

Assessment Of Satisfactory Levels among Female Complete Denture Patients

Research Article

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Abstract

Complete dentures are important in order to improve mastication, aesthetic appearance and phonetics in completely edentulous patients. The feedback and follow up of patients is important. This helps us to correct minor problems and complications faced by the denture wearers. Ill fitting or uncomfortable dentures may have adverse effects on the soft tissues and hence the oral health of the patient. Patient satisfaction is required to assess the quality of treatment. The aim of the study was to assess the satisfaction levels among female complete denture patients who visited Saveetha Dental College. A survey was conducted among 50 patients who had received complete dentures from Saveetha Dental College, from the time period of June 2019 to March 2020. A number of questions on the levels of satisfaction was asked. Patient records were reviewed and 50 complete denture female patients between the age of 45-55 were selected. Descriptive statistics, cross tabulation and chi-square test were done by SPSS IBM software 20.0. There was no association between age and overall satisfaction ($p > 0.05$). Most patients were satisfied with their appearance and overall. Within the limits of the study satisfaction among female complete denture patients was assessed. While most of them were satisfied with their appearance and overall satisfaction, dissatisfaction was present among most patients in the categories of chewing, retention, stability and ability to speak.

Keywords: Complete Denture; Satisfaction; Chewing; Retention; Stability.

Introduction

Edentulism is an irreversible condition in oral health. Complete denture is defined as a dental prosthesis which replaces the entire dentition and its associated structures of maxilla and mandible [1]. It is stated by Zou et al, that complete dentures are preferred by most edentulous patients, as they provide a pleasing appearance, good aesthetics and help to maintain normal speech, as well as provide occlusal support and mastication of food [2]. Complete dentures are important to improve mastication, aesthetics and phonetics of completely edentulous patients. Complete dentures should be comfortable and should positively contribute to the health of the denture supporting tissues [3].

Complaints in complete denture are most commonly due to pain, pressure, looseness, poor function and appearance [4]. The follow

up of these patients is very important as ill fitting or uncomfortable dentures have adverse effects on denture supporting tissues, hence affecting oral health [5]. Loss of natural teeth has significant effect on appearance, aesthetics and functions of the individual. Some patients find it difficult to cope with well designed dentures because of anatomical features, resorbed residual ridges, proximity of the neurovascular bundle or physical factors leading to lack of muscular control, while some patients with similar conditions seem to manage well [6]. Some studies also state that completely edentulous patients may fall into depression [7]. Patient satisfaction is critical to determine the success, failure or the quality of complete denture treatment [8]. Patient perceptions are fundamental for the improvement of health and quality, so methods for assessing patient feedback on satisfaction, care, experience and treatment outcomes are important [9, 10].

Majority of the patients express satisfaction with complete den-

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tures that are designed and constructed well, but yet some groups remain dissatisfied [11]. Patient satisfaction with their complete dentures may be considered as the ultimate goal of treatment as it has a strong association with oral health related quality of life [12]. Due to ill fitting dentures and discomfort caused due to it, patients are hesitant to wear the dentures and doubt the treatment and the ability of the dentist to provide quality treatment [13]. According to some studies, four recall appointments after 10 days, 3 weeks, 6 weeks and 3 months should be arranged from the day of denture delivery [11, 14]. Patients evaluation of the prosthesis may correlate with clinician’s assessment or with the anatomic variations [15]. Sometimes, there is said to be a discrepancy between the perceptions of a dentist and the expectations of a patient [16]. Additionally, a small number of denture wearers cannot adapt to the fabricated dentures and hence are dissatisfied 9.

Previously our team had conducted numerous clinical trials [17-23] systematic reviews [24-29] and survey [30] over the past five years. Over time, advancements have been made in the fabrication of complete denture along with improvement in adhesives have been made for patients with high expectations. Still, dissatisfaction among denture wearers is common [31]. Thus the aim of this study was to assess the satisfaction levels among complete denture patients who visited Saveetha Dental College.

Materials and Methods

Our study population consisted of 50 female patients, who got their complete denture fabricated from Saveetha Dental College. A questionnaire with the criteria for satisfactory levels was developed. Ethical clearance was obtained from the institutional ethics board SDC/SIHEC/2020/DIASDATA/0619-0320.

The data was retrieved from 86,000 patients’ records among which 50 female patients were selected based on the inclusion criteria. Phone calls were made to the patient and the patient was asked about their satisfaction levels. This study involved 3 reviewers. Data included the study were from the time period of June 2019 to March 2020. Certain measurements were taken in order to minimize bias, such as simple random sampling, collecting more data sources and including the data from the institute.

Inclusion criteria:

- Patients who received complete denture prosthesis from

saveetha dental college

- Female patients

Exclusion criteria:

- Patient with removable partial denture
- Patient with implant supported denture
- Male patients

The data was then entered in Microsoft Excel and was analysed using SPSS IBM software version 20.0. Descriptive statistics were calculated to explore the demographic data. A cross tabulation analysis was conducted to examine the categorical variables. Chi-square test was used to identify the presence of significance between the variables.

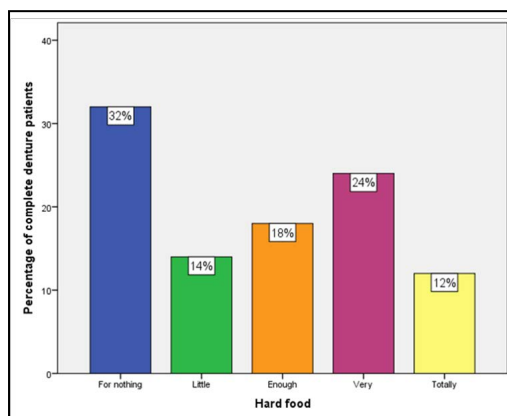
Questionnaire

1. How satisfied are you with the ability to chew hard foods?
2. How satisfied are you with the ability to chew soft foods?
3. How satisfied are you with the retention of your denture?
4. How satisfied are you with the stability of your denture while eating or talking?
5. How satisfied are you in your ability to insert/remove the denture?
6. How satisfied are you in your ability to speak with the denture?
7. How satisfied are you with the aesthetic appearance?
8. Overall satisfaction with your denture?

Results and Discussion

The following results were obtained from our study. For the question, Ability to chew hard food, 32% of the complete denture patients answered For nothing, while 24% answered Very, followed by 18% of them answered Enough, 14% answered Little and 12% answered Totally (Figure 1). For the question, Ability to chew soft food, 26% of the complete denture patients answered Little, while 24% answered Totally, followed by 22% of them answered For nothing, 18% answered Enough and 10% answered Very (Figure 2). For the question, Satisfaction with retention, 28% of the complete denture patients answered For nothing, while 20% answered Very and Little, followed by 16% of them answered Enough and Totally (Figure 3). For the question, Satisfaction with stability, 24% of the complete denture patients answered For nothing and Enough, followed by 22% of them

Figure 1. This bar chart shows the answer for the question - How satisfied are you with the ability to chew hard foods? X axis shows the answers with the options of For nothing or Little or Enough or Very or Totally and Y axis shows the frequency of each answer. Most common answer - For nothing (32%), while Very (24%) being the second most common answer, followed by Enough (18%), Little (14%) and Totally (12%).



answered Totally, while 18% answered Little and 12% answered Very (Figure 4). For the question, Ability to insert/remove the denture, 28% of the complete denture patients answered Very, while 26% answered For nothing, followed by 20% of them answered Totally, 14% answered Little and 12% answered Enough (Figure 5). For the question, Ability to speak, 26% of the complete denture patients answered For nothing, while 22% answered Very and Totally, followed by 18% of them answered Enough and 12% answered Little (Figure 6). For the question concerning the aesthetic appearance, 26% of complete denture patients answered Totally, while 22% answered Enough, followed by 20% of them answered Little, 18% answered For nothing and 14% answered Very (Figure 7). For the question concerning the overall satisfaction, 28% of them answered Totally, while 20% answered Little, followed by 18% of them answered For nothing and Very and lastly 16% answered Enough (Figure 8). The association between

age and overall satisfaction was analysed and our study showed that there was no significant association between age and overall satisfaction ($p > 0.05$) (Figure 9).

According to William James, psychologist, emotion is the state of mind that manifests itself by perceptible change in the body, which is important in the development of personality. Attitude of the patient, determines the success or failure, despite the technicality of the complete denture. Based on the ability to chew soft and hard food, Bilhan et al also states that difficulty was experienced by his group of subjects [32]. This could be due to maladaptiveness, psychological factors, insufficient patient-dentist communication. Satisfaction based on retention and stability was assessed and this is also in line with Bilhan et al. Most of his patients in his study were dissatisfied with the retention and stability of the delivered denture. This could be due to loose dentures, ill

Figure 2. This bar chart shows the answer for the question - How satisfied are you with the ability to chew soft foods? X axis shows the answers with the options of For nothing or Little or Enough or Very or Totally and Y axis shows the frequency of each answer. Most common answer - Little (26%), while Totally (24%) being the second most common answer, followed by For nothing (22%), Enough (18%) and Very (10%).

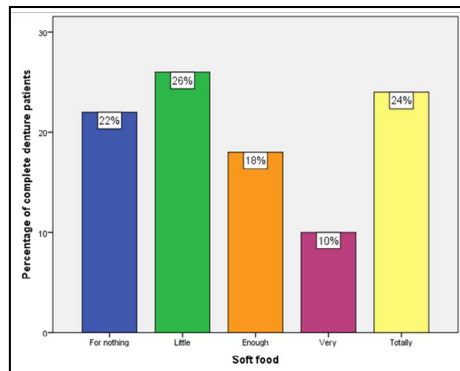


Figure 3. This bar chart shows the answer for the question - How satisfied are you with the retention of your denture? X axis shows the answers with the options of For nothing or Little or Enough or Very or Totally and Y axis shows the frequency of each answer. Most common answer - For nothing (28%), while Very (20%) and Little (20%) being the second most common answer, followed by Enough (16%), and Totally (16%).

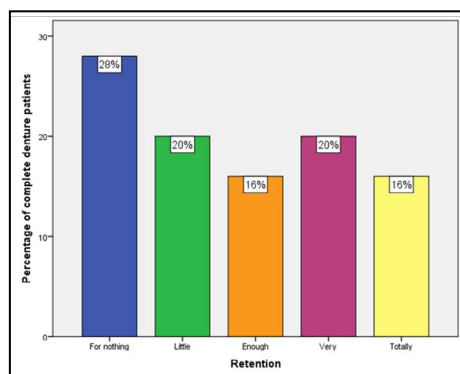


Figure 4. This bar chart shows the answer for the question - How satisfied are you with the stability of your denture while eating or talking? X axis shows the answers with the options of For nothing or Little or Enough or Very or Totally and Y axis shows the frequency of each answer. Most common answer - For nothing (24%) and Enough (24%), while Totally (22%) being the second most common answer, followed Little (18%) and Very (12%).

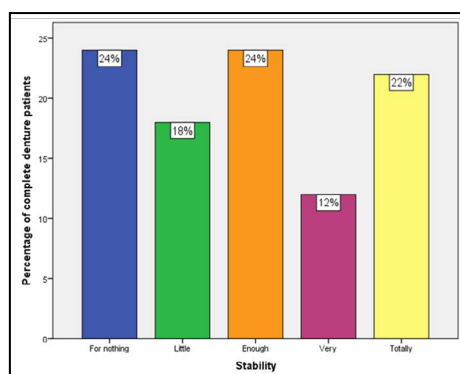


Figure 5. This bar chart shows the answer for the question - How satisfied are you with the ability to insert/remove your denture? X axis shows the answers with the options of For nothing or Little or Enough or Very or Totally and Y axis shows the frequency of each answer. Most common answer - Very (28%), while For nothing (26%) being the second most common answer, followed by Totally (20%), Little (14%) and Enough (12%).

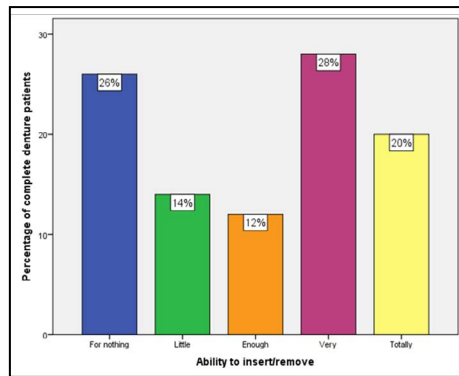


Figure 6. This bar chart shows the answer for the question - How satisfied are you with the ability to speak? X axis shows the answers with the options of For nothing or Little or Enough or Very or Totally and Y axis shows the frequency of each answer. Most common answer - For nothing (26%), while Very (22%) and Totally (22%) being the second most common answer, followed by Enough (18%) and Little (12%).

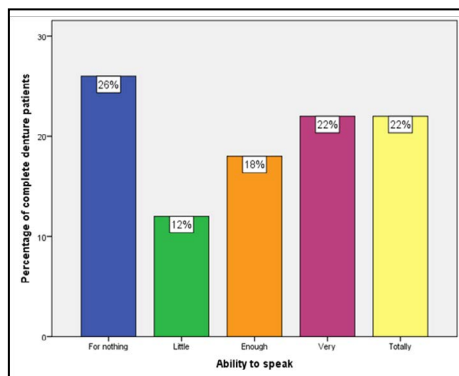


Figure 7. This bar chart shows the answer for the question - How satisfied are you with the aesthetic appearance? X axis shows the answers with the options of For nothing or Little or Enough or Very or Totally and Y axis shows the frequency of each answer. Most common answer - Totally (26%), while Enough (22%) and being the second most common answer, followed by Little (20%), For nothing (18%) and Very (14%).

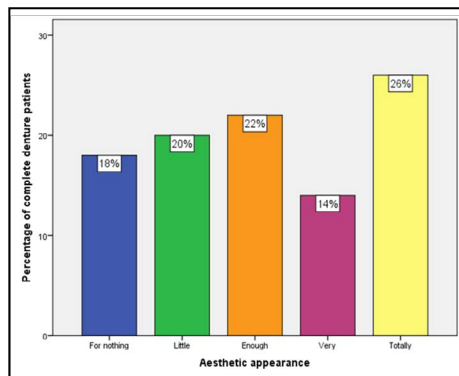


Figure 8. This bar chart shows the answer for the question - what is your overall satisfaction? X axis shows the answers with the options of For nothing or Little or Enough or Very or Totally and Y axis shows the frequency of each answer. Most common answer - Totally (28%), while Little (20%) being the second most common answer, followed by For nothing (18%), Very (18%) and Enough (16%).

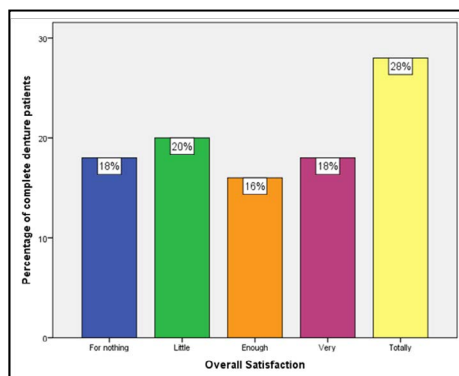
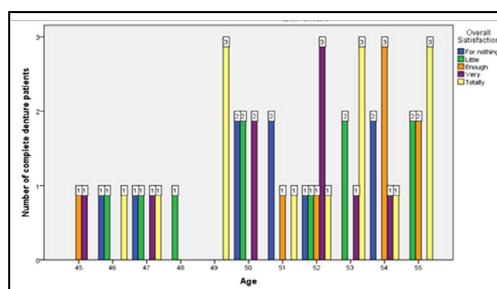


Figure 9. This bar chart shows the association between age and overall satisfaction levels of the patients. X-axis represents the age group 45-55 years and Y-axis represents the number of complete denture patients with different answers for overall satisfaction. There is no association between age and overall satisfaction levels, hence statistically not significant. [Pearson's Chi Square value: 43.203a , df = 40, p value = 0.336 (>0.05)].



fitting dentures or residual bone resorption with time in females. Sowers et al states that due to hormonal changes during menopause, there is an increase in bone resorption [33]. This is seen in women in the age group of 45 and above as menopause begins at this stage.

Based on satisfaction with insertion and removal of denture, most patients were dissatisfied according to the questionnaire. This is in line with the study done by P. Deekshita et al [34]. When focusing on the satisfaction of the ability to speak, most women were dissatisfied in this category. This in line with Singh et al [35]. Poor retention and stability lead to looseness of the denture and hence difficulty in speech. Most patients were satisfied in the aesthetic aspect. Musavi et al also states the same in his study. This could be due to the fact that aesthetic needs are met during denture insertion and denture delivery [36]. Overall satisfaction was positive in this study as most patients were satisfied with the denture overall. This was also seen in similar studies by Sharafat et al [37] and few other studies [38]. These patients are less meticulous with realistic expectations. But this contradicts with Singh et al [35]. This could be due to patients with low self esteem or lack of confidence leading to overall dissatisfaction. In such cases more effective communication to be established between dentist and patient along with counselling and psychological support.

Limitations of the study include smaller sample size, education level of the patient. Hence for future scope a larger sample size could be used with better knowledge and treatment modalities and better efficient communication with psychological support given to the patients.

Conclusion

Within the limits of the study, satisfaction among complete denture patients on function, comfort and appearance was assessed. Although dissatisfaction was present among most patients in the categories of chewing, retention, stability and the ability to speak, the majority of patients were satisfied with their appearance and overall satisfaction with the denture. But there was no association between age and overall satisfaction levels among female complete denture patients, p value = 0.336 (>0.05). Factors such as educational status, socio-economic status, psychological levels of the patients could be additionally evaluated in order to get a better statistical outcome.

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Authors Contribution

First author (Fathima Bareera Rezvi) performed the analysis, and interpretation and wrote the manuscript. Second author (Dr. Revathi Duraisamy) contributed to conception, data design, analysis, interpretation and critically revised the manuscript. Third author (Dr. Manjari Chaudhary) participated in the study and revised the manuscript. All the three authors have discussed the results and contributed to the final manuscript.

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