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Oral Cancer Knowledge, Attitudes And Practices: A Survey Of Undergraduate Medical And Dental Student At University Of Hail, Saudi Arabia

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Abstract:

Aim:

The aim of this study is to investigate the Oral cancer knowledge, attitudes and practices of undergraduate medical and dental student at university of hail, Saudi Arabia.

Objectives:

To assess knowledge, attitudes and practices of oral cancer among medical and dental students.

Materials and Methods

Study Design Cross-sectional study. **Study population** clinical year's undergraduate medical and dental student at hail university in Saudi Arabia**. Sample collection** Pre-validated Online questionnaire**. Sample collection and processing** pre-validated and translated self-administered electronic questionnaire. The sample size was calculated by using the Raosoft sample size calculator. We will be collecting a sample size of 241, with a confidence level of 95% and a margin of error of 5%.**Statistical Analysis** The statistical analysis will be processed using the Statistical Package for Social Sciences (SPSS) software version 25 (SPSS Inc., Chicago, IL, USA).

Ethical Consent

Ethical approval obtained from the ethical committee of university of hail.

Rationale:

In Saudi Arabia only a few studies have been conducted to assess medical or dental undergraduate OC knowledge. And no known studies to date were done to compare between medical and dental undergraduate OC knowledge in Saudi Arabia.

Results:

A total of 241 students from hail university completed the study questionnaire. A total of 186 students (77.2%) were from college of medicine and 55 (22.8%) were from college of dentistry. A total of 141 (58.5%) students were males. As for their academic year, 120 students (49.8%) were at 4th grade, 53 (22%) were at 5th grade, 42 (17.4%) were at 6th grade while 26 (10.8%) were interns. This study showed that most of hail university undergraduates are aware and had accepted knowledge towered oral cancer

Keywords: knowledge; oral cancer; undergraduates; dental; medical students; hail; Saudi Arabia.

Introduction

The incidence of Oral cancer (OC) is increasing in the last decade [1]. Almost two-third of the new cases is diagnosed at developing countries [2]. In 2018, according to the International Agency for Research on Cancer (IARC), OC representing 2% of all cancer cases [3]. In Saudi Arabia 3184 cases were diagnosed with OC in the period between 1994 and 2015 according to the Saudi Cancer Registry report representing 1.8% of all cancer cases [4].

Oral cancer is a malignancy of the mucosa of the lip, tongue and oral cavity [5]. Alcohol consumption, smoking and smokeless tobacco products (Shammah and Quat) are major risk factors of oral cancer [6]. Squamous cell carcinoma accounts for over 90 percent of OC [7].

Early recognition of oral potentially malignant lesions and oral cancer is very crucial in achieving a good prognosis and as a result reducing the OC morbidity and mortality rates [8]. Diagnosis Delays of OC are reported to be related to both patients and healthcare providers [9]. As Clinical signs and symptoms of oral cancer are often nonspecific and maybe mistaken for other conditions, both Primary care physicians and dentists must be aware of the risk of oral cancer. all patients should be routinely screened for oral lesions to increase the chance of survival. this study aims to examine the knowledge, attitude and practices of medical and dental undergraduate students at university of hail in Saudi Arabia.

Review of Literature

Many similar studies have been done internationally to assess the level of the knowledge toward the OC prevention and screening among undergraduate medical and dental student [9-14]. A cross sectional study was published at 2007 by Carter and Ogden showed that Undergraduate medical students were less likely to advise patients about OC risk factors and less likely to examine patients' oral mucosa routinely [9].

Another study was conducted in 2016 at BP Koirala Institute of Health Sciences, Nepal. By Shrestha, Ashish, et al. demonstrated lack of awareness toward the OC among undergraduate dental and medical students [10].

Additionally, as per Alami et al. in their study in which they assess the knowledge of oral cancer among recently graduated medical and dental professionals in Amman, Jordan. They found that the participants have inadequate level of knowledge of oral cancer, with significant differences between the dental and medical professionals knowledge in favor of dental professionals. And they recommended improving the undergraduate curriculum in both medical and dental schools [11].

Also, there is another survey done by Sitheeque et al. on awareness of oral cancer and precancer among final year medical and dental students of Universiti Sains Malaysia that compare knowledge of OC between dental and medical students showing no significant difference in some areas of knowledge between dental students from their medical colleagues. The authors recommend strengthening these aspects of medical and dental undergraduate curricula. [12]

In Saudi Arabia only a few studies have been conducted to assess medical or dental undergraduate OC knowledge [13, 14]. And no known studies to date were done to compare between medical and dental undergraduate OC knowledge in Saudi Arabia.

Ethical Consent:

The objectives of the research will be clarified to each participant. Everyone would have the choice whether to take part in this study or to abstain. Participants will be notified that their comments will be confidential and will be used for research purposes only. Ethical approval will be obtained from the ethical committee of university of hail.

Data analysis

After data were collected, it was modified, coded and entered to statistical software IBM SPSS version 22(SPSS, Inc. Chicago, IL). All statistical analysis was done using two tailed tests. P value less than 0.05 was considered to be statistically significant. Descriptive analysis based on frequency and percent distribution using pie and bar charts for knowledge items with frequency table for personal data Cross relation was used to assess relation between some knowledge items and students, gender, academic year and their awareness of oral cancer. Pearson chi-square test with exact tests was used to assess statistical significance for all relations due to small frequency distribution.

Results and Discussion

A total of 241 students from hail university completed the study questionnaire. A total of 186 students (77.2%) were from college of medicine and 55 (22.8%) were from college of dentistry. A total of 141 (58.5%) students were males. As for their academic year, 120 students (49.8%) were at 4th grade, 53 (22%) were at 5th grade, 42 (17.4%) were at 6th grade while 26 (10.8%) were interns as show in (table 1).

Table 1. Personal data of medical students in hail university, Saudi Arabia

Personal data	Count	Column N %
Gender		
Male	141	58.5%
Female	100	41.5%
Speciality		
Medical	186	77.2%
Dental	55	22.8%
Academic year		
4th year	120	49.8%
5th year	53	22.0%
6th year	42	17.4%
Intern	26	10.8%

Exact of 56.8% students were aware of oral cancer as show in (figure 1).

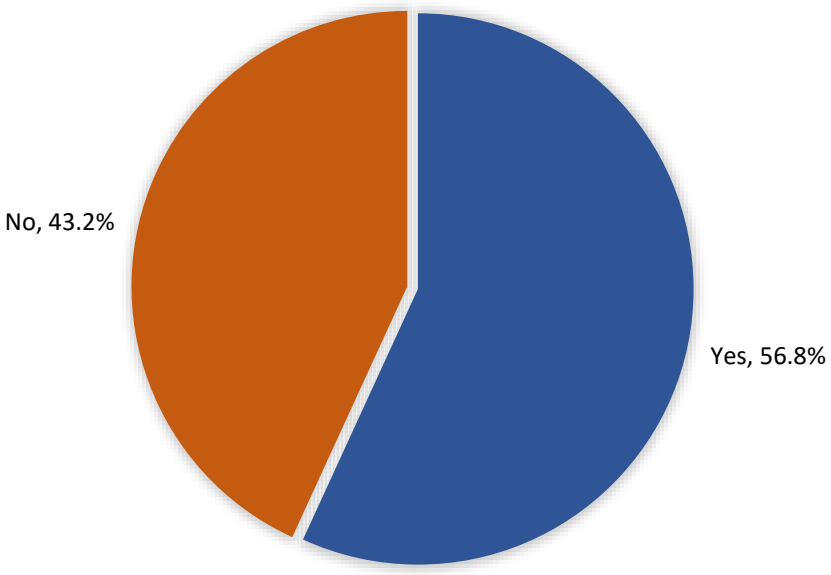

Figure 1. Pie chart representing participants' awareness towards oral cancer, hail university, Saudi Arabia

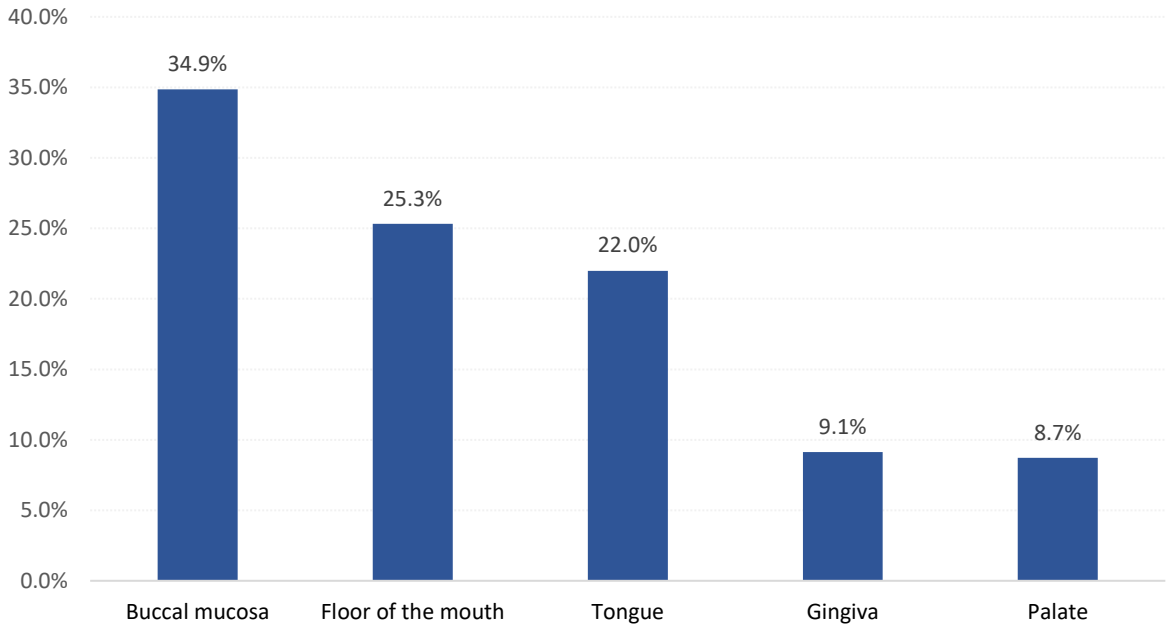

Figure 2. Bar chart representing the structure which is mostly examined during the diagnosis of oral cancer

Figure 2. Shows bar chart representing the structure which is mostly examined during the diagnosis of oral cancer. Buccal mucosa is the structure that is the most commonly examined during diagnosis of the oral cancer. This choice was the most reported

(34.9%), followed by floor of the mouth (25.3%), tongue (22%), gingiva (9.1%), and palate (8.7%).

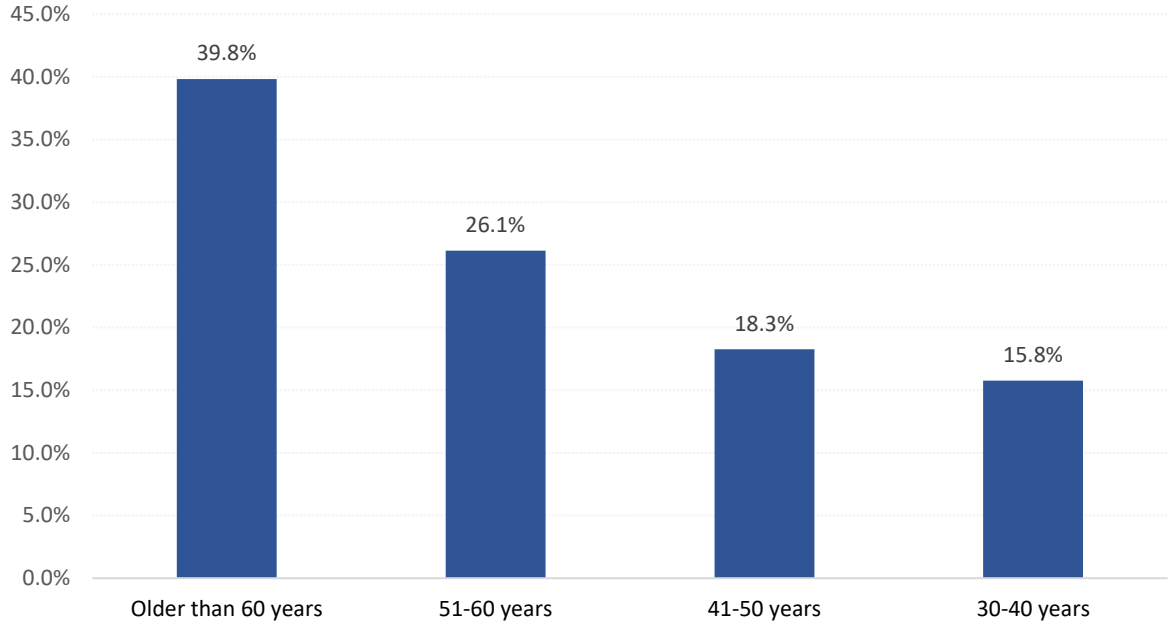

Figure 3. Bar chart representing the oral cancer is diagnosed more frequently among which age group

Figure 3. Bar chart representing the oral cancer is diagnosed more frequently among which age group. The average age of most people diagnosed with these cancers is 63 [15] The most reported age group was > 60 years (39.8%), followed by 51-60 years (26.1%), 41-50 years (18.3%), and 30-40 years (15.8%).

The risk of these cancers in people who drink and smoke is about 30 times higher than the risk in people who don't smoke or drink[15].The most reported etiological factors for oral cancer were both alcohol consumption and smoking together (81.3%) while 15.4% reported for smoking only and 3.3% told about alcohol consumption only as show in (figure 4).

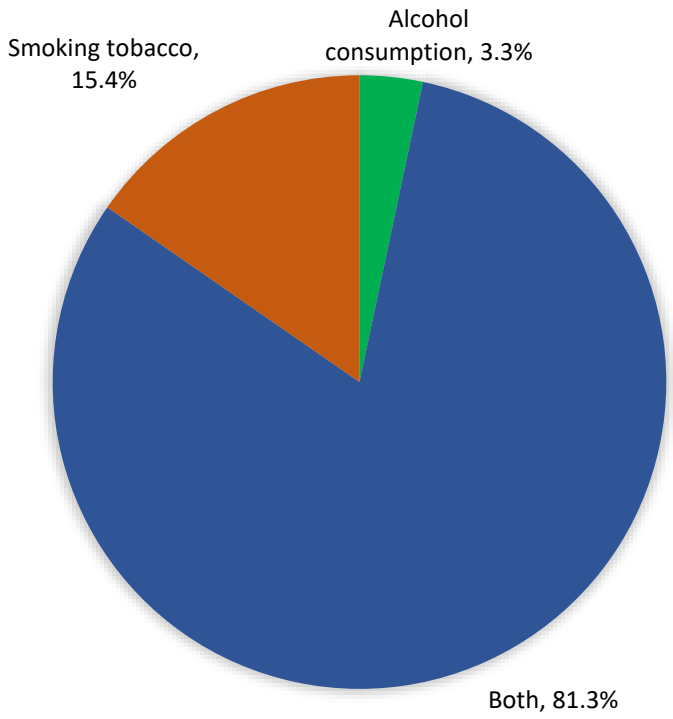

Figure 4. Pie chart representing the etiological factors for oral cancer

According to the American Head & Neck society the most common site of oral cavity cancer is the tongue [16]. In our study, buccal mucosa was the most reported by the study students (34.4%), followed by floor of the mouth (22.8%), tongue (20.7%), gingiva (12.4%), and palate (9.5%) as show in (Figure 5).

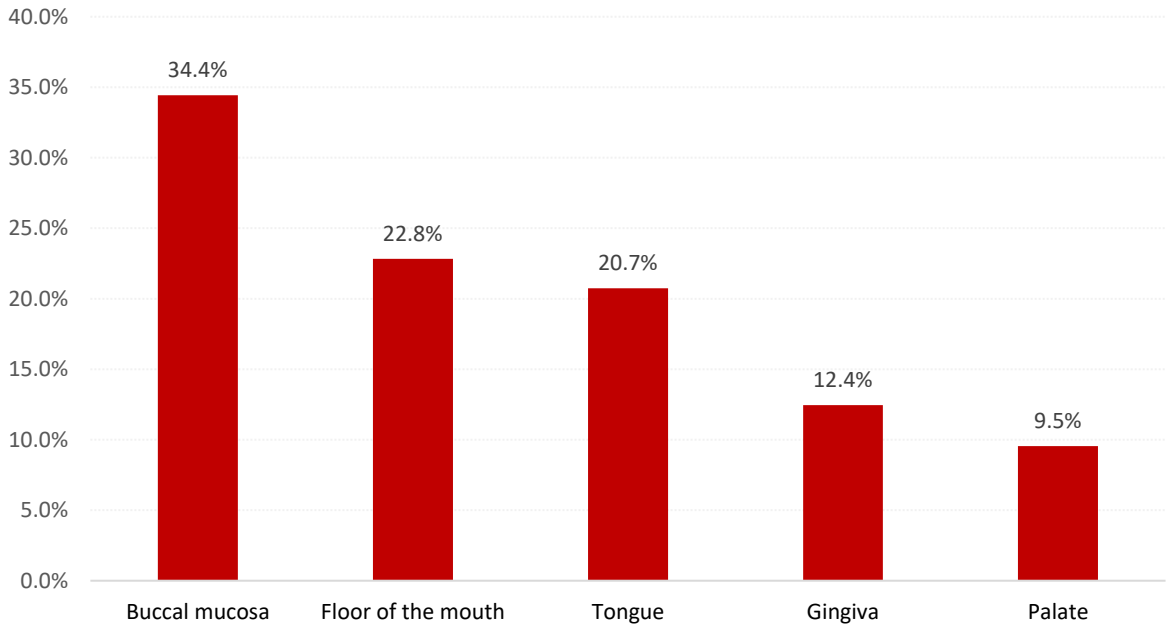

Figure 5. Bar chart Pie chart representing the common site for Oral cancer

American Head & Neck society reported that the most common representing sign & symptoms is a nonhealing wound [16]. Figure 6. Bar chart representing the sign and symptoms of oral cancer. A total of 30.3% of the students selected for abnormal mass in mouth, 29% reported for mouth sore than do not heal, 22% told about white / red patch in mouth, and 10.4% selected for difficulty in chewing and swallowing while 8.3% mentioned slow change in voice quality.

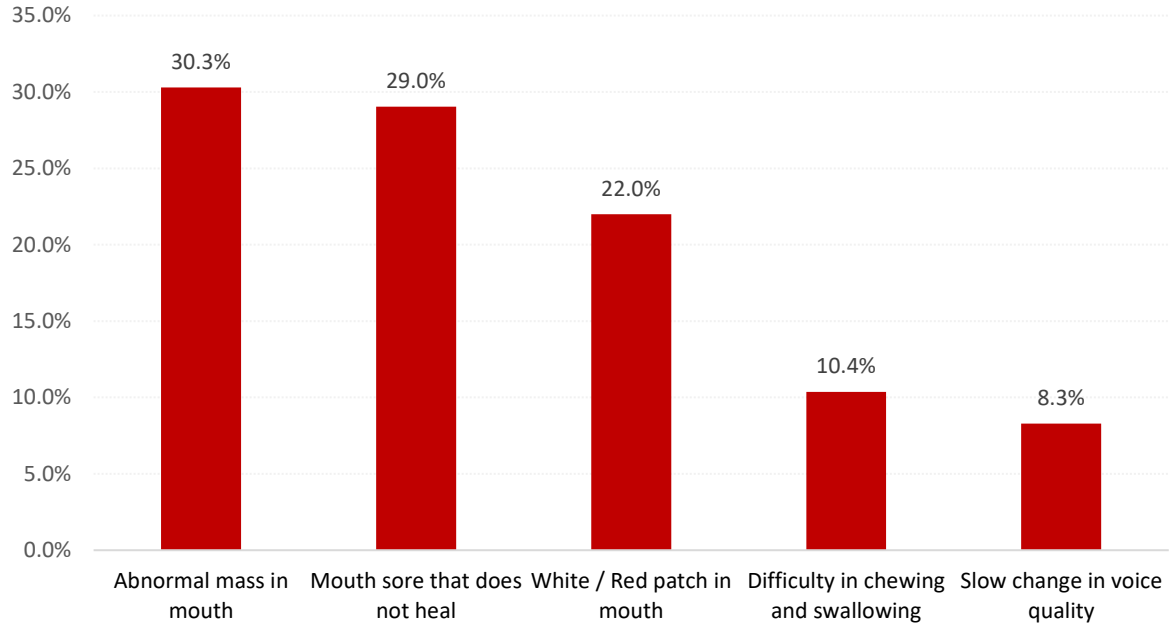

Figure 6. Bar chart representing the sign and symptoms of oral cancer

Exact of 44.4% of the students know that oral malignancy patient is asymptomatic in early stage while 42.3% said “maybe” as show in (figure 7).

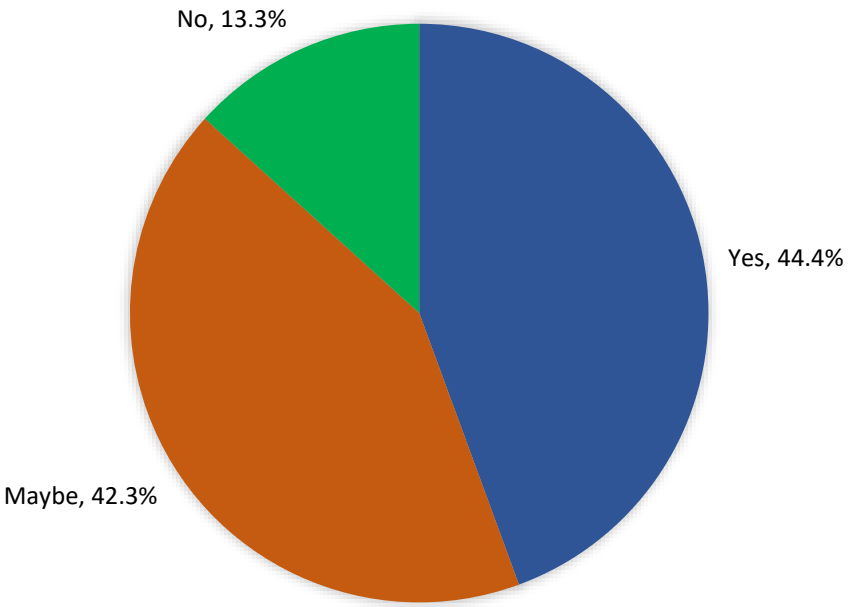

Figure 7. Pie chart representing the oral malignancy patient is asymptomatic in early stage

Most of the times oral cancer is diagnosed at late stage, which was supported by 77.6% of the students which they think that oral cancer patients be diagnosed in advanced stage as show in (figure 8),

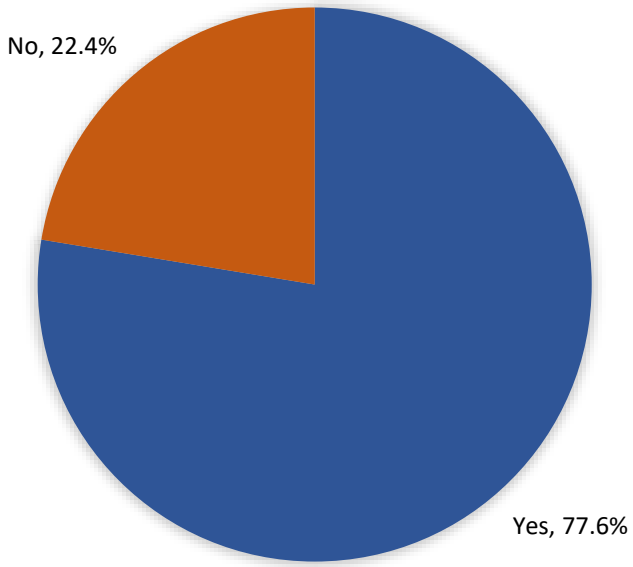

Figure 8. Pie chart representing the oral cancer patients be diagnosed in advanced stage

76.8% know that Erythroplakia and leukoplakia are the most common lesions associated with oral cancer as show in (figure 9),

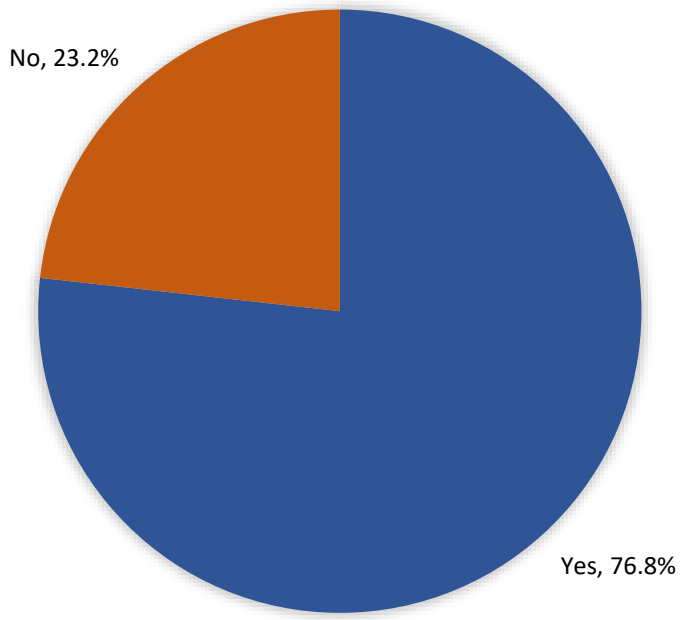

Figure 9. Pie chart representing Erythroplakia and leukoplakia are the most common lesions associated with oral cancer

and 70.5% reported that the early detection of oral cancer improves survival as show in (figure 10).

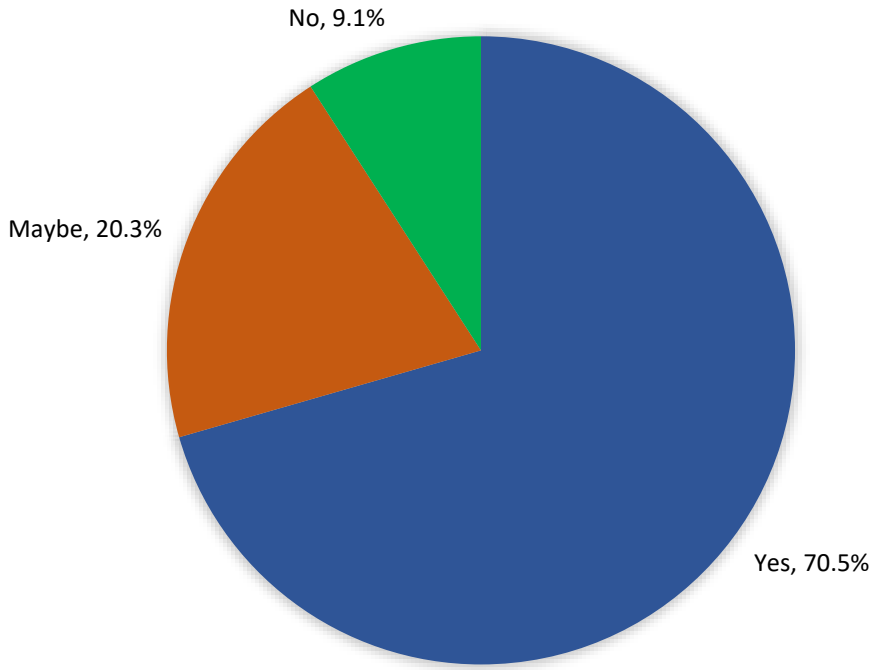

Figure 10. Pie chart representing the early detection of oral cancer improves survival

Figure 11 is Pie chart representing the early detection of oral cancer. The most reported was biopsy (34.9%), then regular check (34%), clinical examination (23.2%), and patient education (7.9%). As for the prevention of oral cancer,

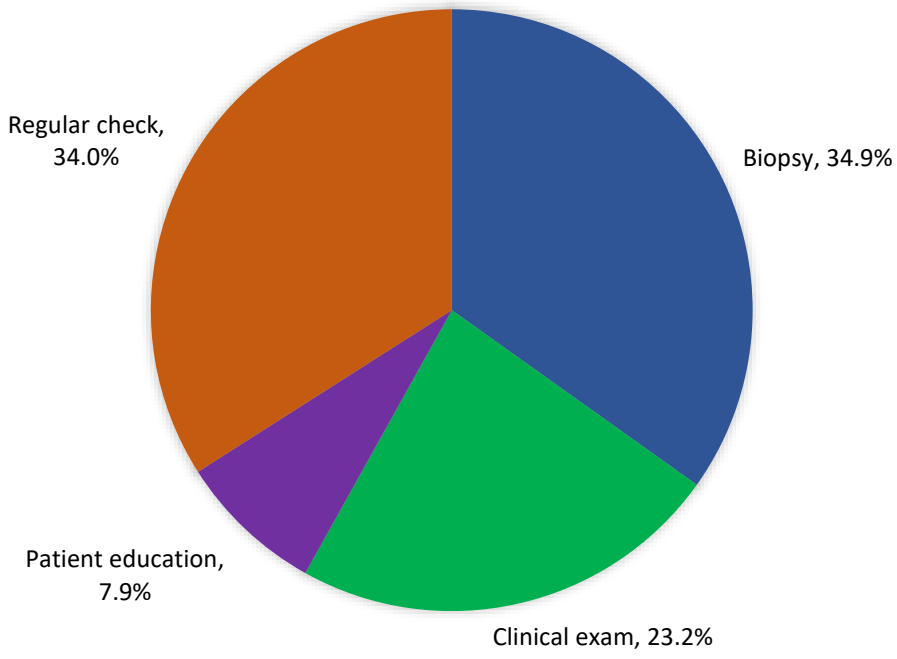

Figure 11. Pie chart representing the early detection of oral cancer

the most known among students were stop tobacco use (10.4%), good oral hygiene (5.4%), regular check-up (5%) while 79.3% reported for all of them as show in (figure 12).

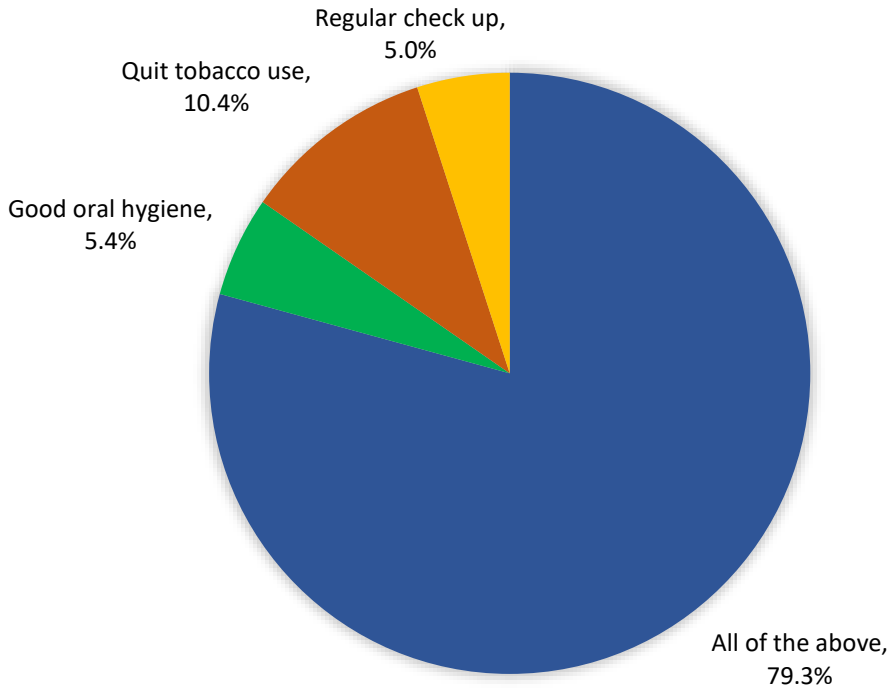

Figure 12. Pie chart representing the prevention of oral cancer

Figure 13 represent Pie chart representing the dental student's referral to a specialist in suspecting a patient with oral malignancy. Exact of 37.3% of the students selected for oncology, 30.7% selected for Oral and maxillofacial surgeon, 27.4% selected for Otorhinolaryngology head & neck surgeon, and 4.6% selected for Plastic surgery specialist.

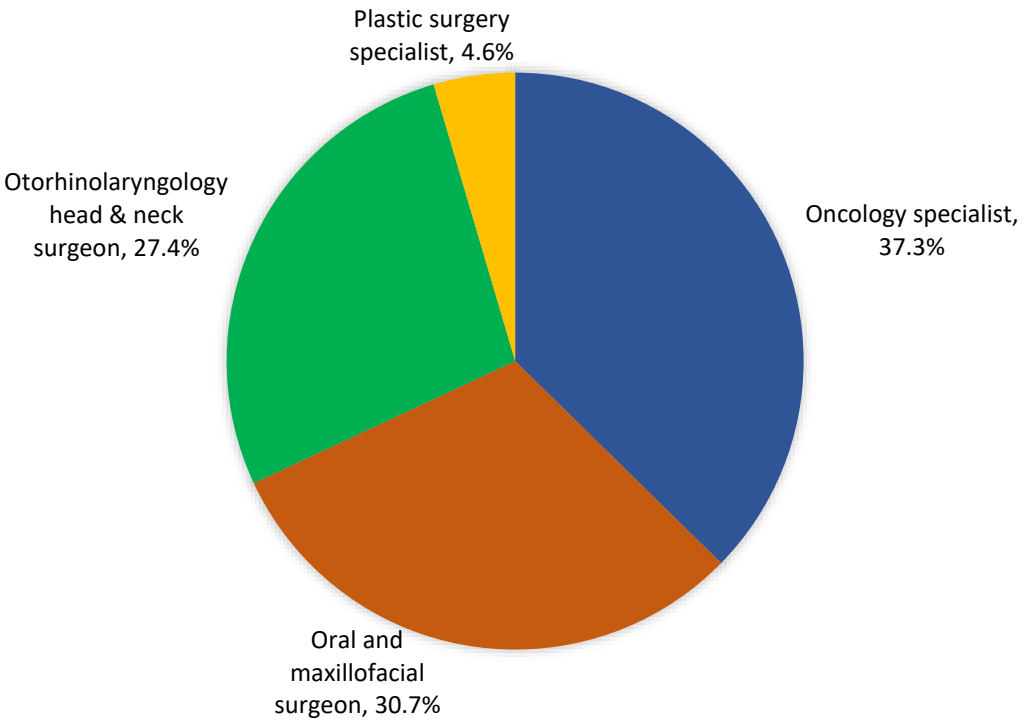

Figure 13. Pie chart representing the dental student's referral to a specialist in suspecting a patient with oral malignancy

A total of 67.2% of the students have enough information concerning prevention and management of oral cancer as show in Figure 14

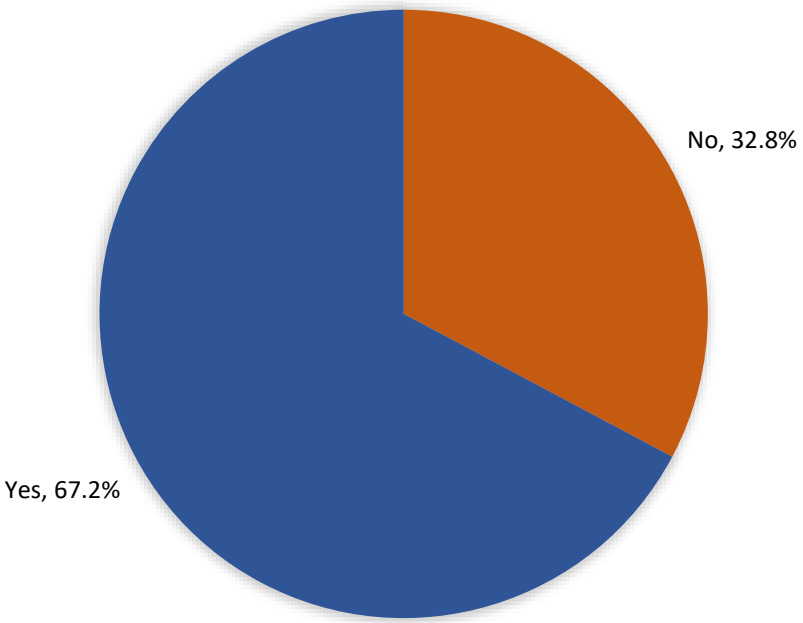

Figure 14. Pie chart representing participants have enough information concerning prevention and management of oral cancer

Figure 15 shows Bar chart representing participant's preference system in gaining the knowledge. The most preferred were Continuous education lectures (39.4%), Information package (24.5%), Seminars (17.4%), Participation in organized research (11.6%), and Webinars (7.1%).

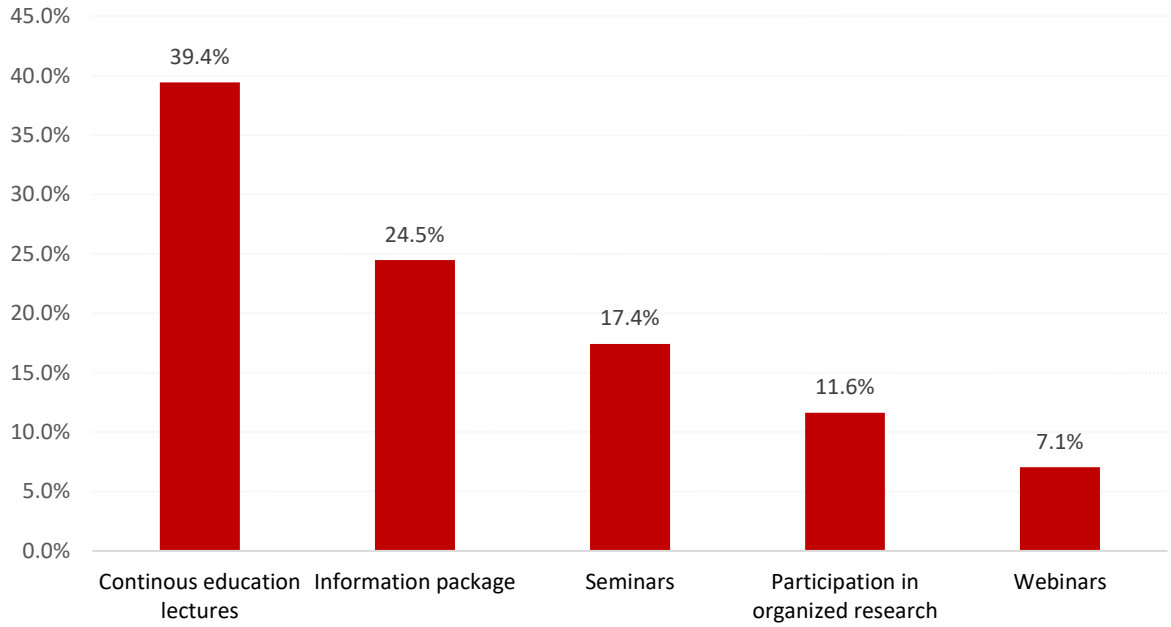

Figure 15. Bar chart representing participants preference system in gaining the knowledge

Figure 16. Bar graph showing correlation between awareness of participants and etiological factor of oral cancer. A total of 83.9% of those who were aware reported for both alcohol consumption and smoking as risk factors compared to 77.9% of unaware students with recorded statistical insignificance (Chi-square =1.9; P=.379).

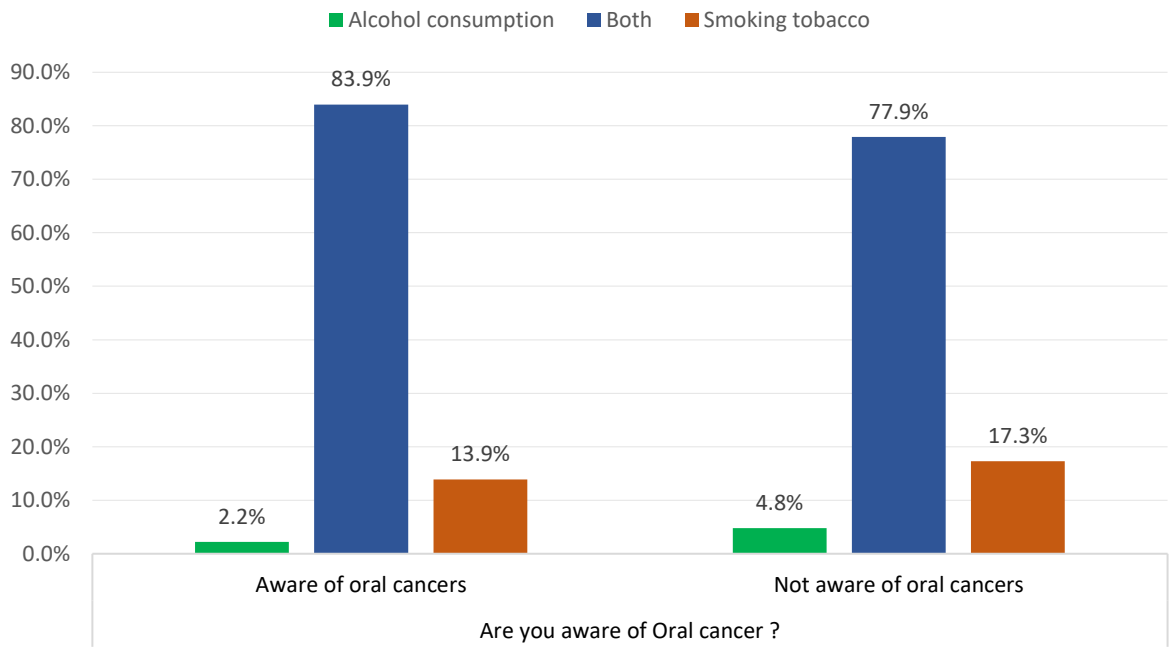

Figure 16. Bar graph showing correlation between awareness of participants and etiological factor of oral cancer

Figure 17. Bar graph showing correlation between gender-based responses about symptoms of oral cancer. The most known among male students was abnormal mass in the mouth (33.3%) versus 26% among females, while 24.8% of male students reported for mouth sore that dosnot heal compared to 35% of females. These differences were found to be statistically insignificant (Chi-square =3.6; P=.461).

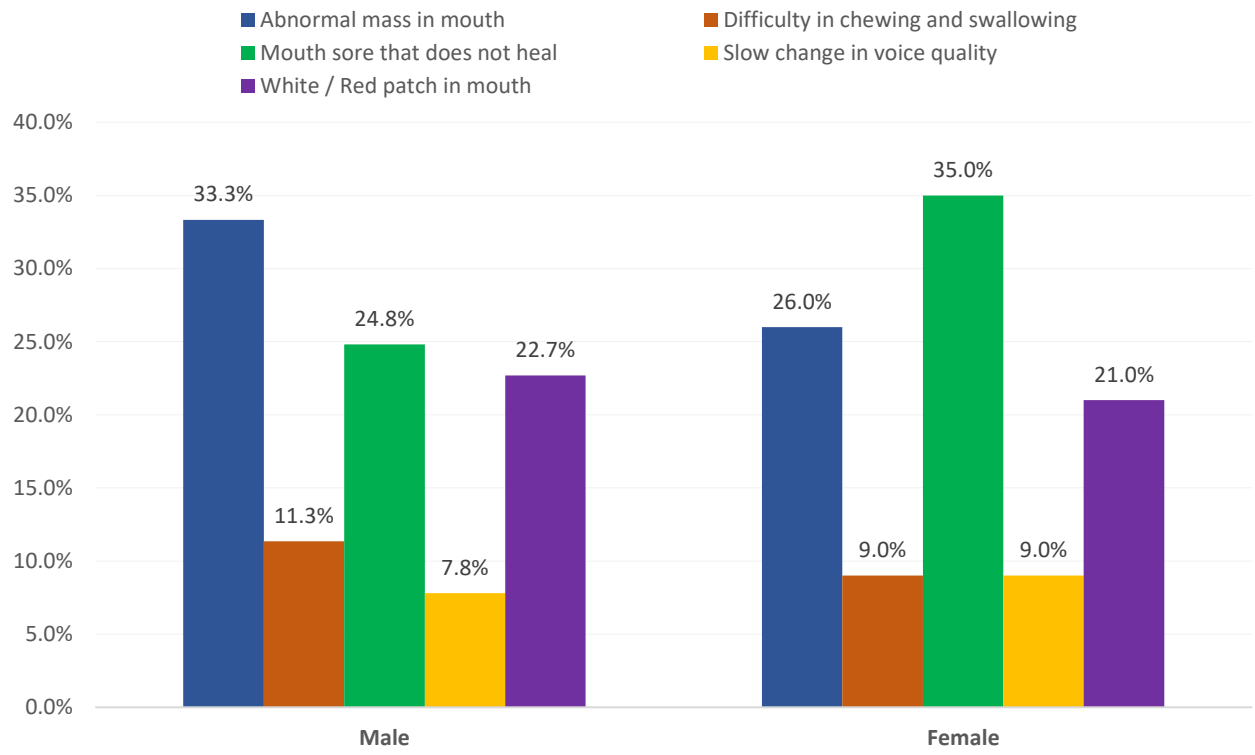

Figure 17. Bar graph showing correlation between gender-based responses about symptoms of oral cancer

Figure 18. Bar graph showing correlation between year of study and their knowledge on the common sites of oral cancer. The most common site among 4th and 6th year students was buccal mucosa (42.5% and 28.6%, respectively), while floor of the mouth was the most reported by 5th year students and interns (28.3%, and 26.9%, respectively). These differences were found to be statistically insignificant (Chi-square = 12.1; P=.440).

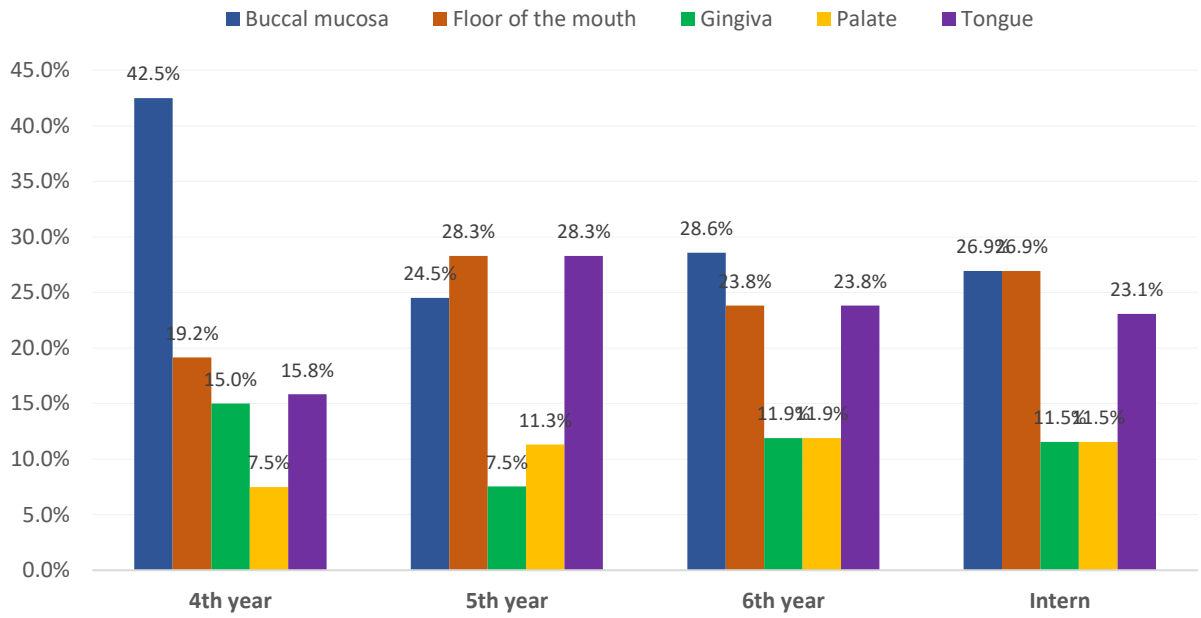

Figure 18. Bar graph showing correlation between year of study and their knowledge on the common sites of oral cancer

Conclusion

This study showed that most of hail university undergraduates are aware and had accepted knowledge towered oral cancer

References:

1. Soares TR, Carvalho ME, Pinto LS, et al. Oral cancer knowledge and awareness among dental students. Br J Oral Sci. 2014, 13:28-33.
2. Ghantous Y, Abu Elnaaj I. GLOBAL INCIDENCE AND RISK FACTORS OF ORAL CANCER. Harefuah. 2017, 156(10):645-649.
3. Bray F, Ferlay J, Soerjomataram I, Siegel RL, Torre LA, Jemal A. Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. CA Cancer J Clin. 2018, 68(6):394–424.
4. Alshehri, B.M. Trends in the incidence of oral cancer in Saudi Arabia from 1994 to 2015. World J Surg Onc. 2020, 18:217-222.
5. Ferlay, Jacques, et al. Estimates of worldwide burden of cancer in 2008: GLOBOCAN 2008. International journal of cancer. 2010, 127(12): 2893-2917.
6. Tandon P, Pathak VP, Zaheer A, Chatterjee A, Walford N. Cancer in the Jazan Province of Saudi Arabia: An eleven year study. Ann Saudi Med. 1995, 15(1):14-20.
7. Silverman Jr, S. O. L. Demographics and occurrence of oral and pharyngeal cancers: the outcomes, the trends, the challenge. The Journal of the American Dental Association. 2001, 132:7S-11S.

8. Pitiphat W, Diehl SR, Laskaris G, et al. Factors associated with delay in the diagnosis of oral cancer. J Dent Res 2002, 81:192-197
9. Carter, L.M., Ogden, G.R. Oral cancer awareness of undergraduate medical and dental students. BMC Med Educ 2007, 7:44
10. shrestha, ashish, et al. awareness of undergraduate dental and medical students towards oral cancer. journal of cancer education2017, 32(4):778-83.
11. Alami AY, El Sabbagh RF, Hamdan A. Knowledge of oral cancer among recently graduated medical and dental professionals in Amman, Jordan. J Dent Educ. 2013,77:1356–64
12. Sitheeque M, Ahmad Z, Saini R. Awareness of oral cancer and precancer among final year medical and dental students of Universiti Sains Malaysia (USM), Malaysia. Arch Orofac Sci. 2014,9:53–64.
13. Kujan, Omar, et al. Assessing oral cancer knowledge among Saudi medical undergraduates. Journal of Cancer Education. 2013, 28(4):717-21.
14. Kujan, Omar, et al. "Knowledge and attitudes of Saudi dental undergraduates on oral cancer." Journal of Cancer Education. 2014, 29(4):735-38
15. American Cancer Society. (2022, 1 12). Retrieved from cancer.org: https://www.cancer.org/cancer/oral-cavity-and-oropharyngeal-cancer/about/key-statistics.html
16. AHNS. (n.d.). Retrieved from american head & neck society: https://www.ahns.info/resources/education/patient_education/oralcavity/