

Assessment of Oral Health Related Quality of Life and Oral Health Status Among Institutionalised Elderly Population in Jaipur City: A Cross Sectional Study

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Abstract

Introduction: Oral diseases and disorders can affect general health, wellbeing and quality of life in geriatric individuals. As the GOHAI appeared to have acceptable reliability and validity in all ages.

Aim and objectives: To assess oral health status among elderly individuals aged 60 years and above.

Methodology: A total of 7 old age homes were present in the Jaipur city. All elderly individuals in these old age homes formed the study population. WHO Oral health assessment, 1997 and GOHAI was used in the study.

Results: Out of 225 participants, 142 participants were in 60-65 years age group. About 10.7% (n=24) said they often and very often had sensitive teeth or gums. Oral health status showed 10.9 mean number of missing teeth per patient, this highlights on the loss of functional edentulism and poor oral health of the elderly institutionalized patients. There was statistically significant association between age and socioeconomic status.

Conclusion: The study establishes a strong need for the prevention of edentulism and better geriatric oral health care to all institutionalized elderly population.

Keywords: GOHAI, Oral Health Status, Oral Health Related Quality of Life.

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Introduction

Geriatrics and geriatric dentistry are evolving as applied disciplines. Their development as branches of clinical care depends in part on an ability to demonstrate an effective grasp of the problems of the elderly and their solutions.[1] Oral diseases and disorders can affect general health, wellbeing and quality of life in geriatric individuals. The relationship between tooth loss and nutritional intake is important. As people age, their diminished physical capacity and decreased income adversely affects their ability to maintain their teeth.[2] A recent definition of quality of life is: "a composite measure of physical,

mental and social well-being as perceived by each individual or by group of individuals-that is to say, happiness, satisfaction and gratification as it is experienced in such life concerns as health, marriage, family work, belongingness and trust in others". Oral health-related quality of life (OHRQoL) is a subset of health-related quality of life (HRQoL). OHRQoL can be defined as the part of quality of life that is affected by a person's oral health.[3]

Material and Methods

A cross sectional study was conducted of 7 old age homes were present in the Jaipur

city. All elderly individuals in these old age homes formed the study population.

Ethical clearance for the study was obtained by the ethical committee, NIMS Dental College, Jaipur. Voluntary informed written permission was obtained from the subjects after explanation of the nature of the study. Sample size based on inclusion and exclusion criteria, elderly people from all the old age homes present in the Jaipur city were included in the study.

Inclusion criteria

1. Elderly institutionalized individuals above the age of 60 years
2. Participants who could answer the questions

Exclusion criteria

1. Subjects who could not read or suffered from depression or other psychiatric problems
2. Subjects who could not speak

Study Tools :

WHO Oral health assessment, 1997 and GOHAI was used in the study.

Geriatric Oral Health Assessment Index (GOHAI) is a 12-item questionnaire, a self-reported measure designed to assess the oral health problems of older adults. It was developed to evaluate three dimensions of oral-health related quality of life including physical functions like eating, speech, swallowing; psychosocial functions like worry, concern about oral health, dissatisfaction with appearance, self-consciousness about oral health, avoidance of social contacts because of oral problems; pain or discomfort including the use of medication or discomfort from the mouth

Schedule of the Study

The study was systematically scheduled to spread over a period of 6 months. A daily and weekly schedule was prepared well in advance by informing and obtaining permission and consent from the

authorities. On an average 15 subjects were examined per day.

Data Collection

Dental caries and periodontal status was assessed using the dentition status and treatment need, community periodontal index, prosthetic status and prosthetic need was recorded on WHO Oral health assessment form. Quality of life was assessed using Geriatric Oral Health Assessment Index.

Details Of Clinical Examination

Personnel and Physical Arrangements

All the examinations were carried out by the investigator himself on the subjects who was assisted by a trained and cooperative recording assistant.

Type of examination

The subjects were examined by type III clinical examination.

Armamentarium

The following instruments were used in this study:

1. Plane mouth mirrors
2. CPI probes
3. Tweezers
4. Sterilized cotton pellets
5. Kidney trays
6. Chip blowers
7. Cotton holders
8. Examination Gloves
9. Disposable Mouth masks

Sufficient sets of autoclaved instruments were taken during the study to avoid the need to interrupt examination.

Statistical Analysis

The data was entered on to a personal computer and the analysis was done using the SPSS (statistical presentation software system) for windows (version 17). Descriptive statistics was carried out. The statistical significance was fixed at 0.05.

Results

Study was conducted to oral health status among elderly individuals aged 60 years and above. Oral health related quality of life using GOHAI index and to provide necessary data for oral health administrators to plan comprehensive programs to improve quality of life in elderly population. Out of 225 participants, 142 participants were in 60-65 years age group, 29 in 66-70 years age group, 33 in 71-75 years age group, 09 in 76-80 years age group, 09 in 81-85 years age group and 03 in 86 and above years of age. The data showed that majority of participants were from the age group 60-65 years. Mean age was calculated to be 67 years. More than half of the participants were female (55.1%) and rest were males (44.9%). Out of total 225 participants, 56.6% (n =125) were Illiterate, and 1.3% (n =3) were Professional. Most of the institutionalized elderly population was Unemployed (48.9%) while 1.3% were semi-professional. Question that How often did you limit the kinds or amounts of food you eat because of problems with your teeth or dentures, About 32% (n=72) of participants said never, while 5.3% (n=12) said they seldom limit the kind or amount of food.

Half of the participants (50.7%) were always able to swallow comfortably while only 1.3% could seldom swallow comfortably. The Teeth or dentures of 66.7% (n=150) participants never prevented them while those of 1.3% (n=3) often prevented them from speaking the way they wanted.

About half of the participants i.e. 50.7%(n=114) said they never did while 2.7% (n=6) said they often or always had limit their contacts with people. About 42.7% (n=96) said they never were, while 4% (n=9) said they seldom were pleased with the looks of their teeth, gums or dentures. About 35.6% (n=80) said that they never used while 2.7%(n=6) said they always used medication. About 28.0% (n=63) said that they sometimes were, while 4% (n=9) said they were very often worried. About 41.8% (n=94) participants never feel nervous while 1.3% (n=3) said that they very often feel nervous or self-conscious because of problems with their teeth, gums or dentures. More than half i.e. 53.8% (n=121) participants never feel uncomfortable while 1.3% (n=3) often feel uncomfortable eating in front of people because of problems with their teeth or dentures.

Table 1: Association of age with the responses to the GOHAI items.

GOHAI items	Responses (n)						Chi square	P value
	never	seldom	sometimes	often	Very often	always		
1	72	12	45	21	30	45	76.323	0.000
2	78	27	36	18	15	51	42.264	0.017
3	69	3	21	6	12	114	123.738	0.000
4	150	15	30	3	9	18	106.571	0.000
5	50	18	66	12	32	47	58.710	0.000
6	114	27	57	6	15	6	59.742	0.000
7	96	9	78	12	12	18	85.936	0.000
8	80	37	72	21	9	6	34.885	0.090
9	47	58	63	18	9	30	97.609	0.000
10	94	68	39	15	3	6	44.506	0.010
11	121	56	30	3	9	6	72.738	0.000
12	60	30	51	24	24	36	94.902	0.000

The above table shows the association of age with the responses to the GOHAI items. There was statistically significant value for all the GOHAI items (except GOHAI item 8) as the p value was less than 0.05.

Discussion

The present study was conducted to assess oral health status among elderly individuals aged 60 years and above. Oral health related quality of life was assessed using GOHAI index and to provide necessary data for oral health administrators to plan comprehensive programs to improve quality of life in elderly population. The Geriatric Oral Health Assessment Index (GOHAI) is an example of a patient-based assessment of oral health problems commonly affecting elderly adults. More recently, it has been used with populations of younger adults. As the GOHAI appeared to have acceptable reliability and validity in all ages, it was recommended that the name of Geriatric Oral Health Assessment Index (GOHAI) be changed to the General Oral Health Assessment Index (GOHAI).[3] A variety of oral health-related quality-of-life instruments have been developed in the past 20 years as a result of increased concern about the impact of oral conditions on a person's quality of life. In the present study, Geriatric Oral Health Assessment Index (GOHAI) was used which is an example of a patient-based assessment of oral health problems commonly affecting elder adults. More recently, it has been used with populations of younger adults. The GOHAI has acceptable reliability and validity in all ages. It has been recommended that the name of GOHAI be changed to the General Oral Health Assessment Index (GOHAI).[4]As GOHAI is able to detect oral health changes over time and to measure the effect of oral treatment[5-8], hence GOHAI was used in the present study to evaluate quality of life.

Conclusion

Oral diseases and disorders can affect general health, wellbeing and quality of life

in geriatric individuals. The relationship between tooth loss and nutritional intake is important. As people age, their diminished physical capacity and decreased income adversely affects their ability to maintain their teeth. The Geriatric Oral Health Assessment Index (GOHAI) is an example of a patient-based assessment of oral health problems commonly affecting elderly adults. More recently, it has been used with populations of younger adults. As the GOHAI appeared to have acceptable reliability and validity in all ages, it was recommended that the name of Geriatric Oral Health Assessment Index (GOHAI) be changed to the General Oral Health Assessment Index (GOHAI).

Recommendations

The present study describes in the geriatric population; majority of the participants were from upper lower socio-economic status with poor oral health status. Majority of the elderly population were unemployed and had no source of income for livelihood. Considering the fact following recommendations can be done

1. Similar studies all over India are recommended. The data collected can be pooled and analyzed.
2. Geriatric dental clinics can be encouraged, where treatment is done on priority basis for such patients with no or minimal cost.
3. Oral hygiene awareness camps can be organized for geriatric population.
4. Non-profit insurance schemes can be effectively designed for such populations where they can avail quality oral health care.
5. Inclusion of geriatric oral health concerns in National Oral Health Policy will certainly benefit them.
6. Adoption of old age homes from educational institutions for better oral health awareness and care.
7. The prosthetic needs of the patients can be taken care by arranging screening and treatment camps.

8. Better oral care can prevent functional edentulism in patients. Treating the periodontal disease and dental caries at the earliest can be planned.

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