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Research Article

**ASSESSMENT OF ORAL CANCER AWARENESS AMONG
MEDICAL AND DENTAL STUDENTS IN PAKISTAN**¹Rehan Hamid, ²Muhammad Muneeb, ³Inam Basit Cheema¹Associate Dental Surgeon Dental Excellence, Faisalabad²Sughra Trust Hospital, Faisalabad³Rural health Centre Kot Ladha Gujranwala

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Abstract:

Introduction: The incidence of oral cancer is increasing in the Pakistan. During the last decade of the 20th century there was 18% and 30% increase in oral cancer incidence in males and females respectively. **Aims and objectives:** The basic purpose of this study is to analyse the oral cancer awareness among medical and dental students in Pakistan. **Material and methods:** This cross sectional study was conducted in Dental Excellence, Faisalabad during September 2018 to January 2019. The data was collected from medical and dental students. The data was collected through a questionnaire which were designed for the analysis of knowledge of oral cancer awareness. The questionnaire comprised of questions on socio-demographic data, knowledge and awareness of oral cancer. Socio-demographic data included questions on age, gender, year of study, race, family history of oral cancer, monthly household income and residence. **Results:** The data was collected from 200 medical and dental students. 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. **Conclusion:** It is concluded that the role that general medical (and dental) practitioners may play in prevention and detection of oral cancer assumes ever more importance.

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INTRODUCTION:

The incidence of oral cancer is increasing in the United Kingdom. During the last decade of the 20th century there was 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. 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 [1]. 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 [2]. 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 [3].

Majority of the oral cancers are squamous cell carcinoma and are linked with preventable risk factors. Use of tobacco, excessive alcohol and betel quid have been reported to be major individual etiological factors resulting in around 90% of oral cancers with the oral cancer risk increasing further if these risk factors are used together [4]. Early detection of oral potentially malignant disorders (OPMDs) and oral cancers is very important in achieving a good prognosis and as a result reducing the morbidity and mortality rates.

Delays in the diagnosis of oral cancers have been reported to be associated with both health care professionals and patients. Published literature has demonstrated a strong association between patient's lack of knowledge and understanding of oral cancer and delay [5]. Health care professionals should have sufficient awareness and knowledge of oral cancer and its associated risk factors and appropriate clinical skills to properly perform a systematic oral cancer examination. Studies carried out on medical and dental students, dentists, dental hygienists, physicians, and nurse practitioners have shown their lack of oral cancer awareness and inability to perform a standardized preventive and diagnostic procedures [6].

Aims and objectives

The basic purpose of this study is to analyse the oral cancer awareness among medical and dental students in Pakistan.

MATERIAL AND METHODS:

This cross sectional study was conducted in Dental Excellence, Faisalabad during September 2018 to January 2019. The data was collected from medical and dental students. The data was collected through a questionnaire which were designed for the analysis of knowledge of oral cancer awareness. The questionnaire comprised of questions on socio-demographic data, knowledge and awareness of oral cancer. Socio-demographic data included questions on age, gender, year of study, race, family history of oral cancer, monthly household income and residence. Oral cancer knowledge and awareness was assessed by questions on examination of oral mucosal habits, capability to detect high-risk patients, understanding and ability to provide assistance on risk factors, understanding of clinical appearances or oral mucosal changes associated with oral cancer, opportunity to examine oral mucosa of patients, preferred pathway of referral for suspected lesions, and desire to have further information regarding oral cancer. Pretesting of the questionnaire was carried out to assure that all the questions are clear and understandable to the participants. Approval of the study was obtained from both medical and dental research and ethics committees.

Statistical analysis

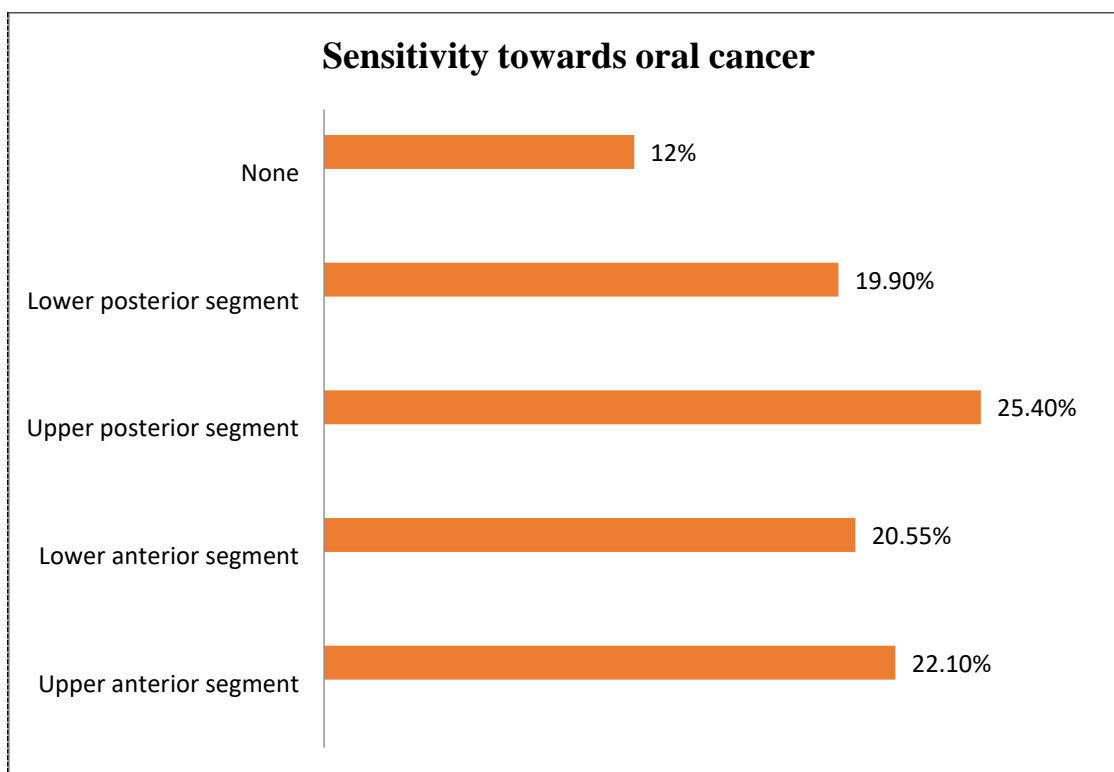
The data was collected and analysed using SPSS version 20.0. The results were analysed using the Pearson Chi-square test with the level of significance set as $P < 0.05$.

RESULTS:

The data was collected from 200 medical and dental students. 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.

Table 01: Participants attitude and knowledge 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)

**DISCUSSION:**

Majority of the dental students were able to identify smoking (84.4%) and betel quid chewing (76.1%) as risk factors for oral cancer. But unfortunately, only 35% of dental students reported alcohol to be a known risk factor. Similar trend was seen among the medical students where most of them also identified smoking as a risk factor but very few medical students (7.2%) identified alcohol as a known risk factor [7]. Similar findings have been reported in the published literature by other studies on medical practitioners. Therefore, it is imperative to emphasize the role of alcohol as an established risk factor in future education and training

of undergraduate medical students. A trend toward better identification of the risk factors is noticeable as the students' progress in their academic years. It was difficult to compare the level of knowledge of risk factors among different year students because a number of factors such as curriculum, changes in faculty and community awareness campaigns may influence their knowledge and awareness of the risk factors [8].

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. 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 [9].

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 [10]. Thus the role of alcohol as a risk factor for oral cancer has to be emphasised in future teaching of undergraduate medical students. 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. 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 [11].

CONCLUSION:

It is concluded that the role that general medical (and dental) practitioners may play in prevention and detection of oral cancer assumes ever more importance. According to data poor level of awareness regarding oral cancer in the next generation of general medical practitioners and therefore highlights the need to improve the education of undergraduate medical and dental students regarding prevention and early detection of oral cancer.

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