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Original Article

Assessing The Quality of Life Among Older Adults Having Oral Health Problems

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ABSTRACT

Oral health refers to the health of the oral cavity of an individual. Oral health is the most important part of general healthcare. The oral cavity or mouth make a major part of human body and considered to be the beginning of gastrointestinal and respiratory systems. The concept of Oral Health-Related Quality of Life (OHQoL) is focused on the idea that oral health issues can harm a person's self-esteem and self-image, create other health problems, hinder social contact, and cause pain, stress, and sadness. **Objective:** To assess the Quality of Life (QoL) among older adults having oral health problems. **Methods:** A Cross-sectional study was carried out from 'Heaven Old-Age home', Ferozepur Road, Lahore. Middle age to older adults aged between 45 to 80 years suffering from oral health problems were selected through a non-probability convenient sampling technique, and the sample size of 100 was enrolled. Participants were assessed through a self-constructed questionnaire. The data was analyzed by SPSS version 21.0. **Results:** Out of 100 participants, 45 were males while 55 were females while 96 participants were married. Socioeconomically, 72 participants belonged to the middle class in which 67 participants were educated, while 33 were uneducated. Result showed that 39 felt almost inability of chewing, 51 felt uncomfortable eating, 61 were feeling difficulty in biting hard food, and 54 were feeling difficulty while taking a big bite. Moreover, 77 were feeling difficult or restricted smiling, 74 were feeling difficulty in relaxing while 71 were feeling tense, and 83 were feeling irritable. 75 were embarrassed because of oral issues. However, 65 had pain in the mouth while 35 did not. 68 individuals had history of toothache in the previous 12 months, while 32 had not. **Conclusion:** It was concluded that there is an association between quality of life and oral health. Older adults face problems in chewing and swallowing food, feel pain while chewing or biting the food, and face nutritional deficiencies affecting their quality of life.

INTRODUCTION

Oral health is vital for good health, that is affected by numerous components that get swapped over time, and the change may be positive or negative. An older adult is a vulnerable group and requires aid in maintaining their daily routine activities [1]. Oral health refers to the health of the oral cavity of the individual and may be termed as it is the beginning point of the concept of general health. The oral cavity and the mouth are the major parts of the human body through which they can communicate with each other. The most important part of digestion is swallowing, and the mouth plays an important role in good physical appearance [2]. Oral health is the most important, as poor oral health leads to diseases which are indigestion, gastrointestinal disorders, and some other types of cancers of oral cavity, which are interlinked with these due to insufficiency of the person to eat a healthy diet when their oral health is compromised [3]. The majority of older adults don't have the ability to take care of themselves because of economic problems, difficulties in getting access to healthcare and low education levels [4]. The oral health status and general health relationship can be observed from different points, especially from a subjective viewpoint. HRQoL and OHRQoL measurements, which show an individual's level of well-being, are beneficial for observing the possible consequences of oral disorders [5]. Elderly people of age above 65 years, face more difficulties in performing oral

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functions like mastication and swallowing, oral motor skills, and existing natural teeth determine the poor status of oral health, which predict loss of muscle mass, also called sarcopenia, frailty, and weakness. The poor status of oral health foretells the severe health issues. For healthy aging, it is important to prevent oral frailty [6]. Between 2015 and 2030, the population aged 60 years or above have increased survival chances by 56%, from 901 million to 1.4 billion [7]. Almost 60% of the Pakistani population have dental caries. The ratio is almost equal in all different regions of the country. Present study reviewed the published material on oral health association with generalized health in elderly population and it has been noticed that most of the included studies were showing high risk of dental issues [8]. The older adults, suffering from dementia-like problems have more risks of caries and many other kinds of oral health problems, which may include gums bleeding, oral soft tissues and periodontal problems, mucosal lesions, and low saliva production [9]. Environmental factors also play an important part in the quality of life of older people who often have problems maintaining physical, psychological, and social functioning [10]. Tooth loss is another major poor oral health problem which can cause hypo salivation leading to chewing problems and swallowing issues. Poor oral health can make the patient unable to take all sorts of foods and diets. Diet can only be restricted to soft diets, which may be nutritionally deficient and can cause malnutrition and aggravate multiple health problems [11]. Although most oral diseases may not pose a life-threatening threat, they do affect overall quality of life by prolonging pain and suffering and causing functional, cosmetic, nutritional, and psychological issues. Health education initiatives with a focus on self-perception, self-protection, and self-care should be investigated [12]. Oral Health-Related Quality of Life (OHRQoL) is a multi-faceted model that affects individuals daily routine functions or general quality of life and health or influence on oral or dental health [13]. The concept of Oral Health-Related Quality of Life (OHQoL) is focused on the idea that oral health issues can harm a person's self-esteem and self-image, create other health problems, hinder social contact, and cause pain, stress, and sadness. It's critical to understand which oral health characteristics contribute to increased quality of life to focus on how to improve the quality of life of an older person [14]. There is a need to prevent older adults from oral health-related problems to maintain a healthy quality of life [15]. Dental decay and gum diseases are among the most common disorders in people of all ages, and if left untreated, they can lead to tooth loss problems, loss of masticatory function, poor nutrition, loss of self-confidence, social issues, and a lower quality of life [16]. Cognitive decline has been linked to poor tooth health and chewing deficits [19]. In a study, some elderly people agreed that their oral health is of great importance for their quality of life, especially concerning their eating habits, comfort level, their appearances and their overall health [17]. It is suggested that the oral health of elderly people can be improved by easy and accessible oral treatments that depend upon their clinical needs and self-perceived needs [18]. Social and demographic components show discrepancies and may also affect the quality of life of older people. Low quality of life is more to be related to poor oral health, loneliness and increasing age [20].

METHODS

A cross-sectional subjective analysis was carried out from Heaven Old-Age Home, Ferozepur Road, Lahore. Middle age to older adults aged between 45 to 80 years suffering from oral health problems were selected through a non-probability convenient sampling technique, and 100 individuals were enrolled in the study. Adults of age less than 45 years and non-cooperative older adults were excluded from the sample group. Participants were assessed through a self-constructed questionnaire. After collection of data it was analyzed by SPSS version 21.0 and graphs and tables were prepared using Microsoft Excel version 2016. Frequencies and tables were formulated by the qualitative analysis.

RESULTS

Table 1 shows that out of 100 participants, 66 participants were in the age group of 50 to 60 years, 20 participants were between 61 to 70 years, 6 were between 71 to 80 years, and 8 were between 81 to 90 years. 45 were males while 55 were females. 96 were married, while 4 were unmarried. 18 belonged to the lower socio-economic class, 72 belonged to the middle class, while 10 belonged to the upper class. 67 were educated, while 33 were uneducated.

Age			
Sr.no.	**Age categories**	**Frequency (n)**	**Percentage (%)**
1	50 to 60	66	66.0
2	61 to 70	20	20.0
3	71 to 80	6	6.0
4	81 to 90	8	8.0
5	Total	100	100
Gender			
Sr.no.	**Gender categories**	**Frequency (n)**	**Percentage (%)**
1	Male	45	45.0
2	Female	55	55.0
3	Total	100	100
Marital Status			
Sr.no.	**Marital status categories**	**Frequency (n)**	**Percentage (%)**
1	Married	96	96.0
2	Unmarried	4	4.0
3	Total	100	100

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Socio-Economic Status			
Sr.no.	Socio-economic status categories	Frequency (n)	Percentage (%)
1	Lower class	18	18.0
2	Middle class	72	72.0
3	Upper class	10	10.0
4	Total	100	100
Education Level			
Sr.no.	**Education level categories**	**Frequency (n)**	**Percentage (%)**
1	Educated	67	67.0
2	Uneducated	33	33.0
3	Total	100	100

Table 1: Frequency and Percentage distribution of demographics.

Table 2 reflects that out of 100 participants, 39 were not feeling interrupted in eating food, while 61 were. Although 51 felt uncomfortable eating and 49 were not disturbed. 42 participants think that their diet is unsatisfactory, while 58 do not. 61 were feeling difficulty in biting hard food, while 39 were ok with it. As, 54 were feeling difficulty while taking a big bite, the other 46 were not. 61 think to change types of food while other 39 did not. 76 were experiencing restricted talking, while 24 were not. Moreover, smile of 77 was affected, while for 23 it was not. 25 were not feeling difficulty or restriction in laughing, while 75 were. 74 were feeling difficulty in relaxing while 26 were not. 71 were feeling tense, and 83 were feeling irritable. 18 were not feeling difficulty doing the usual jobs, while 82 were and 75 were embarrassed because of oral issues. However, 65 had aching teeth in the mouth while 35 did not. 68 had toothache in the previous 12 months, while 32 had not. About 57 had denture discomfort currently or in the previous 12 months, while 43 had no discomfort with denture.

Oral Function			
Sr.no.	Questions assessing oral function	Yes(n)	No(n)
1	Do you feel interrupted while eating food?	61	39
2	Do you feel uncomfortable while eating?	51	49
3	Do you think your diet is unsatisfactory?	42	58
4	Do you feel difficulty in biting hard food?	61	39
5	Do you feel difficulty while taking a big bite?	54	46
6	Do you think you have to change the types of food eaten?	61	39
Psychosocial Impact			
Sr.no.	**Questions regarding the psychosocial impact**	**Yes**	**No**
1	Do you feel difficult or restricted talking?	76	24
2	Do you feel difficult or restricted in smiling?	77	23
3	Do you feel difficult or restricted in laughing?	75	25
4	Do you feel difficulty relaxing?	74	26
5	Do you feel tense?	71	29
6	Do you feel irritable with other people?	83	17
7	Do you have difficulty doing your usual jobs?	82	18
8	Do you feel embarrassed because of oral issues?	75	25

Comfort and Well-Being			
Sr.no.	Questions assessing oral function	Yes	No
1	Do you feel painful aching in your mouth?	65	35
2	Do you have toothache or pain currently or in the previous 12 months?	68	32
3	Do you feel denture discomfort currently or in the previous 12 months?	57	43

Table 2: Frequency distribution of Quality of Life (QoL) scale

Figure 1 shows that out of 100 participants, 29 were dissatisfied with teeth while 71 were not dissatisfied.

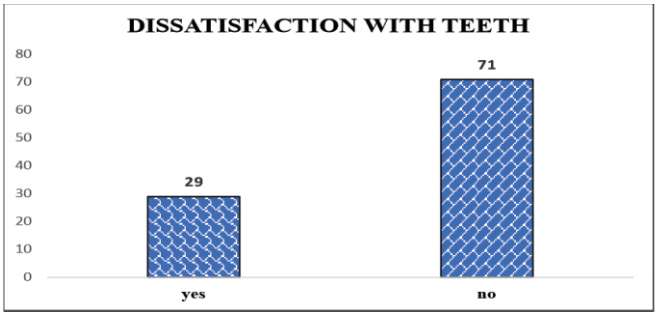

Figure 1: Distribution of dissatisfaction with teeth (QoL) among older adults

Figure 2 shows that out of 100 participants, 77 were dissatisfied with dentures, while 23 were not.

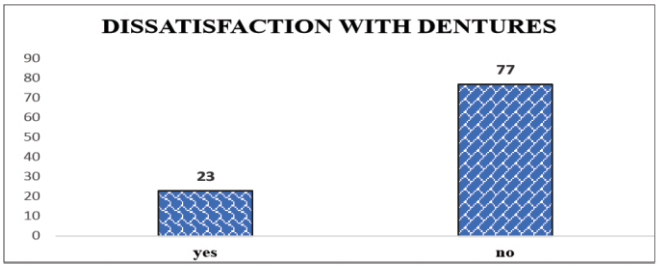

Figure 2: Distribution of dissatisfaction with dentures (QoL) among older adults

According to above table 3 a significant association between embarrassment because of oral issues and dissatisfaction was found with p-value ≤ 0.05.

Sr.no.	Embarrassed because of oral issues	Dissatisfaction with teeth		Total	P-value
		Yes	No		
1	Yes	14	11	25	0.001
2	No	15	60	75	
3	Total	29	71	100	

Table 3: Association between embarrassment because of oral issues and dissatisfaction with teeth

Table 4 shows the association between embarrassment because of oral issues and dissatisfaction with the appearance of dentures with a significant p-value of ≤ 0.05.

Sr.no.	Embarrassed because of oral issues	Dissatisfaction with the appearance of dentures		Total	P-value
		Yes	No		
1	Yes	12	13	25	0.001
2	No	11	64	75	
3	Total	23	77	100	

Table 4: Association between embarrassment because of oral

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issues and dissatisfaction with the appearance of dentures

DISCUSSION

The study was conducted to find out the importance of oral health in older people's quality of life. The respondents were selected through a non-probability convenient sampling technique. In the current study, the results showed that out of 100 participants, 66% participants were in the age group of 50 to 60 years, 20% participants were in between 61 to 70 years, 6% were in between 71 to 80 years, and 8% participants were in between 81 to 90 years. A similar study was performed by Mohd Masood et al., 2017 which showed that 59% of participants were between the 65-75 years of age, while 40.8% of participants were of the age group of above 75. Similarly, findings pertaining to individual marriages were also reported in the that paper which corresponds to our results, i.e. in the present study, the results showed that only 4% of respondents never got married, while 96% were married, whereas, according to Mohd Masood et al., 2017, 7.6% of participants never got married while 57.6% of participants were married [13]. In the current study, the results showed that the gender of respondents taken was 55% females while only 45% were males, and it was the same finding of a research which was performed by Gerhard Schmalz et al., 2021 in which there were 68.9% females while 31.1% males were included [21]. The current research showed that out of 100, 32% of older adults were uncomfortable on eating food due to oral health issues same was seen in a similar study by Reshu Agarwal Sagtani et al., 2020 which concluded that 37.6% of respondents were uncomfortable while eating food. It has also been observed in this study, that 25% of participants were embarrassed because of their poor oral health, again corresponding to Reshu Agarwal Sagtani et al., 2020's findings in which 28% of older adults gave history of embarrassment because of their poor oral health. Additionally, it was found that 8% of participants always have pain while 42% often face this issue, same was reported by those authors as well, with 30% of the participants having oral pain [22]. The absence of natural teeth is another normal occurrence in old age as our study finds out that 95% of people have natural teeth, whereas only 5% do not have them. Even the studies reflect that Yuan studied the phenomenon of natural teeth in his research. Many other studies focused on natural teeth and dentures as a study on Chinese people 90 years of age suggests that 84% of people had less than 20 teeth. The same study reveals the denture pattern even in the different gender, which says that 60% of people had natural teeth in the upper jaw [23]. The studies undertaking gender and multiple age groups as sampling play a pivotal role in getting the key results. Our study reflects a different result saying 53% of people have no denture in the upper jaw. It might be because most of the population of our study is youth, and more adults have minor problems. In the current study it was also noticed that chewing and swallowing of food of older individuals was associated with different dietary food consistencies, 62% of participants felt difficulty in chewing food, and 38% of participants were not. Same was the observation of the study by Kulvanich S in 2021 showing the 95% participants, ate pudding without any problems, and 49% ate rice crackers without any signs of swallowing difficulty such as coughing or difficulty in chewing [24]. 32% of the participants were uncomfortable with swallowing of food because of under chewed food material secondary to dental issues in our research. Similar associations have been reported between difficulty of eating and mouth mobility problems in the research conducted by Kensuke Nishio in 2021. Our findings additionally showed that self-reported difficulty of eating due to dental problems and difficulty of swallowing was associated with frailty, mouth mobility limitations, and jaw grip strength [25].

CONCLUSION

It is concluded that the relationship between oral health status and quality of life can be observed from different points, especially from a subjective viewpoint. HRQoL and OHRQoL measurements, which show an individual's level of well-being and the possible consequences of oral disorders. Mostly, individuals between 45 to 80 years, were facing the problems in chewing and swallowing of food due to oral cavity issues, leading to nutritional deficiencies with indirect effects on their quality of life.

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