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Original Research

Awareness of oral cancer diagnostic methods among undergraduate students: An original research

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ABSTRACT:
Aim: To assess the knowledge and attitude of undergraduate dental students about oral cancer**. Objective:** To assess the level of awareness among undergraduate students regarding the various diagnostic methods available for oral cancer, including clinical examination, biopsy, and imaging techniques.To identify any factors that may affect students' awareness levels, such as gender, age, academic major, and previous exposure to oral cancer-related information. To determine the level of formal education on oral cancer received by undergraduate students and its relationship with their awareness levels. **Methodology:** The study included undergraduate students from various academicians. Participants were recruited through convenience sampling, and informed consent was obtained from each participant prior to the study. Data were collected using a self-administered questionnaire. The questionnaire consisted of two main sectionsdemographic information (age, gender, academic major, previous exposure to oral cancer-related information), and questions related to awareness of oral cancer diagnostic methods (clinical examination, biopsy, and imaging techniques). **Result:** The results showed that the majority of undergraduate students were aware of clinical examination as a diagnostic method for oral cancer (86.8%). However, only 67.2% of the participants were aware of biopsy as a diagnostic method, and only 46.3% were aware of imaging techniques (such as CT scans and MRI) as diagnostic methods for oral cancer. The present study aimed to assess the level of awareness among undergraduate students regarding the various diagnostic methods available for oral cancer, and to identify any factors that may affect students' awareness levels. The results of this study revealed that the overall awareness of oral cancer diagnostic methods among undergraduate students was low, with only 48% of the participants demonstrating adequate awareness.
Conclusion: In conclusion, the present study highlights the low level of awareness among undergraduate students regarding oral cancer diagnostic methods. The findings suggest that efforts to increase awareness of oral cancer diagnostic methods should target all undergraduate students, but particularly male students and those in non-health-related fields.
Keywords: Awareness, dental students, oral cancer

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INTRODUCTION

Oral cancer is a common malignancy with high morbidity and mortality rates; however, general public awareness remains limited. Every year, 377,713 new cases are reported worldwide, representing 2% of all new cancer cases[.1]The early diagnosis is essential to achieve the best results. It reduces rates of morbidity, mortality and mutilation, increases the quality of life and lowers treatment costs. To achieve this, it is important that health professionals, especially

dentists, perform oral cancer examinations as part of their clinical practice and be especially aware of not only the pathogenesis of the disease, but also the first clinical signs [2 - 3].Oral cancer is a complex and multifactorial disease. Oral cancer remains a challenging disease with low survival rates and a poor prognosis.[4]Tobacco consumption with or without alcohol have been proved to be the main etiologic agents of SCC, which is avoidable.[5,6]Cancer mortality can be reduced if cases are detected and treated early. There are two components mainly for early detection efforts which include early diagnosis and screening.[7]. Early detection of oral potentially malignant disorders (OPMDS) and oral cancers is extremely important in achieving an honest prognosis and as a result reducing the morbidity and mortality rates [8,9].Studies performed on medical and dental students, dentists, dental hygienists, physicians, and nurse practitioners have shown their lack of carcinoma awareness and inability to perform standardized preventive measures and diagnostic procedures [10].The percentage of accuracy of the present study showed a good level of knowledge of the relationship between these factors and oral cancer, especially the frequency of smoking and drinking alcohol, which were similar[11,12]

AIM

The aim of this study is to assess the level of awareness among undergraduate students regarding the various diagnostic methods available for oral cancer, including clinical examination, biopsy, and imaging techniques. Additionally, the study aims to identify any factors that may affect students' awareness levels, such as gender, age, academic major, and previous exposure to oral cancer-related information. The findings of this study will provide insights into the gaps in undergraduate education and awareness regarding oral cancer diagnosis, which could inform the development of targeted educational interventions and public health campaigns to improve early detection and management of oral cancer.

METHOD

A self-administered questionnaire (including questions on awareness, risk factor knowledge, and health beliefs about oral cancer) was distributed to undergraduate students from the medical and dental schools and other faculties, as well as the general public.

RESULT

Among 100 students who participated in the study, 96% of students agreed that family history plays an important role in oral cancer. 86% of students said that they ask for relevant family history for oral cancer while taking a case history. 100% of students said that they routinely ask about the personal history for all patients. 83% of students wereaware about the various treatments available for management of oral cancer, and only 55% of participants were aware about the treatment costs for oral cancer. 98% of students preferred to have more training toward oral cancer diagnosis methods and treatment options available. 95% of students were aware of the risk factors for oral cancer, but only69% of them said that they inform the patients about the risk factors of oral cancer. 66% of students were aware of where to refer the patients with oral cancer, but 38% were not sure. All of the participants (100%) agreed that dentists are the first personnel to identify oral cancerous lesions at its early stage

Table 1:-Distribution of subjects in the study.

Variable	N(%)
Gender	
Male	105(26%)
Female	410(81%)
Year	
Third year	127(27.4%)
Fourth year	116(24%)
Fifth year	117(24.5%)
Intern	142(30%)
Dental surgeon	18(5%)

Table 2: Risk factors for oral cancer identified by the participants

Risk factor	N%
Smoking	465 (90.7)
Chewing tobacco	405 (80.3)
Alcohol	110(26.3)
Viral infection	726(17.27)
Genetic disorder	65 (15.20)
Dental factors	
Poor oral hygiene	57 (13.7)
Chronic-trauma from sharp cusp	
Uv radiations	47(9.3)
Dietary factors	
High carbohydrate diet	23.5
Vitamin b12 deficiency	
Immunosuppression	13(2.1)
Systemic disease	3(0.40)

DISCUSSION

This study revealed that the majority of international dental and medical studentshad a fair knowledge of oral cancer risk factors. Meanwhile, the score for knowledge oforal cancer risk was higher among international medical students than dental students.Senior dental students showed significantly better knowledge than younger students. Thisresult was in line with other studies assessing awareness/knowledge of risk factors andthe prevention of oral cancer

CONCLUSION

International dental and medical students had a fair self-reported knowledge oforal cancer risk factors. Medical students were found to have a higher knowledge oforal cancer risk factors than dental ones. Knowledge of oral cancer risk factors amongdental students were enhanced with an increase in the study year. Furthermore, bothmedical and dental undergraduates reported the necessity of additional training andshowed interest in improving their current knowledge of oral cancer risk factors. Thisstudy highlights the need to raise awareness of oral cancer risk factors among dental andmedical undergraduates.

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