



ASSESSMENT OF ORAL HEALTH-RELATED QUALITY OF LIFE IN PATIENTS AFTER COMPLETE DENTURE TREATMENT IN PRIVATE DENTAL COLLEGES IN CHENNAI.

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ABSTRACT

Edentulism is a common problem faced by several middle-aged and elderly. Most of these patients develop a feeling of disability and inferiority. Patients undergo oral rehabilitation using conventional complete dentures to get a better quality of life.

Aim- The study aims to assess oral health-related quality of life (OHRQoL) in patients after complete denture treatment by visiting a private dental college in Chennai.

Setting and Design - Questionnaire based survey

Methodology- A total of 70 edentulous patients were chosen for the study. The OHIP-EDENT questionnaire is the specific questionnaire for edentulous patients. The pre-validated questionnaire consisted of 13 questions and was distributed among edentulous patients who underwent treatment in the private dental college after obtaining informed consent from the patients. The questionnaire was distributed among those patients who had their complete dentures inserted at least 3 months before.

Results- After rehabilitation using complete dentures, most patients showed significant improvements in oral health-related quality of life.

Index terms - Edentulous patients, Complete denture, Oral health, Rehabilitation.

INTRODUCTION-

Edentulism is the state of being edentulous; without natural teeth

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Edentulism is the physical state of the jaws following removal or loss of all the erupted teeth and the condition of the supporting structures available for reconstructive or replacement therapies.

¹ Edentulism is most common among the elderly and sometimes even the middle-aged population. It happens predominantly due to dental diseases or trauma. However, tooth loss is because of a complex interaction between the disease and non-disease entities. There is an inferior feeling of impairment or disability among most of the edentulous patients. In order to replace the structural and functional oral needs of such patients, treatment with complete dentures is the conventional option.

OHRQoL has been used to assess the quality of life of edentulous patients who had undergone complete denture treatment. ⁷The oral health, psychological state of the patient, physical discomfort and pain, feeling of physical and social disability, and degree of satisfaction were assessed using Oral Health Impact Profile (OHIP) questionnaire.

²The OHIP-EDENT is the specific questionnaire for edentulous patients. The overall satisfaction of the patients and the improvement in their quality of life after three months of insertion of the new dentures was evaluated using the questionnaire.

This study evaluates the effectiveness of the treatment in edentulous patients for at least three months after rehabilitation with conventional complete dentures. This study deals with patients treated in the Prosthodontic department of a private dental college in Chennai.

MATERIALS AND METHODS

The study was done in the Prosthodontic department of a private dental college in Chennai during 2023.

INCLUSION CRITERIA

Edentulous patients who sought treatment for the provision of both upper and lower complete dentures were part of this study.

EXCLUSION CRITERIA

Patients with overdentures supported by natural teeth or implants.

Patients with a history of delirium or dementia or any other psychological problems were excluded from the study.

The sample for the study was calculated as 70. Among those patients, 44 were men and 26 were women in the age group of 54 and 89 years. These patients were rehabilitated with conventional complete dentures by undergraduate students under supervision.

New dentures were fabricated using the following procedures

- Primary impressions were taken.
- Border molding and secondary impressions.
- Recording of horizontal and vertical jaw relation.
- Wax trial insertion.
- Final processing and denture insertion.

After insertion of complete dentures, review was carried out for the patients and adjustments were made accordingly.

The psychological attitude toward the complete dentures and quality of oral health of the edentulous patients were assessed using 13 questions in a questionnaire. A pre-validated OHIP-EDENT questionnaire was used.

The questionnaire had 11 questions related to OHRQoL and 2 questions related to patient satisfaction. The questions were categorized under 6 domains: functional limitation, physical pain, psychological discomfort, physical disability, social disability, and handicap. Patients who got their dentures inserted at least 3 months before, were asked to fill out the questionnaire. Responses were recorded based on a 3-grade Likert-type scale. The evaluations were undertaken by one calibrated examiner.

DATA ANALYSIS:

The data was analyzed using IBM SPSS version 21 (SPSS version 21.0; IBM Corporation, Armonk, NY, USA) statistical software. Statistical significance was set at 0.05 levels. The normality distribution test resulted in a p-value<0.05. Frequency distribution with percentage was used for categorical variables. The chi-square test was used for the association between the group and the categorical dependent variable.

RESULTS:

Table 1: Descriptive statistics

Variable	Mean	Std. Deviation	Minimum	Maximum
Age	72.17	8.465	55	88

Table 2: Frequency table of gender distribution:

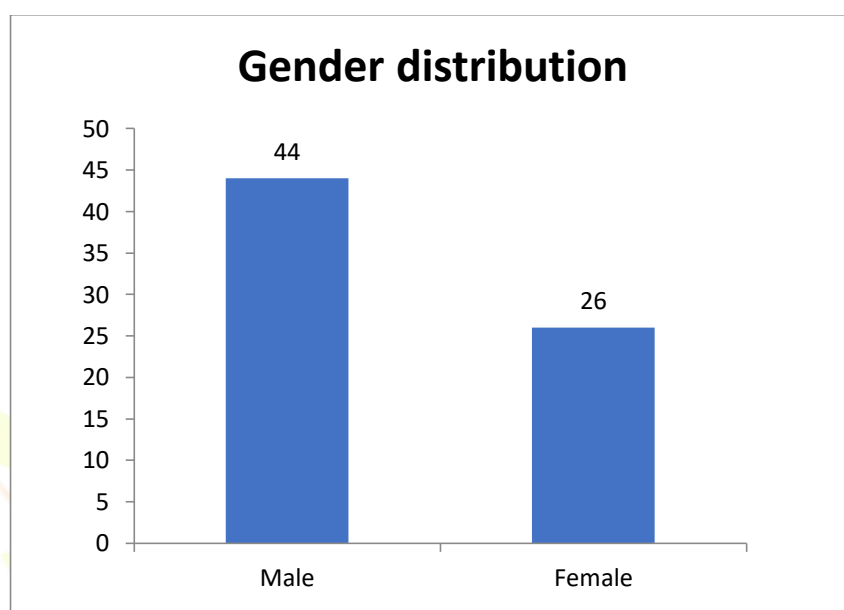
Gender	Frequency	Percent
Male	44	62.9
Female	26	37.1

Table 3: Frequency table of study participant's responses:

Variable	Male	Female	Chi-square value	p-value
1. Have you ever noticed that your dentures retained food				
Never	15(34)	9(34.6)	0.299	0.861
Sometimes	20(45.4)	13(50)		
Almost always	9(20.4)	4(15.3)		
2. Have you ever felt that your dentures were not correctly fit				
Never	12(27.2)	9(34.6)	0.857	0.652
Sometimes	30 (68.1)	15 (57.69)		
Almost always	2 (4.5)	2 (7.6)		
3. Have you ever had difficulty in chewing any food due to problems with your dentures				
Never	7(15.9)	5(19.2)	1.835	0.399
Sometimes	33(75)	16(61.5)		
Almost always	4(9)	5(19.2)		
4. Have you ever felt your mouth painful				
Never	10(22.7)	6(23)	1.221	0.543
Sometimes	32(72.7)	20(76.9)		
Almost always	2(4.5)			
5. Have you ever felt any kind of discomfort while eating due to problems with your dentures				
Never	8(18.1)	2(7.6)	1.882	0.39
Sometimes	33(75)	23(88.4)		
Almost always	3(6.8)	1(3.8)		
6. Have you ever felt embarrassed because of your dentures				
Never	22(50)	9(34.6)	3.451	0.178
Sometimes	21(47.7)	14(53.8)		
Almost always	1(2.2)	3(11.5)		
7. Have you ever been in an embarrassing situation due to problems with your dentures				
Never	20(45.4)	11(42.3)	1.205	0.547
Sometimes	22(50)	12(46.1)		
Almost always	2(4.5)	3(11.5)		
8. Have you ever avoided eating anything due to problems with your dentures				
Never	8(18.1)	2(7.6)	7.941	0.019*
Sometimes	34(77.2)	17(65.3)		
Almost always	2(4.5)	7(26.9)		
9. Have you ever felt unable to eat anything due to problems with your dentures				
Never	3(6.8)	1(3.8)	7.134	0.028*
Sometimes	38(86.3)	17(65.3)		
Almost always	3(6.8)	8(30.7)		
10. Have you ever avoided leaving home due to problems with your dentures				
Never	23(52.2)	11(42.3)	0.713	0.700
Sometimes	20(45.4)	14(53.8)		
Almost always	1(2.2)	1(3.8)		
11. Have you ever felt that life in general was less satisfying due to problems with your dentures				
Never	23(52.2)	9(34.6)	2.053	0.152
Sometimes	21(47.7)	17(65.3)		
Almost always				
12. Are you satisfied with your upper denture				

Never	4(9.1)	4(15.3)	0.663	0.718
Sometimes	21(47.7)	12(46.1)		
Almost always	19(43.1)	10(38.4)		
13.Are you satisfied with your lower denture				
Never	3(6.8)	6(23.1)	4.523	0.104
Sometimes	31(70.4)	17(65.4)		
Almost always	10(22.7)	3(11.5)		

Compared to male participants, the female participants responded more positively when enquired whether they had ever avoided eating anything due to problems with their dentures and felt unable to eat anything due to problems with their dentures (*p-value<0.05). There are no statistically significant differences seen between both genders regarding other questions (p-value>0.05).



DISCUSSION –

⁴Despite the success of Osseo integrated implants for prosthetic rehabilitation, treatment with conventional complete dentures are more common, economical and feasible. The main aim of the complete denture is to rehabilitate the stomatognathic system without aesthetic and phonetic complication.

⁵As the treatment with new complete dentures resulted in a positive impact on quality of life, the findings from this study support the idea that patients wearing conventional-complete dentures in inappropriate conditions are more likely to feel positive impact on their quality of life after treatment with new dentures.

Although complete dentures cannot be considered a substitute for natural teeth, they have been and remain the staple treatment for edentulous patients.⁶ Most edentulous patients have benefited from the complete denture treatment and have reported satisfactory adaptation of oral and masticatory function with their use.

CONCLUSION –

Edentulism of the middle aged and elderly population as a result of oral disease or ageing factor have a significant impact in the lives of such patients. Such physical and psychological impacts would make patients go for a better alternative. ³Oral rehabilitation done using the conventional complete dentures were found to be non-invasive and a better treatment option to restore the esthetics and function. Complete denture treatment has proven to be effective treatment in improving the qualities of oral health of the edentulous patients based on the responses obtained from the questionnaire survey.

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REFERENCES –

- 1.Oral health-related quality of life and satisfaction before and after treatment with complete dentures in a Dental School in Brazil
Ana Paula Viola et al. J Prosthodont Res. 2013 Jan.
- 2.Slade, G. D. Oral health-related quality of life: assessment of oral health-related quality of life. In Oral Health-Related Quality of Life (eds Inglehart, M.R. & Bagramian, R.A.). (Quintessence Publishing Co. Inc., Carol Stream, IL, 2002).
- 3.Carlsson, G. E. & Omar, R. The future of complete dentures in oral rehabilitation. A critical review. J. Oral. Rehabil. 37, 143–156 (2010).
- 4.Oral health-related quality of life and associated factors in the elderly: a population-based cross-sectional study
ARTICLE • Ciênc. Saúde coletiva 25 (10) 28 Sept 2020Oct 2020
- 5.Edentulous Patient Satisfaction with Conventional Complete Dentures
Una Soboleva1,* and Irena Rogovska2
Medicina (Kaunas). 2022 Mar; 58(3): 344. Published online 2022 Feb 24.
6. Satisfaction of the complete denture wearers related to various factors
Sebnem Begum Turker, Işıl Damla Sener, Yasemin Kulak O. Volume 49, Issue 2, September–October 2009, Pages e126-e129
- 7.Factors Related to Patient Satisfaction With Complete Denture Therapy
Asja Čelebić, Dubravka Knezović-Zlatarić, Milan Papić, Vlado Carek, Ivo Baučić, Jasmina Stipetić
The Journals of Gerontology: Series A, Volume 58, Issue 10, October 2003, Pages M948–M953,

