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## A Clinical Survey to Evaluate the Patients and Dentists Perspective on Denture Cleansing Habits in Mumbai and Navi Mumbai

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# A Clinical Survey to Evaluate the Patients and Dentists Perspective on Denture Cleansing Habits in Mumbai and Navi Mumbai

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## I. INTRODUCTION

"The first step towards change is awareness." A holistic approach of dental health care, awareness and patient support is critically important to a long term success of the treatment. There is sparse literature on dental health awareness, attitude and oral health care among the adult population in India. Oral health has been neglected for long and the need for dental awareness cannot be overstated.

As it's said "Cleanliness is next to godliness", thus cleansing of dentures is essential for the maintenance of residual oral tissue health. We as dentists can help maintain oral tissue health by providing the information needed about denture cleansing techniques to the patients.

This survey throws light on the denture cleansing habits of the patients and dentist perspective towards training patients to maintain denture hygiene.

## II. MATERIALS AND METHODS

In this study, a total of 100 patients and 100 practising dentists living in Mumbai and Navi Mumbai were surveyed regarding their opinions and views about denture hygiene and cleansing routine, using a prepared questionnaire. This survey was undertaken from August 15, 2014 to September 15, 2014.

## III. RESULT

In this study, it has been revealed that all the 100 practising dentists advise denture cleansing habits to their patients (Fig 1).

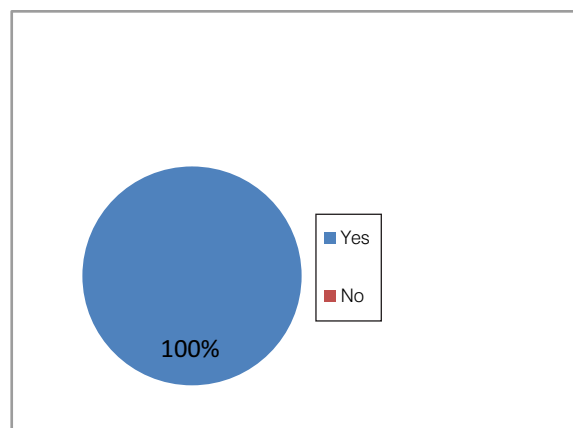


Figure 1 : Do the dentist explain the importance of denture cleansing

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47% dentists advise their patients brushing with toothpaste along with denture cleansing agents while the second most preferred method is soaking their dentures into commercial tablets (36%). Brushing with toothpastes and cleansing with soap and water come next at 6% and 11% respectively. (Fig 2).

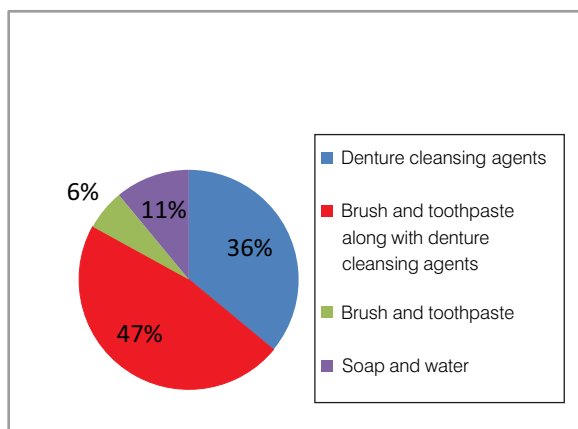


Figure 2 : Methods of denture cleansing advised by the dentists

Denture cleansing agents advised are sodium perborate 80% and alkaline peroxide 16%(Fig 3).

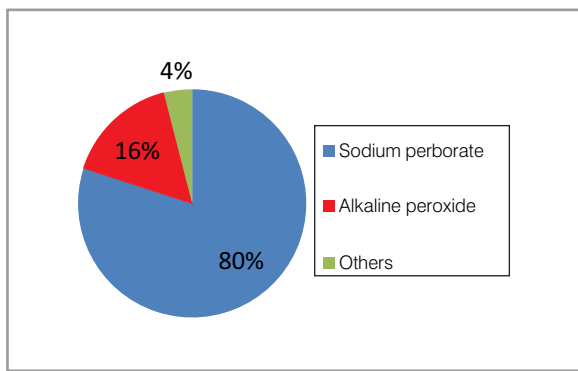


Figure 3 : Denture cleansing agents advised by the dentists

While 70% of the dentists recommend cleansing of the dentures once a day, 20% recommend twice a day and 10% suggest once a day (Fig 4).

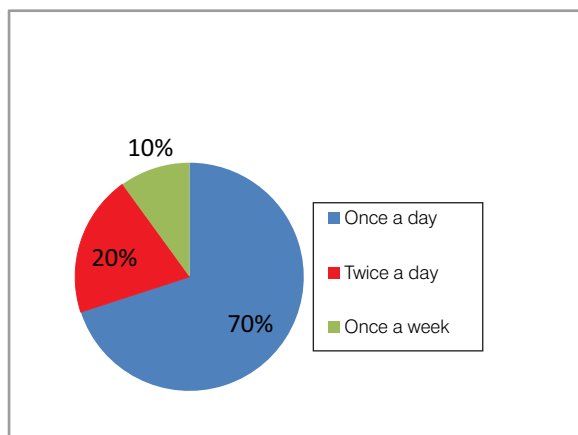


Figure 4 : Dentists recommending cleansing of dentures

98% dentists evaluate dentures for cleansing during recall visits, whereas 2% do not recall their patients (Fig 5).

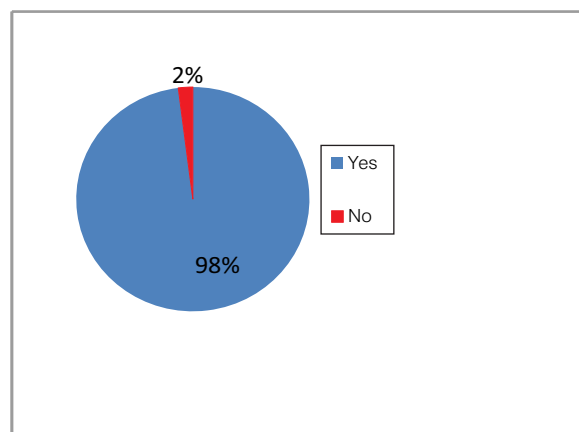


Figure 5 : Denture evaluation during recall visits

Only 44% dentists advise professional cleansing of dentures once a year, 34% twice a year, the rest advice it less frequently (Fig 6).

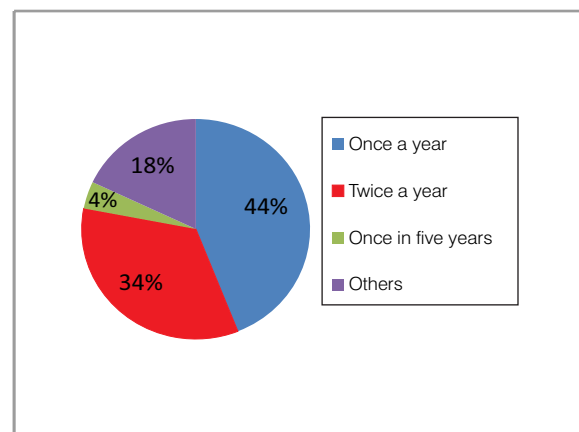


Figure 6 : Professional cleaning of the dentures advised by the dentists

Majority of the dentists 58% instruct patients to clean their dentures after meals, followed by 32% who instruct cleansing after meals as well as before sleeping (Fig 7).

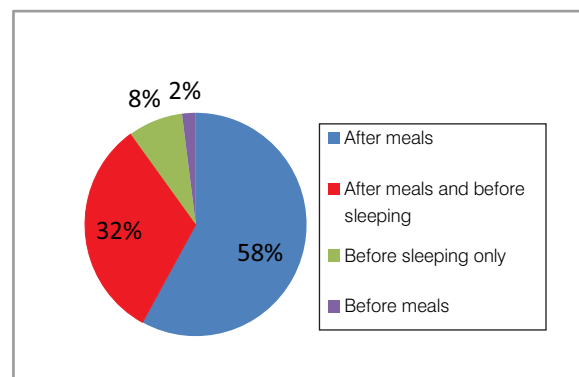


Figure 7 : Dentists recommendations to clean the dentures

34% dentists provide instructs verbally while 21% provide by clinical demonstration. Both verbal and clinical demonstration are provided by 25% dentists. Only 20% provide written instructions (Fig 8).

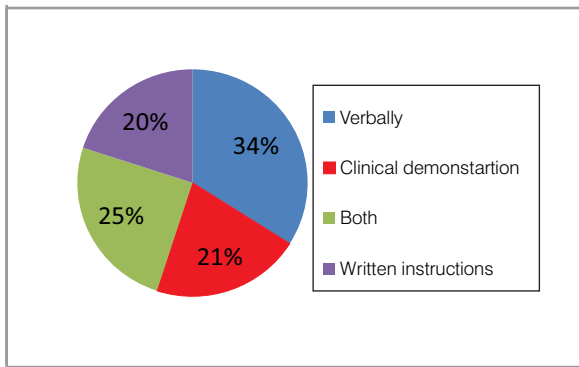


Figure 8 : Mode of providing instructions by the dentists

58% dentists found patient cleansing habits as average, followed by 18% who evaluate them as fair, 14% as unsatisfactory, and only 10% evaluate patient cleansing habits as good (Fig 9).

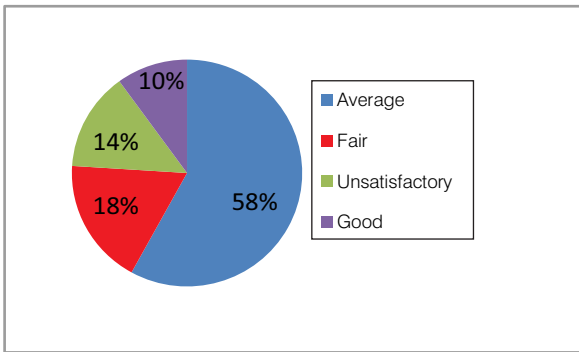


Figure 9 : Evaluation of patients cleansing habits

When the dentists were asked for the reason of negligence of the professional cleaning of the dentures, 33% said patient negligence of professional denture cleansing is due to the cost factor, 29% said it was due to the time factor. 25% was from not wearing the dentures for a day and 13% dentists evaluated the other factors such as patient unawareness and laziness.

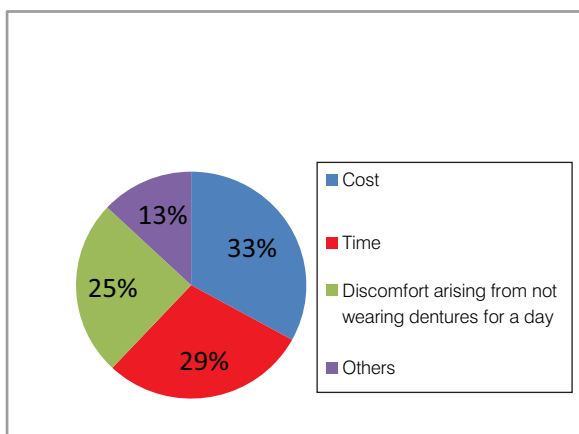


Figure 10 : Negligence for the professional cleansing of dentures according to the dentists

The result of the present survey from the patients perspective indicated that 61% patients did not feel their dentures to be as nice as new, unlike the other 39% (Fig 11). Majority of the patients 92% felt regular cleansing of their dentures are necessary (Fig 12).

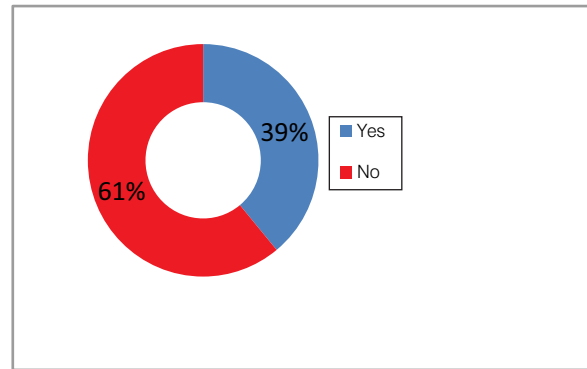


Figure 11 : Do the patients feel their dentures to be as nice as new

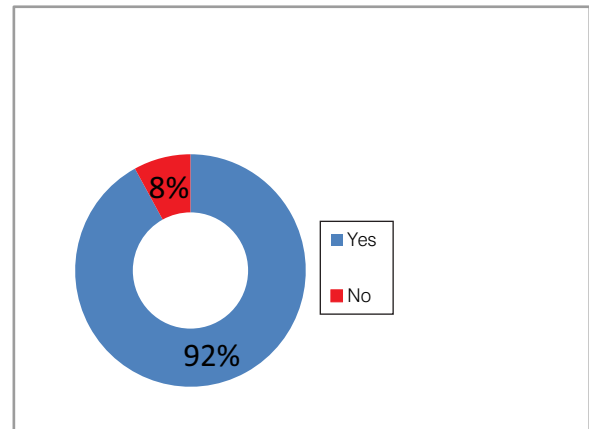


Figure 12 : Do the patients feel regular cleansing of dentures are important

56% patients clean their dentures twice a day followed by 36% who clean it thrice a day and 8% who clean them once a day (Fig 13).

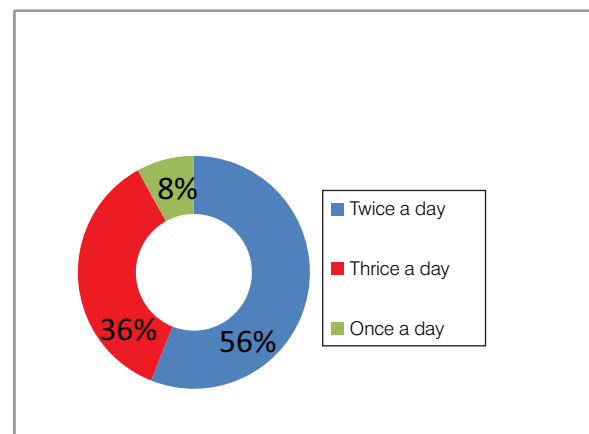


Figure 13 : Frequency of denture cleansing followed by the patients

The most common denture cleansing methods patients use are denture cleansing agents 25%, 35% a brush and toothpaste alone, and a brush and toothpaste along with denture cleansing agent is 25%. Only 15% use soap and water (Fig 14).

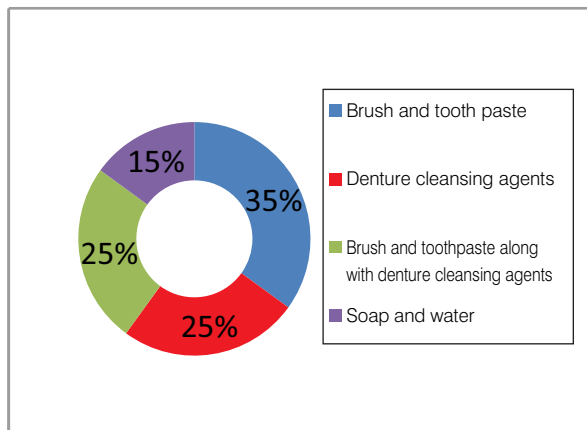


Figure 14 : Methods of denture cleansing followed by the patients

It is surprising to know that 17% patients claim that their dentists do not inform them of how to clean their dentures (Fig 15).

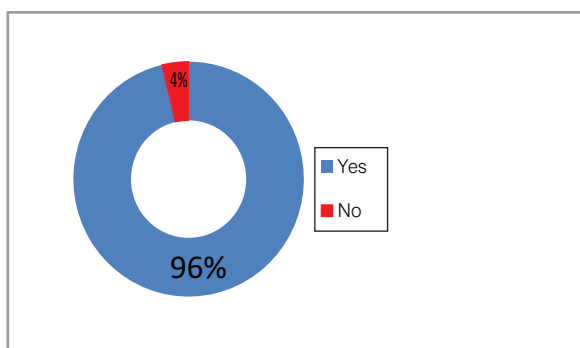


Figure 15 : Were instructions about denture cleansing provided by the dentists

76% of the patients claimed the dentists recommend cleansing of dentures after meals, 15% recommend before sleeping, and 9% recommend before sleeping along with after meals (Fig 16).

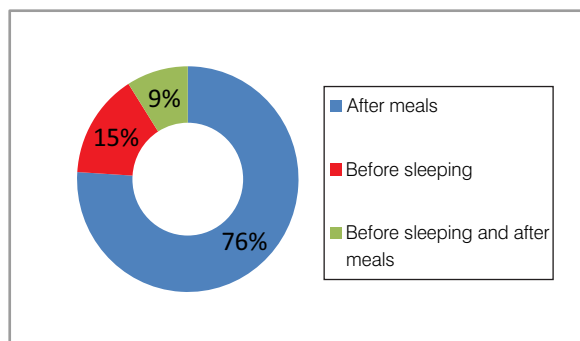


Figure 16 : Dentists advise patients to clean their dentures

According to patients, majority of dentists 54% provide instructions verbal, 23% by clinical demonstration, 12% by both, and 11% by giving written instructions (Fig 17). The most common habits amongst patients leading to staining of dentures is consumption of tea and coffee 76%, 12% take to smoking, 8% beetle nut/ tobacco and remaining 4% pan chewing (Fig 18).

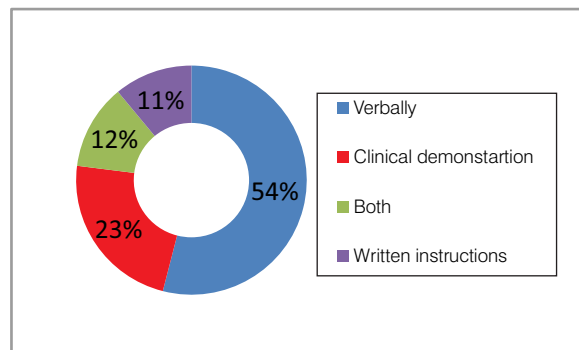


Figure 17 : Mode of providing instructions to the patients

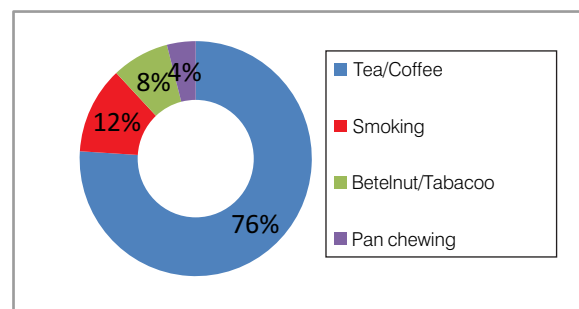


Figure 18 : Habits leading to staining of dentures

61% patients consider stains on dentures as socially unacceptable (Fig 19). 40% patients are unaware of professional cleansing of dentures, 36% neglect professional denture cleansing because of cost, 18% because of discomfort arising from not wearing dentures for a day and 6% due to lack of time (Fig 20).

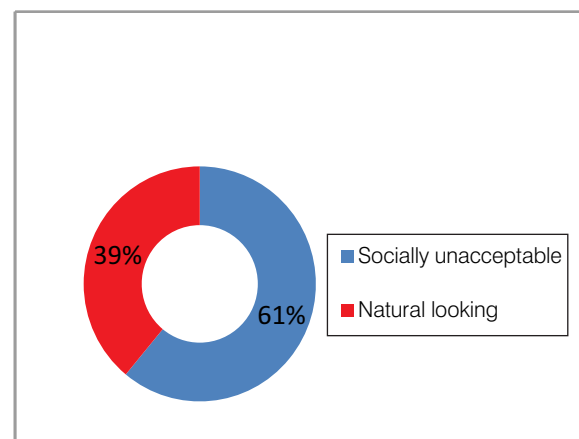


Figure 19 : Patients perspective regarding stains on a denture

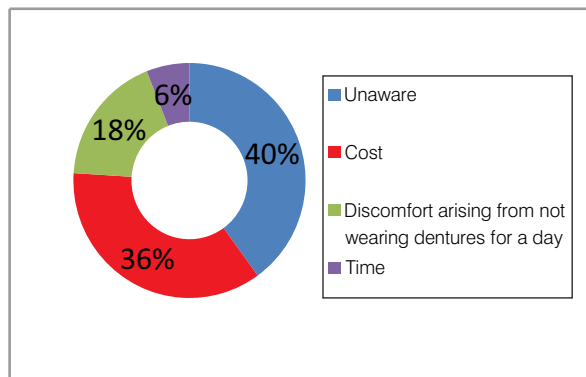


Figure 20 : Negligence for the professional cleaning of dentures by the patients

#### IV. DISCUSSION

Edentulism is a growing problem in our society. The number of fully and partially edentulous patients is still increasing today. Dentures are an artificial substitute for missing natural teeth and adjacent tissues (1).

Regular cleansing of the denture prosthesis is necessary to increase the longevity of the prosthesis. The present survey is conducted on patients between the age of 35 to 65 years.

We discussed denture cleansing habits with patients as well as dental professionals. We asked both the patients and the dentists as to how often the denture should be cleansed to which majority of the dentists (70%) said once a day, these results agree with those of Nevalainen et al(2) and De Castelucci Barbosa et al(3),and 56% of the patients said twice a day. Keeping in mind, the denture cleansing agent from patient to patient varies, therefore the number of times the patient cleans the denture also varies.

There are various methods to clean a denture, soap and water, brush and toothpaste, brush alone, and denture cleansing agents. Majority of the dentists recommended brushing with toothpaste along with soaking their dentures into denture cleansing tablets, followed by using denture cleansing agents alone, whereas majority patients prefer cleaning their dentures by brushing with a toothpaste (35%). Similar results were obtained in previous studies conducted by Peracini et al(4) and Jegantha et al(5). Brushing with a toothpaste is a mechanical method of denture cleansing, however if done incorrectly it may lead to surface abrasions which will cause undesirable aesthetic and biological result(6,7). Dentrifrice has a higher patient compliance because of its simplicity and cost effective characteristics. Mechanical methods of denture cleansing are not effective in completely removing the biological plaque on the surface of the dentures, therefore majority of the dentists (80%) recommend sodium perborate. Oxidizing nature of this chemical has the ability to remove stains as well as the advantage of having an antimicrobial action. Ideally,

both mechanical and chemical methods should be used to achieve adequate plaque control. Combination of brushing and soaking methods is recommended by 47% dentists, similar to the studies conducted by Hoad-Reddick et al(8) and Veres et al(9). In addition to the frequency and the nature of denture cleansing, when you clean a denture is equally important. Majority of the dentists and patients said that they should clean their dentures after meals and before sleeping. Daily cleansing of the dentures after meals is necessary to prevent buildup of plaque, food, calculus and stains, which can cause problems with appearance and aesthetics. Lack of denture hygiene is one of the main etiological factors for the inflammation of the oral mucosa according to Abelson.(10) Denture teeth accumulates plaque. When plaque reacts with saliva, it hardens into calculus, therefore professional cleaning machines are available to remove this said calculus. It is extremely important for the dentist to re-call the patients to evaluate the oral hygiene habits, consequently 98% of the dentists re-call the patients for the evaluation of the dentures and maintenance of oral health issues.

#### V. CONCLUSION

Within the limits and demography of the survey the following conclusions were drawn:

- 1) Denture wearers did not clean their dentures satisfactorily.
- 2) Dentists did not provide complete information about denture cleanliness to their patients.
- 3) Most of the patients preferred the mechanical method of denture cleansing i.e brushing with toothpaste twice a day.
- 4) Most of the dentists recommended mechanical and chemical cleansing methods.

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