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Original Research Article

# Oral Health Status of Geriatric Population: Cross Sectional Study

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**Abstract**

**Introduction:** 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).

**Aim and objectives:** Oral health related quality of life using GOHAI index.

**Methodology:** Visit old age homes were present in the Jaipur city. 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:** About 34.7% (n=78) never had any trouble biting or chewing any kind of food. Half of the participants (50.7%) were always able to swallow comfortably. 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 29.3% (n=66) said that they were sometimes able to eat without feeling discomfort while 5.3% (n=12) were often able to eat without discomfort.

**Conclusion:** The study focus on the need to conduct similar studies with more diverse population and influence the policy makers in the country to include geriatric oral health care.

**Keywords:** GOHAI, Geriatric Population, Oral Health.



## Introduction

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] OHRQoL has been studied over the past 15 years, with the development and testing of measures designed to assess the functional, social and psychosocial outcomes of oral disorders using self-reporting questionnaires. 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. Frequently used questionnaire are the Oral Heath Impact Profile (OHIP), the Oral Impacts on Daily Performance (OIDP) and Geriatric/General Oral Health Assessment Index (GOHAI).[3]

## Material And Methods

A cross sectional study was conducted of 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

### 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.

### 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 assess dental caries, periodontal status and prosthetic status among elderly individuals aged 60 years and above.

**Table 1: Distribution of study participants according to Age-group.**

| Age group | Frequency | Percentage (%) |
|---|---|---|
| 60-65 | 142 | 63.1% |
| 66-70 | 29 | 12.9% |
| 71-75 | 33 | 14.7% |
| 76-80 | 09 | 4% |
| 81-85 | 09 | 4% |
| 86-90 | 03 | 1.3% |
| Total | 225 | 100% |

Participants belonging to different socio-economic status. Majority of participants i.e. 113 (50.2%) were from upper lower class whereas 95 (42.2%) participants were from lower class and 9 (4%) participants were from lower middle class.

**Table 2: Distribution of study participants according to Gender.**

| Gender | Frequency | Percentage (%) |
|---|---|---|
| Male | 101 | 44.9% |
| Female | 124 | 55.1% |
| Total | 225 | 100% |

Amongst 225 participants, 60 (26.7%) were edentulous. 6.7 % (n=15) had upper edentulous arches while 1.3% had lower edentulous arches. A majority of participants (94.7%) did not have removable partial dentures while 4% (n=9) had removable partial denture in upper arch and 1.3% (n=3) in both the arches. A majority of participants (98.7%) did not have fixed partial denture while 1.3% had it in the upper arch.

## 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. 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 was elderly institutionalized individuals above the age of 60 years and participants who could answer the questions. Exclusion criteria was subjects who could not read or suffered from depression or other psychiatric problems and subjects who could not speak.[4]GOHAI is designed to assess oral health status on two levels: the patient level and the population level. On the patient level, the GOHAI indicates when a comprehensive oral examination or dental referral is necessary. It provides valuable information about oral symptoms, and psychosocial and functional problems that are bothersome to the patient. For the non-dental provider, it serves as a means of systematically collecting information about a patient's oral complaint to assist in deciding when a dental referral is appropriate. On the population level, for epidemiological purposes, this instrument is a cost-effective means of gathering information about people's oral health related quality of life. The GOHAI facilitates patient outcome evaluations needed to capture the effect of treatment on patient populations[2]. In the present study also GOHAI was found to be a simple and effective method of evaluating the oral health related quality of life of the complete denture patients.[5-8]The GOHAI, which was originally developed and tested among well-educated, elderly Americans, has also been demonstrated to be suitable for geriatric poorly educated populations.

Hindi is official language of India. The population of Jaipur is multicultural; hence, language use varies not only across different areas but also among the different ethnic groups. Due to the cultural diversity, there was much deliberation over the best way to express the GOHAI items in Hindi. This necessitated pretests of the translations.[3]

## Conclusion

In India there are no policies that will look into the nutritional and dental health of elderly. Very few Indian studies are conducted to see the effect of complete dentures on chewing ability, oral health related quality of life and nutritional status on edentulous participants and there is need of more data in this regard. Therefore, this study was conducted to assessment of oral health related quality of life and oral health status among institutionalised elderly population in Jaipur city.

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. A total of 225 elderly population participated in 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. 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.

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