

Awareness of oral health among undergraduate Medical Students of Vijayapura city: A cross-sectional survey

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Background: Oral health is integral to general health. Certain systemic diseases can manifest in the oral cavity. Many times an oral examination may lead to the diagnosis of systemic illness. Primary health centers are approached by the majority of the population for their health problems including oral health problems. Hence, general practitioners should have adequate knowledge about oral health which helps in early diagnosis of systemic diseases. Awareness of oral health among general practitioners may help promote oral health among the population. **Aim:** The present study was aimed to assess oral health awareness among undergraduate medical students in Vijayapura city. **Materials and Methods:** It was a cross-sectional questionnaire survey. The questionnaire consisted of pre-tested, closed-ended 21 questions. All the undergraduate students of BLDE (DU) Shri B M Patil Medical college hospital and research center were included in the study. Questions were related to oral health problems and their relation with general health. The data collected were tabulated, analyzed, and subjected to statistical analysis using the Chi-square test. **Results:** 57.33% of the participating students had good oral health awareness, 24.43% were found to have fair and 18.24% were found to have poor awareness of oral health. **Conclusions:** Overall the undergraduate medical students had good oral health awareness. Awareness of oral health was better among the final year undergraduate students.

Keywords: Medical students, oral health, knowledge, practices, awareness.

Introduction

The mouth is the mirror of systemic health or disease. Oral manifestations of systemic disease are potential indicators of the underlying conditions. Many systemic diseases have oral manifestations, and it is essential to recognize these symptoms to arrive at a proper diagnosis. Untreated or undertreated oral disorders affect an individual's quality of life significantly. They can affect the day to day activities, including the ability to chew, speak, and swallow¹. The ability to smile speak and communicate may further affect the social life of an individual². Oral health problems form significant public health problem³. Several studies have reported the close association of diseases like diabetes: cardiovascular disease, neurologic disorders, asthma with oral health⁴⁻⁷.

In the current health care facilities in India, medical practitioners are socially responsible for promoting the oral health of their patients⁸. Knowing the importance of oral health on the general health and wellbeing of an individual, the clinicians must be integrated with oral health promotion⁹.

. To promote and impart knowledge regarding oral health to others, firstly, the doctors need to be aware of the oral cavity and its diseases¹¹. Hence this study was undertaken to study the awareness of oral health among undergraduate medical students who are future doctors.

Materials and Methods

Study design: an observational, descriptive, cross-sectional questionnaire study. A self-structured, pre-tested questionnaire was used for the survey. All the questions were closed-ended, and the options were on a Likert scale (agree, disagree, neither agree nor disagree). The questionnaire was in English. The details about demography, oral hygiene measures are taken by the individuals were collected. There were 21 questions in addressing the knowledge regarding oral health, symptoms of oral diseases like gingivitis, periodontitis, dental caries, precancerous lesions, oral cancer. The reliability of the questionnaire was checked by the test and the retest method. All the students of second, third, and fourth-year MBBS studying in BLDE (DU) Shri B M Patil Medical college hospital and research center were included in the study. A total of 307 students participated in the study. All the necessary permissions were taken from the concerned authorities before commencing. The study was conducted from October to December 2019. The participation was voluntary. Questionnaires were distributed to students after the lecture class and were given 20 minutes to complete. The duly filled questionnaires were collected back from the students after the given duration. Discussion during the period was discouraged, and students were instructed to approach the investigator in case of doubts. The questionnaires thus collected were tabulated, analyzed, and subjected to statistical analysis using the chi-square test.

Results

Among the 307, 48.53% (n=149) males and 51.4% (n=158) females participated in the study. 57.33% (n=176) of the participants were having good, 24.43% (n=75) were having fair and 18.24% (n=56) were having poor oral health awareness.

Among the 2nd year students, 51.38% had good, 23.85% had fair, and 24.77% had poor oral health awareness. Among the 3rd year students, 54.95% had good, 24.18% had fair, and 20.88% had poor oral health awareness. Among the 4th year students, 65.42% had good, 25.23% had fair, and 9.35% had poor oral health awareness.

The students of the 4th year (64%) had slightly higher awareness about caries etiology than students of 2nd year (37%) and 3rd year (46%); however, this difference was not statistically significant ($P > 0.05$).

Only about 27% of the students were aware of the periodontal diseases and their effect on general health.

4th-year students had higher awareness (73%) regarding the etiology of oral cancer than the students of 2nd (19%) and 3rd year (28%). This finding was statistically not significant ($P > 0.05$). Overall, the students of the 4th year had higher oral health awareness than students of the 2nd and 3rd year; however, this was not statistically significant (Table 1).

Year in which the subjects are studying	Good		Fair		Poor	
	Male	Female	Male	Female	Male	Female
2 nd year n=109	24 (22.02%)	32 (29.35%)	13 (11.92%)	13 (11.92%)	18(16.5%)	09 (8.2%)
3 rd Year n=91	26 (28.57%)	24 (26.37%)	12(13.18%)	10 (10.98%)	11 (12.08%)	08 (8.79%)
4 th year n=107	32 (29.9%)	38 (35.5%)	09 (8.41%)	18 (16.82%)	04(3.73%)	06(5.60%)
Total N=307	82(26.71%)	94(30.61%)	34(11.07%)	41(13.35%)	33(10.75%)	23(7.49%)

	176(57.33%)	75(24.43%)	56(18.24%)
	$\chi^2=0.923235(p=0.630)$	$\chi^2=2.550704(p=0.279)$	$\chi^2=2.156744(p=0.340)$

Table 1. Distribution of students according to the oral health awareness

Discussion

The medical students of today are future doctors, and they need to possess accurate knowledge about oral health. This knowledge brings a positive behavior in themselves, which in turn influences their surrounding people, including their close friends and relatives. In the present study, overall, the students had good oral health awareness (57.33%). Similar findings were reported by Sandra Petrauskiene et al¹⁰. Our findings are contrary to the findings of Sujatha BK et al¹³, Usman et al¹⁴, Doshi et al¹⁵, Basheer et al¹⁰ where the medical students showed poor oral health knowledge. The difference in the findings may be due to changes in the curriculum, which undergoes revision from time to time.

The 4th year students had slightly better awareness than the 3rd year, and the 2nd year students this finding was similar to the reports of Sandra Petrauskiene et al¹², Sujatha BK et al¹³, and Yao et al¹⁶. The higher awareness may be due to their exposure to clinical subjects and attending the clinical postings.

The study, however, showed that awareness of the students towards loss of teeth and its consequences was poor; this finding was like reports of Sandra Petrauskiene et al¹².

The undergraduate medical students had poor awareness regarding periodontal diseases and their consequences. They were not aware of the indicators of periodontal diseases and its preventive measures. This was like the reports of Yao et al¹⁶.

Though there was good oral health awareness among the undergraduate medical students, it was not up to the expected level. The role of plaque in the initiation and progression of the disease was very poorly understood by the student's similar results have been reported by Yao et al¹⁵.

Periodontal diseases have been documented to be related to various diseases like cardiovascular diseases, cancer, hypertension, premature birth among pregnant women, low birth weight babies. It is important that the students have curriculum modification by adding an oral health component.

Conclusions

Within the limitations of the present study, it is an attempt to collect baseline data regarding the oral health awareness of undergraduate medical students. Though anonymity was adopted, the students would want to be socially desirable, and this might have affected the study results. Overall, the undergraduate students had a good awareness of oral health; however, their poor awareness regarding the etiology of dental caries and tooth loss consequences need to be addressed. These students are the prospective doctors increasing their awareness by inculcating in the curriculum or having a training program that may help. Early diagnosis and referral significantly reduce the burden on society.

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