



## ASSESSMENT OF KNOWLEDGE AND AWARENESS OF ORAL CANCER AMONG DENTAL STUDENTS OF A PRIVATE DENTAL COLLEGE IN NEPAL- A CROSS-SECTIONAL STUDY

### Dental Science

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### ABSTRACT

**Aim:** This study aimed to assess the knowledge and awareness of oral cancer among dental students of a private dental college in Nepal- A cross-sectional study

**Materials and Methods:** A cross-sectional questionnaire survey was carried out in randomly selected 4<sup>th</sup> year dental students of a private dental college in Nepal. The study was conducted by assessing responses to 12 selected basic questions regarding oral cancer. The extracted data was tabulated, analyzed statistically and results were obtained.

**Results:** All the participants responded to the survey making the response rate 100%. 25% of male students were participated in the study. 94% knew about where to refer the patients with oral cancer. The treatment cost for oral cancer was not known to 12% students.

**Conclusions:** The dental students have good knowledge about oral cancer. Students must be made familiar with the other risk factors of oral cancer except alcohol and tobacco.

### KEYWORDS

Oral cancer, Dental students, Knowledge

### INTRODUCTION

The incidence of oral cancer is rising in most countries, especially in developing countries. In the general male population, oral cancer is the sixth most frequent cancer<sup>1</sup>. Squamous cell carcinoma (SCC) accounts for 95% of oral cancers, and it is associated with avoidable etiological risk factors<sup>2,3</sup>. In recent years, there have been indications that the incidence and mortality rates of oral cancer have started to increase especially among younger men<sup>4</sup>. It is believed that the etiology of oral cancer is multifactorial and that the process is a multiple, stepwise<sup>5</sup>. Many risk factors have been recognized. Tobacco<sup>5b</sup> and alcohol consumption<sup>6</sup> are the major risk factors. Studies have demonstrated that two out of three cancers are diagnosed in advanced stages (III and IV)<sup>7,9</sup>. 'is delay in diagnosis is due to factors related to patients<sup>8-10</sup>, health professionals<sup>8,9</sup> and the health system, as the late diagnosis has also been associated with the difficult access to specialized services, especially for people who live away from large centers<sup>10</sup>. Oral cavity is usually easily accessible for examination and thus offers the potential for opportunistic screening for intraoral cancer. Dentists are qualified to opportunistically screen for oral cancer and to provide preventive advice such as cessation of habits and counseling interventions during routine examinations. Dentists are important in primary and secondary prevention of oral cancer; Therefore, assessing their knowledge, opinions and practices is crucial. The early diagnosis is essential to achieve better results<sup>11</sup>. It is expected that dentists, because of extensive understanding of the etiology and clinical aspects of cancer, can make a prompt diagnosis of this condition. Thus, the rationale of this study is to assess the level of knowledge and awareness about oral cancer among dental students of a private dental college in Nepal.

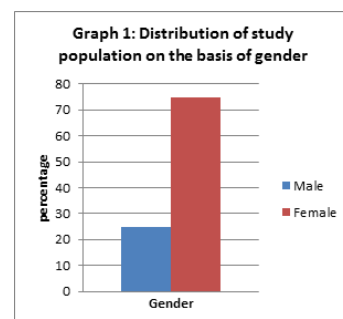
### MATERIALS AND METHODS

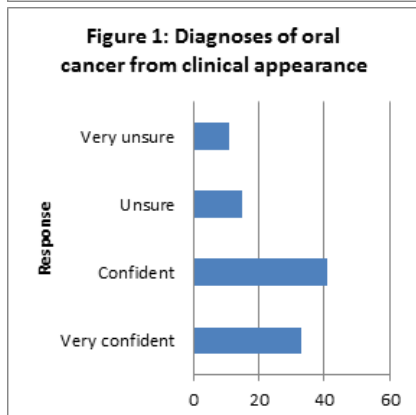
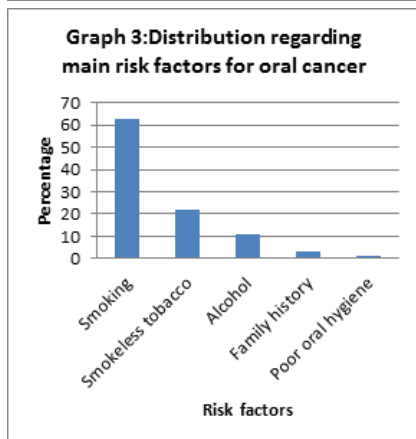
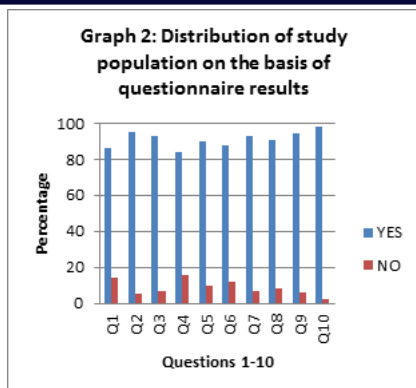
The study was conducted from in April 2019 to May 2019. This study was conducted among the final year dental students of UCMS dental college Nepal. The study was a cross-sectional study involving all the 28 final year dental students attending the UCMS dental college Nepal. Ethical approval was taken from institutional ethical review board. Informed consent was taken from the participants before administration of the questionnaire. In this study, a pre-tested, self-administered, close-ended validated questionnaire of 12 questions was distributed among all the students of the final year. The questions were designed to assess their basic knowledge and awareness about oral cancer. Each dental student was given a questionnaire containing demographic characteristics, questions related to knowledge and awareness of oral cancer, various main risk factors for oral cancer, there self-opinion about diagnoses of oral cancer by clinical appearance and where to refer in case of oral cancer. The questionnaire was pilot tested on 5 dental students and was assessed for the uniformity of interpretation. No major corrections were necessary.

This data gathered during the pilot survey was not included in the main study. The questionnaire took about 20 minutes to complete. The descriptive quantitative statistics for data presentation was done by using SPSS 20 version.

### RESULTS

A cross-sectional study was conducted on 28 final year dental students. Among the 28 dental students, 25% were males and 75% were females (Graph 1). Family history for oral cancer plays an important role in taking history. Among 28 students participated in the study, 86% students agreed that family history plays an important role in oral cancer. Majority of them ask relevant family history and personal history. Risk factors of oral cancer were informed by 84% of dental students to patients. There are various treatment options of oral cancer are available now a days. 90% students were aware about the treatments available for oral cancer. 88% dental students were aware of cost of treatment for oral cancer. Diagnosis and prognosis of oral cancer requires proper training. 93% study participants would like more training towards diagnosis, treatments available and prognosis of oral cancer. 91% students agreed that risk of oral cancer increases with age. 94% knew about where to refer the patients with oral cancer. 98% dental students thought that dentist are the first personal to identify oral cancer and oro-facial lesions at its early stage (Graph 2). Smoking, smokeless tobacco, alcohol, family history and poor oral hygiene are some main risk factors regarding oral cancer. Maximum number of participants (63%) considered smoking as the main risk factor for oral cancer and only 1% considered poor oral hygiene as the main risk factor for oral cancer (Graph 3). 41% participants were confident about diagnosis of oral cancer from its clinical appearance and 33% were very confident. 11% and 15% were very unsure and unsure about diagnosis of oral cancer from its clinical appearance respectively (Figure 1).





## DISCUSSION

Among the 28 dental students, 25% were males and 75% were females. In a study done by Fotedar et al<sup>12</sup> only 67.7% of subjects used to take history regarding use of tobacco and alcohol from their patients. In a study by Anderson Rocha-Buelvas et al<sup>13</sup> over half the respondents (59.14%) believe that it is important to evaluate the patient's personal history and that less than a quarter (22.58%) evaluate family history of cancer but in our study, 97% of students agreed that family history plays an important role in oral cancer and 86% students said that they ask for relevant family history for oral cancer while taking case history. Majority of them ask relevant family history and personal history. Clovis JB<sup>14</sup> conducted a study to determine the knowledge and opinion of dentists regarding oral cancer in British Columbia and Nova Scotia. They also found that 90% dental practitioners considered tobacco as main risk factor for oral cancer. Similarly in our study 63% considered smoking as the main risk factor for oral cancer and only 1% considered poor oral hygiene as the main risk factor for oral cancer. In our study risk factors of oral cancer were informed by 84% of dental students to patients. In a study done by Kumar S and Harshini AK<sup>15</sup>, 41% of participants were unaware about the treatment costs for oral cancer and 33% of them said that they do not inform the patients about the risk factors of oral cancer, but in our study 88% dental students were aware of cost of treatment for oral cancer. In a study done by Carter LM et al<sup>16</sup>, 90% agreed that there is need for additional training/information regarding oral cancer. Also in studies done by Bhati D et al<sup>17</sup>, Anderson

Rocha-Buelvas A et al<sup>18</sup> and Ariyawardana A and Ekanayake L<sup>19</sup> agreed that dentists need proper training in diagnosis of oral cancer. In our study, 93% study participants would like more training towards diagnosis, treatments available and prognosis of oral cancer. Other studies also emphasizes on dental education and training regarding oral cancer diagnosis, prevention and treatment<sup>20-23</sup>. In a study done by Decuseara G et al<sup>24</sup> 55% of the dental practitioners identified older age as a potential risk factor for development of oral cancer whereas in our study, 91% students agreed that risk of oral cancer increases with age. In a study done by Kumar S and Harshini AK<sup>15</sup>, 36% of participants were unsure about where to refer the patients with oral cancer in our study 94% knew about where to refer the patients with oral cancer. In a study done by Rawal M et al<sup>25</sup>, 65% of the dental practitioners considered their knowledge regarding oral cancer were insufficient. In our study 41% participants were confident about diagnosis of oral cancer from its clinical appearance and 33% were very confident. 11% and 15% were very unsure and unsure about diagnosis of oral cancer from its clinical appearance respectively.

## CONCLUSION

A proper knowledge regarding oral cancer among the upcoming dental professionals may play an important role in early diagnosis and treatment of this fatal disease. Regular workshops, seminars and continuing dental education programs must be organized for dentists for the increment of their knowledge regarding oral cancer. Government and other organizations must focus on the spread of awareness regarding oral cancer.

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