

How to Cite:

Sargaiyan, V., Misurya, R., Misurya, A., Rawat, P., Dhakray, V., & Singh, G. (2022). Knowledge, attitude and practice of dental patients towards oral cancer and tobacco cessation in India. *International Journal of Health Sciences*, 6(S2), 1738–1744.
<https://doi.org/10.53730/ijhs.v6nS2.5304>

Knowledge, attitude and practice of dental patients towards oral cancer and tobacco cessation in India

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Abstract---Background: One of the main causes of delay in diagnosis of oral cancer is lack of awareness about aetiology and symptoms among the general population. The aim of this study was to assess the knowledge and practice of patients regarding oral cancer and their

attitude towards tobacco cessation. **Materials and Methods:** A 29-item self-administrated questionnaire was designed and piloted and distributed to patients attending dental clinics. Questions were focused on awareness about oral cancer risk factors, signs and symptoms, places in the mouth which are more susceptible and attitude toward tobacco cessation. Chi-square, T-test, ANOVA and logistic regression tests were used for statistical analysis. **Results:** A total of 100 valid completed questionnaires were obtained. The mean knowledge score of patients was 5.1(\pm 1.3) out of score of 13. Some 80% of patients did not know about early manifestations of oral cancer. Only 11% knew the most likely sites of oral cancer. Only 39 % and 52 % of patients reported alcohol and tobacco consumption as the main risk factors but they had a fair knowledge about other risk factors. There was no significant difference in Knowledge level between patients regarding their sex, educational levels and age. Most patients (72%) expected their dentists to warn them about the harmful effects of smoking and showed willingness to quit if recommended. **Conclusion:** Knowledge about oral cancer was found to be quite low. It seems necessary to increase the level of public awareness using educational programs with cooperation of dentists in tobacco cessation programs.

Keywords---oral cancer, knowledge, attitude, practice, patients.

Introduction

Oral cancer is a growing concern in many countries specially in developing countries comprising 3% of all cancers in men and 2% of all cancers in women. Oral cancers occur more commonly in people older than 40 years, with an average age of 60 at first diagnosis. Tongue and floor of mouth are regions more susceptible to developing these lesions. One of the main causes of patient delay seems to be lack of awareness about oral cancer risk factors and its signs and symptoms among general population. Some studies have shown that oral cancer is one of the least heard of cancers among other cancers with only about 50% participants being aware of its existence.¹⁻¹⁰ It is suggested that people are more aware of the association of tobacco use with oral cancers than that of alcohol consumption and other risk factors. In a study conducted in India 89.3% and 75.4% of the subjects firmly believed that smokeless tobacco and smoking are risk factors for oral cancer but very few subjects (about 9%) were aware about the association of oral cancer with risk factors like 'family history of cancer' and 'sedentary life style.' This lack of awareness and information could result in the delay of patients with oral cancer to seek appropriate treatment. Also, surveys have shown that reinterpretation of symptoms without seeking professional help and use of self-treatment modalities provided by the pharmacy is not uncommon among patients.¹¹⁻²⁰ Therefore, the aim of this study was to assess the public's awareness about oral cancer, their knowledge about early symptoms and risk factors, their practice regarding early lesions and their attitude towards tobacco cessation in dental care settings as a mean to control and prevent oral cancer occurrence in Madhya Pradesh.

Methodology

To elicit the knowledge and opinions of patients, a self-administrated questionnaire was designed consisted of demographic questions such as age, educational level, sex, marital status of patients and their smoking behavior. Other sections included some questions to determine the knowledge and awareness of patients about oral cancer signs and symptoms, common locations of occurrence, risk factors and management. The patients' awareness of oral cancer was assessed by asking if they had ever heard of mouth and throat cancers. Response categories for the question were 'yes' and 'no'. Potential items for the survey instrument were developed based on the literature review of previous studies concerning the risk factors, signs and symptoms, and management. Knowledge questions were in the form of "yes", "no" and "do not know". In order to calculate the total score, score of 1 was given to the correct responses and score of 0 to wrong answers and if "no idea" was selected. The patients' smoking behavior was categorized into "non-smokers", "light smokers" (1-9/day), "moderate smokers"(10-19/day) and "heavy smokers"(≥20/day). Questions of the attitude section were mostly developed based on literature review and bases on the proposed and the recommended US clinical practice guidelines 5As for cessation of tobacco use in dental settings. Attitude questions were to be answered based on a 2-point Likert scale (1=agree and 0= disagree). The finalized questionnaire consisted of 29 questions. Data were collected. Both descriptive and analytical statistical measurements were used to summarize the main results using SPSS (version 18) software. The frequency of responses to each question in the attitude and practice sections and the sum and mean of knowledge questions were calculated. Chi-square, ANOVA, t-test and logistic regression tests were used to compare the variables. The level of statistical significance was set at 0.05 for all the tests

Results

General characteristics 100 valid questionnaires were finally obtained from the patients. The mean age of participants was 35.2±11.34 (Mean± SD). They were mostly female (69 %) and 37% of them had academic education. About 10% of the patients were smokers (1% females and 9 % males) and the mean of daily cigarette consumption was 10.12±2.1 in smokers. 38 % knew that oral cancer is more common among men. 20 % identified poor oral hygiene (52.2%) as other major risk factors. About 40% of participants reported low consumption of fruits and vegetables as a risk factor for oral cancer. 48% of patients were aware of the risk of mortality related to oro-pharyngeal cancers and 44% had no idea about the mortality rate. Also, 45% knew that oral cancer has the potential to be transmitted to other tissues rather than mouth regions. The results of chi-square test showed there was no significant difference between males and females, different age groups and different kinds of occupation regarding their responses to risk factor questions. Significant differences were observed among participants with different levels of education regarding most of the risk factors as shown. It was shown that patients with university degrees were more knowledgeable about the oral cancer risk factors. Our study showed that 80% of people were unaware of the symptoms of early lesions of oral cancer as seen in Figure 1. The mean knowledge score of patients was 5.1(±1.3) out of score of 13. Only 11% knew the

most likely sites of oral cancer. Only 39 % and 52 % of patients reported alcohol and tobacco consumption as the main risk factors but they had a fair knowledge about other risk factors. There was no significant difference in Knowledge level between patients regarding their sex, educational levels and age. On Attitude of Participants Towards Tobacco Cessation Programs in Dental Offices, 72 % agreed that “I expect my dentist to warn me about the harmful effects of smoking” as seen in Figure 2. Despite high tobacco consumption rate in India, only 28% of current smokers reported that their dentist had asked them about their smoking status during their last visit.

Figure 1: Knowledge of Patients on Tobacco and Alcohol as a risk factor for Oral Cancer

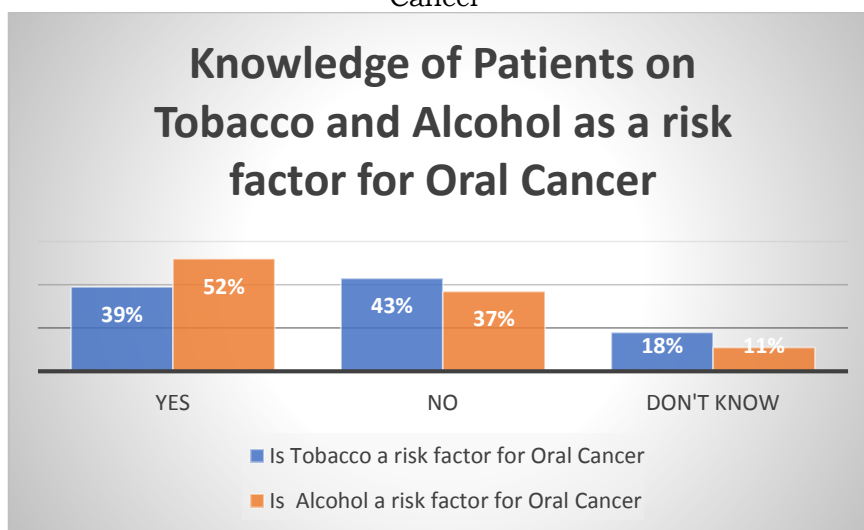
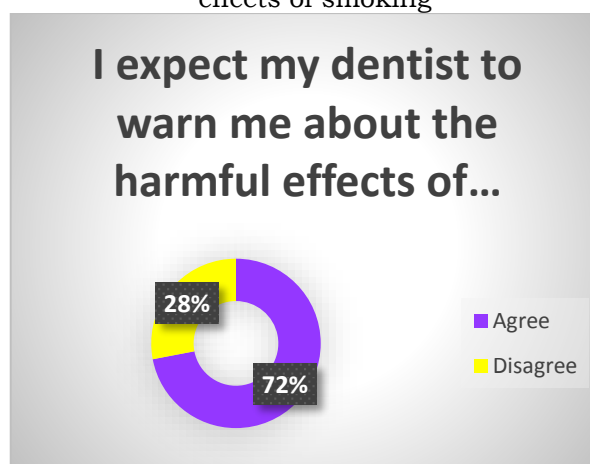


Figure 2: Patients Attitude towards dentist to warn them about the harmful effects of smoking



Discussion

Our study showed that 80% of people were unaware of the symptoms of early lesions of oral cancer, which is almost similar to the report in Turkey and in Germany. Surprisingly, in Italy about 80% of people were aware of this subject. In our study, most of participants were knowledgeable about the association between tobacco and alcohol consumption and oral cancer, which is a much level higher than another study conducted in Iran, but less than those of the studies conducted in India, Sri Lanka, Mersey and Italy.¹⁻¹⁰ The results of our research demonstrated a general lack of knowledge about gender and age groups mostly at risk of oral cancer.¹¹⁻¹⁵ Also, there is a misunderstanding about other risk factors such as poorly fitting denture and poor oral hygiene among patients. Surprisingly, about 40% of patients were knowledgeable about low consumption of fresh fruits as a risk factor in comparison to the 6% knowledge of dentists about this issue in our previous study. Also, current smokers were less knowledgeable about oral cancer.²⁰⁻²⁵ Other socio-demographic factors such as age, gender and alcohol history did not appear to exert any influence on the knowledge of OC. Therefore, it is crucial to inform the public, especially smokers about the considerable increase in OC risk with tobacco and alcohol consumption and with other risk factors. Informing the public through the media appears to be effective. Also, as a high percentage (81%) of patients reported they would visit a dentist if they encountered ulcer lesions, it is necessary to improve educational programs on oral cancer for dentists in university and to include it in educational courses. On the other hand, since most of the patients (70%) mentioned they had dental visit during the previous year, it could be a great opportunity to have oral cancer examinations and to inform the patients about pre-malignant lesions and risk factors in dental settings. In Iran, there are an estimated 10 million smokers, and the death rate due to tobacco consumption is now estimated to be about 60000 people a year. About 80% of them, mostly governmental employees and people with higher educational degrees did not feel annoyed if they were asked to quit smoking. In contrast to our results, Razavi et al²⁰⁻²² reported dentists believe that patients would feel discomfort if they provided them with tobacco cessation advice. On the other hand, although 72 % of participants in our study said smoking is not a personal issue, 30% of dentists believed that smoking is a personal decision. Therefore, it seems necessary to inform dentists about the patients' willingness and expectation about tobacco cessation assistance.

Conclusion

In conclusion, we investigated the awareness and knowledge of OC among adult dental patients attending dental clinics, which revealed deficits in their knowledge of signs, symptoms and risk factors of cancer. The level of knowledge was influenced by socio-demographic factors. Both professional efforts and public education are obviously required to improve the awareness and knowledge of OPC risk factors, signs and symptoms.

References

1. Al-Dakkak I(2010). Public awareness of oral cancer and associated risk factors is low. *Evid Based Dent*, 11, 106-7.

2. Agrawal M, Pandey S, Jain S, Maitin S (2012). Oral cancer awareness of the general public in Gorakhpur city, India. *Asian Pac J Cancer Prev*, 13, 5195-9.
3. Almeida AA, Bandeira CM, Goncalves AJ, Araujo AJ (2014). Nicotine dependence and smoking habits in patients with head and neck cancer. *J Bras Pneumol*, 40, 286-93. Ariyawardana A, Vithanaarachchi N (2005). Awareness of oral cancer and precancer among patients attending a hospital in Sri Lanka. *Asian Pac J Cancer Prev*, 6, 58-61.
4. Devadiga A, Prasad KV (2010). Knowledge about oral cancer in adults attending a Dental Hospital in India. *Asian Pac J Cancer Prev*, 11, 1609-13.
5. Ferlay J, Soerjomataram I, Ervik M, et al (2013). GLOBOCAN 2012 v1.0, Cancer Incidence and Mortality Worldwide: IARC CancerBase No. 11 [Internet]. Lyon, France: International Agency for Research on Cancer; 2013. Available from: <http://globocan.iarc.fr>, accessed on day/month/year.
6. Hertrampf K, Wenz HJ, Koller M, Wiltfang J (2012). Public awareness about prevention and early detection of oral cancer: a population-based study in Northern Germany. *J Craniomaxillofac Surg*, 40, 82-6.
7. Jemal A, Bray F, Center MM, et al (2011). Global Cancer Statistics. *CA: a Cancer Journal for Clinicians*, 61, 69-90. <https://doi.org/10.3322/caac.20107>
8. Kelishadi R, Ardalan G, Gheiratmand R, et al (2006). Smoking behavior and its influencing factors in a national representative sample of Iranian adolescents: CASPIAN study. *Preventive Medicine*, 42, 423-26.
9. Lawoyin JO, Aderinokun GA, Kolude B, Adekoya SM, Ogundipe BF (2003). Oral cancer awareness and prevalence of risk behaviours among dental patients in South-western Nigeria. *Afr J Med Med Sci*, 32, 203-7.
10. Luryi AL, Yarbrough WG, Niccolai LM, et al (2014). Public awareness of head and neck cancers: a cross-sectional survey. *JAMA Otolaryngol Head Neck Surg*, 140, 639-46.
11. Meysamie A, Ghaletaki R, Zhand N, Abbasi M (2012). Cigarette Smoking in Iran. *Iranian Journal of Public Health*, 41, 1-14.
12. Motallebnejad MM, Khanian M, Alizadeh R, Dabbaghian I (2009). Community survey of knowledge about oral cancer in Babol: effect of an education intervention. *East Mediterr Health J*, 15, 1489-95.
13. Mousavi SM, Gouya MM, Ramazani R, et al (2009). Cancer incidence and mortality in Iran. *Ann Oncol*, 20, 556-63.
14. Pakfetrat A, Falaki F, Esmaily HO, and Shabestari S (2010). Oral cancer knowledge among patients referred to Mashhad Dental School, Iran. *Arch Iran Med*, 13, 543-8.
15. Park JH, Slack-Smith L, Smith A, et al (2011). Knowledge and perceptions regarding oral and pharyngeal carcinoma among adult dental patients. *Aust Dent J*, 56, 284-9.
16. Peker I, Alkurt MT (2010). Public awareness level of oral cancer in a group of dental patients. *J Contemp Dent Pract*, 11, 49-56.
17. Philip PM, Parambil NA, Bhaskarapillai B, Balasubramanian S (2013). Evaluation of a specially designed tobacco control program to reduce tobacco use among school children in Kerala. *Asian Pac J Cancer Prev*, 14, 3455-9.
18. Prelec J, Laronde DM (2014). Treatment modalities of oral cancer. *Canadian Journal of Dental Hygiene*, 48, 13-9.
19. Puschel K, Thompson B, Coronado G, et al (2008). Effectiveness of a brief intervention based on the '5A' model for smoking cessation at the primary care level in Santiago, Chile. *Health Promot Int*, 23, 240-50.

20. Razavi SM, Siadat S, Rahbar P, Hosseini SM, Shirani AM (2012). Trends in oral cancer rates in Isfahan, Iran during 1991-2010. *Dental Res J*, 9, 88-93.
21. Razavi SM, Zolfaghari B, Foroohandeh M, Doost ME, Tahani B (2013). Dentists' knowledge, attitude, and practice regarding oral cancer in Iran. *J Cancer Edu*, 28, 335-41.
22. Razavi SM, Zolfaghari B, Doost ME, Tahani B (2015). Attitude and practices among dentists and senior dental students in Iran toward tobacco cessation as an effort to prevent oral cancer. *Asian Pac J Cancer Prev*, 16, 333-8.
23. Saleh A1, Yang YH, Wan Abd Ghani WM, et al (2012). Promoting oral cancer awareness and early detection using a mass media approach. *Asian Pac J Cancer Prev*, 13, 1217-24.
24. Sargeran K, Murtomaa H, Safavi SM, Vehkalahti M, Teronen O (2008). Survival after diagnosis of cancer of the oral cavity. *Br J Oral Maxillofac Surg*, 46, 187-91.
25. Warnakulasuriya S (2009). Global epidemiology of oral and oropharyngeal cancer. *Oral Oncol*, 45, 309-16.