

Awareness of Interdental Aids and their Regular Use in Daily Oral Hygiene- A Questionnaire Based Study

Anisha.A.Mahtani*

I BDS, Saveetha Dental College, 162 P.H.Road Chennai Tamil Nadu 600077

Reema Lakshmanan,

*MDS, Senior Lecturer, Department of Periodontology,
Saveetha Dental College, 162 P.H.Road Chennai Tamil Nadu 600077*

Abstract:

Aim: To check the awareness of interdental aids and their use in daily oral hygiene.

Objective: To estimate the percentage of patients who are aware of interdental aids and to spread awareness on interdental aids.

Background: Bacterial plaque is the principal etiological factor for periodontitis. Toothbrushing is essential for maintaining oral hygiene. However, toothbrushing alone is not sufficient in the interproximal areas. Interdental aids provide auxiliary assistance. Lack of use of these aids may generally lead to interproximal caries and periodontitis.

Material and Methods: A questionnaire based study was conducted on 100 randomly selected patients from the out-patient department of Saveetha Dental College.

Results: 47% of patients brush their teeth twice a day and 46% change their toothbrush once in three months. 71% of the patients are unaware of interdental aids, but a few still use them in spite of being unaware of the technique.

Conclusion: Dentists play a major role in the oral health and hygiene of an individual. Awareness about the aids is still minimal. A very small percentage of the people who are aware of interdental aids, actually use them.

Keywords: Interdental aids, floss, oral hygiene, periodontal diseases

INTRODUCTION:

Dental plaque is the main etiological factor in the causation of periodontitis, its mechanical control is the gold standard in its prevention.^[1,2,3] Toothbrushing is the most common mechanical plaque control method however, it is insufficient in the interdental areas. It is also demonstrated that periodontitis is frequent and severe in the interproximal areas.^[4] Therefore, interdental aids like interdental toothbrushes, toothpicks and floss can be used.

Dental floss is one of the most common interdental aids for tight contacts,^[4] whereas interdental brushes are used for wider interdental spaces. The disadvantage in the usage of floss is that it isn't very effective in removing the plaque from the concave sides of the tooth. Flossing also requires manual dexterity. They are available in two types, the waxed and the unwaxed floss. Waxed floss has a coating which enables it easier access to tight spaces and prevents absorption of oral fluids.

Interdental brushes depending on their size and shape, can be effective in reducing inter-proximal plaque.^[5] The smallest interdental brushes would logically be more effective and relevant for those with healthy gingiva and smaller embrasures.^[5] These brushes aid those with limitations in manual dexterity or with larger hands. Moreover, the benefits of plaque reduction overall can improve long-term health as decreased bacteria in the oral cavity results in a reduction of possible systemic infection and complications.^[5]

AIM:

To check the awareness of interdental aids and their use in daily oral hygiene.

OBJECTIVE:

To estimate the percentage of patients who are aware of interdental aids and to spread awareness on interdental aids.

MATERIALS AND METHODS:

This present study was carried out amongst 100 randomly selected patients from the out patient department of Saveetha Dental college. It was a Questionnaire-based study in which, out of the 100 patients, 46 were females and 54 were males. The data was collected from September to October 2015. A written informed consent was taken.

RESULTS:

Out of 100 patients 47% of them brush twice a day however, the rest of them brush only once a day. (Refer Graph 1)

Of the surveyed patients, 46% of them change their toothbrush once in three months, whereas 28% change it every month and 26% change their toothbrushes as and when it is convenient. (Refer Graph 2)

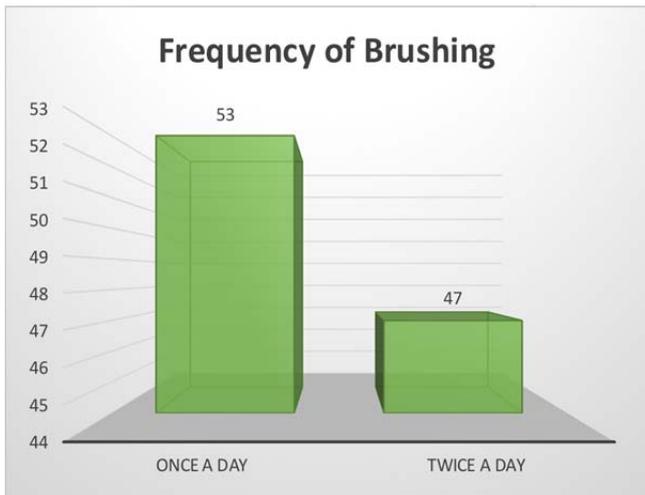
Results also revealed that only 29% of patients are aware of interdental aids.

Out of the 29% of patients who are aware about the aids, 3 of them use floss, 5 use interdental brushes, 12 use toothpicks and 9 don't use them at all. All the three people who use floss are regular users, 4 of the 5 who use interdental aids are regular users and only 2 of the 12 people who use toothpicks regularly.

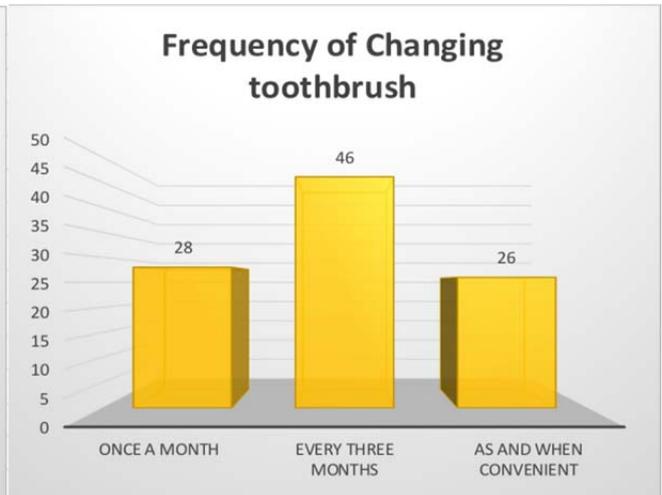
From the 71% of patients who are not aware of interdental aids, a majority of them understandably don't use them either. However 17 of them use toothpicks, 8 use

interdental brushes and 5 use floss. From the 17 patients who use toothpicks, 5 of them use it regularly. Similarly, 5 of the 8 patients are regular users of interdental brushes but only 1 of the 5 patients use floss regularly. (Refer Graph 3)

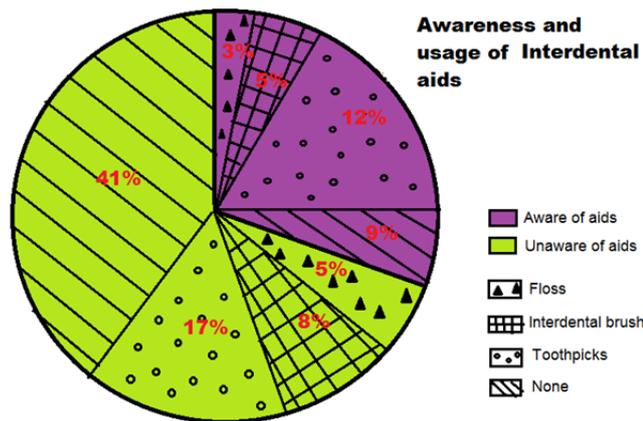
When the socio-economies status of the sample size was evaluated, 21 people fell under the below 10,000 category, 25 between 10,000-20,000, 15 between 20,000-30,000 and 11 above 30,000. (Refer Graph 4)



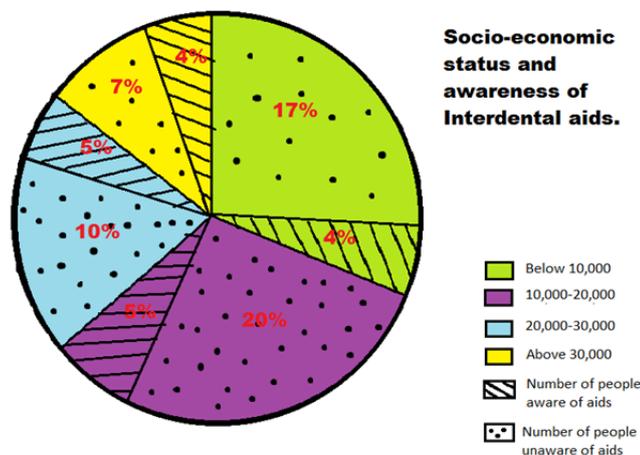
GRAPH 1:



GRAPH 2:



GRAPH 3:



GRAPH 4:

DISCUSSION:

The removal of inter-proximal plaque is considered to be important for the maintenance of gingival health, prevention of periodontal diseases and reduction of caries. Unfortunately, the toothbrush is relatively ineffective at removing inter-proximal plaque and therefore patients need to resort to additional home care techniques such as interdental aids.^[6]

Based on the results achieved above, a majority of the people brush only once a day. The frequency of brushing twice a day is quite low. This could be due to unawareness or lack of enthusiasm.

The results stated that majority of the people replace their toothbrush once in three months, but a few change their toothbrushes every month or as and when they find it convenient. Again, a major reason for this could be due to the lack of awareness of the ill-effects of using the same toothbrush over a long period of time, due to which people may not find it important to replace it. Wear of enamel and dentine can be dramatically increased if toothbrushing follows an erosive challenge for a long period of time. It is also known to cause gingival abrasion.^[7]

The results of the awareness of interdental aids show that most of the people are unaware of them. Due to this very few people use them. Of the people who are aware of the aids, only 5% of them use interdental brushes, 3% use floss and rest of them use toothpicks. Many patients request an alternative to the traditional use of floss, citing the challenging nature of both skill and motivation needed to thoroughly clean inter-proximal spaces.^[6,8,9,3] Many patients prefer Interdental brushes to floss as they are less time consuming and easier to use.^[10] In other studies, interdental brushes have been identified as a potential, suitable alternative to dental floss for interdental cleaning because of its ease of use and client acceptance.^[11,12]

From the 71% of the people who are unaware of aids, 8% still use interdental brushes, 5% use floss and 17% use toothpicks. They may have started using it out of curiosity or word of mouth, without knowing the actual technique of handling them. The usage of floss without any guidance can cause gingival ulcerations. Overly vigorous flossing may lead to irritation, ulceration or defects in the gingiva and overly vigorous toothbrushing may result in cervical tooth abrasion, gingival recession and gingival irritation.^[13]

A majority of the people believe that toothpicks are good for oral hygiene. However, toothpicks have the ability to cause abscess of gingival tissues when not used with precision.^[13]

Limitations of this study would be the sample size. A larger sample size would result in a more accurate outcome. The future prospects would be to perform this study in different economical strata to spread awareness and benefit people of poorer strata.

CONCLUSION:

Given the conclusions, that interdental brushes and floss remove interdental plaque, clinicians should collaborate with patients to determine the best oral hygiene methods given the patient's preference and skill level.^[10]

Hence, we can conclude that there is a lack of awareness regarding interdental aids among the people in India and the dentists should play a major role in creating awareness about interdental aids.^[1]

REFERENCES:

- (1) Charu Madan ,Kapil Arora,Vandana Srikrishna Chadha, Bhadravathi Chaluvaiiah Manjunath. A knowledge, attitude and practices study regarding dental floss among dentists in India. *Indian Soc Periodontol* 2014; May-Jun;3:18
- (2) Pinto TM,de Freitas GC, Dutra DA, Kantorski KZ, Moreira CH. Frequency of mechanical removal of plaque as it relates to gingival inflammation: A randomised clinical trial. *J Clin Periodontol* 2013;40:948-54
- (3) Claydon NC. Current concepts in toothbrushing and interdental cleaning . *Periodontol* 2000 2008;48:10-22
- (4) Halappa M, Chandu G. Evaluation of usage of Interdental aids among dentists as a preventive measure. *Indian Soc Periodontol*. 2015 Jan-Feb; 19(1): 4.
- (5) Irene Esteves. The effectiveness of interdental brushes. *Registered Dental Hygienist Magazine*;1
- (6) Warren PR, Chater BV. An overview of established interdental cleaning methods. *J Clin Dent* 1996;7(3 Spec No): 65-9
- (7) Addy M, Hunter ML. Can toothbrushing damage your health? Effects on oral and dental tissues. *Int. Dent. J* 2003;53 Suppl 3:177-86
- (8) Feil PH,Grauer JS, Gadbury-Amyot CC,Kula K, McCunniff MD.Intentional use of the Hawthorne effect to improve oral hygiene compliance in orthodontic patients. *J Dent Educ* 2002;66:1129-35
- (9) Kinane DF. The role of interdental cleaning in effective plaque control: need for interdental cleaning in primary and secondary prevention. In: Lang NP, Attstrom R, Loe H, editor. *Proceedings of the European Workshop on Mechanical Plaque Control*. Berlin: Quintessenz Verlag; 1998.p. 156-16.
- (10) Slot DE, Dorfer CE, Van der Weijden GA. The efficacy of interdental brushes on plaque and parameters of periodontal inflammation: a systematic review. *Int J Dent Hygiene* 2008;6(4): 253-64
- (11) Kiger RD,Nylund K, Feller RP.A comparison of proximal plaque removal using floss and interdental brushes. *J Clin Periodontal*.1991;18:681-84.
- (12) Imai PH, Hatzimanolakis PC. Encouraging client compliance for interdental care with the interdental brush: The client's perspective. *Can J Dent Hyg*.2010;44(2):71-75.
- (13) Gillette WB, Van House RL. Ill effects of improper oral hygiene procedure. *J Am Dent Assoc*. 1980 Sep; 101(3):476-80