

Awareness and Knowledge of Oral Cancer Among Dental Patients: A Survey Based Questionnaire Study

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ABSTRACT

Introduction: Oral cancer is one of the most life-threatening conditions, early diagnosis of which greatly increases the probability of cure and survival rates. Researchers in oral cancer believe that in addition to minimizing impairment and deformity. Lack of public awareness has also been considered to be a potent barrier for early detection of cancer. The present study was carried out to evaluate the awareness of oral cancer among patients visiting Meenakshiammal Dental College, Chennai.

Materials and Methods: Self-administered questionnaire with ten structured questions were prepared and distributed to 500 patients above 20-60 years of age group to obtain the information. The questionnaire included the information about patient's age, gender, education level and occupation. The questions regarded habits, clinical presentation, signs and symptoms, treatment of oral cancer and source of information about oral cancer.

Results: A total of 500 patients participated in this study out of which male was 223 (44.6%), and the female was 277 (55.4%). The result of awareness questionnaire showed that 47.6% of the respondents were aware of the term called oral cancer and the survey result showed that most of the patients related oral cancer occurrence to older age (68.3%). Most of the patients lacked knowledge about the clinical presentation of cancer. About 60.2% of patients had knowledge about the signs, symptoms and complications of oral cancer.

Conclusion: This awareness study, conducted among dental patients revealed a lack of public knowledge and need for more structured awareness programs such as television, newspaper and radio advertisements in addition to posters and leaflets about the early signs, symptoms and etiology of oral cancer and the importance of regular oral examination among the people.

Keywords: Awareness, Dental patients, Oral cancer, Risk factors, Signs and symptoms

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INTRODUCTION

Oral cancer is one of the major public health problems globally. Oral cancer is ranked as the sixth most common cancer (GLOBOCAN).¹ It is most commonly seen in South and South East Asian countries such as India, Bangladesh, Taiwan, and Sri Lanka (World Health Organization, 1984). About 90% of oral cancers are squamous cell carcinomas. Smoking, alcohol use, smokeless tobacco's, and human papillomavirus infections are a major risk factors, with an attributable risk of oral cancer due to both tobacco and alcohol of 80%.^{1,2}

Oral cancer is mostly preventable. As the mouth is easily accessible for self or clinical examination early diagnosis of the malignancy is possible, and it greatly increases survival rates.³ The prognosis of oral cancer is poor with lowest survival rates of <50%, within a 5-year period. In spite of advances in the diagnosis and treatment of oral cancer, the proportion of oral cancer cases diagnosed at an early and localized stage is still <50% (Atessa *et al.*, 2010; Patton *et al.*, 2005).^{1,2,4,5} Even though, recent advances in the detection and treatment of cancer, visual accessibility of the oral mucosa, and the scientific knowledge on cancer risk factors, oral cancer

carries a low survival rate (near 50%). One of the main reasons may be a lack of information about the causes and knowledge of the signs and symptoms of oral cancer among the population. Moreover, most of the oral cancers are preventable if people know which risk factors they must control or eliminate.^{2,5}

Therefore, this study was aimed at obtaining initial baseline information on the level of oral cancer awareness among dental patients visiting Meenakshiammal Dental College, Chennai. In addition, sources of information about oral cancer were also assessed. It is hoped that the findings from this initial study will help to direct future research on a larger and more widespread sample for greater generalizability in order to strengthen existing health education awareness toward oral cancer.

MATERIALS AND METHODS

The study was conducted in the outpatient unit of the Meenakshiammal Dental College and Hospital, Chennai. All patients were above the age of 20, who was willing to participate were included in the study. Information on the demographic characteristics, habits, along with the extent of knowledge about the risk factors and signs of oral cancer of the surveyed subjects was collected using a close end questionnaire formatted both in English and the local language-Tamil. The questions that consisted of queries related to demographic factors (age, gender, level of education), habits, awareness of oral cancer, knowledge of the risk factors, signs and symptoms of oral cancer. Duration of this study was 6 months. Responses to knowledge questions were assessed as correct or incorrect, and knowledge scores were calculated for each respondent.

A total of 500 patients above 20 years were randomly chosen and a self-administered questionnaire was given to the respondents. 20-30 years was 156 patients, 31-40 years was 192 patients, 41-50 years was 86 patients and 51-60 years was 66 patients (Table 1). For illiterate patients, an interviewer transferred the answers into the questionnaire. Questionnaire requested information about patient’s age, gender, education level, occupation, and habits. The second section contained 10 questions regarding oral cancer. The questions regarding risk factors and patient’s assumption of oral cancer were closed ended.

RESULTS

A total of 500 patients participated in this study, out of which male was 223 (44.6%) and the female was 277 (55.4%) (Table 2). Among them, 127 (25.4%) patients had habit of smoking, 131 (26.2%) consumed alcohol

and 27 (5.4%) of them used chewing form of tobacco (males - 16, females - 11). Patient with the habit of smoking and alcohol consumption was 76 patients, habit of alcohol consumption and tobacco chewing was seen in 20 patients, the habit of smoking and chewing tobacco was seen in 12 patients and the number of patients who had all three habits was 22 (Table 3). 64.4% were educated, and 20.4% were uneducated.

Among the study groups, 47.6% of the patients were aware of the term called oral cancer and 52.4% was unaware (Graph 1). Most of the respondents opted for the option that oral cancer is common among elderly patients (68.3%) that was then followed by the option that it is common among all age groups (22.4%). About 60.2% of patients were aware that oral cancer occurs with various signs, symptoms and complications. Among the study group, 97.8% had not noticed red or white lesions within the oral cavity and the rest 2.2 % had noticed (Graph 2).

Most of the respondent 96% opted that they would visit the dentist in case of a painless, non-healing ulcer. Nearly, 59.6% of patients think that the oral cancer is a contagious disease (Graph 2). Among the study group, 90.4% had

Table 1: Distribution of study population according to age

Age groups	N (%)
20-30 years	156 (31.2)
31-40 years	192 (38.4)
41-50 years	86 (17.2)
51-60 years	66 (13.2)
Total	500 (100)

Mean±SD: 125±59.02

SD: Standard deviation

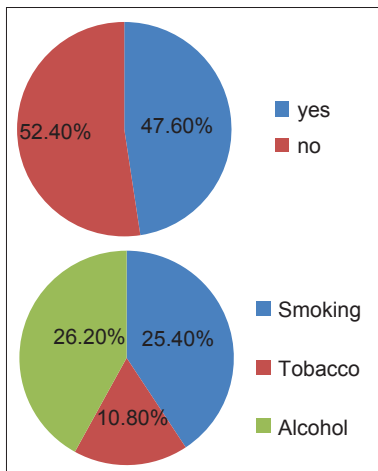
Table 2: Distribution of study population according to sex

Gender	N (%)
Males	223 (44.6)
Females	277 (55.4)
Total	500 (100)

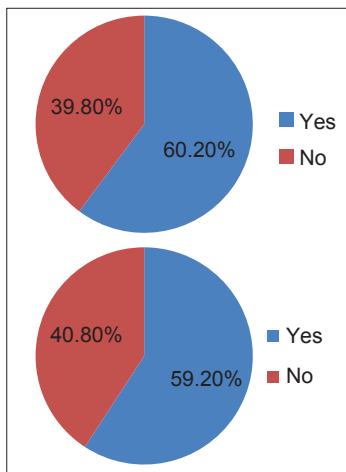
Table 3: Distribution of study population according to habits

Habit	N (%)
Smoking	127 (25.4)
Alcohol	131 (26.2)
Tobacco (chewing form)	27 (5.4)
Combination of habits	
Smoking and alcohol	76 (15.2)
Alcohol and tobacco (chewing form)	20 (4)
Smoking and tobacco (chewing form)	12 (2.4)
All three habits	22 (4.4)

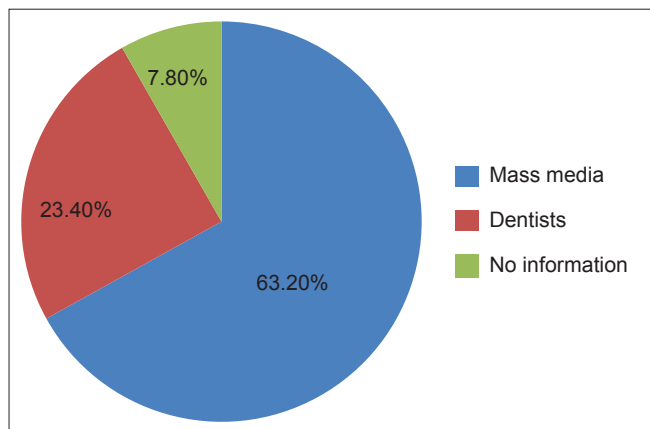
already visited the dentist, and 96.4% was aware that oral cancer can lead to death if left untreated. Most of the respondents yielded knowledge and awareness of oral cancer from mass media 63.2%, followed by a dentist 23.4%, and rest 7.8% from others (Graph 3).



Graph 1: Awareness of oral cancer and habits



Graph 2: Signs and symptoms of oral cancer



Graph 3: Sources which gives information about oral cancer

DISCUSSION

The prime causative factors associated with oral cancers in India are tobacco and alcohol, which are consumed in several of forms. Oral smokeless tobaccos are those products placed in the mouth (cheek and lip) and either sucked or chewed. It also consists of tobacco powders and various mixtures, which are applied to the gums or teeth. The various forms include gutkha, paan masala, betel quid and several others, all of which contain betel nut, catechu, tobacco, lime, flavoring and coloring agents according to smokeless tobacco fact sheets.^{3,4}

In our study, 127 (25.4%) patients was smoking, 131 (26.2%) (only male) consumed alcohol and 27(5.4%) of them used chewing form of tobacco (male - 16, female - 11). 188 patients had mixed habits.

The proportion of oral cancer cases diagnosed at an early and localized stage is still less than approximately 50%. The results of the present study indicate that 52.4% of patients were unaware of the term called oral cancer, which was coinciding with the results of Shah *et al.* in their study only 12. Ten had heard about oral cancer.⁶ 39.8% of the patients unaware about the signs, symptoms and complications of oral cancer which was in accordance with the study done by Park *et al.*⁵ and Shah *et al.*⁶ which denotes the failure in early diagnosis. 96% of patient responded that they would visit the dentist in case of painless, non-healing ulcer of the oral cavity that is a positive answer. In the study most of the patients have an attitude that oral cancer occurs only in elders and cannot associate habits with oral cancer. But 96.2% of them are aware that oral cancer is a deadly disease and leads to death if it is untreated.

In determining the source of information on oral cancer mass media (56.2%) played an major role which is in accordance with the study done by Park *et al.*⁵ and Ariyawardana *et al.*² 4.8% of patients had no information about oral cancer.

Unfortunately, most educational programs focus on the association between smoking and lung cancer and little attention is paid to other consequences of prolonged use of tobacco related products. There is a need to introduce oral cancer education on prevention, early referral and diagnostic methods of oral cancer in focus on younger generation.⁷ Primary health care workers should be involved in such education program and they should be encouraged to participate in health education by providing information on oral cancer and preventive methods to citizens nationwide and early referral to diagnosticians. The role of mass media, particularly television, newspaper and radio should be stressed as it was found to play a key role

in imparting health education and belief changes. Younger generation could be approached through social networking sites.^{5,8}

CONCLUSION

This study has highlighted that the dental patients still had a general lack of awareness regarding the risk habits, early signs and symptoms and the benefits of detecting this disease at an early stage. Patients should also be made aware of the oral cancer and its complications and the role of habits in the development of oral cancer.

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How to cite this article: Gopal KS, Duraiselvi P. Awareness and Knowledge of Oral Cancer in Outpatient Departments of Meenakshiammal Dental College, Chennai: A Survey Based Questionnaire Study. *Int J Adv Health Sci* 2014;7(1):12-15.

Source of Support: Nil, **Conflict of Interest:** None declared.