

Patient Awareness of Denture Cleansers: Insights from A Questionnaire Survey

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Abstract

As the incidence of edentulousness is ever rising, the need for dentures as well as their hygiene is of utmost importance. Patient education about the availability together with the pros and cons of the individual denture disinfectant has to be mandatorily done by the dental practitioner. The success of the denture depends not only on accurate clinical and technical procedures carried out by the dentist but also on denture hygiene care practices followed by the patients. Denture care is, therefore, an imperative step to maintain denture quality, aesthetics, and longevity to ensure good oral health status. Hence,

the basic objective of this study was to investigate awareness and knowledge about denture cleansers among patients wearing it.

Keywords: Chlorhexidine, Denture Cleansers, Hygiene, Oral Health, Oral Tissues

Introduction

It is often said that “Oral health is the window to overall health” and in edentulous patients it largely depends on denture and its hygiene. When an acrylic denture is placed in the mouth, a pellicle of glycoprotein develops that eventually becomes contaminated with oral debris and microorganisms. This renders the denture with an

unpleasant taste and odour over time. Moreover, it favours the growth of candida microorganism in the denture, thereby leading to mucosal irritation.

Dentists play a vital role not only in the fabrication and delivery of dentures but also in educating patients about their care. Proper cleaning of dentures ensures comfort, function, and prevents infections, intraoral lesions, halitosis, and systemic complications. A structured maintenance and review protocol is essential to minimize post-treatment complications and to reinforce patient motivation.²

Denture cleansers are liquids or dissolvable tablets that contain or release chemicals to help remove malodour, stains and biofilm from removable prostheses; the prostheses are generally immersed in water, with the cleanser then added.³

Denture cleansers can be classified as:⁴

According To Type:

- a) Creams
- b) Pastes
- c) Gels
- d) Solutions
- e) Tablets.

According to the mode of action:²

- a) Alkaline peroxides
- b) Reducing Solutions
- c) Chlorhexidine
- d) Mild Dilute acids
- e) Effervescent agents
- f) Chelating agents
- g) Detergents
- h) Enzymes
- i) Additional compounds
- j) Disinfectants
- k) Ozone
- l) 100% Vinegar

m) Denture Wipes

Evidence suggests that a significant proportion of complete and partial denture patients leave the dental office with inadequate knowledge regarding denture cleansing practices and the use of chemical disinfectants. The present survey was conducted to assess patients' knowledge, awareness, and practices regarding denture disinfectants, highlighting the need for improved patient education and professional guidance.²

Method

With an intention to evaluate the awareness about denture disinfection in rural Indian population and to study the practices carried out by them in order to maintain the hygiene of their dentures, a cross-sectional study was conducted in the Department of Prosthodontics, Crown and Bridge & implantology in Rishiraj College of Dental Sciences and Research Centre, Bhopal, Madhya Pradesh over a duration of 6 months from June 2024 to November 2024 involving 100 participants. Inclusion criteria included patients wearing dentures, willingness to participate in the study and in good physical and mental condition. A questionnaire containing 10 questions was administered.

Results

This study included 100 denture wearers. The majority of the participants were wearing denture for a duration of >5 years (32%), followed by 1-2 years (26%), followed by <1 year (24%), followed by 2-5 years (18%). Only 16% of the participants reported regular visit to dentist for the maintenance of your denture whereas a large percentage of participants visit dentist sometime (44%) or never (40%) for the same. Most of the participants cleaned their denture after every meal (74%). Only 26% of the participants were aware of denture cleansers. Among the participants having awareness about denture cleansers, majority (12/26= 46.2%) used tablet form of denture

cleanser. Overall, most of the participants used water + toothbrush (40%). A vast majority of the participants (90%) were not aware of the harmful effects of denture cleansers. Eighteen (18%) participants had tried natural denture cleansers. Sixty-two (62%) of the participants

said that they were informed about the maintenance of denture while they received denture. According to 16%, 32%, and 52% the condition of their denture was best, good, and poor respectively.

Table 1: Distribution of study subjects based on the response to various questions

Question	Response	Number of subjects (%)
Duration since wearing denture	<1 year	24 (24%)
	1-2 years	26 (26%)
	2-5 years	18 (18%)
	>5 years	32 (32%)
Visit to dentist for the maintenance of your denture	Yes, always	16 (16%)
	Sometimes	44 (44%)
	Never	40 (40%)
Frequency of cleaning denture	Once a day	26 (26%)
	After every meal	74 (74%)
	Twice a week	0 (0%)
	Few times, not regularly	0 (0%)
Aware about denture cleanser	Yes	26 (26%)
	No	74 (74%)
Type of denture cleanser used	Powder	7 (7%)
	Tablet	12 (12%)
	Paste/cream	5 (5%)
	Gel	2 (2%)
	Don't use	74 (74%)
Method of cleaning denture	Water + tablet	12 (12%)
	Water + toothbrush + soap	32 (32%)
	Water + toothbrush	40 (40%)
	Water only	16 (16%)
Awareness about harmful effects of denture cleanser	Yes	2 (2%)
	Yes, to some extent	8 (8%)
	No	90 (90%)
Tried natural denture cleanser	Yes	18 (18%)
	No	82 (82%)
Informed about maintenance of denture while	Yes	62 (62%)

delivering denture	No	38 (38%)
Condition of denture	Best	16 (16%)
	Good	32 (32%)
	Poor	52 (52%)

Figure 1: Distribution of study participants based on duration of denture wearing.

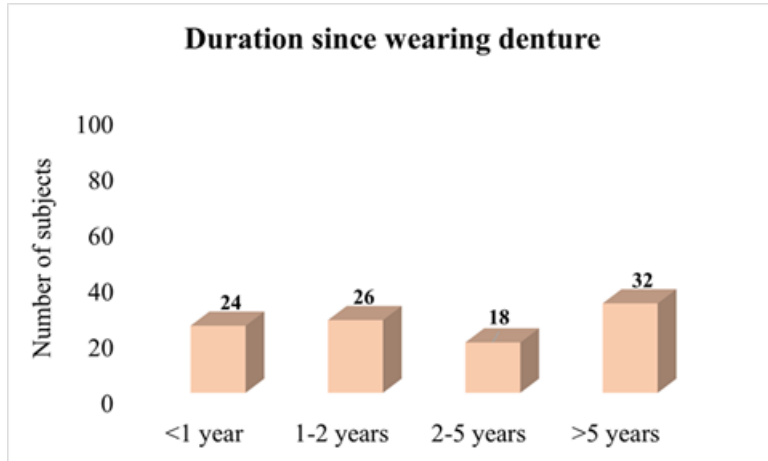


Figure 2: Distribution of study participants based on visit to dentist for the maintenance of denture.

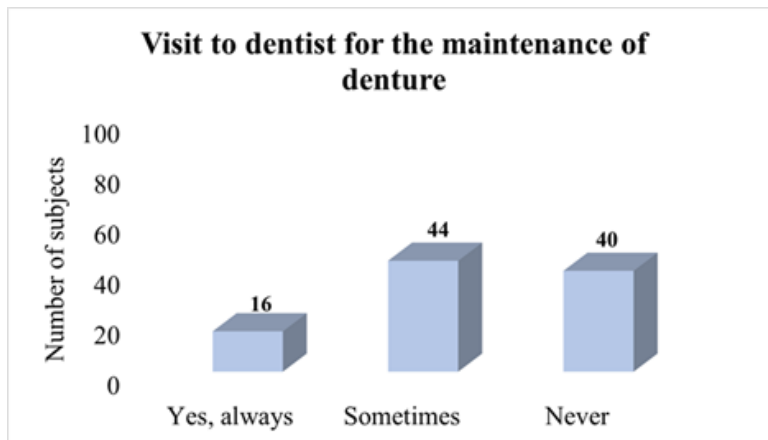


Figure 3: Distribution of study participants based on cleaning denture.

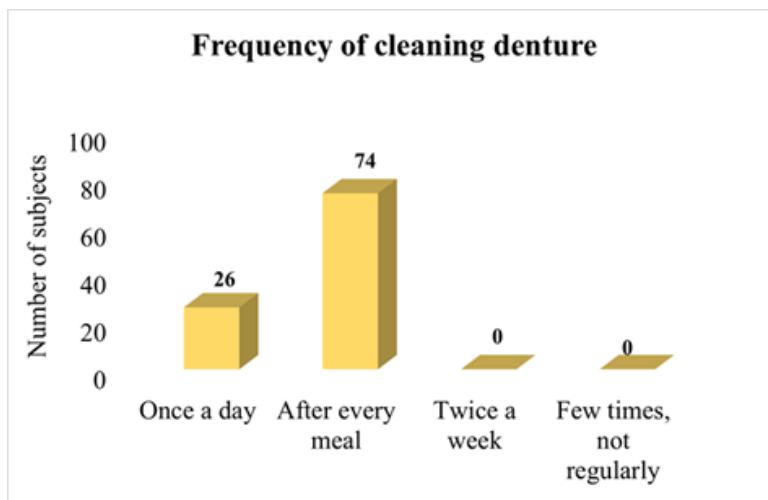


Figure 4: Distribution of study participants based on awareness about denture cleanser.

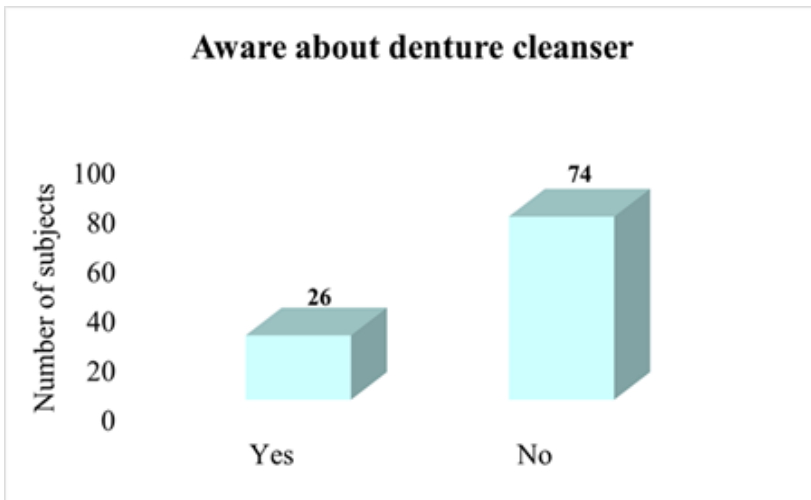


Figure 5: Distribution of study participants based on type of denture cleanser used.

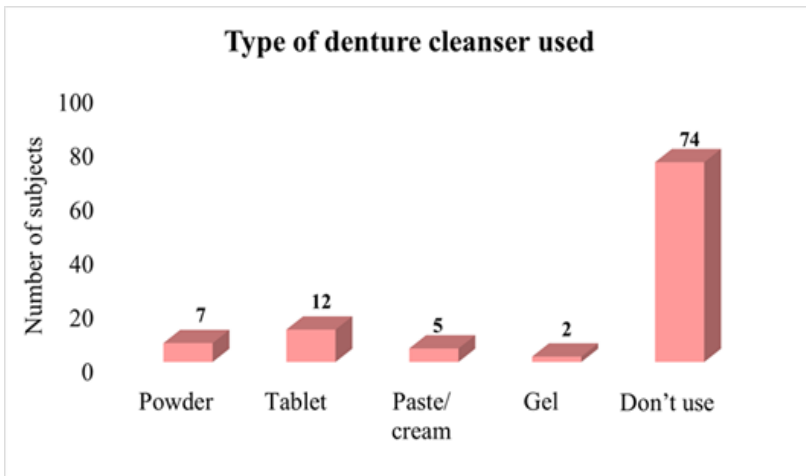


Figure 6: Distribution of study participants based on method of denture cleaning.

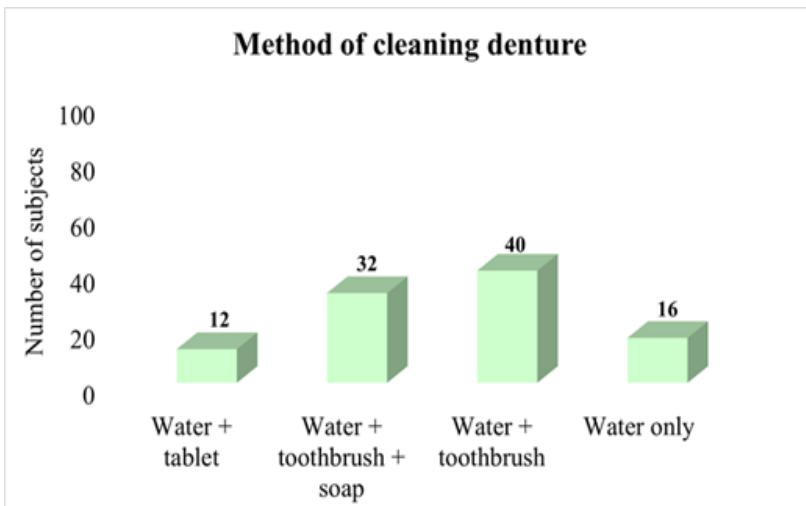


Figure 7: Distribution of study participants based on awareness about harmful effects of denture cleanser.

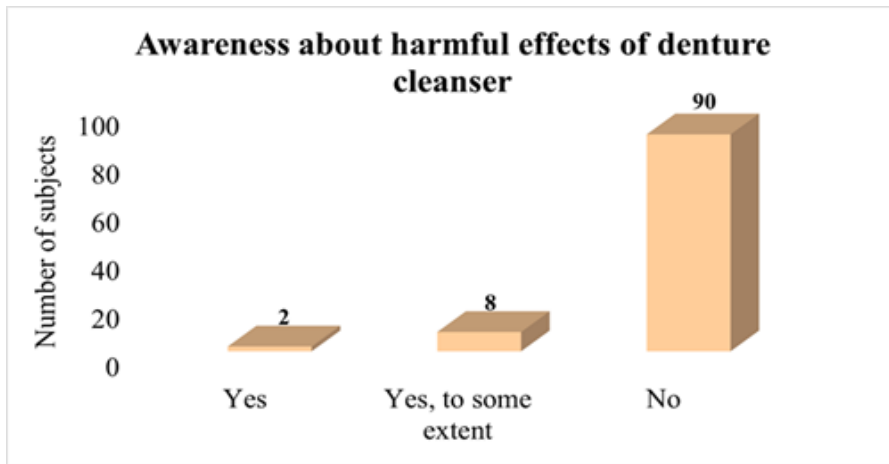


Figure 8: Distribution of study participants based on if they have ever tried natural denture cleanser.

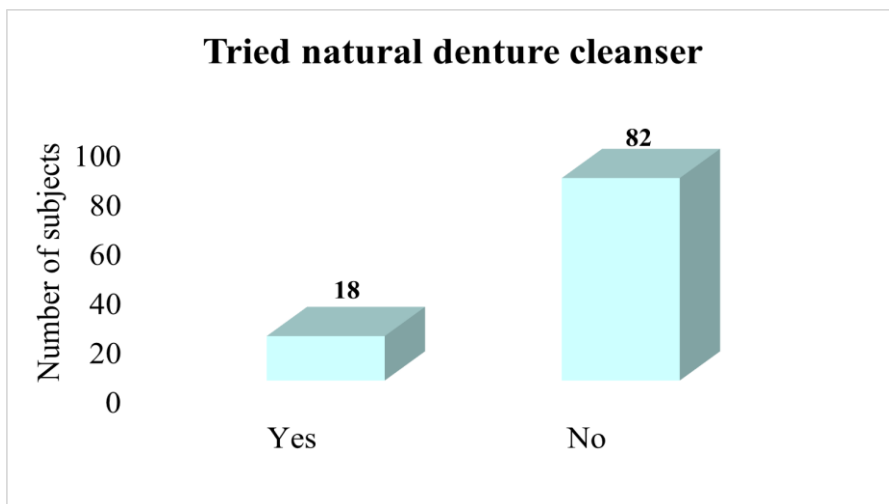


Figure 9: Distribution of study participants based on being informed about maintenance of denture while delivering denture.

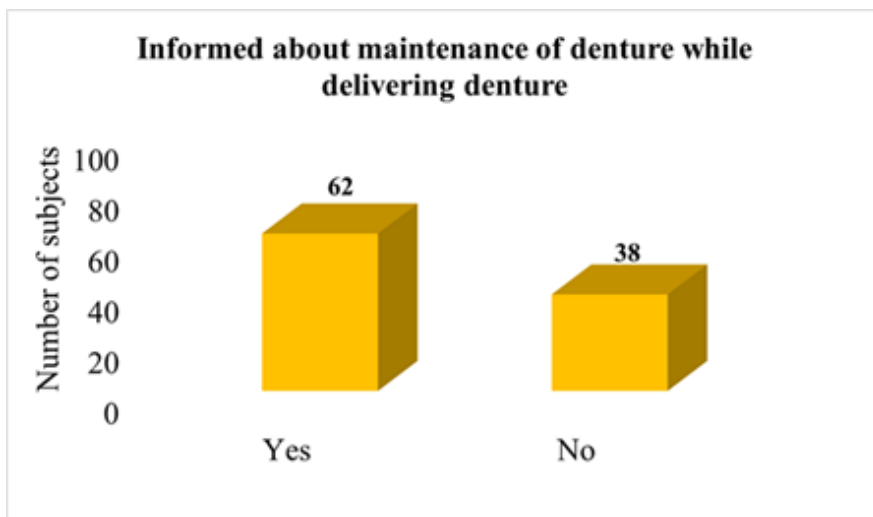
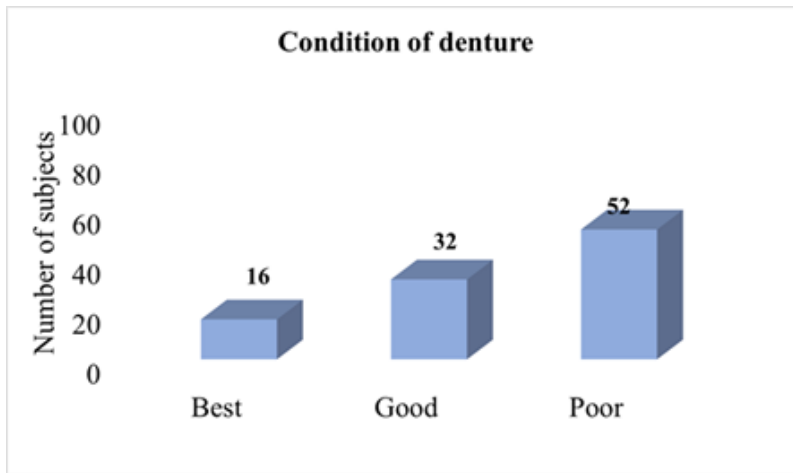


Figure 10: Distribution of study participants based on condition of denture.



Discussion

Proper denture care is important for both the health of the dentures and the mouth.⁵ Improper denture care negatively impacts denture clinical longevity and increases denture plaque aggregation.⁶ To ensure that dentures are free of plaque and calculus, patients are usually instructed on denture hygiene practice. Keeping dentures clean, is part of a good oral health care regimen that saves further risk of unwanted procedures down the road.⁵ Awareness of any new symptoms and proper guidance to our patients should be stressed more as denture cleansers are a part of the daily life of almost all the denture wearers.² Hence the dentist plays a significant role in executing the rehabilitation procedure.⁵

Conclusion

It has been observed in this study that most patients are unaware of denture cleansers, as well as their advantages and disadvantages. Dentists are also required to continually update their knowledge about the chemical composition, safety, and effectiveness of denture cleansing agents as inappropriate use may damage prostheses or oral tissues.

Furthermore, dental professionals hold responsibility for the patient's oral health even after treatment is completed. Regular review appointments should be

scheduled, not only to assess the condition of the dentures but also to reinforce proper hygiene practices. Such follow-up ensures early detection of mucosal changes, prevention of oral infections, and maintenance of both denture longevity and patient comfort.

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