

AWARENESS OF NIGHT BRUSHING AMONG LOCAL POPULATION

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Running TITLE: Night Brushing among Local Population

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Abstract:

AIM: A survey was set to evaluate the knowledge of night brushing and to spread awareness about night brushing to prevent various dental problems.

OBJECTIVE: to evaluate the habit of brushing at night and motivate the local population to benefit from the healthy practice of night brushing.

MATERIALS AND METHODS: 100 individuals belonging to the local population were asked to fill a questionnaire that was designed to assess the awareness as well as the oral hygiene methods followed by the individuals.

RESULTS: 78% of the individuals were aware that brushing at night is essential for good oral hygiene. Only 32% brushed twice daily and 75% changed their tooth brush one in three months. 9% brushed their teeth for 3 minutes, while the rest brushed for less than 3 minutes.

CONCLUSION: Even though the awareness about night brushing was fairly good among the local population, a majority of the subjects did not brush at night.

Keywords: Night Brushing, Questionnaire survey, Brushing Awareness, Brushing Time, Oral Hygiene

INTRODUCTION: It has been observed that oral hygiene has mostly remained as majorly ignored social problem. Majority of the people are unaware about the relationship between oral hygiene and systemic diseases or disorders. Most systemic diseases show their first activity through oral signs and symptoms and they remain undiagnosed or untreated because of this unawareness.

According to the consumer usage and attitudes study done in 2010, among the most shocking information is that nearly half of the Indian population does not use a tooth brush and only 51% brushed their teeth using a tooth brush and toothpaste.[18]

Over the past 20 years a significant amount of effort has been made on prevention of diseases rather than the treatment aspect. Healthy teeth can last us a lifetime with the proper preventive dental care. Preventive oral health knowledge, behavior, and its practice are the important ways of keeping our teeth healthy. Hence, in this study attempts were made to evaluate preventive oral health knowledge, practice, and night brushing habit of the local population.

Oral health knowledge is considered to be an essential prerequisite for health related behavior, although only a weak association seems to exist between knowledge and behavior in cross-sectional studies, nevertheless studies have shown that there is an association between knowledge and better oral health.[18] Although many studies have been carried out from time to time to assess the knowledge and behavior of people about oral health, there is still lack of education regarding the same especially for local population, who make up for more than 70% of the population in India.[19] Furthermore, even the people living in cities, in spite of having easy access to dental care, fall prey to dental diseases due to unawareness in dietary habits, oral health maintenance. (20)

Oral diseases are a major problem among the local population and there are various procedures carried out to prevent and treat them. Oral health has a direct impact on general health patterns (1). Over the past half century there has been a reduction in severity of oral diseases in developed countries (2).

Maintenance of oral health involves setting up a regular strict routine for oral hygiene practices. It is essential that an individual understands the importance of the oral hygiene practices and alter his or her daily routine to the standard protocols. Most theoretical models about changing behaviors suggest that a change in knowledge and attitudes precede a change in behavior (3-7). According to these theories, knowledge is a background factor that influences attitudes towards the behavior, and therefore the behavior itself (5).

Many studies have been made with different designs and interventions aiming to determine whether children's oral health-related behavior, knowledge, and attitudes can be changed (8-11). In general, the results indicate that knowledge and attitudes can be improved, but improvement of behaviors is more difficult. Self-care behaviors are shown to be easier to change by forming if-then plans (12). The aim of the study was to assess the knowledge of night brushing among local population and to create awareness among them.

MATERIALS AND METHODS:

The present study was a questionnaire based study, where participating individuals were asked to answer a set of 8 pre designed questions regarding the practice and awareness of Night brushing practices. Subjects were requested to respond to each question. The study involved a sample of 100 individuals belonging to the local population. The sample population consisted of 45 female and 55 male. The study was conducted among people residing in south Chennai. The age of the subject's ranged from 20 to 40 years with mean age of 30 years. The questionnaire included information related to the patient's name, age, gender, occupation, and residential area. It was further categorized to evaluate the knowledge, practices, and behavior pattern related to oral health and night brushing habit. After distribution of questionnaire, 10 min were allotted for completing the questionnaire. The completed questionnaires were then analyzed statistically to obtain the results in terms of percentages.

Results: In the present study, questionnaire was distributed to 100 individuals were selected randomly. Of the 100 individuals, 45% were male and 55% were female

The results are tabulated in the Tables 1 and 2

All the questions were answered by the subjects according to their knowledge and oral hygiene practices. The study assessed the levels of awareness among local population and found that 78% of subjects were aware that night brushing is very essential for oral hygiene. 81% of the people claimed that they felt better when after brushing. 75% of people changed brush every three months while 3 individuals changed the brush only when it was visibly worn out. Only 32% of the people brushed twice a day. Only 37% of the participants used mouth wash and a mere 5 % used floss to clean to their teeth after brushing. Most of the participants (61%) brushed only for the duration of one minute.

Table 1: Oral Hygiene Practices among local population

	Yes	No
Is brushing at night essential	78	22
Good feel after brushing	81	19
Mouth wash usage	37	63
Floss usage	5	95
Encourage brushing	90	10

TABLE 2:

	One	Two	Three	Other
Brushing	67	32	1	-
Change in brush	7	15	75	3
Time in minutes	61	30	9	-

DISCUSSION:

This study presented overall view about the awareness of night brushing among local population. Even though the awareness level of night brushing was about 78%, only 32 % brushed twice daily. This shows that even though the knowledge is present there is a lacking in following the practices professed by the knowledge. This is lesser than oral hygiene practices among dentists in Chennai which was 55.9% (13) or Iranian dentists where the rate was 59% (14). This only shows the wide spread nature of the callous attitude towards oral hygiene. This only points that that effective oral hygiene practices can be established in an individual only if it was stressed and made into a routine habit from early childhood.

There is generally a failure in the use of dental floss as a preventive tool. None of the subjects has used dental floss, which is similar to a study conducted by Hanaa M. Jamjoom in Saudi Arabia in 2001.[16] In contrast, Hamilton and Couby found that a high percentage (44%) of the sample they studied in Northeastern Ontario used dental floss.[17] Reason for this may be the significant resource allocation to health education programs that are carried out in Canada. This emphasizes the urgent need for educating and motivating the public to use this efficient method for oral health care.

81% of the individuals said that they felt refreshed after brushing while 19% said that brushing does not have any refreshing effect. Similarly the use of a mouth wash and dental floss were only 37% and 5 % respectively which shows the dire need to educate the local populace on the dire need to follow proper oral care practices. This was again lesser when compared to the use of floss by the dentists in Chennai (9.2%) while it was 54% for Iranian dentists. This only shows that the fault lies with the dentists in not stressing on the proper oral care practices. This also gives more credibility to the fact that the health practices followed by doctors determine how well they advise their patients (15).

Among the sample population, 97% changed their brush every three months or less while 3% used a tooth brush for more than three months. Only 9% of individuals brushed for 3 minutes while rest brushed for less than 3 minutes implying that though people brushed at least once daily, a majority did not spend enough time for brushing which would lead to poor oral hygiene. standards of oral health are very poor in India, with a large proportion of the population being affected due to poor socio – economic conditions.

CONCLUSION:

Results of this study suggest that awareness of night brushing among local population is fairly good however the motivation to follow up on the knowledge and put it into practice was lacking. A large number of individuals were unaware the importance of flossing and the use of a mouth wash. Comprehensive dental health programs must be conducted among our local population to emphasis how to maintain good oral health by night brushing habits especially.

REFERENCES:

- [1] **Humagain M.** Evaluation of Knowledge, Attitude and Practice (KAP) About Oral Health among Secondary Level Students of Rural Nepal - A Questionnaire Study. *Webmed Central Dentistry*. 2011; 2(3): WMC001805.
- [2] **Al-Omiri MK, Al-Wahadni AM and Saeed KN.** Oral health Attitudes and Behaviour among School Children in North Jordan; *Journal of dental education*. 2006; 70(2): 179-187.
- [3] **Luszczynska A, Sutton S.** Attitudes and expectations. In: Kerr J, Weitkund R, Moretti M, eds. *ABC of behavior change*. Oxford, UK: Elsevier, 2005; 71–84.
- [4] **Haisch J, Hornung R.** Perceptions, cognitions, and decisions. In: Kerr J, Weitkund R, Moretti M, eds. *ABC of behavior change*. Oxford, UK: Elsevier, 2005; 85–98.
- [5] **Ajzen I.** *Attitudes, personality and behavior*, 2nd edition. Poland, EU: McGraw-Hill Education, 2005; 3–6.
- [6] **Claessen J-P, Bates S, Sherlock K, Seeparsand F, Wright R.** Designing interventions to improve tooth brushing. *Int Dent J*. 2008; 58(S5): 307–320.
- [7] **Daly B, Watt R, Batchelor P, Treasure E.** *Essential dental public health*. Oxford, UK: Oxford University Press, 2002; 85–98.
- [8] **Kay E, Locker D.** A systematic review of the effectiveness of health promotion aimed at improving oral health. *Community Dent Health*. 1998; 15(3): 132–144.
- [9] **Koerber A, Burns JL, Berbaum M, Punwani I, Levy S, Cowell J, Flay B.** Tooth brushing patterns over time in at-risk metropolitan African-American 5th–8th graders: a brief communication. *J Public Health Dent* 2005; 65(4): 240–243.
- [10] **Redmond CA, Blinkhorn FA, Kay EJ, Davies RM, Worthington HV, Blinkhorn AS.** Cluster randomized controlled trial testing the effectiveness of a school-based dental health education program for adolescents. *J Public Health Dent*. 1999; 59(1): 12–17.

- [11] **Kallesta C.** The effects of five years implementation of caries-preventive methods in Swedish high-risk adolescents. *Caries Res.* 2005; 39: 20–26.
- [12] **Gollwitzer PM, Sheeran P.** Implementation intentions and goal achievement: a meta-analysis of effects and processes. *Adv Exp Soc Psychol.* 2006; 38: 69-119.
- [13] **Gopinath V.** Oral hygiene practices and habits among dental professionals in Chennai. **Indian J Den Res.** 2010; 21(2): 195-200.
- [14] **Ghasemi H, Murtooma H, Vehkalahti MM, Torabzadeh H.** Determinants of oral health behaviour among Iranian dentists. *Int Dent J* 2007;57:237-42.
- [15] **Haug K, Fugelli P, Aarus LE.** Recruitment and participation of general practitioners in a multipractice study of smoking cessation. *Scand J Prim Health Care.* 1992; 10: 206-210.
- [16] Jayaprakash R., Sharma A., Moses J. Comparative evaluation of the efficacy of different concentrations of chlorhexidine mouth rinses in reducing the mutants streptococci in saliva: An in vivo study 2010 Journal of Indian Society of Pedodontics and Preventive Dentistry 2(83)162-166 Department of Pedodontics and Preventive Dentistry, Saveetha University, Chennai, Tamilnadu, India
- [17] Rakshanaa T.V.R., Lakshmi T. Antibacterial efficacy of herbal mouthwash against oral microbes - In vitro assay 2017 Journal of Advanced Pharmacy Education and Research 7(1)(31-33) Department of Pharmacology, Saveetha Dental College and Hospitals, Saveetha University, Chennai, Tamil Nadu, India
- [18] Rajan V., Nazar M.N. Cross infection control in dentistry 2014 Research Journal of Pharmaceutical, Biological and Chemical Sciences 5(2)(650-657) Saveetha Dental College, Saveetha University, Chennai, Tamil Nadu, India; Department of Oral and Maxillofacial Surgery, Saveetha Dental College, Saveetha University, Chennai, Tamil Nadu, Indian
- [19] Bettie N.F., Ramachandiran H., Anand V., Sathiamurthy A., Sekaran P. Tools for evaluating oral health and quality of life 2015 Journal of Pharmacy and Bioallied Sciences 7(6)(414-419) Department of Prosthodontics, Thai Moogambigai Dental College and Hospital, Dr. M.G.R University, Chennai, Tamil Nadu, India; Department of Prosthodontics, Saveetha Dental College, Saveetha University, Chennai, Tamil Nadu, India
- [20] Jayakaran T.G. The effect of drugs in the oral cavity - A review 2014 Journal of Pharmaceutical Sciences and Research 6(2)(89-96) Saveetha Dental College and Hospitals, Saveetha University, Chennai, India Adverse drug reactions; Drug pharmacodynamics; Mucosal I