



CODEN [USA]: IAJPB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.3555444>Available online at: <http://www.iajps.com>

Research Article

**ANALYSIS OF ORAL CANCER AWARENESS AMONG
MEDICAL AND DENTAL STUDENTS OF PAKISTAN**Anam Shahzad¹, Mariah Shafique¹, Neelam Malik¹¹House officers at Punjab dental hospital

Article Received: September 2019 Accepted: October 2019 Published: November 2019

Abstract:

Aims and objectives: The main objective of the study is to analyze the knowledge regarding oral cancer awareness among medical and dental students in Pakistan.

Material and methods: This cross sectional study was conducted in Punjab dental hospital, Lahore during January 2019 to July 2019. The data was collected through a questionnaire. The study included a convenience sample comprising dental students of all basic and clinical year. All the questions were anonymous, participant's voluntary took part in the study, and consent was taken from them and no incentive was given for completing the survey.

Results: The data was collected from 115 medical and dental students. When asked about the examination of oral mucosa of the patients, all the students answered "yes" during their clinical training. Of those who examine the oral mucosa routinely, a high majority of the students (97.3%) would not examine the oral mucosa of the patient with high risk of developing oral cancer. More than ninety percent of the participants preferred to refer patients with oral lesion as a point of care to dental specialties rather than doctors.

Conclusion: It is concluded that lack of awareness about the risk factors initiates the need based educational interventions among future dental and medical practitioners regarding early detection and prevention of oral cancer.

Corresponding author:

Anam Shahzad,

House officers at Punjab dental hospital

QR code



Please cite this article in press Anam Shahzad et al., *Analysis of Oral Cancer Awareness among Medical and Dental Students of Pakistan.*, Indo Am. J. P. Sci, 2019; 06(11).

INTRODUCTION:

The incidence of oral cancer especially squamous cell carcinoma accounts for nearly 2.4% of all cancers. Due to significant number of oral cancer cases raising rapidly in the developing regions this is found to be the sixth most common cancer worldwide. Life style habits such as heavy smoking and alcoholism are the important risk factors for developing oral cancer that increases at least three- to fifteen fold especially in females and young people [1]. In addition, marijuana, chewing beetle-leaf, human papilloma virus, ultraviolet radiations, iron deficiency anemia, candida infections, immunosuppression, and deletion or mutation of tumor suppressor genes are some of the other causes of oral cancer [2].

During the last decade of the 20th century there was an 18% and 30% increase in oral cancer incidence in males and females respectively. Despite being more prevalent in the elderly oral cancer is affecting younger patients [3]. Surgical techniques and non-surgical management of oral cancer have become more advanced in recent years but this has had little effect on 5-year survival. Squamous cell carcinoma accounts for 95% of oral cancers and is associated with avoidable aetiological risk factors [4]. Smoking tobacco and alcohol use are the main risk factors in the United Kingdom and are associated with approximately 75% of oral cancers. Early detection of oral cancers makes them more amenable to treatment, thus reducing morbidity and allowing the greatest chance of cure. Delay in presentation and/or referral can therefore have a significant effect on the morbidity and mortality associated with oral cancer [5].

Oral cancer, with its highly unpredictable level of incidence at present is one of the commonest cancerous conditions effecting the general population of Pakistan. Cancer of oral cavity and lip is responsible for 8.6% of all new cancer cases in Pakistan and is the cause 7.2% of all cancer deaths in Pakistan. In the south Asian countries such as Pakistan and India nearly 66.4% of all cancers are located within the oral cavity and lip and the cancers of oral cavity are

responsible for causing deaths in 77.2% of the individuals [6].

Aims and objectives:

The main objective of the study is to analyse the knowledge regarding oral cancer awareness among medical and dental students in Pakistan.

MATERIAL AND METHODS:

This cross sectional study was conducted in Punjab dental hospital, Lahore during January 2019 to July 2019. The data was collected through a questionnaire. The study included a convenience sample comprising dental students of all basic and clinical year. All the questions were anonymous, participant's voluntary took part in the study, and consent was taken from them and no incentive was given for completing the survey. The questionnaire was made up of four parts. The answer to each question about attitude was rated on a five point Likert scale (strongly agree, agree, neutral, disagree, and strongly disagree).

Statistical analysis:

SPSS software version 20.0 was used for statistical analysis. Frequency and percentages were used to describe gender, level of education. The descriptive indices such as percentages were used to express the knowledge level among the students.

RESULTS:

The data was collected from 115 medical and dental students. When asked about the examination of oral mucosa of the patients, all the students answered "yes" during their clinical training. Of those who examine the oral mucosa routinely, a high majority of the students (97.3%) would not examine the oral mucosa of the patient with high risk of developing oral cancer. More than ninety percent of the participants preferred to refer patients with oral lesion as a point of care to dental specialties rather than doctors. However, significantly, two-thirds (65.7%) of students felt that they did not have sufficient knowledge about prevention and early detection of oral cancer.

Table 01: Analysis of level of knowledge of participants on oral cancer.

Variables	Participants		Total 115 (%)	Stat. cal. value
	Medical students	Dental students		
Do you examine patients' oral mucosa routinely?				—
Yes	37 (32.4)	32 (28.0)	115 (100%)	
No	0	0	0 (0.0)	

Do you screen the oral mucosa if the patients are in high risk of categories?				$\chi^2 = 2.358$, DF = 2, P = 0.308
Yes	2 (1.7)	1 (0.8)	3 (2.6)	
No	35 (30.7)	31 (27.2)	111 (97.3)	
When you have graduated will you advise patients about the risk factors for oral cancer?				$\chi^2 = 0.822$, DF = 2, P = 0.663
Yes	36 (31.5)	32 (28.0)	112 (98.2)	
No	1 (0.8)	0	2 (1.7)	
Have you had the opportunity to examine patients with oral lesions?				$\chi^2 = 15.892$, DF = 2, P = 0.000 *
Yes	13 (11.4)	18 (15.7)	37 (32.4)	
No	24 (21.0)	14 (12.2)	77 (67.5)	
Do you think a patient should go to a doctor or dentist if he/she has an oral lesions?				$\chi^2 = 2.107$, DF = 2, P = 0.349
Doctor	5 (4.3)	3 (2.6)	10 (8.7)	
Dentist	32 (28.0)	29 (25.4)	104 (91.2)	
Do you feel that you have sufficient knowledge concerning prevention and detection of oral cancer?				$\chi^2 = 28.598$, DF = 2, P = 0.000 *
Yes	23 (20.1)	13 (11.4)	39 (34.2)	
No	14 (12.2)	19 (16.6)	75 (65.7)	
Would you like more information or teaching on oral cancer?				$\chi^2 = 4.055$, DF = 2, P = 0.132
Yes	35 (30.7)	29 (25.4)	109 (95.6)	
No	2 (1.7)	3 (2.6)	5 (4.3)	

DISCUSSION:

Not surprisingly significantly more dental students routinely examined patients' oral mucosa. Medical students may examine patients' oral mucosa in relation to the context of the consultation, for example presentation with an oral problem. General medical practitioners are more likely to see patients at higher risk of oral cancer [4]. Medical students are also more likely to see patients at higher risk of oral cancer than their dental counterparts and yet 42% of medical students would not examine the oral mucosa of high risk patients whereas only 1 dental student would not [5].

Smoking tobacco as a risk factor was identified well by both medical and dental students however significantly more dental students identified this risk factor. Significantly more dental students (94%) than medical students (33%) identified alcohol as a risk factor. This is consistent with previous literature regarding general medical practitioners [7]. Thus the role of alcohol as a risk factor for oral cancer has to be emphasised in future teaching of undergraduate medical students [8]. Knowledge of other risk factors

was poor in both medical and dental students. There was a trend toward increased risk factor identification from second to fifth year medical students and from third to fifth year dental students [9]. Comparison of risk factor knowledge amongst students at different years of training can be difficult to interpret as curricular factors, public awareness campaigns and changes in faculty can contribute to changes in risk factor knowledge [10].

CONCLUSION:

It is concluded that lack of awareness about the risk factors initiates the need based educational interventions among future dental and medical practitioners regarding early detection and prevention of oral cancer.

REFERENCES:

1. Brzak B. L., Canjuga I., Baričević M., Mravak-Stipetić M. Dental students' awareness of oral cancer. Acta Stomatologica Croatica. 2012;46(1):50–58.
2. Fotedar S., Fotedar V., Manchanda K., Sarkar A., Sood N., Bhardwaj V. Knowledge, attitude and

- practices about oral cancers among dental students in H.P Government Dental College, Shimla-Himachal Pradesh. *South Asian Journal of Cancer*. 2015;4(2):65–67.
3. Soares T. R. C., Carvalho M. E. A., Pinto L. S. S., Falcao C. A., Matos F. T. C., Santos T. C. Oral cancer knowledge and awareness among dental students. *Brazilian Journal of Oral Sciences*. 2014;13(1):28–33.
 4. McCready Z. R., Kanjirath P., Jham B. C. Oral cancer knowledge, behavior, and attitude among osteopathic medical students. *Journal of Cancer Education*. 2015;30:231–236.
 5. Hanioka T., Ojima M., Kawaguchi Y., Hirata Y., Ogawa H., Mochizuki Y. Tobacco interventions by dentists and dental hygienists. *Japanese Dental Science Review*. 2013;49(1):47–56.
 6. Jemal A., Bray F., Center M. M., Ferlay J., Ward E., Forman D. Global cancer statistics. *CA: A Cancer Journal for Clinicians*. 2011;61(2):69–90.
 7. Zain R. B., Athirajan V., Ghani W. M. N., et al. An oral cancer biobank initiative: a platform for multidisciplinary research in a developing country. *Cell and Tissue Banking*. 2013;14(1):45–52.
 8. Awan K. H., Khang T. W., Yee T. K., Zain R. B. Assessing oral cancer knowledge and awareness among Malaysian dental and medical students. *Journal of Cancer Research and Therapeutics*. 2014;10(4):903–907.
 9. Sitheequ M., Ahmad Z., Saini R. Awareness of oral cancer and precancer among final year medical and dental students of Universiti Sains Malaysia (USM), Malaysia. *Archives of Orofacial Sciences*. 2014;9(2):53–64.
 10. Carter L. M., Ogden G. R. Oral cancer awareness of undergraduate medical and dental students. *BMC Medical Education*. 2007;7, article 44