

Perception of Oral Health-Related Quality of Life Among Patients Using Removable Complete Dentures

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Received: 12 October 2023

Accepted: 01 February 2024

Revision: 10 December 2023

Published: 07 March 2024. Vol-5, Issue-1

Cite as: Ilyas H. (2024). Perception of Oral Health-Related Quality of Life Among Patients Using Removable Complete Dentures. *ICRRD Journal*, 5(1), 101-108.

ABSTRACT: Objective: To assess the patient's perception about oral health wellbeing related to removable complete denture. To assess the confidence level and social impact in patients after receiving removable complete denture. To assess patient's reported improvement in oral functions of mastication and speech after receiving removable complete denture. **Method:** The cross-sectional descriptive study was conducted among 89 individuals who got complete denture treatment Prosthodontic Department, University college of dentistry, UOL between 14-02-23 to 15-04-23 (2 months). A Non-Probability purposive sampling technique was used. Oral Health Impact Profile questionnaire in English as well as in Urdu version was used to measure the oral health impact. All participants were delivered complete denture in Prosthodontic Department within last 2 years. Oral health impact profile scores were recorded after 2 months of complete denture treatment. Data were analyzed by SPSS version 22. **Results:** There was a total of 89 patients in which rate of satisfaction was higher among 56-65 years in general. Whereas Females were more self-conscious $p < 0.005$ and males were more concerned about their taste sensation & mastication. $p < 0.043$. 31.46% of patients reported communication barriers or issues with their dentures, and 58.43% believed that life was generally less satisfactory. Most affected domains were Physical disability and functional limitations. Our study had somewhat similar results with age group of 66-75 years showed moderate meal interruptions due to pain and mucosal irritation with dentures $p < 0.001$. Complete denture patients showed less chewing efficacy, (-) impact of 46.07%. Oral health related quality of life (OHRQoL) was moderately improved with the dentures. **Conclusions:** According to oral health, the well-being of patient's positive responses was seen after providing patients with their dentures, such as less painful aching, enhanced confidence levels, and improved social impact. Wearing complete dentures can be much more challenging in old age group patients as compared to younger patients. Mastication, speech, and comfort of the patients require improvement in order to enhance the patient's satisfaction.

Keywords: Perception, Aesthetic Elements, Nollywood, Video Films

Introduction

WHO defines Quality of Life (QoL) as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations standard

and concern.(1) Oral health related quality of life (OHRQoL) "is a multidimensional construct that reflects (among other things) people's comfort when eating, sleeping, and engaging in social interaction; their self-esteem; and their satisfaction with respect to their oral health."(2) The term "oral health-related quality of life" (OHRQoL) refers to a

measurement of dental and oral health connected to quality of life based on personal assessments of one's mouth and teeth. The physical, psychological, social, environmental, and oral impact on daily performance categories all have an impact on oral health-related quality of life (OHRQoL).(3)

Oral health is greatly influenced by Health-Related Quality of Life (HRQoL), to use a periphrastic expression. According to various variables, including person, socioeconomic standing, household management, daily routines, and geographical conditions, a new study has shown the significant facts about the quality of life related to dental health. There may be variations in oral health status between nations, which indirectly affect oral health status.(4) The difference between a patient's expectations and reality is considered to represent their quality of life, implying that they are aware of where they are in relation to their goals and worries.(5)

Prosthodontists find it difficult to treat complete dentures, especially when rehabilitation dentistry results in the restoration of the masticatory function. Losing teeth has a negative effect on a person's ability to eat, function, physical and mental health, and self-esteem.(6)

Perception is the assessment of oral health related quality of life for complete denture wearers according to a patient's subjective perception which may provide and indicate adaptive capability of an individual. Edentulism is an oral health outcome that occurs as a result of periodontal diseases, dental caries and inappropriate methods of rehabilitation. Edentulism effects quality of life of an individual in terms of social, functional and psychological impairment resulting in poor health and isolation.(7)

To report the improvement in oral health related quality of life (QoL) for edentulous patients after receiving removable complete dentures from UCMD, UOL and also improve the quality of removable complete denture services provided by the Prosthetic Department of University College of dentistry.

Material and Method: The cross-sectional descriptive study was conducted among 89 individuals who got complete denture treatment Prosthodontic Department, University college of dentistry, UOL between 14-02-23 to 15-04-23 (2 months). A Non-Probability purposive sampling technique was used. Oral Health Impact Profile questionnaire in English as well as in Urdu version was used to measure the oral health impact. All participants were delivered complete denture in Prosthodontic Department within last 2 years. Oral health impact profile scores were recorded after 2 months of complete denture treatment. Data were analyzed by SPSS version 22.

Results: There was a total of 89 patients in which rate of satisfaction was higher among 56-65 years in general. Whereas, Females were more self-conscious $p = (0.005)$ and males were more concerned about their taste sensation & mastication. $p = (0.043)$. 31.46% of patients reported communication barriers or issues with their dentures, and 58.43% believed that life was generally less satisfactory. Most affected domains were Physical disability and functional limitations. Our study had somewhat similar results with age group of 66-75 years showed moderate meal interruptions due to pain and mucosal irritation with dentures $p = (0.001)$. Complete denture patients showed less chewing efficacy,

(-) impact of 46.07%. Oral health related quality of life (OHRQoL) was moderately improved with the dentures.

Table 1: Symptom of disease

	(n=89)	Frequency	Percent	Impact
Problem in pronouncing	Never/Seldom	32	35.96%	35.96%
	Sometime	25	28.09%	
	Always	13	14.61%	
	Quite often	19	21.35%	
Sense of taste	Never/Seldom	39	43.82%	33.71%
	Sometime	20	22.47%	
	Always	12	13.48%	
	Quite often	18	20.22%	
Painful aching	Never/Seldom	62	69.66%	15.73%
	Sometime	13	14.61%	
	Always	10	11.24%	
	Quite often	4	4.49%	
Uncomfortable to eat any food	Never/Seldom	22	24.72%	46.07%
	Sometime	26	29.21%	
	Always	17	19.10%	
	Quite often	24	26.97%	
Self-conscious	Never/Seldom	59	66.29%	25.84%
	Sometime	7	7.87%	
	Always	14	15.73%	
	Quite often	9	10.11%	
Felt tense	Never/Seldom	64	71.91%	13.48%
	Sometime	13	14.61%	
	Always	8	8.99%	
	Quite often	4	4.49%	
Unsatisfactory diet	Never/Seldom	38	42.70%	33.71%
	Sometime	21	23.60%	
	Always	17	19.10%	
	Quite often	13	14.61%	
Meal interruption	Never/Seldom	19	21.35%	52.81%
	Sometime	23	25.84%	
	Always	30	33.71%	
	Quite often	17	19.10%	
Difficult to relax	Never/Seldom	21	23.60%	46.07%
	Sometime	27	30.34%	
	Always	19	21.35%	
	Quite often	22	24.72%	
Been embarrassed	Never/Seldom	51	57.30%	21.35%
	Sometime	19	21.35%	

	Always	11	12.36%	
	Quite often	8	8.99%	
Been a bit irritable	Never/Seldom	41	46.07%	31.46%
	Sometime	20	22.47%	
	Always	11	12.36%	
	Quite often	17	19.10%	
Difficult in doing jobs	Never/Seldom	77	86.52%	5.62%
	Sometime	7	7.87%	
	Always	3	3.37%	
	Quite often	2	2.25%	
Life less satisfying	Never/Seldom	14	15.73%	58.43%
	Sometime	23	25.84%	
	Always	19	21.35%	
	Quite often	33	37.08%	
Unable to function	Never/Seldom	78	87.64%	5.62%
	Sometime	6	6.74%	
	Always	3	3.37%	
	Quite often	2	2.25%	

Table 2: Physical challenges

Difficult in doing jobs	40-55 Years	3	60.00%	28	33.33%	0.372	
	56-65 Years	2	40.00%	40	47.62%		
	65-76 Years	0	0.00%	16	19.05%		
Total		5		84			
Life less satisfying	40-55 Years	17	32.69%	14	37.84%	0.120	
	56-65 Years	22	42.31%	20	54.05%		
	65-76 Years	13	25.00%	3	8.11%		
Total		52		37			
Unable to function	40-55 Years	3	60.00%	28	33.33%	0.372	
	56-65 Years	2	40.00%	40	47.62%		
	65-76 Years	0	0.00%	16	19.05%		
Total		5		84			

Table 3: OHIP Impact

		Impact (OHIP)				p-value
		Yes		No		
Problem in pronouncing	Male	20	62.50%	29	50.88%	0.291
	Female	12	37.50%	28	49.12%	
Total		32		57		
Sense of taste	Male	21	70.00%	28	47.46%	0.043
	Female	9	30.00%	31	52.54%	
Total		30		59		
Painful aching	Male	6	42.86%	43	57.33%	0.317
	Female	8	57.14%	32	42.67%	
Total		14		75		
Uncomfortable to eat any food	Male	26	63.41%	23	47.92%	0.143
	Female	15	36.59%	25	52.08%	
Total		41		48		
Self-conscious	Male	7	30.43%	42	63.64%	0.005
	Female	16	69.57%	24	36.36%	
Total		23		66		
Felt tense	Male	5	41.67%	44	57.14%	0.318
	Female	7	58.33%	33	42.86%	
Total		12		77		
Unsatisfactory diet	Male	16	53.33%	33	55.93%	0.815
	Female	14	46.67%	26	44.07%	
Total		30		59		
Meal interruption	Male	29	61.70%	20	47.62%	0.182
	Female	18	38.30%	22	52.38%	
Total		47		42		
Difficult to relax	Male	15	36.59%	34	70.83%	0.001
	Female	26	63.41%	14	29.17%	
Total		41		48		
Been embarrassed	Male	8	42.11%	41	58.57%	0.201
	Female	11	57.89%	29	41.43%	
Total		19		70		
Been a bit irritable	Male	19	67.86%	39	55.71%	0.270
	Female	9	32.14%	31	44.29%	

Total		28		61		
Difficult in doing jobs	Male	2	40.00%	47	55.95%	0.486
	Female	3	60.00%	37	44.05%	
Total		5		84		
Life less satisfying	Male	31	59.62%	18	48.65%	0.307
	Female	21	40.38%	19	51.35%	
Total		52		37		
Unable to function	Male	2	40.00%	47	55.95%	0.486
	Female	3	60.00%	37	44.05%	
Total		5		84		

Discussion: Singh et al reported that age group 45-65 years showed high satisfaction with complete dentures. Female showed complete dentures as significant priority due to esthetics while male showed complete dentures as priority due to function ability improvement.(8) Our study showed, higher satisfaction rate in the age group 56-65 years in general. Whereas, Females were more selfconscious about esthetics. p- (0.005) And males were more concerned about their taste sensation & mastication. p- (0.043) Fueki et al reported that denture wearing patients had low self-esteem, low confidence level, interaction and communication issue and difficulty in speech.(9)

Singh et al also reported that in Jammu majority of denture wearing patients face challenges like chewing difficulty and denture lose fitting (lose grip of denture) leading to unintelligible speech. Siles et al. reported in general lower quality of life was confirmed with traditional complete dentures.(10) Our study showed, Similar findings that 31.46% of patients reported communication barriers or issues with their dentures, and 58.43% believed that life was generally less satisfactory.

A study conducted by Sischo L et al. reported that most affected domains as physical disability, functional limitation and physical pain. Complete removable dentures hampered patient's satisfaction significantly in old age10. Lucena et al reported that complete denture wearing patients had very low inconvenience due to food particles however, in patients not wearing dentures these food particles lead to pain and mucosal irritation due to friction.(11) Our study showed, most affected domains were Physical disability and functional limitations. Our study had somewhat similar results with age group of 66-75 years showed moderate meal interruptions due to pain and mucosal irritation with dentures p- (0.001). Sanchez C et al. reported that complete dentures wearing patients showed reduced lateral movement during mastication and high comfort resembling dentate patients as compare to those who were not wearing dentures.(10)

Yoshida et al reported that complete dentures wearing patients showed factors significant correlation between daily life satisfaction these include eating, physical comfort, loneliness, job and hobbies, smooth communication, social life, meaning fullness and economic problems.(12) In previous research Khaloud Tariq et al reported that patients were more likely to have low OHRQoL if they were female and had more than five missing teeth.(13) Our study showed, Male candidates were more at ease with their dentures than female candidates, who had trouble relaxing while wearing them p- (0.001).

Kawata et al. reported that denture wearing patients had high comfort levels along with high mastication efficacy due to muscle fatigue reduction.(14) Sharif et al reported that complete denture wearing patients had high stability, general comfort, high chewing efficacy and effective speech using neutral zone technique.(15) However, our study showed, contrary results, complete denture patients showed less chewing efficacy, (-) impact of 46.07%. Faruqi et al. reported that complete dentures lead to high satisfaction and esthetics improvement. They reported that complete dentures had significant positive impact on quality of life and facial appearance of patient before and after denture placement.(16) In our study, which showed that oral health related quality of life (OHRQoL) was moderately improved with the dentures. Andrew horge et al. showed that complete denture satisfaction in dental school is lesser as compared to dental clinics and hospitals.(17) Mohmmmed Hussien reported that Complete dentures enhance life-related quality of oral health.(18) Our study showed similar results with lesser satisfaction rate.

Conclusion: According to oral health, the well-being of patient's positive responses was seen after providing patients with their dentures, such as less painful aching, enhanced confidence levels, and improved social impact. Wearing complete dentures can be much more challenging in old age group patients as compared to younger patients. Mastication, speech, and comfort of the patients require improvement in order to enhance the patient's satisfaction.

List of Abbreviations

(OHRQoL)= oral health-related quality of life

(HRQoL)= Health-Related Quality of Life

(QoL)= Quality of Life (QoL) (WHO)= World Health Organization

Funding: The research did not receive financial assistance from any funding entity.

Conflicts of Interest: The author has no conflicts of interest to disclose concerning this study.

Declarations: The manuscript has not been submitted/presented for consideration to any other journal or conference.

Data Availability: The author holds all the data employed in this study and is open to sharing it upon reasonable request.

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