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An Epidemiological Study to Assess the Impact of Prosthodontic Rehabilitation on the Oral Health Related Quality of Life in Partially Dentate and Edentulous Patients Visiting the Department of Prosthodontics IGGDC Jammu.

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 KEYWORDS Oral health related quality of life, OHIP-14, Prosthodontic rehabilitation, patient satisfaction. ABSTRACT: Increased life expectancy in the contemporary world has led to higher percentage of edentulous patients requiring Prosthodontic rehabilitation. Tooth loss causes impairment in chewing, digestion, phonation, and esthetics of patients favouring development of psychological disorders. Oral Health Related Quality of Life is a multidimensional construct that refers to the extent to which oral conditions may disrupt an individual's life and OHIP-14 is a multi-item instrument widely used to measure the same. The effect of Prosthodontic rehabilitation is usually clinically observed or deduced from patient satisfaction functionally as well as esthetically. The objective clinical indicators do not provide a full picture of oral health as the new prosthesis is rarely subjected to evaluation made from patient's point of view including perceived needs and preferences. Thus considering the need for a comprehensive evaluation of the impact of Prosthodontic rehabilitation on patient's quality of life, a survey based on standard OHIP-14 questionnaire along with a self structured questionnaire is planned in the Post Graduate Department of Prosthodontics and Crown & Bridge, IGGDC Jammu to assess the changes in Oral Health Related Quality of Life and patient satisfaction after Prosthodontic rehabilitation. 	(Received: 07 Octob	er 2023	Revised: 12 November	Accepted: 06 December)
	KEYWORDS Oral health related quality of life, OHIP-14, Prosthodontic rehabilitation, patient satisfaction.	ABSTI Increa edentu chewi psych that r OHIP The e patien The o prosth percei Thus rehab along Prosth Relate	RACT: Ised life expectancy in the contemporary valous patients requiring Prosthodontic rehabiling, digestion, phonation, and esthetics of ological disorders. Oral Health Related Qualitiefers to the extent to which oral conditions -14 is a multi-item instrument widely used to a effect of Prosthodontic rehabilitation is usual at satisfaction functionally as well as esthetical objective clinical indicators do not provide a test is rarely subjected to evaluation made aved needs and preferences. considering the need for a comprehensive evaluation on patient's quality of life, a survey b with a self structured questionnaire is plant prodontics and Crown & Bridge, IGGDC Jam ed Quality of Life and patient satisfaction after the survey of the structure of the satisfaction after the survey of the survey of the satisfaction of the survey of the satisfaction and the satisfaction after and patient satisfaction after and patient satisfaction after a survey of the satisfaction after and patient satisfaction after a survey of the satisfaction after and patient satisfaction after a survey of the satisfaction after and patient satisfaction after a survey of the satisfaction after a survey	world has led to higher percentage of litation. Tooth loss causes impairment in of patients favouring development of ty of Life is a multidimensional construct s may disrupt an individual's life and measure the same. Ily clinically observed or deduced from ly. a full picture of oral health as the new from patient's point of view including valuation of the impact of Prosthodontic pased on standard OHIP-14 questionnaire ned in the Post Graduate Department of mu to assess the changes in Oral Health er Prosthodontic rehabilitation.

INTRODUCTION

Aging is a normal biological phenomenon that leads to physical, mental, and social changes in an individual. With improved healthcare, a marked worldwide increase in the population of older individuals has been recorded.¹

Tooth loss is one of the characteristic and inevitable sequale of aging seen in the oral cavity. Tooth loss causes impairment in chewing, digestion, phonation, and esthetics of patients. In addition, nutritional deficit, hypertension, cognitive impairment, worsening self-esteem, and increased risk of mortality were correlated with tooth loss.² Therefore, due to its high prevalence tooth loss is considered a public health problem, with higher occurrence in the most disadvantaged sections of the population.³ Tooth loss has a direct impact on normal functional activities in edentulous patients. It is believed to be associated with a complex interrelation among cultural, social, behavioral, genetic, and economic factors. While studies, have on the whole only focused on the consequences on tooth loss among older people, there is widespread agreement that tooth loss is strongly associated with poor oral health related quality of life.

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The patient's attitude is determined through the interplay of various socio demographic factors such as age, sex, education, vocation, social factors, cultural factors, upbringing, home atmosphere, economic factors, and comorbidities.⁴ Studies have revealed that psychogenic factors, for example a good relationship between patient and dentist, may be even more important aspects of patient satisfaction with treatment.^{4,5} Devan stressed the need to address the psychological aspects of edentulous patient stating "Meet the mind of the patient before you meet the mouth of the patient."

OHRQoL is a multidimensional idea which can be defined as a person's assessment of how functional, psychological, social factors, pain, or discomfort affect his/her well-being in the context of oral health.⁶

Slade et al. identified that the shift in the perception of health, from merely the absence of disease and infirmity to the complete physical, mental, and social well-being is the key issue in the conception of HRQoL and subsequently OHRQoL.⁷

Patient-centred evaluation of the outcome of therapy is attracting growing interest. It can be measured by using the concept of oral health-related quality of life (OHRQoL). To measure OHRQoL, multi-item instruments, for example the widely used Oral Health Impact Profile (OHIP), can be used. OHIP-14 scale has shown good reliability, validity and precision and is being used worldwide to assess oral health related quality of life.^{7,8}

Over the time studies have revealed that prosthodontic treatment can improve OHRQoL. This was also found for patients receiving complete dentures. A recent study described associations between self-rated denture function and OHRQoL for different age groups and reported a consistent positive correlation between self reported satisfaction with dentures and OHRQoL (high satisfaction, low impairment of OHRQoL) for older people, but not for younger patients.⁹

Another study also found a positive correlation between professional rating of removable denture quality and OHRQoL (good quality, low impairment of OHRQoL).¹⁰

Although implant supported dentures can substantially improve the quality of life in particular for patients unable to adapt to dentures, in the current social, demographic and economic circumstances for most edentulous patients conventional dentures will remain the only treatment option.

Thus considering the need for a comprehensive evaluation of the impact of conventional Prosthodontic rehabilitation on patient's quality of life, this study was planned to assess the changes in Oral Health Related Quality of Life and patient satisfaction after Prosthodontic rehabilitation.

MATERIALS AND METHOD

Study design and sampling: A longitudinal epidemiological study was conducted in IGGDC Jammu in the Postgraduate Department of Prosthodontics and Crown & Bridge. Ethical clearance was taken from the Institutional Ethics Committee, Indira Gandhi Government Dental College, Jammu.

Data collection

Data was collected in the form of the self-administered questionnaire, google forms, telephonic communication and face to face interviews with elderly participants attending the general OPD of Department of Prosthodontics and Crown & Bridge IGGDC Jammu for prosthodontic rehabilitation and willing to participate in the study. Informed consent was obtained from each patient participating in the study. Inclusion Criteria:

- Both male and female subjects.
- Middle aged and early elderly (40-75 years).
- Patient with missing teeth needing prosthetic rehabilitation.
- Missing teeth >2
- Willing to participate in the study.

Exclusion Criteria:

- Patient not willing for prosthodontic rehabilitation
- Age<40 years
- History of any major psychiatric and neurological illness.

QUESTIONNAIRE

1. Demographic details of the patient were recorded using a self structured questionnaire which included variables like age, sex, education and socioeconomic

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status of the patients. Dental findings / variables included frequency of dental visit, no. of missing teeth in each arch, type of prosthesis being planned, most common problems faced due to tooth loss and previous experience of denture wear.

2. The Oral Health Related Quality of Life (OHRQoL) was measured with the OHIP-14 Questionnaire (table-1) which contains 14 items relating to the frequency with which oral conditions adversely affect quality of life. OHIP-14 scale has shown good reliability, validity and precision and is being used worldwide to assess oral health related quality of life.

Participants were asked how frequently they had experienced an impact in the preceding 1 month for each impact question and responses based on a scale of :

0 "never"; 1 "hardly ever"; 2 "occasionally"; 3"fairly often"; and 4 "very often" were made using a five-point likert scale.

The specific subject matter of each impact question included in the seven domains included:

- I. Functional limitations (trouble pronouncing words and food has less taste, item 1&2)
- II. Physical pain (sore jaw and uncomfortable to eat, item 3&4)
- III. Psychological discomfort (worried about dental problems and self-conscious, item 5&6)
- IV. Physical disabilities (avoid eating food and interrupted during meals, item 7&8)
- V. Psychological disabilities (concentration affected and been embarrassed, item 9&10)
- VI. Social disabilities (irritable with others and difficulty performing jobs, item 11&12)
- VII. Handicap (less satisfying life, unable to function, item 13&14).

The OHIP-14 and self structured questionnaires were completed by 100 patients before dental treatment on

first admission (T0-phase) and were examined and treated under the close supervision of faculty. The patients were selected sequentially with their admission without any special selection process. The same questionnaire was completed again by the same patients 1 week (T1-phase) and 1 months after treatment (T2-phase), respectively.

To calculate an overall OHIP-14 score for each patient, the scores from the 14 answers are added, thereby giving a score between 0 and 56 with higher score indicating worse OHRQOL. The effect was obtained by calculating the OHIP-change score for each participant by subtracting the pre-treatment OHIP score from the post-treatment OHIP score. A negative change score thereby indicates improvement in OHRQOL.

3. Global Oral Rating :

A short self assessment questionnaire was also structured for the patient to rate on a five grade point scale, his/her present oral health status in terms of Appearance, Chewing efficiency and Speaking Capacity. (TABLE 2)

The oral health condition was registered by a five grade scale (1-poor ; 2-fair ; 3-good; 4-very good; and 5-excellent) using higher scores for better status. The effect was obtained by calculating the change score by subtracting the pre-treatment score from the post-treatment score and a negative result thus indicate improvement in OHRQoL. If the change score was negative (change score \leq -1) the patient-reported effect was considered good, if it was positive (change score \geq 1) the patient-reported effect was considered poor and if it was zero the participant was considered to have no patient-reported effect.

Evaluating the questionnaires, associations between the above non-comparative question and total OHIP-14 scores in different phases of care were evaluated .

1)	Have you had trouble pronouncing any words because of problems			
	with your teeth, mouth or dentures.?			
2)	Have you felt that your sense of taste has worsened because of			
	problems with your teeth, mouth or dentures.?			
3)	Have you had painful aching in your mouth.?			
4)	Have you found it uncomfortable to eat any foods because of			
	problems with your teeth, mouth or dentures.?			
5)	Have you been self conscious because of your teeth, mouth or			

OHIP-14 QUESTIONNAIRE

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		1	1		
	dentures.?				
6)	Have you felt tense because of problems with your teeth mouth or				
	dentures.?				
7)	Has your diet been unsatisfactory because of problems with your				
	teeth, mouth or dentures.?				
8)	Have you had to interrupt meals because of problems with your				
	teeth mouth or dentures.?				
9)	Have you found it difficult to relax because of problems with your				
	teeth mouth or dentures.?				
10)	Have you been bit embarrassed because of problems with your				
	teeth mouth or dentures.?				
11)	Have you been a bit irritated with other people due to problems				
	with your teeth mouth or dentures.?				
12)	Have you had difficulty doing your usual jobs because of problems				
	with your teeth mouth or dentures.?				
13)	Have you felt that life in general was less satisfying because of				
	problems with your teeth mouth or dentures.?				
14)	Have you been totally unable to function because of the problems				
	with your teeth mouth or dentures.?				

(TABLE 1)

GLOBAL ORAL RATING	
1. How would you rate the present appearance of	(1-5)
teeth / denture?	
2. How would you rate your present capacity to	(1-5)
chew food?	
3. How would you rate your present capacity to	(1-5)
speak?	

(TABLE 2)

RESULTS

Data analysis

Data were analysed using IBM SPSS 3.0 version. ANOVA and t-test analysis was conducted and P< 0.05 was considered to be statistically significant. The median interquartile range (IQR) values of the total OHIP-14 score were calculated for T0-, T1- and T2-phases. Treatment associated changes in OHRQoL were evaluated. Relationships between clinical parameters and changes of OHIP-14 scores were investigated by stepwise multivariate logistic regression analysis comparing the T0- and T1-phases of the study, after dichotomizing the outcomes according to the observed median values. **Gender:** A total of 111 patients participated in the study in which 75 were males and 36 were females. Minimum age was 40 whereas the maximum age recorded was 75. The mean age of patients came out to be 61.6757(SD=9.4322). there was no statistically significant correlation in the gender groups compared. (Table 3)

Table 3: Gender and age-wise distribution of subjects studied

14010 51 00	maer und ug		leaded of subje	ets studied			
Gender	N	Minimu	Maximum	Mean	Std.	Signif	ficance
		111			Deviation	t-value	p-value

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Males	75	40.00	75.00	62.3733	9.36031	1.126	0.263
Females	36	41.00	75.00	60.2222	9.54721		
Total	111	40	74	61.6757	9.4322		



Pie chart representing reason for tooth loss (fig. 1)



Pie chart representing frequency of dental visit. (fig. 2)



Pie chart representing problems faced due to tooth loss (fig. 3)



Pie chart representing previous experience of denture wear. (fig. 5)

Self satisfaction score: Self rated satisfaction score by patient before and after prosthetic rehabilitation showed significant improvement in all three domains. The mean self satisfaction score before treatment was 7.9820 (SD=1.74763) and the mean self satisfaction score after treatment was 9.1802 (SD=3.27303) ; the difference of

means before and after treatment was 1.19820 (SD=3.68737) which is statistically significant (P-value 0.001) depicting that patients reported significant improvement in all three demains of mastication, speech and esthetics after prosthodontic rehabilitation. (Table 4)

Table 4: Comparison of Pre Op self satisfaction and Post Op self satisfaction score

58.3%

		Mean	SD	Paired	Paired	t-value	P-value
				Differences	Differences Std.		
				mean	Deviation		
Pre	Op	7.9820	1.74763				
self-satisf	acti			-1.19820	3.68737	-3.424	0.001
on							
Post	Op	9.1802	3.27303				
self-satisf	acti						
on							

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OHIP-14 score : Mean OHIP-14 score recorded at three time intervals were 18.6216 (SD= 4.42730) before treatment , 14.5045 (SD=5.81671) 1 week after treatment and 6.7477 (SD= 3.87174) 4 weeks after

treatment. Mean OHIP score showed progressive improvement from pre-treatment period to 1 month post treatment which was statistically significant. (P-value<0.001) (Table 5).

Table 5:	Comparison	of OHIP	Score at	different	point	of times
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	Repeated	measures ANC		Post-H	oc Pair-	wise Comp	arison	
	Ν	Mean	SD	F-valu	P-value	Pai	Mean	P-value
				e		r	Differ	
							ence	
1. Pre Op	111	18.6216	4.42730			1-2	4.117	< 0.001
OHIP								
Score				354.73	< 0.001			
2.W1	111	14.5045	5.81671	7		1-3	11.874	< 0.001
OHIP Score								
3. W4	111	6.7477	3.87174			2-3	7.757	< 0.001
OHIP Score								

Component wise OHIP analysis: All the seven component of the OHIP improved significantly from pre treatment to 1 month post treatment. Most affected component due to tooth loss before treatment were Physical disability (mean score 3.396) Physical pain

(mean score 3.252) and Psychological discomfort (mean score 3.018) . Correspondingly improvements in these domains were most significant both 1 week post treatment and 4 weeks post treatment. (P-value <0.001) (Table 6)

Fable 6: Compariso	n of component-wise	OHIP Score at	different point of times
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Repeated measures ANOVA							Post-Ho	oc Pair-wise Co	omparison
Components		Ν	Mean	Std.	F-valu	P-value	Pair	Mean	P-value
				Error	e			Differenc	
								e	
1.Functional	1. Pre	111	2.874	.100			1-2	0.036	1.000
limitations	Op								
	OHIP				245.7	< 0.001			
	Score				4				
	2 . W1	111	2.838	.119			1-3	1.793	< 0.001
	OHIP								
	Score								
	3. W4	111	1.081	.093			2-3	1.757	< 0.001
	OHIP								
	Score								
2. Physical pain	1. Pre	111	3.252	.105			1-2	.955	< 0.001
	Op								
	OHIP				109.5	< 0.001			
	Score				8				
	2 . W1	111	2.297	.109			1-3	1.640	< 0.001
	OHIP								

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	1	1			1		r	1	
	Score								
	3. W4	111	1.613	.078			2-3	0.685	< 0.001
	OHIP								
	Score								
3.Psychological	1. Pre	111	3.018	.097			1-2	1.171^{*}	< 0.001
discomfort	Op								
	OHIP				180.5	< 0.001			
	Score				8				
	2.W1	111	1.847	.090			1-3	2.297^{*}	< 0.001
	OHIP								
	Score								
	3 W/	111	721	091			23	1 1 2 6	<0.001
	J. W4	111	.721	.001			2-3	1.120	<0.001
	ОПР								
	Score							*	
4. Physical	1. Pre	111	3.396	.097			1-2	1.234*	< 0.001
disabilities	Op								
	OHIP				188.1	< 0.001			
	Score				8				
	2.W1	111	2.162	.085			1-3	2.216*	< 0.001
	OHIP								
	Score								
	3. W4	111	1.180	.074			2-3	0.982	< 0.001
	OHIP								
	Score								
5 Psychological	1 Pro	111	2 523	000			1.2	874*	<0.001
disabilitios	Ω	111	2.525	.077			1-2	.074	<0.001
uisaoinues	OUD				(7.41	-0.001			
	OHIP				67.41	<0.001			
	Score							*	
	2 . W1	111	1.649	.084			1-3	1.468*	< 0.001
	OHIP								
	Score								
	3. W4	111	1.054	.084			2-3	0.595	< 0.001
	OHIP								
	Score								
6. Social	1. Pre	111	1.892	.095			1-2	.468*	< 0.001
disabilities	Op								
	OHIP				65 96	< 0.001			
	Score				02.70	(0.001			
	2 W1	111	1 423	004			1 3	1 351*	<0.001
		111	1.423	.094			1-3	1.331	<0.001
	CHIP								
	Score								
	3. W4	111	.541	.074			2-3	0.883	< 0.001
	OHIP								
	Score								
7. Handicap	1. Pre	111	1.667	.074			1-2	.649*	< 0.001
	Op								

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OHIP				50.09	< 0.001			
Score								
2.W1	111	1.018	.089			1-3	1.108^*	< 0.001
OHIP								
Score								
3. W4	111	.559	.081			2-3	0.459	< 0.001
OHIP								
Score								

DISCUSSION

The interpretation of patients regarding to experience with their dental prosthesis is intrinsically individual and extremely subjective. Therefore, a certain level of discomfort or handicap may be acceptable to one patient and intolerable to another.

An individual's past life experiences as well as their cultural, social, and historical background will affect their self-perceived oral health status. The outcomes of dental prosthetic therapy are so variable that they cannot be reliably assessed only by clinical measurements.

DEMOGRAPHICS: A total of 111 patients with mean age of 62, belonging to different regions of jammu who attended the PG department of prosthodontics for treatment completed the study questionnaire.

81% of the participants did not visited for regular dental checkups in the past on annual basis. In our study only 17.6% of the population had got their dental checkup done in the past 12 months and the predominant reason for seeking the dental treatment was pain. These findings are in agreement with a study done among people visiting Dental college Hospital in India by Devaraj et al suggesting that most of the people were problem oriented visitors rather than prevention oriented visitors¹⁷.

As reported by John et al. and Heydecke at al., this study also found that younger patients reported more OHRQoL impacts^(23,6). This implies that the impact of oral diseases on general health decreases with age. This may also be because we find older patients more likely to be accepting tooth loss as normal aging. They feel that these are problems associated with aging and are a part of life. Oral health-related quality of life may be perceived differently by individuals having the same oral status. Older adults who perceive poor oral health and have poor expectations may not view oral health as having an impact on their quality of life. Similarly, older adults with minor oral problems but have high expectations rate their OHRQoL as poor.

However there was statistically significant improvement in the OHRQOL after prosthodontic rehabilitation as depicted by change in the OHIP score in all groups. The most significant change being noted in the Functional Limitation, Psychological Discomfort and Physical Disability domains. The results of the present study allowed the rejection of the null hypothesis that there would be no difference between the OHRQoL and patient satisfaction before and 1 months after treatment with new dentures.

Only 19.3% of those participating in the study had formal education till graduation and above whereas a major proportion (44.6%) had education till matriculation only. 30% of the participants were illiterate. Lack of knowledge and non-availability of dental care were the major reasons for not seeking dental treatment which emphasizes on the need of increase in the oral health educational programmes, awareness lectures and importance of preservation of teeth.

Most common reason for seeking prosthetic rehabilitation was chewing difficulty (68.7%) whereas a small proportion (7%) were concerned about their face appearance. Thus, these facts could influence the denture satisfaction. Generally, older patients are less exigent than the younger ones, especially in relation to the aesthetics of their dentures and hence the denture satisfaction.

Complete maxillary-mandibular denture were planned in 40 patients single complete denture in 17 patients and RPD was provided in 30 patients.In our study, 41.7% participants reported a previous experience of denture wearing whereas 58.3% were new to dental prosthesis experience. In this regard, it should be noted that a

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worrying proportion of patients experienced worsening conditions after prosthetic treatment, mainly in comfort (26.5%) and chewing ability (20.6%) especially in the first week following rehabilitation. The majority of these patients were new removable denture wearers who had not yet become familiar with their prostheses. Some authors have reported similar results among recently rehabilitated patients.^(18,21,23)

Significant improvements in all domains of the OHIP-14 were found 1 months after placement of the new dentures. These results may be due to adaptation, habituation with settling of immediate post-insertion problems, developing confidence with the enhanced retention, stability and occlusion of new complete dentures, and also gradual chewing function of hard foods by the denture wearers. The review period of 1 month may have been enough for patients to adapt to the new dentures. Thus emphasizing the importance of post-insertion follow-up visits after regular intervals.

In the self rated questionnaire most significant improvement were seen in the chewing efficiency and esthetics i.e most patients accessing prosthetic rehabilitation improved in chewing ability, smile aesthetics and satisfaction with the state of their mouth after receiving conventional prosthetic treatment. Improvements in all the three components of the self rating questionnaire were statistically significant.

With regard to patient satisfaction, the percentage of dissatisfied patients was higher for new lower denture, most likely due to difficulties in the stability of this denture and increased resorption of mandibular edentulous ridge.

Nevertheless, after treatment, the patients reported improved satisfaction with both upper and lower dentures. At follow-up (1 week to 4 week), the impact was reduced in all the prosthetic cohorts of this study and all groups showed statistically significant improvement in OHIP scores further demonstrating the importance of regular post insertion followup in prosthodontic therapy.

Conclusion

Being the only tertiary care center for dental patients in whole of Jammu region. IGGDC Jammu is visited by a wide variety of patients, belonging to different social, ethnic, religious, economic and geographical backgrounds. Therefore an objective assessment of impact of prosthodontic rehabilitation done on the quality of life in these patients was imperative.

This study allowed for the accurate assessment of changes in the self satisfaction levels and other socio-psychological aspect of the patient prior to dental treatment initiation, thus enabling dental practioner's awarenesss towards the patient needs and leading to positive dental treatment outcomes. It also demonstrated that prosthetic treatments have a positive effect on the patients OHRQOL as reflected in the OHIP score changes.

REFRENCES

- Bhochhibhoya A, Rana SB, Sharma R, Khapung A. Impact of sociodemographic factors, duration of edentulism, and medical comorbidities on the mental attitudes of individuals with complete edentulism. J Prosthet Dent. 2022 Dec;128(6):1283-1288. doi: 10.1016/j.prosdent.2021.04.007. Epub 2021 May 19. PMID: 34020799.
- Peres MA, Bastos JL, Watt RG, et al: Tooth loss is associated with severe cognitive impairment among older people: Findings from a population-based study in Brazil. Aging Ment Health 2015;19:876-884.
- Vogel R, Smith-Palmer J, Valentine W: Evaluating the health economic implications and costeffectiveness of dental implants: A literature review. Int J Oral Maxillofac Implants 2013;28:343-356.
- Carlsson GE, Otterland A, Wennström A, Odont D. Patient factors in appreciation of complete dentures. J Prosthet Dent. 1967 Apr;17(4):322-8. doi: 10.1016/0022-3913(67)90002-9. PMID: 5339805.
- Sudheer A, Reddy GV, Reddy G. Behavior shaping of complete denture patient: a theoretical approach. J Contemp Dent Pract 2012;13:246-50.
- Strassburger, C., Heydecke, G. & Kerschbaum, T. Influence of prosthetic and implant therapy on satisfaction and quality of life: a systematic literature review: part 1 characteristics of the studies. Int J. Prosthodont. 17, 83–93 (2004).
- Slade GD, Spencer AJ. Development and evaluation of the oral health impact profile. Community Dent Health 1994; //.3-I1.

www.jchr.org

JCHR (2023) 13(6), 1980-1990 | ISSN:2251-6727



- Slade GD; Derivation and validation of a short-form oral health impact profile. Community Dent Oral Epidemiol 1997; 25; 284-90. © Munksgaard, 1997
- Hassel AJ, Rolko C, Grossmann AC, Ohlmann B, Rammelsberg P (2007) Correlations between self-ratings of denture function and oral health-related quality of life in different age groups. Int J Prosthodont 20:242–244
- Inukai M, Baba K, John MT, Igarashi Y (2008) Does removable partial denture quality affect individuals' oral health? J Dent Res 87:736–739
- Locker D. Measuring oral health; a conceptual framework. Community Dent Health 1988; 5: 5-13.
- Montero J, Lo´pez JF, Galindo MP, Vicente P, Bravo M. Impact of prosthodontic status on oral wellbeing: a cross-sectional cohort study. Journal of Oral Rehabilitation 2009;36:592–600.
- 13. World Health Organization. The World Oral Health Report 2003. 4–5 (World Health Organization, Geneva, 2002).
- Shrestha B, Basnet B B, Adhikari G. A questionnaire study on the impact on oral health-related quality of life by conventional rehabilitation of edentulous patient BDJ Open (2020) 6:3
- 15. Stober T et al. Association between patient satisfaction with complete dentures and oral health-related quality of life: two-year longitudinal assessment Clin Oral Invest (2012) 16:313–318 DOI 10.1007/s00784-010-0483-x
- Gupta R, Mukhtar F, Renuka B, "A study on oral health related quality of life in consideration to prosthodontic status and treatment needs during covid-19 pandemic among elderly people in Jammu", IJDSIR- February - 2022, Vol. – 5, Issue - 1, P. No. 134 – 141.
- Devaraj CG, Eswar P. Reasons for use and non-use of dental services among people visiting a dental college hospital in India: A descriptive cross-sectional study. Eur J Dent. 2012 Oct; 6(4): 422–427.
- McGrath, C.; Bedi, R. Can dentures improve the quality of life of those who have experienced considerable tooth loss? J. Dent. 2001, 29, 243– 246.

- Øzhayat EB, Gotfredsen K. Patient-reported effect of oral rehabilitation. J Oral Rehabil. 2019;00:1–8. https://doi.org/10.1111/joor.12756
- Sukumar S, John MT, Schierz O, Aarabi G, Reissmann DR. Location of prosthodontic treatment and oral health-related quality of life– an exploratory study. J Prosthodont Res. 2015;59:34-41.
- 21. Øzhayat EB, Gotfredsen K. Effect of treatment with fixed and removable dental prostheses. An oral health-related quality of life study. J Oral Rehabil. 2012;39:28-36.
- Jenei et al. Oral health-related quality of life after prosthetic rehabilitation: a longitudinal study with the OHIP questionnaire Health and Quality of Life Outcomes (2015) 13:99 DOI 10.1186/s12955-015-0289-2
- 23. John MT, Slade G, Szentpétery A, Setz JM. Oral health-related quality of life in patients treated with fixed, removable, and complete dentures 1 month and 6 to 12 months after treatment. Int J Prosthodont. 2004;17:503–11.