

AWARNESS ABOUT DENTURE CLEANSERS AMONG UNDERGRADUATE DENTAL STUDENTS

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ABSTRACT: To assess the attitude and awareness about denture cleansers among dental graduates and practitioners in Saveetha dental college, Chennai, India. **Method:** Questionnaire with 12 questions was used to reveal the views of 400 dental students, interns, graduates, general practitioners and specialists towards denture cleansers and to document the literature. The substance produced through this study was used in prospectus of undergraduate and postgraduate courses. Questionnaire set consists of three sections. 1- Determines participant's professional level; 2- attitude and 3- determine the awareness about denture cleansers. **Results:** 94% of the dentists who instruct their patient for denture hygiene recommended tablet form (60%) of denture cleansers. 35% of dentists felt that combination of denture brush and denture cleansers was best for maintaining hygiene. Almost 90% of the participants don't know exact composition, 81% were unaware of adverse effects. 80% respondents felt the need to enhance their knowledge. **Conclusion:** There is need to improve and enhance teaching and training about denture cleansers during the undergraduate education and further in continuing education and training to practitioners, so as to enable them to impart adequate guidance to their patients for denture hygiene.

KEYWORDS: denture cleansers, undergraduate students, awareness.

INTRODUCTION

The oral health of the completely edentulous patients is a prime factor related to quality of life, nutrition, social interactions and general systemic health of denture wearing patients [1]. Dentures accumulate plaque, stain and calculus similar to that of natural dentition. Failure to properly clean the accumulated biofilm from dentures is associated with an increased incidence of denture stomatitis in addition to serious systemic diseases [2–4]. Microbial plaque formation on the tissue surface of the dentures is an important cofactor in the pathogenesis of denture stomatitis. This plaque has the same basic structure as plaque on natural teeth as shown by light and electron microscopic studies. The adherence of *Candida albicans* to the acrylic surfaces of dentures is implicated as the first step in the pathogenesis of associated stomatitis. [5-7]. Hence it becomes the responsibility of the dental professionals to educate and instruct patients about denture hygiene.

Budtz-Jorgensen [8] reported that in Denmark 65 % of denture wearers have signs of denture stomatitis. Jagger and Harrison [9] reported that 35 % of denture wearers used, or had used, denture cleansers daily. Denture cleansers have been widely used in prosthodontics to prevent colonization of *Candida albicans* and related candida species and formation of denture plaque [10-14]. Gornitsky et al. [15] reported that use of denture cleansers significantly reduced the number of micro-organisms on dentures in a hospitalized geriatric population. However, daily use of denture cleansers can affect the physical and mechanical properties of denture base material [15-17]. Murdoch-Kinch et al. [18] noted occurrence of oral mucosal injury caused by denture cleansers.

Denture wearers would be highly profited if the dentist provides them correct information and guidance regarding the use of denture cleansers. However not many dentists are aware about the importance and use of denture cleansers which results in poor oral hygiene and improper maintenance of denture among denture wearers.

The literature available for the present investigation is very scanty and especially in India not much work has been reported. Hence the aim of the study is to investigate knowledge and awareness about denture cleansers among dental professionals in Saveetha dental college and hospitals, Chennai, India.

MATERIALS AND METHODS

A quota sampling (nonprobability sampling) technique was used with a sample size of 400 participants. Theses respondents were undergraduate, postgraduate dental students of saveetha dental college, Chennai, Tamil nadu. For this study, a set of 12 questions was prepared and was given personally or emailed to the participants. Questionnaire set basically consists of three sections. First section determines participant's professional level; second section help in evaluating attitude and third section determine the awareness about denture cleansers among participants.

RESULTS AND DISCUSSION

Age: majority of the respondents belonged to the range of 20-55 years.

Gender: the study reveals that females(70.5%) dominated over male(29.5%).

Educational standard: 69% of the respondents were graduates (BDS) compared to 31% of postgraduates (MDS).

Recall of patients:

About 94% of the dentist instructed their patients for cleaning of the dentures at the time of delivery. The study revealed that 62% of the dentists recalled their patients for inspection of the dentures, 28% recalled their patients sometimes and the rest 10% never recalled their patients again.

Frequency of cleaning:

58% of the dentists instruct their patients to clean their dentures twice daily, 34% instruct to clean once daily and only 8% after every meal which is necessary as biofilm is formed after every meal and results in microbial growth.

Method of cleaning:

35% of the dentists recommend denture cleanser and denture brush combination for cleaning, 62% suggest brush with water or soap and 3% only denture cleanser. There are 3 methods of cleaning-mechanical, chemical and combination of both. Combination of both is the most effective as described in the literature[19,20] in maintaining the hygiene of the denture, similar results were shown in our study.

Awareness about denture cleansers:

About 21% were fully aware about denture cleansers, 72% knew little and 7% had no information about denture cleansers. This was in association with the study by Hong et al.(18) who reported more than 76% of chinese dentists and 62% of Indonesian dentists had knew very little about denture cleansers.

Form of denture cleanser:

60% preferred tablet form of denture cleanser while 35% preferred powder form and only 5% preferred paste form.

Brands of denture cleansers:

Regarding the brand of denture cleansers, 90% knew less than 3 brands available in the market. Merely instructing the patients to clean the denture with a denture cleanser is not effective unless the commercial form and the various options in brands are not provided. Different brands manufacture different types of denture cleansers with different compositions for different prostheses. If all these information is not detailed to the students and specialists then the patients would not be benefited.

Composition of denture cleansers:

About 90% were unaware of the composition of denture cleanser, 6% knew little and only 4% knew appropriately.

Adverse effects of denture cleansers:

81% were unaware of the different types of denture cleansers for acrylic and metal dentures and only 19% were aware about it. 60% were aware about the adverse effects of using denture cleansers. Problems arising due to erratic use of denture cleansers which include deterioration of physical and mechanical properties of denture base materials and oral mucosa injury can be prevented by raising dentist's knowledge about adverse effects of denture cleansers.

Imparting knowledge during graduation/post-graduation:

Majority of the respondents reported that in their curriculum no knowledge is imparted about denture cleansers. Importance should be given to this topic in the dental curriculum so that dental professionals can effectively make use of this knowledge and benefit the patients by safeguarding the dentures. About 80% of the respondents felt the need to update their knowledge.

CONCLUSION:

This study has highlighted the gap prevailing in the dental profession about the attitude and awareness for denture cleansers and has documented the level of knowledge about denture cleansers among dental professionals.

From this we can infer that it is very important to teach the dental professionals about denture cleansers in dental curriculum in more depth which makes them capable of imparting adequate knowledge to their denture patients. The use of denture cleansers can greatly reduce the incidence of denture stomatitis and candida infections. Problems arising due to improper use of denture cleansers which includes deterioration of physical and mechanical properties of denture base materials and oral mucosal injury can also be prevented.

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