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Research Article

**ANALYSIS OF ORAL CANCER AWARENESS AMONG
MEDICAL AND DENTAL STUDENTS IN PAKISTAN**¹Dr Saud Ahmed Cheema, ¹Dr Sajida Ali, ¹Dr Farwa Jamil Kanju¹House Officer at Punjab Dental Hospital, Lahore.**Article Received:** December 2018 **Accepted:** February 2019 **Published:** March 2019**Abstract:**

Introduction: Squamous cell carcinoma accounts for 95% of oral cancers and is associated with avoidable aetiological risk factors. Smoking tobacco and alcohol use are the main risk factors in the United Kingdom and are associated with approximately 75% of oral cancers.

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

Methodology: This cross sectional study was conducted in Punjab Dental Hospital, Lahore during January 2018 to October 2018. The data were collected from 500 medical and dental students from different medical colleges of Lahore. For this purpose the data were collected through a questionnaire from both genders. These students were selected as they had received teaching on oral diseases including oral cancer.

Results: The mean knowledge percent of the entire population was 63.3 ± 19.4 (good knowledge). The average knowledge percent was higher in females (64.4 ± 18.6) as compared to males (62.0 ± 20.6) p -value = 0.411. The mean knowledge percent was 58.3 ± 19.0 in 3rd year, 65.1 ± 19.6 in 4th year and 64.9 ± 19.6 in 5th year, p -value = 0.125. Only 51.1% of the subjects used to examine oral mucosa routinely.

Conclusion: It is concluded that overall the mean knowledge of the population about oral cancers among medical undergraduate students was good. The knowledge was higher in females as compared to males but the difference was not significant.

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INTRODUCTION:

Squamous cell carcinoma accounts for 95% of oral cancers and is associated with avoidable aetiological risk factors. 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 [1]. Delay in presentation and/or referral can therefore have a significant effect on the morbidity and mortality associated with oral cancer [2].

The incidence of oral cancer is increasing in the United Kingdom. During the last decade of the 20th century there was a 18% and 30% increase in oral cancer incidence in males and females respectively [3]. Despite being more prevalent in the elderly oral cancer is affecting younger patients. 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 [4]. It has been well recognized that the cancers of the oral cavity and the pharynx are a public health problem and as a result, there are a great number of deaths and people suffering from illnesses or disability in many countries [5]. The incidence of oral cancer is rising in most countries, especially in developing countries. In India, it ranks number one in terms of incidence among men and third among women [6].

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 [7]. The findings published by Shaukat Khanum Cancer Hospital, Lahore identified that the malignant neoplasms of oral cavity are the third commonly occurring cancer followed by breast and ovarian cancer within Pakistani females. Furthermore, oral cancer was found to be second most common cancer in males after prostate cancer [8].

Oral cancer can have different presentations ranging from ulcerative growths to proliferative lesions or even a combination of both. There are many pre malignant oral conditions, like leukoplakia, erythroplakia and oral submucous fibrosis. The most

commonly affected sites involving the mouth are the floor and the lateral border of the tongue [9].

Aims and objectives

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

METHODOLOGY:

This cross sectional study was conducted in Punjab Dental Hospital, Lahore during January 2018 to October 2018. The data were collected from 500 medical and dental students from different medical colleges of Lahore. For this purpose the data were collected through a questionnaire from both genders. These students were selected as they had received teaching on oral diseases including oral cancer. Twelve questions were asked, investigating: oral cancer screening/oral mucosal examination habits; knowledge and delivery of advice on risk factors for oral cancer; opportunity to examine patients with oral lesions; knowledge and confidence regarding appearance of oral changes associated with oral cancer; point of referral selection; and opinions on sufficiency of individual knowledge on oral cancer detection and prevention, desire for further information/training and the format of such information/training.

Statistical analysis

The data were analyzed by Statistical Package for the Social Sciences (SPSS Inc., Chicago, IL, version 17 for Windows). The statistical tests used were t-test, chi-square test and ANOVA. T-test was used to compare mean knowledge percent between males and females.

RESULTS:

The mean knowledge percent of the entire population was 63.3 ± 19.4 (good knowledge). The average knowledge percent was higher in females (64.4 ± 18.6) as compared to males (62.0 ± 20.6) p -value = 0.411. The mean knowledge percent was 58.3 ± 19.0 in 3rd year, 65.1 ± 19.6 in 4th year and 64.9 ± 19.6 in 5th year, p -value = 0.125. Only 51.1% of the subjects used to examine oral mucosa routinely. A 67.7% of subjects used to take history regarding use of tobacco and alcohol from their patients, 62.4 % of the subjects educate the patients about adverse effects of tobacco and alcohol.

Table 01: Respondents attitude towards Oral Cancer

Questions	Strongly agree/Agree	Don't know	Strongly Disagree/Disagree
My knowledge regarding the prevention and detection of oral cancer is current and adequate.	48(25.8%)	14(7.6%)	124(66.6%)
Annual oral cancer examinations should be provided for those of 40 years of age and above	163(87.6%)	5(2.7%)	18(9.7%)
Patients' with suspected oral cancer lesions should be referred to a specialist.	178(95.6%)	4(2.2%)	4(2.2%)
Early detection improves five-year survival rates from oral cancer	182(97.9%)	1(0.5%)	3(1.6)
Do you feel that there is need for additional training/information regarding oral cancer.	176(94.6%)	6(3.2%)	4(2.2)

Table 2: Risk factors for Oral Cancer

Tobacco smoking	Dietary factors
Smokeless tobacco use	Diet low in iron
Betel quid chewing	Diet low in vitamin A
Alcohol consumption	Diet low in vitamin C
UV light exposure	High fat diet
Viral factors	Dental factors
Immunosuppression	Chronic irritation from jagged teeth
Chronic infection	
Occupation	'Poor dental condition' (poor oral hygiene/number of missing teeth ≥ 11)

DISCUSSION:

The most common manifestation of oral cancer reported here was non healing ulceration by 141 (75.8%) of students, followed by leukoplakia 29 (15.5%). This is in line with previous studies, where ulceration and leukoplakia were identified more commonly than erythroplakia by general medical practitioners, despite the greater malignant potential of the erythroplakia. So, one fourth of students reported correctly about non healing ulceration as common manifestation of oral cancer which is quite acceptable as above the expected standard of 70% [8].

Out of total, 66.6% disagreed/ strongly disagreed that their knowledge regarding the prevention and detection of oral cancer is current and adequate which is less than 78.2% as reported by Nandita et al., [9]. A 94.6% agreed/strongly agreed, there is need for additional training/information regarding oral cancer which is comparable to 90% as reported by Lalchan. Oral cancer awareness of medical students could be improved by teaching oral health and disease during clinical postings in Oral and Maxillofacial Surgery, Otorhinolaryngology, Plastic Surgery or Clinical Oncology [10]. A collaborative approach from these specialties ensuring the opportunity to take oral health histories and examine patients with oral lesions before graduation should be undertaken so that when they

start practicing they can detect the oral cancers at an early stage and educate their patients regarding the harmful effects of tobacco and alcohol [11]. As India has one of the highest incidence of oral cancers, the burden of oral cancers can be greatly reduced if our future medical practitioners are well versed with the risk factors and early detection [12].

CONCLUSION:

It is concluded that overall the mean knowledge of the population about oral cancers among medical undergraduate students was good. The knowledge was higher in females as compared to males but the difference was not significant. The knowledge and practices about the risk factors were not satisfactory. One third of the population disagreed that their knowledge about oral cancers is adequate and current.

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