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Research article

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### Oral health assessment among allied health science students –A cross sectional study

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#### ABSTRACT

##### Aims and background

There is overwhelming evidence that periodontal disease and dental caries affect the majority of population's especially young adults. Hence this study was taken to assess the oral health status of allied health science students using case history and oral indexes.

##### Methodology

In the study a total of 134 allied health science student's oral health was assessed using a detailed case history followed by, Decayed Missing Filled Teeth (DMFT) index, Oral Hygiene Index-Simplified (OHI-S) and Angles classification were assessed.

##### Results

Total of 134 allied health science students were included in study of which 84 (62.68%) were females and 50 (37.31%) were male. The mean DMFT index was 5.58. Males had higher DMFT index than females and this difference was statistically significant. ( P value- 0.046)

##### Discussion

Our study showed that almost all students brushed twice daily -91.76% probably as oral health education is given to all students entering allied health science stream at our university.

##### Conclusion

There should be more awareness sessions conducted so that they realize how important oral health is to their overall health.

**Keywords:** Oral health, Allied health, Students, Caries

#### INTRODUCTION

Oral health is often the most neglected aspect of health among most of students. Oral health is an inseparable part of general health. [1] India, a developing country, faces many challenges in

rendering oral health needs. The majority of Indian population resides in rural areas. [2] It is necessary to know the prevalence and distribution of oral health problems and understand the dental health practices that people follow. [3] Lack of awareness

about dental diseases has resulted in gross neglect of oral health. [4]

Previous literatures show a low correlation between years of schooling and literacy, with literacy being several grades below the attained educational level. Thus educational attainment, although easy to access, can be a poor proxy for literacy and does not accurately reflect an individual's ability to understand and use written information. [5] This is an important reason why many healthcare professionals have poor oral hygiene in spite of being well educated.

This study was undertaken mainly to assess oral health status of allied health students as in spite of they being educated lack significant knowledge in oral health. By assessing their oral health they can be better explained about their oral health status and knowledge about better maintenance be reinforced.

## METHODOLOGY

### Ethical clearance

Ethical clearance was obtained from institute's ethical committee.

### Sample selection

Convenience sampling was used for sample selection and a total of 134 allied health science students were included.

### Methods

The study was conducted at public health dentistry department of our college. Allied health science students in their first, second, and third year were included. Students after giving a written consent were asked about their demographic details following which they were asked about their oral hygiene practices such as how often do they brush their teeth, do they use inter dental aids and how often do they visit a dentist. Following this Decayed Missing Filled Teeth (DMFT) index, Oral Hygiene Index-Simplified (OHI-S) and Angles classification were noted.

DMFT Index was assessed based on criteria by World Health Organization (WHO). [6] Oral hygiene was evaluated using simplified oral hygiene index (Green & Vermillion, 1964). The OHI-S index consist of two components, debris index simplified (DI-S) and calculus index simplified (CI-S). [7] Angles classification of

malocclusion was used to assess molar relation of patients. [8]

### Statistical analysis

Data obtained were entered, and statistical analysis was done using social sciences (SPSS) TM software (version 10.05), (SPSS Inc., Chicago, IL, USA). Student-t test, ANOVA and post hoc were used for statistical analysis following which results were obtained and interpreted.

## RESULTS

Total of 134 allied health science students were included in study of which 84 (62.68%) were females and 50 (37.31%) were male.

Brushing habits were analyzed 123 (91.79%) of patients brushed twice daily while 10 (7.46%) brushed once daily and 1 subject (0.75%) brushed occasionally. (Figure-1) This data on subjecting to statistical analysis was found to be significant. (P value-0.00)

When type of aids used for brushing was analyzed 115 (85.82%) used brush, while 13 (9.70%) used neem stick and 6 (4.47 %) used fingers for brushing their teeth. (Figure-2) This data on subjecting to statistical analysis was found to be not significant. (P value-0.302)

Frequency of dental visit among study subjects showed that 60 (44.77%) visited dentist once a year, 35 (26.11 %) visited once in 6 months and 39 subjects (29.10%) had not been to a dentist before. This data on subjecting to statistical analysis was found to be not significant. (P value-0.439)

The mean DMFT index was 3.58. Males had higher DMFT index than females and this difference was statistically significant. (P value-0.046) The DMFT scores were higher for second and third years when compared to first years but this difference was not significant statistically. (P value- 0.384)

When OHI-S was assessed the debris index-simplified was higher in male's at 1.48 than in females-0.62 and the difference was statistically significant. (P value-0.038) Calculus index simplified was average of 2.32 in male's and 1.16 in females and this difference was statistically significant. (P value 0.044) Between the years of study no statistical significant difference in scores were noted. (P value- 0.484)

Angles classification was noted and 123 students had class 1 malocclusion, 9 had class 2 div

1, 2 had class 2 div 2 and none had class 3 malocclusion.

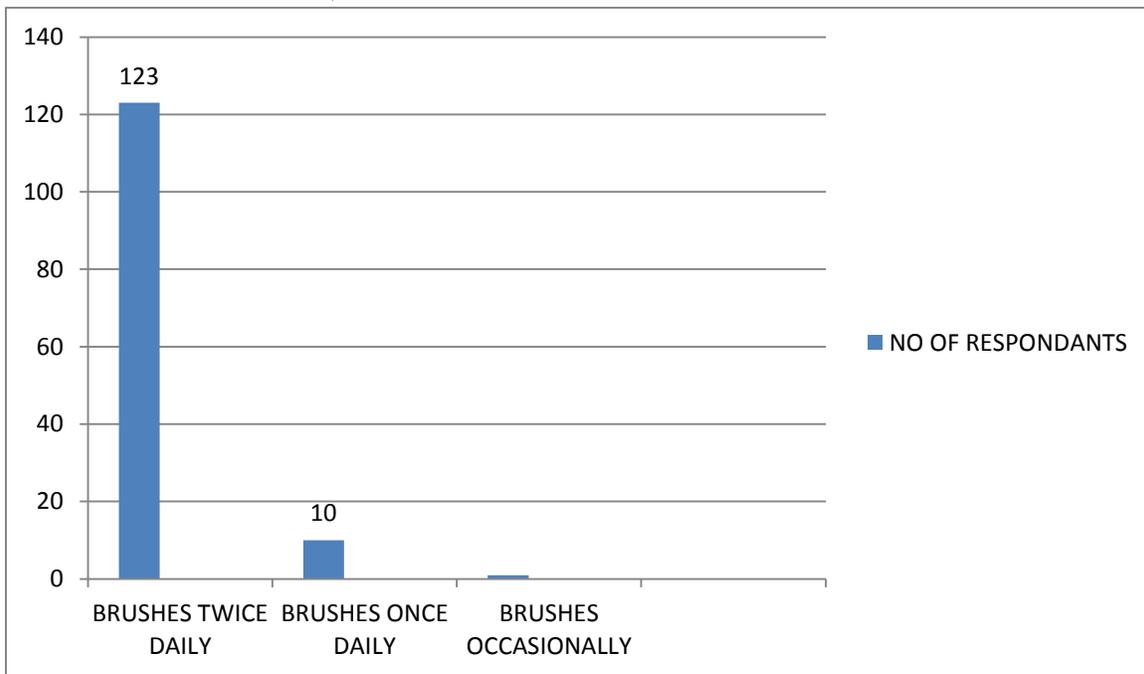


Figure-1: Frequency of tooth brushing

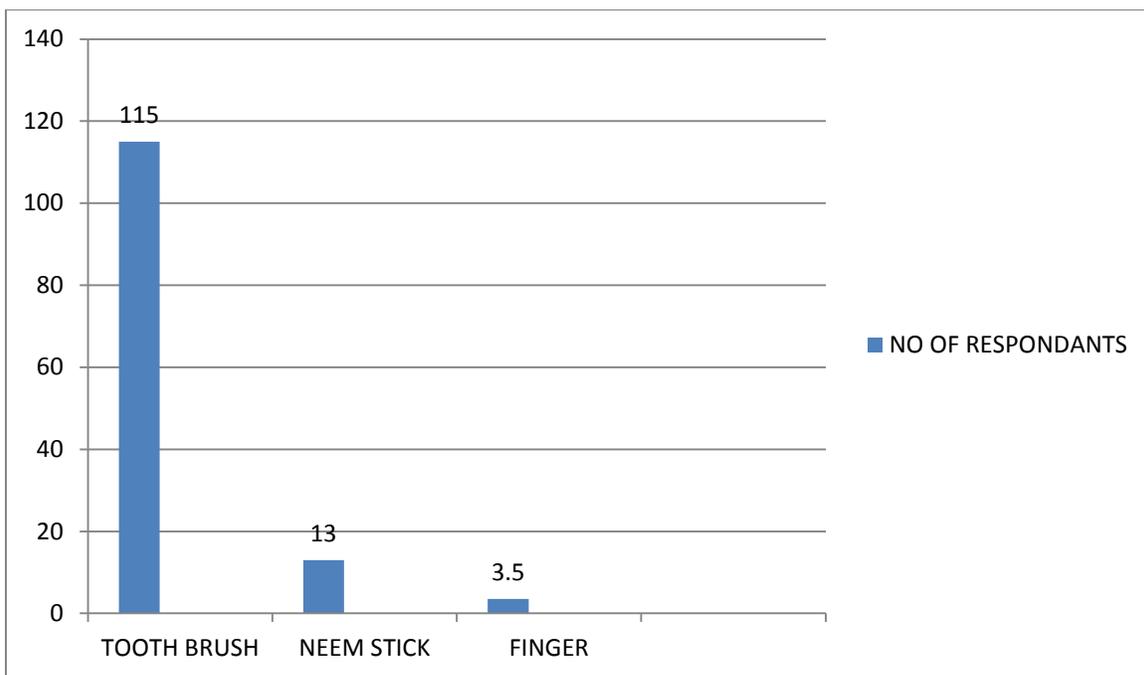


Figure 2: Aids used for brushing

## DISCUSSION

In our study 134 allied health students were examined of which 50 were male and 84 were females. The gender distribution was similar to Ali et al [9] probably because the health care sector has more female students than men.

Our study showed that almost all students brushed twice daily -91.76% which is contrary to results of Alsour et al [10] probably as oral health education is given to all students entering allied health science stream at our university.

Our study showed 29.10% students never had a dental visit, which is contrary to results of Alsrour et al [10], Imran et al [11] probably showing that there is lack of dental awareness in India than many other developing and developed countries.

Our study showed high DMFT among students which is contrary to results obtained by Carneiro et al [12] who showed lower DMFT scores among students. Our study showed higher DMFT index for male participants which was contrary to results obtained by Carneiro et al [12] probably because females in our sample were more conscious about their teeth than their male counterparts.

Our study showed poor hygiene maintenance by students owing to high OHI-S scores which is similar to results obtained by Carneiro et al [12] probably as students tend to neglect oral health practices as they often think them to be unnecessary or something not of importance.

Our study showed majority of students had Angle's class 1 malocclusion, which is similar to results obtained by Kaur et al [13] and Samdani et al [14]. The results are similar probably as age and population subset was a close match in these studies.

## CONCLUSION

The study clearly showed that there is significant lack of awareness amongst Allied health science students about oral health due to their poor dentition status and neglect. This issue has to be addressed in future so that better overall health can be insured for all allied health students. There should be more awareness sessions conducted so that they realize how important oral health is to their overall health.

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