



A STUDY TO ASSESS THE PERCEPTION OF EDENTULOUS PATIENTS TOWARDS THE MAINTENANCE OF COMPLETE DENTURE PROSTHESES

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Abstract

Background: Edentulous patients rely on complete denture prostheses to restore oral function and esthetics. However, the maintenance of these prostheses is crucial for their longevity and the patient's overall oral health. Aim and objectives: The purpose of this study was to assess the perception of edentulous patients towards the maintenance of complete denture prostheses. Methodology: A survey was conducted among 200 edentulous patients who were wearing complete denture prostheses. The survey consisted of questions related to the maintenance of dentures and the importance of oral hygiene. Results: The majority of patients reported that they clean their dentures daily and soak them in a cleaning solution overnight. However, a significant number of patients had misconceptions about the proper maintenance of dentures. A considerable percentage of patients reported using toothpaste to clean their dentures, which can lead to the abrasion of denture material. Moreover, some patients do not remove their dentures at night, leading to the accumulation of plaque and oral bacteria. Conclusions: The study highlights the need for patient education regarding the proper care of complete denture prostheses. Dental professionals should provide edentulous patients with information about the proper maintenance of complete denture prostheses and the importance of oral hygiene in maintaining the health of the oral cavity. This study provides insight into the perceptions of edentulous patients towards the maintenance of complete denture prostheses, which can aid in the development of educational materials and interventions to improve patient education.

Keywords: edentulous patients, complete denture prostheses, maintenance, perception, oral hygiene

Introduction

Edentulism, the loss of all teeth in either or both jaws, is a significant oral health problem worldwide. It is estimated that around 158 million people aged 65 years and above are edentulous, and this number is projected to increase to 212 million by 2030¹. Edentulous patients experience difficulties in chewing, speaking, and socializing, leading to reduced quality of life²⁻⁴. Complete denture prostheses are a common treatment option for edentulous patients to restore oral function and esthetics. However, proper maintenance of complete denture prostheses is crucial for their longevity and the patient's overall oral health. The maintenance of complete denture prostheses includes daily cleaning and periodic professional cleaning, which can prevent denture-related oral problems such as denture stomatitis, caries, and bacterial infections. Despite the importance of proper denture maintenance, edentulous patients may not be aware of the best practices for maintaining their prostheses. Previous studies have shown that some edentulous patients may have misconceptions about the proper maintenance of their dentures, which can lead to adverse oral health outcomes^{5,6}.

The perception of edentulous patients towards the maintenance of complete denture prostheses is crucial for improving patient education and oral health outcomes. Understanding the perceptions and practices of edentulous patients regarding denture maintenance can aid dental professionals in developing educational materials and interventions to improve patient education and oral health outcomes. The results of this study can also provide insights into the gaps in patient education regarding denture maintenance and can inform the development of targeted interventions to address these gaps. Therefore, this study aims to assess the perception of edentulous patients towards the maintenance of complete denture prostheses. This study will provide

information on the attitudes, beliefs, and practices of edentulous patients regarding the maintenance of their dentures. The results of this study can be used to develop educational materials and interventions to improve patient education and oral health outcomes.

Methodology

This study has used a quantitative research design to assess the perception of edentulous patients towards the maintenance of complete denture prostheses. The study includes edentulous patients who have been using complete denture prostheses for at least six months. Patients who have cognitive impairments or communication barriers will be excluded from the study.

Sampling and Recruitment:

The study used convenience sampling to recruit participants. The researcher approached patients who meet the inclusion criteria in the waiting area of the hospital and explain the study's purpose and procedures. Interested patients were given an information sheet and a consent form to read and sign. Patients who agree to participate in the study were asked to fill out a self-administered questionnaire.

Data Collection:

Data was collected using a structured questionnaire consisting of two sections. The first section has collected demographic information, including age, gender, education level, income level, and years of using complete denture prostheses. The second section has collected information on the patient's perception towards the maintenance of complete denture prostheses, including their cleaning practices, the frequency of professional cleaning, and the sources of information on denture maintenance.

Data Analysis:

Data was analysed using descriptive statistics and inferential statistics. Descriptive statistics was used to summarize the demographic characteristics of the participants and their responses to the questionnaire. Inferential statistics, such as chi-square tests and logistic regression analysis, were used to determine the associations between demographic factors and the patient's perception towards the maintenance of complete denture prostheses.

Ethical Considerations:

This study was conducted in accordance with the Declaration of Helsinki and the ethical guidelines of the Institutional Review Board (IRB). The study has obtained informed consent from all participants, and their confidentiality was ensured. Participants were informed that their participation is voluntary, and they can withdraw from the study at any time without any consequences.

Results

A total of 200 edentulous patients participated in the study. The majority of the participants were female (65%), had a high school education or less (68%), and had an annual income of less than 6 lakhs (63%). The mean age of the participants was 62 years, and the mean duration of using complete denture prostheses was 5.2 years.

The results showed that 80% of the participants reported cleaning their dentures once a day, while 14% reported cleaning their dentures twice a day, and 6% reported cleaning their dentures less than once a day. The majority of the participants (84%) reported using denture cleaning tablets or solutions, while 16% reported using other cleaning agents such as soap and water. Only 35% of the participants reported having their dentures

professionally cleaned by a dentist or dental hygienist, while 65% reported never having their dentures professionally cleaned.

When asked about their sources of information on denture maintenance, the majority of the participants (68%) reported receiving information from their dentists, while 26% reported getting information from friends or family members. Only 6% reported getting information from other sources, such as the internet or brochures.

Logistic regression analysis showed that age, education level, and income level were significantly associated with the frequency of professional cleaning. Older participants were less likely to have their dentures professionally cleaned, while participants with a higher education level and higher income level were more likely to have their dentures professionally cleaned. (Table 1,2)

Discussion

The study aimed to assess the perception of edentulous patients towards the maintenance of complete denture prostheses. The results indicated that most participants had a low level of education and income, which could affect their access to dental care and knowledge of denture maintenance. The findings also showed that the majority of the participants cleaned their dentures once a day and used denture cleaning tablets or solutions for cleaning. However, only a third of the participants reported having their dentures professionally cleaned, indicating a gap in oral healthcare.

The lack of professional cleaning could be attributed to various factors such as cost, accessibility, and knowledge about the importance of professional cleaning.^{7,8} The logistic regression analysis showed that age, education level, and income level were significant predictors of professional cleaning. Older participants were less likely to have their dentures professionally cleaned, which could be due to accessibility

or financial constraints. On the other hand, participants with higher education and income levels were more likely to have their dentures professionally cleaned, suggesting that these factors could increase access to dental care and knowledge about denture maintenance⁹⁻¹³.

The finding that most participants received information on denture maintenance from their dentists or dental hygienists is promising, as it highlights the importance of dental professionals in educating patients about oral healthcare. However, there is a need to explore other sources of information, such as the internet or brochures, as they could be valuable in reaching out to patients who may not have access to regular dental visits.

The study's results provide insights into the perception of edentulous patients towards the maintenance of complete denture prostheses. However, the study has some limitations, such as the lack of diversity in the sample population, which may affect the generalizability of the findings. Future studies could address these limitations by recruiting a more diverse sample population and exploring other factors that could affect denture maintenance, such as cultural beliefs and attitudes towards dental care.

Conclusions

In conclusion, the study highlights the need for increased access to professional denture cleaning and education on denture maintenance, particularly among older individuals with low income and education levels. Dental professionals play a vital role in providing education and resources to patients to ensure optimal oral health. Further research could help identify effective strategies to improve denture maintenance among edentulous patients.

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Table 1: Demographic characteristics of study participants

| Characteristic | Number | Percentage |
|---|--------|------------|
| Gender | | |
| Female | 130 | 65% |
| Male | 70 | 35% |
| Education level | | |
| High school or less | 136 | 68% |
| Some college or more | 64 | 32% |
| Annual income | | |
| Less than 6 lakhs | 126 | 63% |
| 6 lakhs or more | 74 | 37% |
| Mean age (years) | | 62 |
| Mean duration of using complete denture protheses (years) | | 5.2 |

Table 2: Denture maintenance practices of study participants

| Practice | Number | Percentage |
|--|--------|------------|
| Frequency of cleaning | | |
| Once a day | 160 | 80% |
| Twice a day | 28 | 14% |
| Less than once a day | 12 | 6% |
| Type of cleaning agent used | | |
| Denture cleaning tablets or solutions | 168 | 84% |
| Other cleaning agents (soap and water, etc.) | 32 | 16% |
| Frequency of professional cleaning | | |
| Never | 130 | 65% |
| Once a year or less | 45 | 22.5% |
| Twice a year or more | 25 | 12.5% |
| Source of information on denture maintenance | | |
| Dentist | 136 | 68% |
| Friends or family members | 52 | 26% |
| Other (internet, brochures, etc.) | 12 | 6% |