

ORAL HEALTH RELATED QUALITY OF LIFE (OHRQoL) IN 40 TO 70 YEARS

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ABSTRACT

This study was aimed to assess the Oral Health-Related Quality of Life (OHRQoL) among aged 40-70 years. The survey was conducted in Prosthodontics department of a private Dental College in Lahore, Pakistan.

A cross sectional survey was carried out over a period of three months (August-October 2010). New male and female patients aged between 40 and 70 years, who came to the department of Prosthodontics for partial and complete denture problems were included in the sample. All other age groups and old (who were undergoing treatment in the department) patients were excluded. Data for this study was collected by carrying out an interview using the Oral Health Impact Profile 14 which is the shorter version of OHIP 49. Two hundred and ten patients completed the questionnaire forms containing the 14 item Oral Health Impact Profile (OHIP-14). Data analysis was done using IBM SPSS version 19.

The results showed the perceived OHRQoL among adults ranging from 40-70 years in age. Age was found to be highly significant ($p < 0.01$) with the OHRQoL dimension of 'psychological discomfort: feeling tense' ($p=0.002$) and 'physical disability: interrupted meals' ($p=0.006$) and significant ($p < 0.05$) with the dimensions of 'functional limitation: worsened taste' ($p=0.04$)

Gender was found to be significant with 'psychological disability: difficulty relaxing' ($p=0.04$) and highly significant with 'social disability: irritability' ($p=0.003$), 'handicap: life less satisfying' ($p=0.002$), 'physical disability: poor diet' ($p=0.01$), 'handicap: inability to function' ($p=0.002$) and 'handicap: inability to function' ($p=0.002$).

Complete and partial denture appliances showed significance with the dimensions of 'functional limitation: worsened taste' ($p=0.02$) and portrayed high significance with 'physical pain: aching in mouth' ($p=0.01$) and 'physical pain: discomfort eating food' ($p=0.001$).

Key words: OHRQoL, full denture, partial denture, Oral health, quality of life, geriatric patients

INTRODUCTION

Quality of Life is a multidimensional and subjective construct which is anchored in an individual's internal frame of reference.¹ According to the concept of Oral health-related quality of life (OHRQoL), good oral health is no longer seen as the mere absence of oral disease and dysfunction. The definition of OHRQoL includes the absence of negative impacts of oral conditions on social life, and a positive sense of dentofacial self-confidence.² There are two different groups to assess the quality of life which are disease specific and

generic measures respectively.³ The use of patient based outcomes helps us to evaluate the psychosocial consequences of oral diseases.⁴ For these reasons, an instrument has been devised named the OHIP (Oral Health Impact Profile). OHIP is the most sophisticated instrument that measures OHRQoL, and is based on the WHO classification⁵ of impairments, disabilities, and handicap, and has been used in testing oral disabilities.⁶ OHIP-14, a shorter version is most popular in recording seven different dimensions. Apart from the original English version, OHP-14 has been translated into Chinese⁷, German⁸, and Singhalese⁹ languages

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and demonstrates cross-cultural equivalence. The model on which OHIP is based reflects the concept that impact moves from a biological basis through an impact on the internal individual to aspects impacting on the social dimension of the individual.⁶

METHODOLOGY

A cross sectional survey was carried out to assess the Oral Health Related Quality of Life (OHRQoL) in older adults aged 40 to 70 years of age in Prosthodontics department of a private Dental School in Lahore, Pakistan. Male and female patients coming for partial and complete dentures over a period of three months (Aug-Oct 2010) were included in the sample. Patients aged between 40 and 70 years and who came to the department for the first time for problems related to their partial or complete dentures were included in the sample. All other patients were excluded. Data for this study was collected by carrying out an interview using the Oral Health Impact Profile-14, which is the shorter version of OHIP-49. Two hundred and ten patients completed forms containing the 14 item Oral Health

Impact Profile (OHIP-14). Patients were informed of the confidentiality that was strictly followed during and after the research. As the name indicates, OHIP-14 has fourteen questions. The dimensions and the subjects of the questions include: 'Functional Limitation': trouble pronouncing words, worsened taste; 'Physical Pain': aching in mouth, discomfort eating food; 'Psychological Discomfort': feeling self-conscious or feeling tense; 'Physical Disability': interrupted meals or poor diet; 'Psychological Disability': difficulty relaxing, embarrassment; 'Social Disability': irritability, difficulty in doing usual jobs; 'Handicap': life less satisfying, inability to function. Respondents reported the frequency of each impact during the preceding year on a five-point scale ranging from 'never' to 'hardly ever', 'occasionally', and 'fairly often' to 'very often'. Each questionnaire used had a code number, which was the same as that used on the data collection form.

The data collection sheets, after being checked for errors and omissions and corrected as necessary. Data was entered into a computer and analysis was done using the IBM SPSS (version 19.0). Data analysis included descriptive statistics such as frequency distribution and cross-tabulation. Statistical significance for the association between the explanatory and dependent variables was assessed carrying out Chi-square statistical test and the level of significance was set at 5%.

RESULTS

The final sample size was 210. Results showed the perceived OHRQoL among adults ranging from 40-70

years in age. Male and female frequency was 50.48% and 49.52% respectively (Fig 1). Major portion of the sample was of the age range of 50-59 yrs (41.9%) whereas the smallest portion was 40-49 yrs (20.95%) (Fig 2). Most of the cases observed were of complete denture appliance (71.43%) (Fig 3).

Age was found to be highly significant ($p < 0.01$) with the OHRQoL dimension of 'psychological discomfort: feeling tense' ($p=0.002$) (Table 1) and 'physical disability: interrupted meals' ($p=0.006$) (Table 2) and significant ($p < 0.05$) with the dimensions of 'functional limitation: worsened taste' ($p=0.04$) (Table 3).

Gender was found to be significant with 'psychological disability: difficulty relaxing' ($p=0.04$) (Table 4) and highly significant with 'social disability: irritability' ($p=0.003$) (Table 5), 'handicap: life less satisfying'

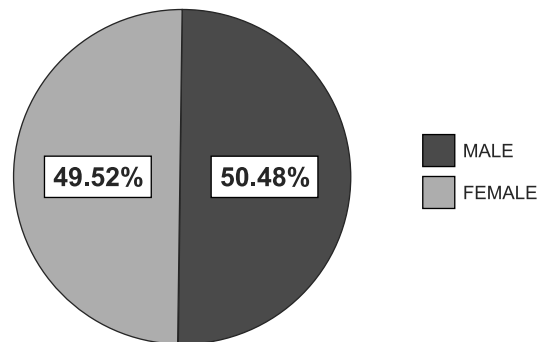


Fig 1: Gender frequency

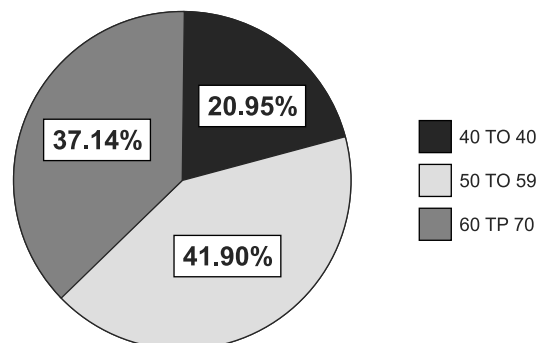


Fig 2: Age frequency

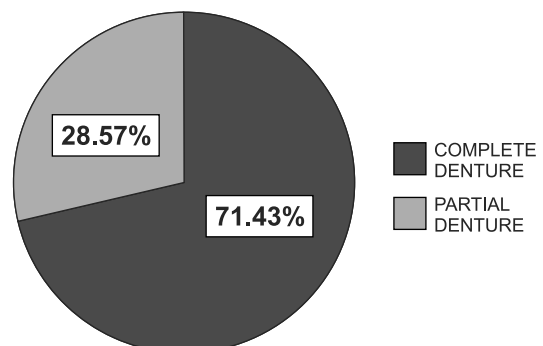


Fig 3: Frequency of complete and partial dentures

TABLE 1: PSYCHOLOGICAL DISCOMFORT: FEELING TENSE AND AGE

AGE	NEVER	H. EVER	OCC	F. OFTEN	V. OFTEN	Total	Pearson Chi-Square
40 to 49	0	0	36	4	4	44	0.002*
50 to 59	4	4	38	34	8	88	
60 to 70	0	4	42	24	8	78	
Total	4	8	116	62	20	210	

*P< 0.01

TABLE 2: PHYSICAL DISABILITY: INTERRUPTED MEALS AND AGE

AGE	H. EVER	OCC	F. OFTEN	VERY OFTEN	Total	Pearson Chi-Square
40 to 49	12	28	0	4	44	0.006*
50 to 59	12	54	14	8	88	
60 to 70	8	40	18	12	78	
Total	32	122	32	24	210	

*P<0.01

TABLE 3: FUNCTIONAL LIMITATION: WORSENEED TASTE AND AGE

AGE	HARDLY EVER	OCC	FAIR OFTEN	Total	Pearson Chi-Square
40 to 49	32	12	0	44	0.04*
50 to 59	52	28	8	88	
60 to 70	40	26	12	78	
Total	124	66	20	210	

*P<0.05

TABLE 4: PSYCHOLOGICAL DISABILITY: DIFFICULTY RELAXING AND GENDER

GENDER	H. EVER	OCC	F. OFTEN	V. OFTEN	Total	Pearson Chi-Square
MALE	2	80	18	4	104	0.04*
FEMALE	12	74	14	4	104	
Total	14	154	32	8	208	

*P<0.01

TABLE 5: SOCIAL DISABILITY: IRRITABILITY AND GENDER

GENDER	H. EVER	OCC	F. OFTEN	V. OFTEN	Total	Pearson Chi-Square
MALE	8	90	4	4	106	0.003*
FEMALE	16	74	14	0	104	
Total	24	164	18	4	210	

*P<0.01

TABLE 6: HANDICAP: LIFE LESS SATISFYING AND GENDER

GENDER	H. EVER	OCC	F. OFTEN	V. OFTEN	Total	Pearson Chi-Square
MALE	0	8	82	16	106	0.002*
FEMALE	4	16	56	28	104	
Total	4	24	138	44	210	

*P<0.01

TABLE 7: PHYSICAL DISABILITY: POOR DIET AND GENDER

GENDER	NEVER	H. EVER	OCC	F. OFTEN	V. OFTEN	Total	Pearson Chi-Square
MALE	4	52	28	14	8	108	0.01*
FEMALE	12	32	42	10	8	104	
Total	16	84	70	24	16	210	

*P< 0.01

TABLE 8: HANDICAP: INABILITY TO FUNCTION AND GENDER

GENDER	H. EVER	OCC	F. OFTEN	V. OFTEN	Total	Pearson Chi-Square
MALE	4	74	24	4	106	0.002*
FEMALE	16	50	28	10	104	
Total	20	124	52	14	210	

*P<0.01

TABLE 9: HANDICAP: INABILITY TO FUNCTION AND GENDER

GENDER	H. EVER	OCC	F. OFTEN	V. OFTEN	Total	Pearson Chi-Square
MALE	4	74	24	4	106	0.002*
FEMALE	16	50	28	10	104	
Total	20	124	52	14	210	

*P<0.01

TABLE 10: FUNCTIONAL LIMITATION: WORSENEDED TASTE AND APPLIANCE

APPLIANCE	HARDLY EVER	OCC	FAIR OFTEN	Total	Pearson Chi-Square
COMPLETE DENTURE	80	54	16	150	0.02*
PARTIAL DENTURE	44	12	4	60	
Total	124	66	20	210	

*P<0.05

TABLE 11: PHYSICAL PAIN: ACHING IN MOUTH AND APPLIANCE

APPLIANCE	H. EVER	OCC	F. OFTEN	V. OFTEN	Total	Pearson Chi-Square
COMPLETE DENTURE	4	4	80	62	150	0.01*
PARTIAL DENTURE	0	8	28	24	60	
Total	4	12	108	86	210	

*P<0.01

TABLE 12: PHYSICAL PAIN: DISCOMFORT EATING FOOD AND APPLIANCE

APPLIANCE	OCC	F. OFTEN	V. OFTEN	Total	Pearson Chi-Square
COMPLETE DENTURE	64	50	36	150	0.001*
PARTIAL DENTURE	12	36	12	60	
Total	76	86	48	210	

*P<0.01

($p=0.001$) (Table 6), 'physical disability: poor diet' ($p=0.01$) (Table 7), 'handicap: inability to function' ($p=0.002$) (Table 8) and 'handicap: inability to function' ($p=0.002$) (Table 9).

Both the complete and partial denture appliances showed significance with the dimensions of 'functional limitation: worsened taste' ($p=0.02$) (Table 10) and portrayed high significance with 'physical pain: aching in mouth' ($p=0.01$) (Table 11) and 'physical pain: discomfort eating food' ($p=0.001$) (Table 12).

DISCUSSION

The Oral Health Impact Profile is based on 'Locker's' ¹⁰Conceptual Framework. This framework has been used over the years for measuring oral health outcomes. Results of this survey make evident the potential benefit of using OHIP-14. ¹¹

The OHIP-14 dimensions that were most commonly observed were 'psychological discomfort: feeling tense', 'physical disability: interrupted meals', 'psychological disability: difficulty relaxing', 'social disability: irritability', 'physical disability: poor diet', 'handicap: inability to function', 'handicap: life less satisfying', 'functional limitation: worsened taste', 'physical pain: aching in mouth', and 'physical pain: discomfort eating food'. It is clearly evident that apart from younger years, with advancing age, it is also essential to have increased OHRQoL. Geriatric patients often require the need for either partial prosthodontic appliance/denture or complete denture due to partial or complete edentulism. OHRQoL has been considered as an outcome measure to assess the impact of edentulism and available treatments measured by OHIP. ¹² In this study, such edentulism resulted in physical pain which led to psychological discomfort and disability with the extremity of handicap. Patients in the age range of 50-59 years were the most affected group. Their OHRQoL was diminished socially and physically. One of the arguable reasons could be the likelihood of certain complaints rising from dentures in Private Dental Schools alone as compared to Private Dental Clinics. Several factors could be responsible for this. Lack of material and expertise, lack of time for both the patient and care provider and finally, cost of treatment are some factors that may indirectly affect the quality of life. Here, it is important to mention the necessity of supervision of dental students during the crafting of dentures to ensure proper insertion and satisfaction of patients.

No attempt was made in the study to relate the clinical quality of the dentures (partial and complete)

with the patients' satisfaction. It has been established that new denture quality and satisfaction are associated with each other. ¹³ It has been suggested that habits develop to the denture and this overcomes gradual deterioration of the prosthesis. ¹⁴ Here, it could again be emphasized that in a private dental clinic, chances of low clinical quality of dentures is rare as compared to a dental school department.

It is essential that the quality of life of older aged people be improved. Measures and steps should be taken at initial stages of appliance requirement so that the quality of life of geriatric patients is not deteriorated. It is thus concluded that for a good OHRQoL in older adults, it is essential to address to their immediate needs such as improving partial or complete denture. This would have a positive impact on their social, mental and psychological well being.

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