken as statistically significant.

RESULTS

A total of 192 students of 1st and 2nd year BDS class were surveyed. Out of 192 students, 82 (42.71%) were boys and 110(57.29%) were females as in Figure-1.

When asked about the questions related to assess the knowledge 87.14% students knew what was dental floss. 74.29% students knew that dental floss remove plaque from interdental

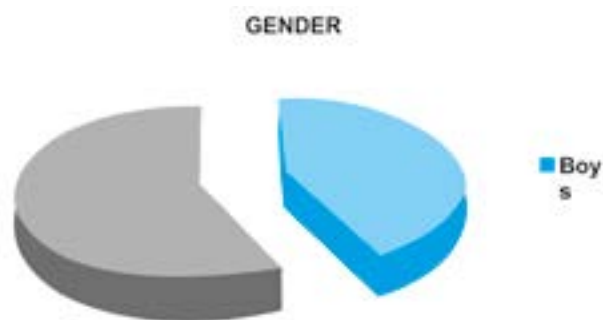


Figure-1. Gender Distribution

areas, whereas 25.71% replied don't know. 48.57% of the students thought that dental floss should be customarily used along with tooth brushing every day, 24.29% of the students thought that dental floss harms the interdental gingiva, whereas majority 40% said that it would not harm the gingiva, 35.71% replied don't know. only 18.57% said that they thought, toothbrushes with advanced bristles designs would remove interdental plaque similar to dental floss, whereas majority (60%) of the respondent had no any idea about the effectiveness of two cleaning methods. (Table-I&II)

When participants asked about the practice of using dental floss 18.57% of students use interdental aids, commonly dental floss and while 81.43% did not use dental floss. 27.14% of the study subjects use some other interdental aids like tooth picks to clean interdental areas, whereas 72.86% did not follow any other interdental cleaning practice.(Table-I)

Question	Yes	No
1-Do you know what is dental floss?	87.14%	12.86%
2-Does dental floss removes plaque and debris from interdental areas?	74.29%	25.71%
3-Do you use dental floss to clean your teeth?	18.57%	81.43%
4-Do you use any other interdental aids like tooth picks and interdental brushes apart from dental floss to clean interdental areas?	27.14%	72.86%

Table-I. Pre-Designed Questionnaires asked by participants

Question	Yes	No	Don't Know
5-Should dental floss be customarily used with tooth brushing every day?	48.57%	28.57%	22.86%
6-Do you think that dental floss would injure or harm the interdental areas?	24.29%	40.0%	35.71%
7-Do modern toothbrushes with advanced bristles design remove interdental plaque similar to dental floss?	18.57%	21.43%	60.0%

Table-II. Pre-Designed Questionnaires asked by participants

DISCUSSION

Dental students should be a good example of positive oral health attitudes and behavior to their families, patients and friends. In general, they have been found to be motivated about maintaining a good oral health.⁷ The use of dental floss dates back to prehistoric times and the credit of inventing the modern dental floss go to Levi Spear Parmly, a dentist from New Orleans, fondly referred to as the apostle of oral hygiene. Even though the use of dental floss along with regular tooth brushing has been recommended routinely for prevention of periodontal diseases, but the statistics throughout the world is not encouraging⁸, and hence, it is essential to find the knowledge, attitude and self-reported practice about interdental cleaning aids among dental students to identify deficiencies, which would be helpful to plan corrective measures. The present survey was undertaken with the same objective among dental students.

This study showed that approximately 87.14% students knew what dental floss was effective in removing plaque. This is higher than the results of Nigerian⁹ students in which only 18% student knew about dental floss, but in line with study conducted by Neeraja.⁷ This could be due to poor knowledge and less caring attitudes towards interdental aids.

In the present study, the majority of students agreed to the fact that dental floss should be used along with regular tooth brushing and that

it is effective in removing interdental plaque, this was in accordance to study by Braimoh et al.⁹

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. In present survey approximately 18.57% of the students used dental floss; this was comparable to 19% in Indian¹⁰ medical students, but lower than the Iranian¹¹ students which were reported up to 36.7%. Evidence in the literature suggests that there is a general lack of use of flossing as a preventive measure by the various population of the world.⁷

CONCLUSION

The findings from this study was showed that a significant percentage of dental students recognize dental floss as an essential interdental aid and agree that its routine use is necessary.

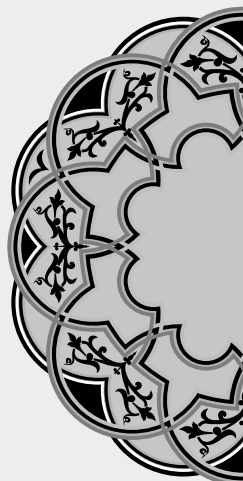
But the use of dental floss was found not satisfactory. This study has focused light on the knowledge and practice of interdental aid. So, further studies are needed, Finally, it could be concluded that awareness regarding dental floss needs to be bolstered in the population as preventive oral health care behavior.

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“You are confined only by the walls you build yourself.”

Unknown

AUTHORSHIP AND CONTRIBUTION DECLARATION

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2	Dr. Munir Ahmed Banglani	Concept / Methodology	
3	Dr. Suneel Kumar Punjabi	Proof Reading / Editing / Intro	
4	Dr. Priya	Discussion / Conclusion	