

A SURVEY IN KNOWLEDGE OF USING ORAL AIDS AMONG DENTULOUS PATIENTS

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ABSTRACT

Background of the study: Oral health is commonly correlated with systemic health. In the recent years by the evolution of various oral hygiene aids accompanied by modified methods a great improvement in the oral health is noted. Tooth brushing and flossing are the most common practices to maintain a good oral health along with regular dental visits. Tooth brushing is the act of scrubbing teeth with the help of tooth brush and tooth paste. It is a very effectual measure to maintain good oral hygiene and to prevent dental caries as well as periodontal problems which either directly or indirectly affects systemic health of an individual. **Objective:** The present random sample survey was conducted to assess the knowledge of using oral aids among dentulous patients. **Methodology:** A questionnaire consisting of 12 questions pertaining to brushing and methods or technique of using tooth brushes was framed. 150 randomly selected samples were chosen and were evaluated about the knowledge of using oral aids. The survey was statistically analyzed. **Result:** Questionnaires were subjected to cumulative analysis and evaluated. Among the practice of brushing aids 96% used tooth brushes than any other aids. Other aids such as mouth washes, tongue cleaners though used but did not show any significance. On evaluating the method and frequency of brushing only 54% brushes twice a day where rest brushes once a day with participants showed equal frequency to all the method of brushing least being vertical motion. **Conclusion:** Cumulative analysis exposed the lack of awareness of oral hygiene and knowledge regarding the oral health implying an urgent need for awareness initiative for oral health with cooperation and participation of every individual in the implementation of good oral health practices.

KEYWORDS: Questionnaires, Dental brushing, Flossing, Oral hygiene, Oral health.

INTRODUCTION

Oral health and diseases affecting the oral cavity is one of the major public health problems which can potentially cause significant social impact. Dental caries being the most prevalent dental problem, affects the children in form of pain, poor eating habits, aesthetics among age group 8-11 years and also affecting 60% of 5-17 years old worldwide. Thus oral health knowledge is essential for proper oral hygiene and better oral health. Guidance regarding maintenance of good oral hygiene prevents accumulation of microbial plaque and its adherence to the tooth surface thereby preventing gingival and periodontal diseases. Various studies on oral health awareness among the people living in rural areas, developing countries and lower socioeconomic status showed lack of knowledge about oral hygiene aids and on various tooth brushing techniques.^[1,2] The present study was aimed to assess the knowledge of using oral aids among the dentulous patients.

METHODOLOGY

The present study was carried among randomly selected 100 patients visiting to the out-patient department. The study participants were from age 20-30 years in order to aid their understanding of the questionnaire. Permission was obtained from the study participants and also from the head of the institution to conduct the survey. The study involved around 12 questions which include personal oral hygiene like brushing frequency, method of brushing, types and material aspects of tooth brushes, other cleaning aids etc. and knowledge like plaque, calculus and gingival problems.

QUESTIONNAIRE

1. What type of tooth brush you use?
 - a) Soft Bristle
 - b) Hard bristle
 - c) Medium bristle
2. What aid, will you use to brush your teeth?
 - a) Tooth brush
 - b) Neem stick
 - c) Finger

3. What material is a tooth brush bristle made up of?
a) Nylon b) Plant c) Animal hair
4. Is nylon, made up of a petroleum byproduct?
a) Yes b)no c) Don't know
5. What material, is used for making tooth brush handle?
a) Polypropylene b) Polyethylene c) nylon
6. How often do you brush your teeth?
a) 2times/day b) 3 times/day c) 1 times/day.
7. How often, will you visit your dentist?
a) 6months b) 1year c) when I feel my teeth is unclean.
8. How often, do you change your tooth brush?
a) 3months b) 6 Months c) After bristles loses its shape.
9. Which motion, will you brush your teeth?
a) Horizontal motion b) Vertical motion c) Circular motion d) all of these
10. How do you clean your tongue?
a) Plastic tongue cleaner b) Stainless steel tongue c) Tooth brush
11. Do you think, it is necessary to visit a dentist every 6 month to clean your teeth?
a) Yes b) No

12. Do you think that rinsing your mouth with mouthwash can remove all the bacteria in your mouth?
a) Yes b) No

Statistical Analysis

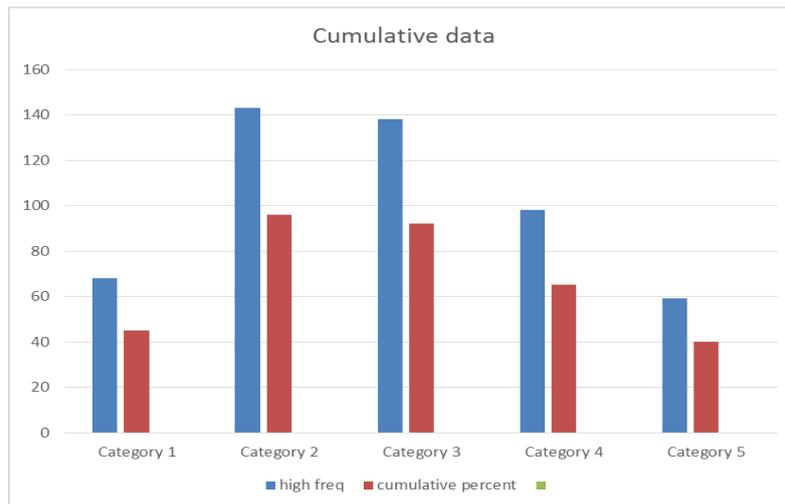
The data derived from the study were analysed by using the SPSS software package (version 22.0, IBM Corp, Armonk, NY). Descriptive statistics performed to validate the number of sample list wise. Cumulative percentage and valid percentage were evaluated to assess the validity.

RESULTS

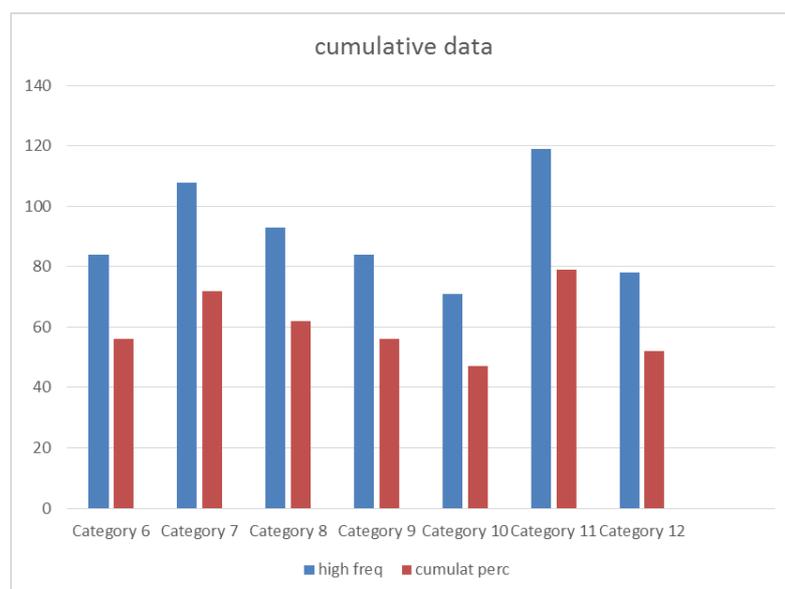
The study encompasses of 150 participants widely ranged age group from 17yrs to 66yrs of age among which 43 were males and 106 were females. Questionnaires were subjected to cumulative analysis and evaluated. Among the practice of brushing aids 96% used tooth brushes than any other aids. Other aids such as mouth washes, tongue cleaners though used but did not show any significance. 92% used nylon over other materials among which 45% used soft and 45% used medium bristles though 62% study population changes the brush every 3 months. On evaluating the method and frequency of brushing only 54% brushes twice a day where rest brushes once a day with participants showed equal frequency to all the method of brushing least being vertical motion. On valuation of awareness and frequency of visiting a dentist 72% study participants preferred visiting every 6 months only when they feel it is unclean rather than a routine dental visit. (Table 1) (Graph 1, 2).

Table 1: Table Showing Highest Frequency of Response With Their Cumulative Percentage.

Questionnaire	Highest frequency (150)	Options selected	Cumulative percentage (score %)
1	68	a	45
2	143	a	96
3	138	a	92
4	98	c	65
5	59	a	40
6	84	a	56
7	108	c	72
8	93	a	62
9	84	d	56
10	71	c	47
11	119	a	79
12	78	b	52



Graph 1: Graph Showing Highest Frequency of Response with Their Cumulative Percentage.



Graph 2: Graph Showing Highest Frequency of Response with Their Cumulative Percentage.

DISCUSSION

The tooth brush has been described as “the classic and principal method employed in oral hygiene”. According to ADA council on dental practices therapeutics “the tooth brush is designed primarily to promote cleanliness of teeth and oral cavity”. Tooth brushing is an essential element of an effective plaque removal control program and attaining optimal oral health would depend on the efficacy of the method used and the ease of carrying out the procedure. Developed motor movement and learned manual dentistry for tooth brushing are mostly progressed in younger ages. It is rational to assume that the efficacy of the brushing techniques used is a major determinant of the effectiveness of plaque removal from the tooth surface. Different methods for tooth brushing such as horizontal scrub for preschool children, fones and modified bass method are recommended.^[3,4,5]

A number of studies have reported that horizontal scrubbing method is effective for the removal of plaque

removal from the inner surfaces and smooth outer surfaces of the teeth. Nonetheless, it is usually regarded as harmful owing to promote gingival recession due to vigorous scrubbing.^[5,6] Where as in the present study, the participants showed equal frequency to all the method of brushing least being vertical motion.

Mcclure D.B says in his study on “comparison of tooth brushing techniques for preschool child”, in preschool children horizontal scrub is an efficient method for tooth brushing.^[7] Salzer et al recommended that normal tooth brushing daily is a sufficient measure that prevents the interdental caries and gingivitis.^[8] Llyas et al examined the efficacy of three brushing techniques namely Fones, Horizontal scrub and modified bass technique and found modified bass technique as the most effective technique in the reduction of plaque score, horizontal scrub was the second effective technique and the least one was Fones.^[9,10]

Unkel et al suggested that manual tooth brushing skills are learned after 4 to 5 years as the chronological age is the evident medium to tell about developed motor skills.^[11] Nikhi et al suggested that individual cast instructions are more effective than audio visual instructions.¹² Wade and Gibson compared the relative efficacies of the modified bass technique and the roll technique in plaque reduction, the efficacy of the modified was high.^[13]

Chirshantha observed in his study found that both Fones method and modified bass method were very useful in improving oral hygiene.^[14] Anaise concluded that horizontal scrubbing method has the most evident effect in plaque reduction than other techniques.^[15] Hernacke D et al found fones method superior in removing plaque as compared to modified bass technique.^[16]

In the present study among the practice of brushing aids 96% used tooth brushes than any other aids. Other aids such as mouth washes, tongue cleaners though used but did not show any significance similar to the previous studies.^[17,18]

Balabhaskaran et al.^[19] in a study showed 74% advises to brush twice, 70% in the morning and night. 82% demonstrate their patients to use dental floss, 62% use disclosing agent to motivate the patient. 58% size of the pea tooth paste. 46% recommend the use of brush and paste for cleaning the teeth. 90% recommend the use of inter dental brushes during orthodontic treatment. About 46 % recommend their patients to replace their tooth, when bristles begin to fray. Nylon bristles have a uniform diameter and a wide range of predictable textures.^[19] The nylon bristle is superior to the natural (hog) bristle in several aspects. Nylon bristles flex as many as 10 times more often than natural bristles before breaking; they do not split or abrade and are easier to clean. The configurations and hardness of nylon bristles can be standardized within specified and reproducible tolerances. Natural bristle diameters, since they are tapered, vary greatly in each filament. This can lead to wide variations in the resulting texture of the marketed toothbrush. As a result of the advantages of nylon, as well as its ease and economy of production, relatively few natural bristle toothbrushes are marketed.^[20, 21,22] Similarly in the present study 92% used nylon over other materials among which 45% used soft and 45% used medium bristles though 62% study population changes the brush every 3 months.

CONCLUSION

Tooth brushing alone cleans buccal and lingual tooth surfaces. No single tooth brushing technique adequately cleans occlusal pit and fissures. No tooth brushing procedure removes all interproximal and subgingival plaque, especially around malposed teeth and fixed prostheses. Interproximal cleaning aids are necessary to complete the tooth-cleaning process. Any toothbrush material has been demonstrated to be most effective for

all patients in long-term studies. Dental professionals should be familiar with various toothbrush products, primarily from their own use experience, and have examples of toothbrushes demonstrating various degrees of flex or bending. So various tooth brushing and flossing methods are being discussed with the patients to improve their oral as well as general health.

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