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Assessment of oral hygiene awareness in geriatric patients visiting dental clinic in north India

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Abstract
Aim: To assess and learn oral health awareness and hygiene practices among geriatric patients.
Materials and Methods: A total of 100 patients in the age group of 60 years and above were selected using random sampling technique. A self-administered structured questionnaire including 20 multiple choice questions was given to them. The results were analyzed using percentage.
Results: The result of this study shows an acute lack of oral hygiene awareness and limited knowledge of oral hygiene practices.
Conclusions: Hence, there is an urgent need for comprehensive educational programs to promote good oral hygiene awareness and its impact on systemic health and impart education about correct oral hygiene practices

Keywords: Awareness, oral hygiene, systemic health

Introduction
Aging is a natural process. Old age should be regarded as a normal, inevitable biological phenomenon. As a result of the advances made in medicine and public health measures in the last half of the 20th century, there is a substantial increase in the life span of man. Elders above 65 years (old age) have health problems as a result of aging process, which calls for special consideration [1].

During the latter half of the 20th century, the age composition of the population changed dramatically, with more people living to older ages and the older population getting older. This demographic change will have a major impact on the delivery of general and oral-health care, as well as on the providers of these services. Although some older adults have physical and/or psychological conditions that require special attention in the dental office setting, one should not assume that all older people share these conditions [1, 2].

According to the WHO, the global population is increasing at the annual rate of 1.7%, while the population of those over 65 years is increasing at a rate of 2.5%. Both the developed, as well as the lesser-developed countries, are expected to experience significant shifts in the age distribution of the population by 2050. The fastest growing population segment in most countries is the adults older than 80 years, which according to the United Nations estimates will make up nearly 20% of the world's population [1, 2].

In India, with its population of over one billion people, people older than 60 years constitute 7.6% of the total population, which amounts to 76 million. Incidence of oral cancer, which is an old age disease, is highest in India [3].

Of added concern may be the presence of systemic disease that not only influences the patient's ability to maintain oral hygiene and promotion of oral health, but can actually be related to the occurrence of certain oral diseases. Though impairments are not life threatening, they affect a person's quality-of-life. Thus, planning treatment for the senior dental patient includes an understanding of the chronic diseases the patient lives with daily, as this play a critical role in the acceptance and success of the dental treatment plans.

Materials and Methods
The study sample consisted of 100 patients above 60 years of age attending a dental clinic in north India were selected.

First, a pilot study was done on 10 patients present at OPD where they were asked to answer many questions relating to oral hygiene awareness. From this study, irrelevant questions that couldn't be correlated to any worthy conclusion were found and eliminated while the rest were kept for the main study. A self-made questionnaire was prepared consisting of 20 questions which aided to assess oral hygiene awareness. Out of the 20 questions 10 are related to knowledge, 5 are related to attitude and 5 are related to practice. Verbal consent was taken from the patients before starting the study. They were provided explanation of the purpose of the study. The investigators were available throughout to answer any query regarding the questionnaire. After collection, the data was coded, computerized and analyzed.

Results

In the present study, questionnaire was distributed to 100 geriatric patients who were selected voluntarily. Of the 100 patients, 58% were male and 42% were female. In response to the aid of cleaning their teeth, 70% use toothpaste, 25% use tooth powder with finger and 5% indicated use of neem stick. (Figure 1).

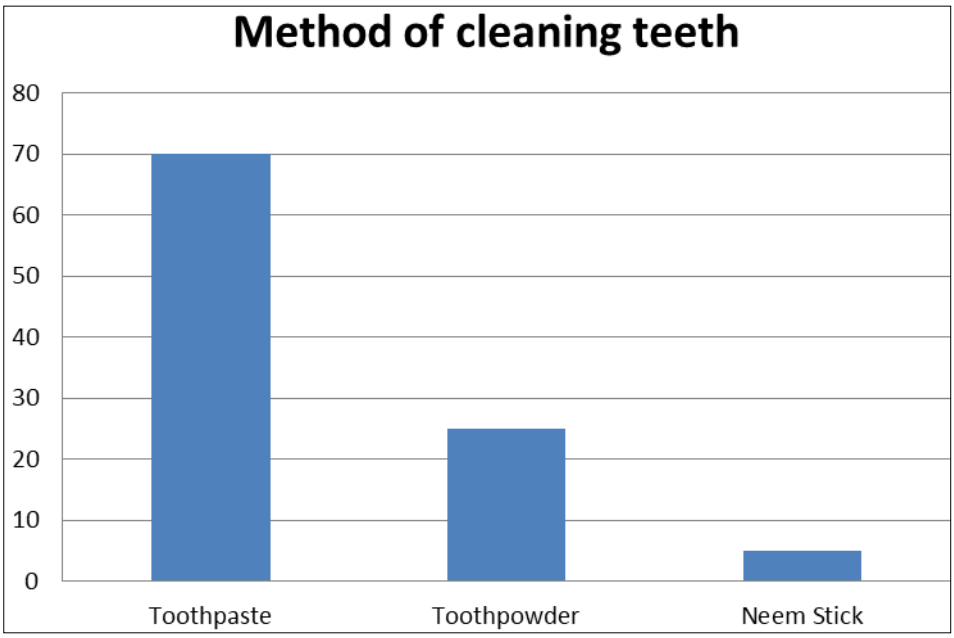

Fig 1: Method of cleaning teeth

71% of them were brushing the teeth once a day, 29% brushed their teeth twice a day and 0% were brushing thrice a day. Around 75% of the subjects brush their teeth in horizontal direction, which is the most dangerous method of brushing 5% for vertical direction and 20% reported for both the directions. (Figure 2).

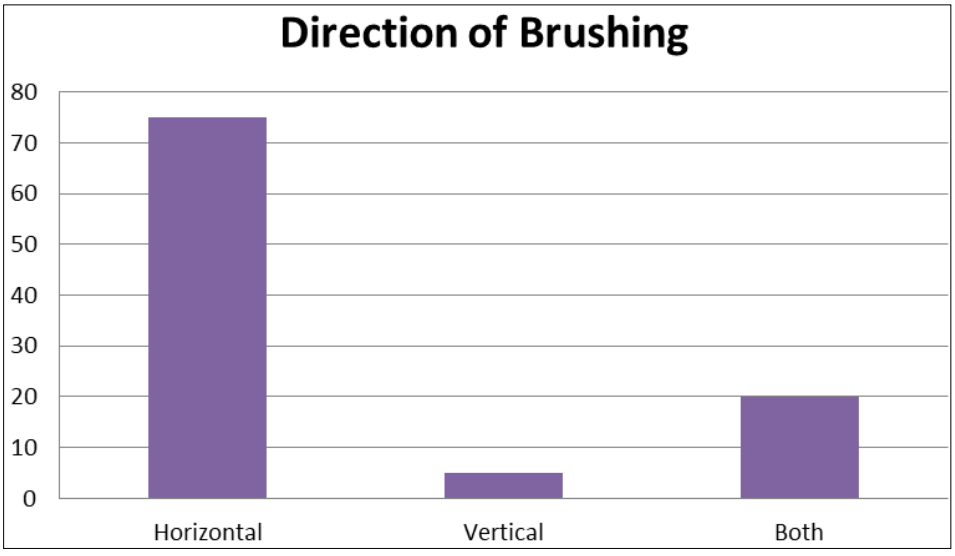

Fig 2: Direction of Brushing

36% patients changed their tooth brush once in 3 months. While 38%patients changed their tooth brush once in 6 months.

It is noteworthy that among all, only around 4 % of the patients used any interdental aids like floss, toothpick, interdental brush, and mouth wash. Out of these patients, most common other method was Mouth wash used by 83% patients, followed by tooth pick 13%, dental floss by 3% patients and 1% by interdental brush (Figure 3).

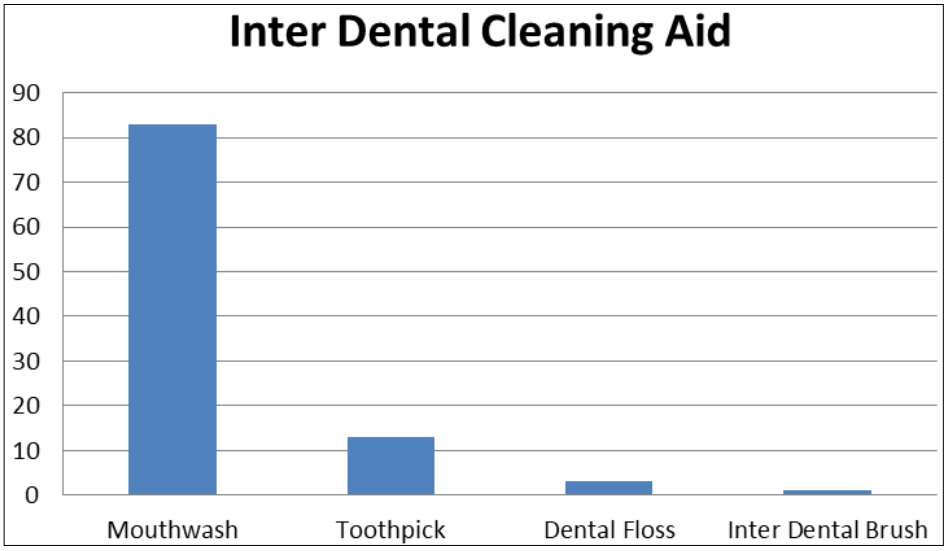

Fig 3: Inter dental cleaning aid.

Only 39% of the population rinses their mouth after having food. 36% of people noticed bleeding from gums especially during tooth brushing which is known as tooth brush trauma. 51% of subjects experienced malodor and 54% were aware that there teeth look dirty but still only 40% have visited their dentist once/twice and surprisingly only 18% would want to visit for dental check-up in future.

Discussion

Oral health is an integral part of general health and a valuable asset for any individual. Oral health has usually remained a neglected entity; people have underestimated consequences of bad oral health, which have led to bigger problems which later on becomes difficult to treat. Majority of the people are unaware about the relationship between oral hygiene and systemic diseases or disorders. Most diseases show their first appearance through oral signs and symptoms and they remain undiagnosed or untreated because of this missing awareness [4].

Many studies have been carried out from time to time to assess the knowledge and behavior of people about oral health, but there is still a dearth of literature for oral hygiene practices and awareness for oral-systemic health relationship region wise. Therefore the present study was conducted to assess the oral hygiene practices and awareness for oral-systemic link on patients reporting to the Dental Clinic.

According to the consumer usage and attitudes survey which was done in 2005, the most shocking of revelations was that more than half of the Indian population did not use a tooth brush and only 51% brushed their teeth using a tooth brush and toothpaste [5]. Over the past 20 years significant measures have been made to promote oral hygiene and major emphasis has also been made on prevention of diseases rather than the treatment aspect of oral diseases. 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 behavior of the population.

Although brushing was the commonly used method of cleaning, In our study we found 71 % people brushed only once a day, which is in agreement with the study conducted by Agiapal Singh *et al.* [6] where 69% people brushed only once a day. However for maintaining good oral hygiene the American Dental Association recommends brushing the teeth twice a day [7]. Brushing twice daily was reported by 29 % of the subjects in the present study which was less as compared to the study conducted by Al-Johani (38.5 %) [8].

Regarding the practice of frequency of change the brush, 3 month duration of time have been advocated as ideal [9]. This time frame was practiced by only 35.8 % of our population similar to the study conducted by Jain *et al.* [4] whereas 37.4 % of population in our study discarded their brush at 6 months. The rest either discarded their tooth brush either in 1 month or after the use of more than 6 month. Education and awareness at dentist level is hereby required to lay stress on the change of brush at 3 months interval.

The use of interdental cleaning aids (i.e. dental floss, interdental brush and tooth pick) and mouth wash were seen only by 4 % of our surveyed population. None of the subjects has used dental floss, which is similar to a study conducted by Hana M. Jamjoom [10] in Saudi Arabia and Jain *et al.* [4] In contrast, Hamilton and Couby [11] found that a high percentage (44%) of the sample they studied in north eastern Ontario used dental floss. 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.

It is noteworthy that 75% of the respondents brushed their teeth using traditional horizontal method, which will jeopardize the tooth structure. This finding is in agreement with that of the study done by Zhu *et al.* [12] where 60% of the sample did the same.

Only 39% of the sample population rinses their mouth after eating food. This missing and very basic method of maintaining oral hygiene is a clear indication of lack of awareness.

8% of subjects used a mouthwash. Interestingly enough, they used it to treat malodour. Furthermore, 51% reported halitosis. This study is in contrast with that of an epidemiologic survey of the general population of Japan where 24% of the individuals examined complained about bad breath [13]. 36% percent of the total subjects reported bleeding gums. This study is in agreement with studies of Ashley *et al.* [14] and Buhlin *et al.* [15] who showed that self-reported bleeding gums was high in percentage. This study is in contrast with the studies of Nagarajan, and Pushpanjali [16] in India. Kallio *et al.* [17] who showed that most of the patients did not notice bleeding from gums. Our study showed that 40% of the subjects visited a dentist when they were in

pain/need, which is similar to the study done by Al-Shammari [18], in 2007, where 54.5% of the participants reported visiting a dentist only when they have pain. Unsurprisingly, standards of oral health are very poor in India, with a large proportion of the population being affected due to poor socio-economic conditions. In addition to this, two thirds of people have never seen a dentist [19-21]. Missing awareness about the crucial role of regular dental checkups in preventing and detecting dental diseases is another gap in public education [22, 23]. As dentists, it is our responsibility to educate and motivate people to visit a dentist.

Conclusion

The indifferent results of this study show that oral hygiene awareness is very poor in North India as same seen in various parts of India. The information on developments in vital combination of oral hygiene, oral diagnosis, and overall health needs to be spread by us, the dentists. Establishing and demonstrating a connection between good oral hygiene and its relation directly to overall health is the need of the hour. To achieve this critical goal this process will have to be taken at all levels in society starting from a definite beginning with our patients. We, as dentists, will have to keep reinforcing the importance of correcting all aspects related with brushing and flossing along with the importance of regular checkups. The task of spreading this awareness extends beyond our private clinical practices and general masses should be targeted to have a large scale effect. This can be achieved by various outreach programs and relevant public health awareness measures through various mediums, such as media, newspapers, Internet, and organizing social activities and events for creating awareness. All of these and more innovative methods of reaching the public and this will not only ensure a healthy individual but a healthy over all society as well.

References

1. Harris NO. 6th ed. New York: Prentice Hill; Primary Preventive Dentistry, 1999.
2. Park K. 21st ed. Jabalpur: Bhanot Publishers; Preventive and Social Medicine, 2011.
3. Panchbhai AS. Oral health care needs in the dependant elderly in India. Indian J Palliat Care. 2012; 18(1):19-26.
4. Jain N, Mitra D, Ashok KP, Dundappa J, Soni S, Ahmed S. Oral hygieneawareness and practice among patients attending OPD at Vyas Dental College and Hospital, Jodhpur. J Indian Soc Periodontol. 2012; 16:524-528.
5. Dilip CL. Health status, treatment requirements, knowledge and attitude towards oral health of police recruits in Karnataka. J Indian Assoc Public Health Dent. 2005; 5:20-34.
6. Singh A, Gambhir RS, Singh S, Kapoor V, Singh J. Oral health: How much do you know? – A study on knowledge, attitude and practices of patients visiting a North Indian dental school. European Journal of Dentistry. 2014; 8(1):63-67.
7. American Dental Association. Oral Health Topics A-Z. Cleaning Your Teeth and Gums (Oral Hygiene).
8. Ali NS, Khan M, Butt M, Riaz S. Implications of practices and perception on oral hygiene in patients attending a tertiary care hospital. J Pak Dent Assoc. 2012; 1:20-23.
9. Glaze PM, Wade AB. Toothbrush age and wear as it relates to plaque control. J Clin Periodontol. 1986; 13(1):52-56.
10. Jamjoom HM. Preventive oral health knowledge and practice in Jeddah, Saudi Arabia. J KAU: Med Sci 2001; 9:17-25.
11. Hamilton ME, Coulby WM. Oral health knowledge and habits of senior elementary school students. J Publ Health Dent. 1991; 51: 212-218.
12. Zhu L, Petersen PE, Wang HY, Bian JY, Zhang BX. Oral health knowledge, attitudes and behaviour of adults in China. Int Dent J. 2005; 55:231-241.
13. Miyazaki H, Sakao S, Katoh Y, Takehara T. Oral malodor in the general population of Japan. Bad Breath: Research Perspectives. Israel: Ramot Publishing: Tel Aviv University. 1995, 119-136.
14. Ashley FP. Role of dental health education in preventive dentistry. In prevention of dental disease. 3rd ed. In: Murray JJ, editor. Oxford: Oxford University Press. 1996, 406-414.
15. Buhlin K, Gustaffon A, Anderson K, Hakansson K, Klinge B. Validity and limitations of self-reported periodontal health. Community Dent Oral Epidemiol. 2002; 30:431-437.
16. Nagarajan S, Pushpanjali K. Self-assessed and clinically diagnosed periodontal health status among patients visiting the outpatient department of a dental school in Bangalore, India. Indian J Dent Res. 2008; 19:243-246.
17. Kallio P, Nordblad A, Croucher R, Ainamo J. Self-reported gingivitis and bleeding gums among adolescents in Helsinki. Community Dent Oral Epidemiol. 1994; 22:277-282.
18. Al-Shammari KF, Al-Ansari JM, Al-Khabbaz AK, Dashti A, Honkala EJ. Self-reported oral hygiene habits and oral health problems of Kuwaiti adults. Med Princ Pract. 2007; 16:15-21.
19. Freeman R, Maizels J, Wyllie M, Sheiham A. The relationship between health-related knowledge, attitudes and dental health behaviors in 14-16-year-old adolescents. Community Dent Health. 1993; 10: 397-404.
20. Kay EJ, Locker D. A systematic review of the effectiveness of health promotion aimed at improving oral health. Community Dent Oral Epidemiol. 1998; 26:132-144.
21. Woodgroove J, Cumberbatch G, Gylbier S. Understanding dental attendance behaviour. Community Dent Health. 1987; 4:215-221.
22. Tervonen T, Knuttila M. Awareness of dental disorders and discrepancy between objective and subjective dental treatment needs. Community Dent Oral Epidemiol. 1988; 34: 345-348.
23. Al-Beiruti N. Oral health behaviour among a sample of schoolteachers, physicians and Nurses in the Syrian Arab Republic. East. Mediterr Health J. 1997; 3:258-262.