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TO ASSESS THE RELATIONSHIP BETWEEN ORAL HEALTH STATUS AND DIETARY INTAKE AND ITS IMPACT ON ORAL HEALTH RELATED QUALITY OF LIFE AMONG INSTITUTIONALIZED ELDERLY POPULATION IN KANPUR: A CROSS – SECTIONAL STUDY

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ABSTRACT

Introduction: Around 11.5% of the world's population is 60 years of age or older. Numerous elements of general health can be affected by dental disease, and health issues can also have an effect on oral health. Elderly people have a higher risk of tooth loss, edentulism, periodontal disease, untreated dental caries, mucosal lesions, and xerostomia are all related to tooth loss. According to the previous study, residential care facilities for the elderly had the worst oral health problems. With this context, we set out to evaluate the association between dietary intake and oral health status as well as how it affects quality of life connected to oral health.

Methodology: - A cross- sectional study was conducted among 400 participants in all the old age homes registered with the Department of Social Welfare, Kanpur Nagar. The oral health status was evaluated by using WHO oral health assessment form (2013) and OHRQoL was assessed using GOHAI-12, OHIP-14 and the association between Dietary Intake and OHRQoL was assessed. The results were analysed using SPSS Version 23.0.

Results: About 40% (160) participants were edentulous. Caries and missing teeth prevalence was also high. About 56% (224) participants never visited dentists before. Participants who interrupt meals due to their oral health problems were 33.8% (135). 50% (200) participants were uncomfortable in eating food. About 42.3% (169) were having pain in their mouth at some time.

Conclusion: Institutionalized elderly showed higher prevalence of poor oral health status and unmet needs for dental care that were associated with poor OHRQoL. Dietary intake was reduced in the presence of poor oral health. Therefore, it is necessary to improve health and social importance of oral health care for institutionalized elderly.

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Keywords: Oral health status, older adults, oral health related quality of life, dietary intake, Old-age homes.

INTRODUCTION

Old age is a normal inescapable, physiological phenomenon. Oral health status may be a particularly important factor for the nutrition of older people.

Oral disease can have an impact on many aspects of general health and health conditions can in turn have an impact on oral health. Elderly is more likely to experience tooth loss, edentulism, periodontal disease, untreated dental caries, mucosal lesion and xerostomia. From the previous study it was evident that elderly living in residential care have worst oral health conditions. With this background we planned to assess relationship between oral health status and dietary intake and its impact on oral health related quality of life.

In general ageing is defined in terms of chronological age with a cut of age of 60 or 65 years. This definition is partly due to fact that retirement age is also similar to this cut off age.[1]

Globally the 60 plus population constitutes about 11.5 % of the total population of 7 billion. By 2050, this population is projected to increase to about 22 % when the elderly will outnumber children (below 15 years of age).[2] In Asia the proportion of the elderly is expected to increase from 10.5% to 22.4% during 2012 to 2050.

The south Asian Association for Regional Co-operation (SAARC) countries however is likely to have only about 21 % population above 60years by 2050. Within the SAARC countries Bangladesh 22.4 %, Bhutan 24.1 %, Maldives 31.2 % and Sri Lanka 27.4 %. While in India the share of proportion over the age of 60 is projected to increase from 8% in 2015 to 19 % in 2050.[2,3]

In India, the southern states are front runners in population ageing along with Himachal Pradesh, Maharashtra, Odisha and Punjab. The central and northern states such as Uttar Pradesh, Rajasthan, Bihar, Madhya Pradesh, Jharkhand, Chhattisgarh and Uttarakhand have much lower proportion aged population.In Uttar Pradesh the proportion of elderly population to the total

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population has increased from 6.8 % in 1991 to 8.1 % 2021 and is projected to reach 14.9 % in 2036.[5]

Oral health is vital to the general health and well-being of all.[4] The mouth reflects a person's health and well-being throughout life. Oral diseases can have an impact on many aspects of general health and health conditions can in turn have an impact on oral health.[6,7].

This population of dental patients have different treatment needs than the younger patient.They are most likely to experience tooth loss, edentulism, periodontal disease, untreated dental caries, mucosal lesion and xerostomia.

Most survey indicates that the elderly who lives in residential care have the worst oral health conditions. There is much interest in the oral health problems of elderly and its influence on nutrition. Poor oral health has negative impact on the dietary state and nutritional status when the capacity to chew and eat is diminished.[8]

In elderly population food selection is limited in people with edentulism when compared to natural dentition, masticatory efficiency is affected by the presence of teeth, the number of functional teeth, and the use of prosthesis, which influence the choice of food. Tooth loss in elderly people has been related to changes in food intake and nutritional deficiency.[9]

Oral health plays an important role in the determination of quality of life. Numerous instruments have been developed to evaluate the oral health aspect of quality of life including Oral Health Impact Profile (OHIP), Oral Impact on Daily Performance (OIDP) and General Oral Health Assessment Index (GOHAI) questionnaires.[10.11]

These questionnaires explore the functional, social and psychological impact of oral disorders. The GOHAI (Geriatric Oral Health Assessment Index is a12-item assessment questionnaire originally developed by Atchison and Dolan for the use with elderly population.[2]It measures patient reported oral functional problems together with the psychosocial impact associated with oral disease. GOHAI has been validated in different languages including Hindi.[34]Oral pain, denture dislodgement and xerostomia causes masticatory discomfort[27] and GOHAI has been shown to be sensitive to the provision of dental care, more appropriate when considering functional and psychological impacts.[12]

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Elderly people in residential homes have been frequently prevented from achieving good dental care and denture hygiene due to lack of information, falling eye sight and impaired dexterity.[13]

In India, oral health problems and the treatment needs in the geriatric population of old age homes are not fully documented in the literature. Since the use of dental health services is low among institutionalized geriatric individuals, thus, assessing the relationship between oral health status and dietary intake would be important for planning better oral health.

One such attempt was to assess the relationship in the Kanpur Nagar. Hence this study was carried out to obtain the data to assess the relationship between oral health status and dietary intake and its impact on oral health related quality of life among institutionalized elderly population of Kanpur Nagar.

AIM & OBJECTIVES

Aim

To assess the relationship between Oral Health Status and dietary intake and its Impact on Oral Health Related Quality of Life (OHRQoL) among Institutionalized elderly in Kanpur.

Objectives

- To assess the Oral Health Status using modified WHO proforma (2013)
- To assess the Oral Health Related Quality of Life using GOHAI & OHIP -14.
- To find association between Oral health status and dietary intake among Institutionalized elderly in Kanpur.
- To evaluate impact of Oral Health Status and dietary intake on Oral Health Related Quality of Life among Institutionalized elderly in Kanpur.

METHODOLOGY

This study was a cross-sectional study conducted among the institutionalized elderly population above 60 year of age group of Kanpur Nagar.

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Study Area: The area covered was residential old age homes in Kanpur Nagar District.

Source Of Data: Elderly people in the age group above 60 years of age living in all old age homes of Kanpur Nagar District.

Study Design and Study Population: A cross-sectional study was conducted among residential elderly residing in old age homes of Kanpur Nagar District.

Method of Collection of Data: All the old age homes registered with the Department of Social Welfare, Kanpur Nagar.

- A total of 38 old age homes are there in Kanpur.
- Old age home was sampling frame, all the people above 60 years of age and residing in those homes for more than 6 months, and those who were available for the examination will be considered.

Sample Size Sampling Method

- Pilot study was conducted on 38 participants to assess the comprehension of the questionnaire and to determine sample size.
- Prevalence of dental caries was 50%; from that prevalence sample size was calculated.
- Sample size was calculated using the formula (from Epi, Version3, Open-source calculator SSPropor).

Sample size $\boldsymbol{n = \left[(N_p(1-p)\right]/\left[(d^2/z^2_{1-a/2}{}^{*}(N-1)+p(1-p)\right]}$

Where *n* (total population of Kanpur) = 2,765,348

P (prevalence) = 50%,

D (confidence limit) = 1%

Z=1.96

At 95% confidence level sample size is 385.

Sampling Methods:

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Sample was selected using cluster random sampling method. A total of 38 old age homes are registered with the Department of Welfare and Population Development under the aged persons Act 1967. Out of all 38 old age homes 9 were selected using cluster random sampling method. From each selected old age homes, all subjects who fulfilled the eligibility criteria were selected for the study. The sample was collected till the desired sample size was achieved.

Ethical and Administrative Approvals

Before initiating the study, the proposal was submitted to the Institutional Review Board (IRB) at Rama Dental College, Hospital and Research Centre, Kanpur. The study received ethical clearance from the Ethical Committee. Additionally, permissions were obtained from the authorities of the old age homes involved in the study. Participants were provided with detailed information sheets in Hindi and English, which explained the study's purpose, procedures, benefits, and risks. For illiterate participants, the investigator read the information aloud. Written informed consent was obtained from all willing participants.

Training and Calibration

The study's clinical examinations were conducted by a single examiner who underwent training and calibration in the Department of Public Health Dentistry. A dental intern assisted in recording findings and in conducting interviews and examinations. The study proforma was pre-tested to ensure clarity and accuracy in recording data.

Eligibility Criteria

- Inclusion Criteria:
    - Individuals aged 60 years or older.
    - Residents of the old age home for at least six months.
    - Present on the examination day.
    - Provided informed consent.
- Exclusion Criteria:
    - Individuals with physical or mental disorders.
    - Individuals refusing oral examination.

Data Collection

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Data was collected using a structured questionnaire and clinical examination. The collection process included:

- **Questionnaire Sections:**
  - Section 1: Socio-Demographic Details—captured information such as name, age, gender, marital status, religion, and duration of stay in the old age home.
  - Section 2: Geriatric Oral Health Assessment Index (GOHAI)—a 12-item questionnaire assessing functional, psychosocial, and pain/discomfort aspects of oral health. Responses were categorized into "always," "sometimes," and "never."
  - Section 3: Oral Health Impact Profile (OHIP-14)—assessed the impact of oral health problems on an individual's life.
  - Section 4: WHO Proforma (2013)—used for evaluating oral health status and treatment needs, focusing on dentition status, Community Periodontal Index (CPI) with attachment loss, prosthetic status, and prosthetic needs.
  - Section 5: Diet Diary—participants recorded their food intake over seven days, and caloric content was assessed using Indian food tables from the National Institute of Nutrition.
  - Section 6: Clinical Examination—assessed oral health status using the WHO Oral Health Assessment form. Examination was conducted with a plain mouth mirror, straight probes, tweezers, CPITN probes, and other necessary instruments.

Scheduling and Infection Control

The study was planned over 6-9 months. Each clinical examination took approximately 5 minutes, while completing the questionnaire took around 20 minutes. Infection control measures included the use of disposable masks and gloves, sterilization of instruments, and chemical disinfection methods when needed. Any detected oral disease was reported to participants, and emergency cases were referred to the Rama Dental College, Hospital, and Research Centre.

Statistical Analysis

Data were analyzed using SPSS version 23.0 with descriptive statistics to calculate means and percentages. Statistical tests included:

- Chi-Square Test: Analyzed categorical data to compare observed and expected values. Statistical significance was set at a p-value less than 0.05.

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- ANOVA: Used to evaluate relationships between dependent and independent variables across three or more groups.

Modifications and Scoring

- Dentition Status and Modified CPI:
  - For the DMFT (Decayed, Missing, Filled Teeth) index, "0" (sound teeth) was marked as 1 (absence of condition), and 1-5 (decayed, missing, or filled teeth) was marked as 2 (presence of condition).
  - For CPI, "0" (absence of pockets) was marked as 1, while pockets 1 and 2 (shallow and deep) were collectively marked as 2 (presence of condition).
- GOHAI Scoring:
  - Scores ranged from 12 to 60, with classifications: 57-60 (Good), 51-56 (Fair), and less than 50 (Poor). Scores above 50 were considered Good, and below 50 were Poor.
- OHIP Scoring:
  - The total score ranged up to 56. Oral Health-Related Quality of Life (OHRQoL) was categorized as Good (less than 35) or Poor (35 or more).

This summary encapsulates the study's ethical approval, data collection methods, and analytical approach, highlighting the processes involved in examining the oral health status of elderly individuals in old age homes.

RESULTS

The present study was conducted to find Relationship between oral health status and dietary intake and its impact on oral health related Quality of life among institutionalized elderly.

Distribution of the mean age and standard deviation of the study population

The mean age of the study population was 69.42 years and the standard deviation was 7.703. Maximum age of the study population is 95years and minimum being 60years.

Distribution of Study Population According To Their Percentage Of Response To Each Item In The GOHAI Index Questionnaire

When assessed regarding the problems reported according to GOHAI questionnaire the maximum number of patients 135 (33.8%) had to limit the kind and amount of food they eat due

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to problem with their mouth or dentures. The 223 (55.8%) were unable to eat anything without feeling discomfort. 154 (38.5%) were having trouble in biting or chewing any kinds of food, such as firm meat or apples. 190 (47.5%) never pleased with their looks of their teeth, gums or dentures.

Distribution of Study Population According To Their Percentage of Response To Each Item In The OHIP-14 Questionnaire.

When assessed regarding the problems reported according to OHIP-14 questions, 184(46.1%) had painful aching in their mouth or denture,310(77.5%) were uncomfortable to eat any foods because of the problems with their teeth or mouth 258(64.6%) reported the problems for the questions if they had to interrupt their meals because of the problems in their mouth and teeth, if their diet has been unsatisfactory due to the condition of their mouth and teeth.255(63.8%) had unsatisfactory diet because of the problems with their teeth or mouth or denture.

Distribution of Study Population According To Their Oral Health Related Quality Of Life

The 10.7% (n=43) had good oral health related quality of life when compared to 89.2% (n=357) who had poor oral health related quality of life. In functional domain 58.7% (n=235) had poor oral health related quality of life. In pain /discomfort domain 60.6% (n=242) had poor oral health related quality of life. In psychosocial domain 71.2% (n=285) had poor oral health related quality of life.

Association of Demographic Character and Oral Health Related Quality Of Life (GOHAI)

The study analyzed the association between various demographic factors and oral health-related quality of life (OHRQoL) using chi-square tests, with a significance level set at $P<0.05$. Gender did not show a significant association with OHRQoL ($P=0.376$). Among males, 6.2% reported good OHRQoL compared to 58% with poor OHRQoL, while 4.5% of females reported good OHRQoL versus 31.2% with poor OHRQoL.

Education, however, had a highly significant association with OHRQoL ($P=0.000$). Those without formal education had 4.5% reporting good OHRQoL, while 36.5% had poor OHRQoL. Similarly, 1.2% of those with intermediate education and 1.7% with pre-university education had

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good OHRQoL, compared to 9.5% and 20% with poor OHRQoL, respectively. Only 1% of those with a graduation degree had good OHRQoL, with 2.5% experiencing poor OHRQoL.

Marital status also significantly affected OHRQoL (P=0.032). Among married individuals, 3.7% reported good OHRQoL compared to 31% with poor OHRQoL. Conversely, 7% of single or widowed participants had good OHRQoL, while 45.2% had poor OHRQoL.

There was no significant association found between the duration of stay in an old age home and OHRQoL (P=0.654). Similarly, the timing of the last dental visit did not significantly affect OHRQoL (P=0.643), with negligible percentages of those who had visited a dentist within the last six months or never showing good OHRQoL. Overall, the analysis highlights that education and marital status have a notable impact on OHRQoL, while duration of stay and dental visit frequency do not significantly influence it.

Summary of Associations with Oral Health-Related Quality of Life (OHRQoL)

The study analyzed how various factors affect the Functional, Pain/Discomfort, and Psychosocial domains of the General Oral Health Assessment Index (GOHAI) and the Oral Health Impact Profile (OHIP-14). Demographic characteristics, duration of stay in old age homes, and last dental visit were evaluated for their association with these domains.

Demographic Characteristics and GOHAI Functional Domain:

Education: A significant association (P=0.001) was found with education level. Those with no formal education had a higher rate of poor oral health-related quality of life (33.5%) compared to those with pre-university education (18.5%).

Marital Status: There was a significant association (P=0.000) between marital status and the functional domain. Marital status also impacted the last dental visit.

Duration of Stay: A trend (P=0.089) was observed where those who had stayed in an old age home for 0.5-3.5 years reported better oral health-related quality of life compared to those who had stayed longer.

Last Dental Visit: This was significantly associated (P=0.000) with functional domain, showing that longer intervals between dental visits correlated with poorer oral health-related quality of life.

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Pain/Discomfort Domain of GOHAI:

Last Dental Visit: A strong association (P=0.000) was observed. Those who had not visited a dentist in over 6 months reported poorer oral health-related quality of life, while those who visited regularly reported better quality.

Marital Status**:** There was a significant association (P=0.000) indicating that marital status affected the pain/discomfort domain, with widow/widowers showing poorer outcomes.

Psychosocial Domain of GOHAI:

Gender: Males had a significantly poorer psychosocial domain score (P=0.023), with a higher percentage experiencing poor quality of life compared to females.

Education: A significant association (P=0.003) indicated that individuals with no formal education had poorer psychosocial outcomes compared to those with pre-university education.

Marital Status**:** Significant (P=0.000) impact on psychosocial domain was noted, with married individuals showing a mixed impact compared to single or widowed individuals.

OHIP-14 and OHRQoL:

Education: There was a strong association (P=0.000) between education and OHIP-14, where lack of formal education was linked to poorer outcomes.

Gender: Significant differences (P=0.003) were found, with males generally reporting better OHIP-14 scores compared to females.

Last Dental Visit: This was significantly associated (P=0.010) with various OHIP-14 domains, reflecting that infrequent dental visits negatively affect oral health-related quality of life.

Oral Health Status and OHRQoL:

Periodontal Health: A highly significant association (P=0.002) was found between periodontal health and GOHAI. Individuals with periodontal disease had poorer oral health-related quality of life.

Loss of Attachment: There was a significant association (P=0.000) with GOHAI, indicating that those with attachment loss experienced poorer oral health-related quality of life.

DMFT (Decayed, Missing, and Filled Teeth): Significant (P=0.003) association showed that individuals with DMFT present had better GOHAI scores compared to those without DMFT.

Dietary Intake and OHRQoL:

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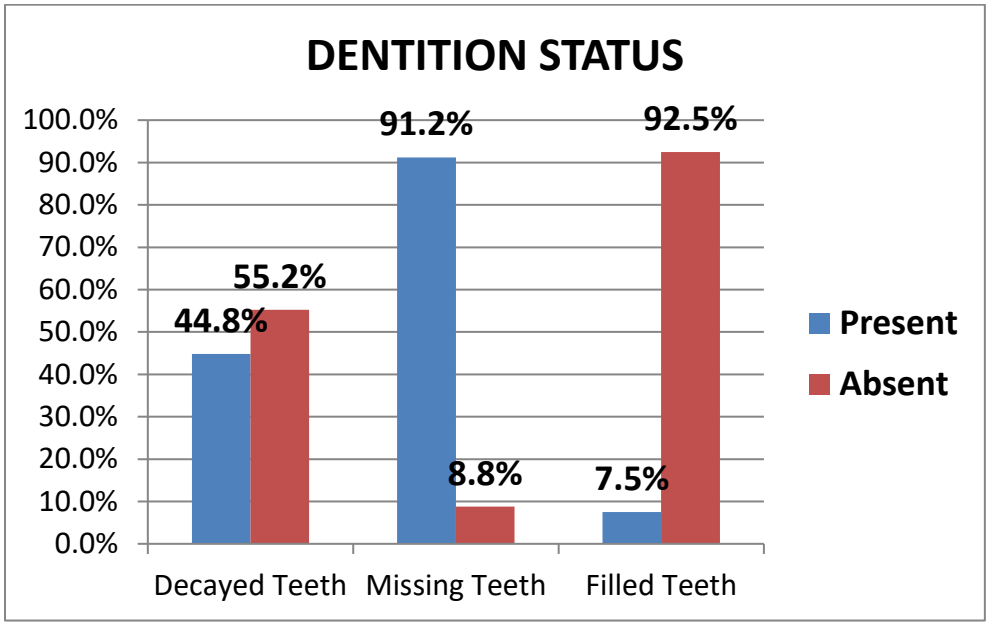
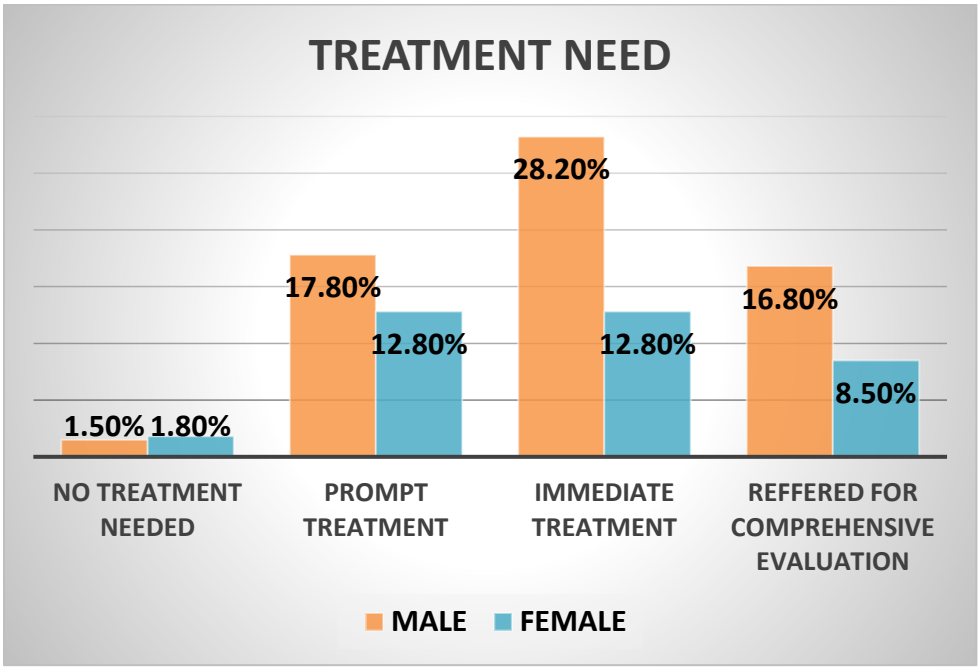
Caloric Intake: Significant (P=0.002) associations were observed where individuals with better oral health-related quality of life had higher caloric intake compared to those with poor quality of life.

GRAPH 1- SHOWS THE DISTRIBUTION OF THE STUDY SUBJECTS ACCORDING TO THEIR DENTITION STATUS.



GRAPH 2- DISTRIBUTION OF THE STUDY SUBJECTS ACCORDING TO THEIR PERCEIVED TREATMENT NEED.



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DISCUSSION

Oral Health and Its Importance

Oral health plays a crucial role in overall health, especially among the elderly, where oral diseases are a prevalent form of chronic condition. These diseases are significant public health issues due to their high prevalence and their impact on individuals and society. Research has demonstrated that oral health status affects the ability to consume certain foods, which in turn influences dietary intake and quality of life.[14,15]

A cross-sectional study was conducted involving 400 institutionalized elderly residents in Kanpur Nagar, India. The study aimed to explore the relationship between oral health status, dietary intake, and its impact on oral health-related quality of life (OHRQoL). Nine old age homes were selected from a total of 38 in the city through cluster random sampling.

To assess OHRQoL, the study used the Geriatric Oral Health Related Quality of Life Index (GOHAI) and the Oral Health Impact Profile (OHIP-14). Dietary intake was evaluated through a seven-day diet diary, with caloric content calculated based on tables from the National Institute of Nutrition Hyderabad.[14,16] The study sample included 257 males (64.2%) and 143 females (35.8%), aged 60 to 95 years, with a mean age of 69.42 years. The educational background varied, with 41% having no formal education and only 3.5% holding a graduation degree. Many participants had not visited a dentist recently, with a significant number not having seen one in over six months. [18]

The study found a high prevalence of Decayed, Missing, and Filled Teeth (DMFT) at 96.8%. Periodontal disease was observed in 28% of the participants. Most of the population lacked prosthetics in both the upper (85.5%) and lower arches (91.8%), which is different from some international studies that report higher prosthetic use.[17]

Association of socio-demographic characters with oral health related quality of life

Gender

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The study found no significant association between gender and OHRQoL using GOHAI. However, OHIP-14 indicated a significant association, with males showing poorer OHRQoL. This discrepancy might be due to differences in scoring systems between GOHAI and OHIP-14. When examining individual domains, there was a significant association between gender and the psychosocial domain, with males experiencing greater psychosocial impacts.[19,20]

Education

A significant association was found between education and OHRQoL using both GOHAI and OHIP-14. Participants with no formal education reported poorer OHRQoL, consistent with other studies linking higher education to better oral health outcomes. Education significantly affected the functional and psychosocial domains of OHRQoL. This is in consistent with the other study conducted in different countries.[21,22,23] this is due to subjects with higher educational has more income hence paid more attention to their oral health and utilized more dental services, therefore leading to a better oral health related quality of life.[24]

Marital Status

Marital status was significantly associated with OHRQoL. Married participants had better OHRQoL compared to single or divorced individuals. This aligns with studies suggesting that marital status influences emotional well-being and quality of life. According to OHIP-14 marital status showed significant association with oral health related quality of life ($P \geq 0.05$). As comparison to GOHAI, OHIP-14 only 20.3% married participants had poor oral health related quality of life.[22,23] Married people enjoy their life more than who are widowed or divorced in elderly. The “emotional turbulence" that comprises three subthemes including uncertainty, perceived worries, and living with fears has influence on quality of life.[8]

Association of last dental visit, duration of stay in the old age homes with oral health related quality of life.

Duration of Stay in Old Age Home

The duration of stay in the old age home did not show a significant association with OHRQoL, which contrasts with other studies where longer stays were linked to poorer oral and mental

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health. 47.5%% of the participants who had stayed in the old age home for 0.5-3.5year had poor oral health related quality of life and 38.5% of the participants who had stayed in the old age home for 3.6-7.5 years had poor oral health related quality of life. the finding of this study is in contrast with the other study.[21,25] This may be due to reason that duration of stay in the old age home takes a toll on the oral health status and mental health as well due to lack of medical facilities.[7]

Last Dental Visit

No significant association was found between the last dental visit and OHRQoL using GOHAI. However, OHIP-14 showed a significant association, suggesting that longer intervals since the last dental visit might negatively impact OHRQoL.

Association of oral health status with oral health related quality of life.

Periodontal Status

There was a significant association ($P \geq 0.05$) between periodontal conditions and OHRQoL, particularly in the pain and discomfort domain. The prevalence of periodontal disease was linked to poorer OHRQoL, consistent with other research.

Loss of Attachment

Loss of attachment was significantly associated ($P < 0.05$) with poorer OHRQoL. Participants with greater attachment loss reported worse OHRQoL, similar to findings from other studies. [79] This may be due to tooth mobility and anaesthetic loss of anterior interproximal papillae, which may be driving the observed poor oral health related quality of life and worse perceived oral health.[83]

DMFT

A significant association was found between DMFT and OHRQoL ($P < 0.05$). Higher DMFT scores were linked to poorer OHRQoL, likely due to difficulties in eating and aesthetic concerns related to DMFT.

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Prosthetic Status

No significant association was found between prosthetic status and OHRQoL (P≥0.05). This finding is in line with some studies suggesting that the presence of prosthetics does not always improve OHRQoL. As individuals age, they are more likely to consider minor or even severe oral health problems as insignificant at this point in their lives.[26] As a result, people often express greater satisfaction with their oral health probably as the result of lower expectations.

Dietary Intake and OHRQoL

A significant association was observed between dietary intake and OHRQoL (P<0.05). Participants with higher dietary intake had better OHRQoL, especially in the functional domain related to eating, speaking, and swallowing. This is consistent with studies linking nutritional status to quality of life. It showed significant association only with the functional domain of oral health related quality of life. This may be due to the reason that it is associated with eating, speaking and swallowing which can have an overall impact on the health of an individual quality of life.

Limitations of the study

- General health condition was not assessed in the present study. This was a limitation of this study as this could have affected both oral health status and their dietary intake.
- Questions were repetitive for both GOHAI and OHIP-14.
- This study was cross-sectional in nature; thus, we were prevented from drawing implication about causal relationships. So further longitudinal study with larger population is recommended.
- Dietary data was collected at only one point in time due to which dietary intake could not capture longitudinal changes.

RECOMMENDATIONS:

To individual

- The individuals should try to consume more healthy food.

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- To individual's responsibility is to adapt his or her oral care routine to prevent further breakdown and deterioration of hard and soft tissue.

To professional

- To reduce the burden of oral disease is the prime duty of the dental professional
- Dental professional may describe and educate people about prevention and explain the various treatment strategies for dental caries, periodontal diseases and edentulism and different treatment options available to them.
- Anticipatory guidelines for individual at risk through their dietary analysis, taking medical and dental histories to determine internal and external sources of aetiology and identifying a patient's susceptibility.
- Proper health education can be delivered to this particular group of elderly and their care takers. They can seek professional assistance from nearby dental college.

CONCLUSION

This study explored the relationship between oral health status, dietary intake, and OHRQoL among elderly residents in Kanpur. The findings highlight significant associations between oral health conditions and both dietary intake and OHRQoL.

Overall, the oral health status among institutionalized elderly individuals was notably poor, with most participants lacking prostheses despite having edentulous spaces. Their total caloric intake fell short of recommended levels, and a long duration in the old age home negatively impacted both dietary intake and oral health-related quality of life (OHRQoL). Many participants had either never visited a dentist or had not done so in over a year, reflecting a general neglect of oral health. Dietary intake was reduced in the presence of periodontal disease, decayed teeth, and edentulous spaces, with a noticeable lack of raw fruits and vegetables and a high starch diet. Despite many having good OHRQoL overall, the functional domain was most affected by poor oral health. Problems with biting, chewing, and sensitivity to food were common. Although a large number of missing teeth did not significantly impact psychosocial domains, indicating a lower perceived importance of oral health, dietary intake was closely linked to OHRQoL, with decreased intake correlating with poorer quality of life. Females and educated individuals

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showed better OHRQoL, as did those without dental issues and with higher dietary intake. The study highlights a strong association between oral health status, dietary intake, and OHRQoL.

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