

Assessment of Awareness and Knowledge of Oral Cancer Among Tobacco-Using Dental Patients

Gaye Keser¹ , Merve Ozturk² , Filiz Namdar Pekiner² 

¹ Department of Oral and Maxillofacial Radiology, Faculty of Dentistry, Marmara University, Turkey

² Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, Istanbul University, Turkey

Correspondence Author: Gaye Keser

E-mail: gayekeser@hotmail.com

Received: 01.08.2020

Accepted: 29.05.2021

ABSTRACT

Objective: The aim of this study is assesment of awareness and knowledge of oral cancer in a group of tobacco users.

Methods: The study group consisted of 100 adult patients aged 18 years and over who applied to Marmara University Faculty of Dentistry Oral and Maxillofacial Radiology Clinic for routine examination. The patients were asked to complete a 16-point questionnaire evaluating the effects of smoking on oral cancer.

Results: The participants in our study identified oral cancer symptoms as swelling / mass formation (60%), wound in mouth (58%), loss of sensation (39%) and pain (38%). There was statistically significant difference between the responses given to "What are the causes of oral cancer?", "what are the symptoms of oral cancer?" and "What are the diagnostic methods for oral cancer?" between women and men ($p < 0.05$). The rate of responding to the question "What do you think are the causes of oral cancer?" as "alcohol use" in women (63.3%) was significantly higher than men (39.2%) ($p = 0.027$; $p < 0.05$). There was no statistically significant difference between genders regarding "smoking" and "chewing tobacco" as oral cancer factor ($p > 0.05$).

Conclusion: It is concluded that women smoker individuals have more awareness, knowledge level and positive attitudes about oral cancer compared to men. Increasing level of knowledge of individuals about oral cancer, routine examination of individuals at high risk group and development of national policies with this purpose can make a contribution to improve the level of consciousness.

Keywords: Oral Cancer, Smoking, Public Awareness

1. INTRODUCTION

Oral cavity cancers were the seventh most commonly occurring cancer and, in terms of mortality, the ninth deadliest by cancer site in the world as stated by World Cancer Report 2014 (1–6). Besides skin and thyroid cancers, after larynx carcinoma, oral cavity cancers are supposed to be the second most common head and neck malignancy in Turkey (7). Oral squamous cell carcinoma represents one of the most common but scarcely known malignancies worldwide. The etiology of oral squamous cell carcinoma is strongly related to lifestyle habits and behavior, especially tobacco smoking and alcohol abuse.

Tobacco and alcohol use is the primary risk factors for oral cancer in patients over the age of 45 years (8,9). Low consumption of fruits and vegetables, immunodeficiency exposure to the sun, socio-economic status, and infection with human papilloma virus (HPV) are some of the other risk factors for oral cancers (10-12). Previous studies in literature revealed that the incidence of oral cancer increases with

smoking tobacco, older age, and alcohol consumption (1,5 13,14).

Epidemiological studies have shown that the risk of developing cancer in smokers is 5-9 times higher than in non-smokers. This rate may increase to 17 times in individuals consuming more than 80 cigarettes per day. The risk of having a second malignant upper respiratory disease increases by 2 to 6 times in patients who have been treated and continue smoking (15).

In a study conducted by Formosa et al. (16), a self-administered questionnaire was designed and consisted of the questions to ascertain socio-demographic information, awareness and knowledge of oral and pharyngeal cancer. The study revealed that 52.3% of the respondents were aware of the existence of oral cancer. Of those who were aware of oral cancer, 92% agreed or strongly agreed that smoking is a strong risk factor for oral cancers.

Peker et al. (17) evaluated levels of public awareness and knowledge about early signs and risk factors of oral cancer among a group of dental patients in Turkey. The results of the study reveals that 79.2% of the participants were unaware of the early signs related to oral cancer and 29.9% of them were unaware of risk factors of the disease. There were no statistically significant differences between age, gender, and education levels for awareness of risk factors. Therefore, the primary aim of this study was to assess the awareness and knowledge of oral cancers and smoking as a risk factor among group of smokers.

2. MATERIALS AND METHODS

The study protocol of this thesis study was approved by Marmara University School of Medicine Non-Interventional Clinical Research Ethics Committee on 14.06.2019 with protocol number 09.2019.553. This research was carried out in Marmara University Faculty of Dentistry, İstanbul, Turkey. In this study, the study group consisted of 100 patients aged 18 years and over who applied to the Department of Oral and Maxillofacial Radiology for routine examination. A questionnaire consisting of 16 questions evaluating oral cancer information and smoking, including questions about sociodemographic examination, was administered to the study group.

Statistical Analysis

IBM SPSS Statistics 22.0 (IBM SPSS, Turkey) program is used for statistical analysis. Descriptive statistical methods (frequency) as well as qualitative data were compared using the Chi-Square test, Fisher’s Exact Chi-Square test, Continuity (Yates) Correction, and Fisher’s Freeman Halton test. Significance was assessed at $p < 0.05$ level.

3. RESULTS

The study was performed on 100 patients, over 18 years old, and 49 (49.0%) female and 51 (51.0%) male were included (Table 1).

In the study, 75% of the participants considered the age group most affected by oral cancer as 40 years and older, while 19% considered young adults and 6% considered childhood (Table 2). The rates of participation in the statement “causes of oral cancers” are 78% smoking, 55% chewing tobacco, 51% drinking alcohol, 43% genetic predisposition, 41% unhealthy nutrition, 41% chemicals, 39% irregular life and stress, 33% decayed teeth, 27% inappropriate dentures, 10% other answers and 10% of the participants have no idea (Figure 1). In addition, it is reported that 47% of smoker patients in our study get information about oral cancer from their dentists. The participants stated that they would quit smoking (70%), eat well (52%), take medication (20%) for prevention of oral cancer. There was no statistically significant difference between the amount of daily cigarette smoking by gender ($p > 0.05$) (Table 3) (Figure 2).

Table 1: Distribution of demographic characteristics

	n	%	
Gender	Woman	49	49.0
	Male	51	51.0
Age	18-20 years	4	4.0
	20-30 years	56	56.0
	30-40 years	24	24.0
	40-50 years	12	12.0
	Over 50 years	4	4.0
Marital status	Married	37	37.0
	Single	63	63.0
Education	Primary education or lower	10	10.0
	Secondary education	9	9.0
	High school	19	19.0
	College	62	62.0
Occupation	Retired	4	4.0
	Self-employed	30	30.0
	Artisan	7	7.0
	Merchant	2	2.0
	Mid-level executive	8	8.0
	Officer	14	14.0
	Employee	14	14.0
	Housewife	21	21.0
Medical condition	Healthy	82	82.0
	Has a medical issue	18	18.0
Diseases	Other	11	61.0
	Diabetes	2	11.1
	Diabetes + Other	1	5.6
	Diabetes + Hypertension	1	5.6
	Hypertension	2	11.1
	Cardiovascular system diseases	1	5.6
Smoking duration	< 5 years	40	40.0
	6-10 years	20	20.0
	More than 10 years	40	40.0
Daily cigarette use	<1 package per day	62	62.0
	1 package per day	32	32.0
	More than 1 package per day	6	6.0
Diseases caused by smoking	Does not cause any disease	4	4
	COPD	80	80
	Lung cancer	86	86
	Coronary heart diseases	65	65
	Pancreatic cancer	28	28
	Oral cancer	71	71
	Other	21	21

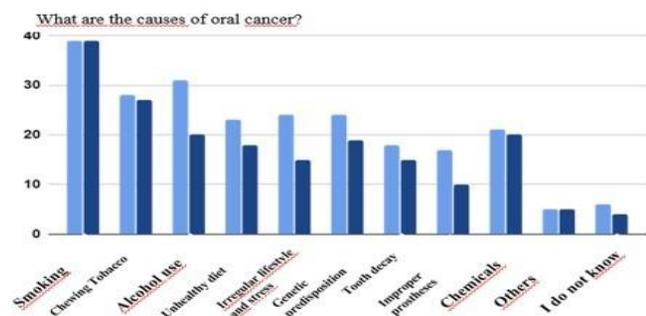


Figure 1. Distribution of participants answers for causes of oral cancer.

Table 2: Evaluation of information on oral cancer

		n	%
Age group most affected by oral cancer	Children	6	6
	Young Adults	19	19
	40 years and older	75	75
Causes of oral cancer	Smoking	78	78
	Chewing Tobacco	55	55
	Alcohol use	51	51
	Unhealthy diet	41	41
	Irregular lifestyle and stress	39	39
	Genetic predisposition	43	43
	Tooth decay	33	33
	Improper prostheses	27	27
	Chemicals	41	41
	Other	10	10
Symptoms of oral cancer	I do not know	10	10
	Wound in mouth	58	58
	Swelling / mass formation	60	60
	Pain	38	38
	Bleeding of the gums	27	27
	Loss of sensation	39	39
	Other	11	11
	I do not know	27	27
Oral cancer diagnosis methods	Regular inspection and control	68	68
	Non-neglect of wounds	48	48
	Consult a doctor if there is a problem	61	61
	Other	5	5
	I do not know	16	16
Oral cancer prevention methods	To use medicine	20	20
	Stop smoking	70	70
	Healthy eating	52	52
	Other	10	10
	I do not know	23	23
The consequences of oral cancer	Tooth loss	47	47
	Jaw-related damage / tissue loss	62	62
	Spread / affection of lymph nodes	45	45
	Inability to heal	38	38
	Death / life hazard	51	51
	Other	7	7
	I do not know	24	24
Sources of information on oral cancer	Family	9	9
	Dentist	47	47
	Press (television, internet etc.)	32	32
	Other (friends, patient)	24	24
	I do not have any information sources	36	36

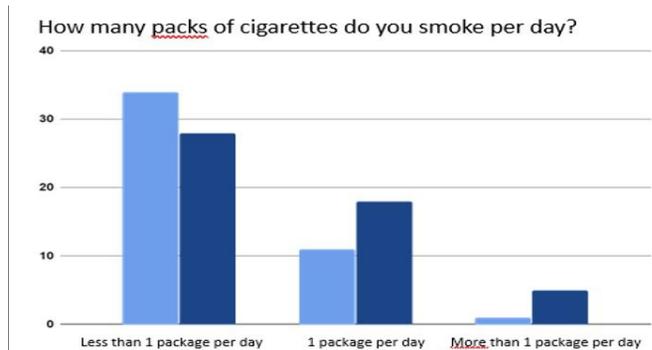


Figure 2. Assessment of daily smoking by gender

Table 3: Assessment of daily smoking by gender

Daily cigarette use	Woman	Male	p
	n (%)	n (%)	
Less than 1 package per day	34 (69.4%)	28 (54.9%)	0.182
1 package per day	14 (28.6%)	18 (35.3%)	
More than 1 package per day	1 (2%)	5 (9.8%)	

Fisher Freeman Halton Test

Woman participants (63.3%) who answered “alcohol use” to the question “What do you think causes oral cancer?” is highly statistically significant than that of man patients (39.2 %) (p=0.027, p<0.05). To the question “What do you think are the symptoms of oral cancer?”, woman patients rate of answering “wound in mouth” (69.4 %) is statistically higher than man participants (47,1%) (p=0,040, p<0,05). There was no statistically significant difference between genders in terms of the answers “swelling / mass formation”, “pain”, “gingival bleeding” and “loss of sensation” as a sign of oral cancer (p>0,05). The rate of woman patients “referring to a doctor when there is a symptom” as a method of diagnosis of oral cancer (73, 5%) was statistically higher than that of men (49%) (p=0,021; p<0,05). There was no statistically significant difference between the genders in terms of answers to the questions “What do you think are the methods of prevention from oral cancers?”, “What do you think are the consequences of oral cancer?”, “What are your sources of information about oral cancers?” (p>0,05) (Table 4).

Table 4: Evaluation of information on oral cancer by gender

		Woman	Male	p
		n (%)	n (%)	
Age group most affected by oral cancer	Childhood	4 (8.2%)	2 (3.9%)	¹ 0.446
	Young Adult	11 (22.4%)	8 (15.7%)	
	40 years and older	34 (69.4%)	41 (80.4%)	
Causes of oral cancer	Smoking	39 (79.6%)	39 (76.5%)	² 0.892
	Chewing Tobacco	28 (57.1%)	27 (52.9%)	³ 0.673
	Alcohol use	31 (63.3%)	20 (39.2%)	² 0.027 *
	Unhealthy eating	23 (46.9%)	18 (35.3%)	² 0.327
	Irregular life and stress	24 (49%)	15 (29.4%)	² 0.072
	Genetic predisposition	24 (49%)	19 (37.3%)	² 0.326
	Tooth decay	18 (36.7%)	15 (29.4%)	² 0.572
	Improper prostheses	17 (34.7%)	10 (19.6%)	² 0.141
	Chemicals	21 (42.9%)	20 (39.2%)	³ 0.711
Other	5 (10.2%)	5 (9.8%)	⁴ 1.000	
I do not know	6 (12.2%)	4 (7.8%)	⁴ 0.521	
Symptoms of oral cancer	Wound in mouth	34 (69.4%)	24 (47.1%)	² 0.040 *
	Swelling / mass formation	33(67.3%)	27 (52.9%)	² 0.206
	Pain	21 (42.9%)	17 (33.3%)	² 0.438
	Bleeding of the gums	17 (34.7%)	10 (19.6%)	² 0.141
	Loss of sensation	23 (46.9%)	16 (31.4%)	² 0.164
	Other	7 (14.3%)	4 (7.8%)	² 0,478
	I do not know	9 (18.4%)	18 (35.3%)	² 0.093

Table 4: (Continued)

Oral cancer diagnosis methods	Regular inspection and control	36 (73.5%)	32 (62.7%)	² 0,350
	Non-neglect of wounds	32 (65.3%)	16 (31.4%)	² 0.001 *
	Consult a doctor if there is a problem	36 (73.5%)	25 (49%)	² 0.021 *
	Other	4 (8.2%)	12	⁴ 0,200
	I do not know	5 (10.2%)	11 (21.6%)	² 0.202
Oral cancer prevention methods	To use medicine	9 (18.4%)	11 (21.6%)	² 0.881
	Stop Smoking	38 (77.6%)	32 (62.7%)	² 0.162
	Eat well	28 (57.1%)	24 (47.1%)	³ 0.313
	Other	5 (10.2%)	5 (9.8%)	⁴ 1.000
	I do not know	9 (18.4%)	14 (27.5%)	² 0.400
Oral cancer results	Tooth loss	25 (51%)	22 (43.1%)	³ 0.430
	Jaw-related damage / tissue loss	31 (63.3%)	31 (60.8%)	² 0.961
	Spread / affect the lymph system	24 (49%)	21 (41.2%)	³ 0.433
	Inability to heal	22 (44.9%)	16 (31.4%)	³ 0.164
	Death / life hazard	24 (49%)	27 (52.9%)	³ 0.692
	Other	4 (8.2%)	3 (5.9%)	⁴ 0.712
	I do not know	12 (24.5%)	12 (23.5%)	² 1.000
	I do not know	12 (24.5%)	12 (23.5%)	² 1.000
Sources of information on oral cancer	Family	4 (8.2%)	5 (9.8%)	⁴ 1.000
	Dentist	23 (46.9%)	24 (47.1%)	³ 0.990
	Press (television, internet etc.)	15 (30.6%)	17 (33.3%)	² 0.938
	Other (friends, patient)	12 (24.5%)	12 (23.5%)	² 1.000
	I do not have any information sources	18 (36.7%)	18 (35.3%)	² 1.000

¹ Fisher Freeman Halton Test ² Continuity (yates) correction ³ Chi-square Test ⁴ Fisher's Exact Test

* $p < 0.05$

4. DISCUSSION

Oral cancer is defined as cancers arising on the lip, oral cavity, and oropharynx and it has been estimated that changes in the world's demography would result in an increase of incidence rates of oral cancer by 62% in 2035 (18,19). Consumption of cigarettes with high concentrations of alcohol increases the risk of oral cancer 6-15 times in people over 50 years of age (20). Public awareness on oral and cancer and potentially malignant disorders and their risk factors is crucial for prevention and early detection of oral cancer.

Wimardhani et. al. (18), investigated the awareness of oral cancer among adults in Jakarta and a previously-tested questionnaire on 1000 adults in Jakarta was used in their study. They reported that only 53.2% of participants were aware of oral cancer and all of the smoker adults knew that tobacco increased the risk for oral cancer. Moreover, health warnings were the main source of information about oral cancer. In our study, 78% of participants considered smoking

as a cause of oral cancer and 47% of the patients stated that dentists are the sources of information for their oral cancer awareness.

In another study, Varela-Centelles et al. (21), portrayed the level of oral cancer knowledge and awareness in a Spanish general population. An anonymous questionnaire applied to 1,041 individuals and it is reported that 72% of the participants were familiar with oral cancer. Participants were also asked about the main signs or symptoms of oral cancer, and the most frequently (22%) mentioned as the first warning sign was a non-healing ulcer. Tobacco smoking generally was recognised as the most important (57%) risk factor for oral cancer.

Formosa et al. (22), investigated public awareness/knowledge on oral cancer in Australia and over half (52.3%) of the respondents were aware that cancer could occur in the mouth and the gender did not influence the awareness ($X^2=1.466$, $p=0.226$). In our study, 75% of the participants considered the age group most affected by oral cancer as 40 years and older, while 19% considered young adults and 6% considered childhood. Formosa et al. reported that of those who were aware of oral cancer, 92% agreed that smoking is a strong risk factor for oral cancer. They have also stated that the greatest awareness was found among the youngest age group 20-39 (61.4%) while the lowest (39.8%) was found among the respondents over the age of 60 years. In terms of the source of information for being aware of oral cancer the study found that mass media (newspapers, television, and radio) play a sizeable role being the leading source of information. It was also evident that dentist has been the second highest source of information. Similarly, 47% of smoker patients in our study gets information about oral cancer from their dentists. The present study revealed that the knowledge on the signs of oral cancer was poor in that only below 50% were aware of different presentations of cancer in the mouth. Similarly, in our study, 58% of the participants stated wounds in mouth, and 60% of them stated mass formation as main symptoms of oral cancer. Park et al. (23), in their study in Western Australia also found compatible results in that 49% of the participants did not know any signs or symptoms of oral cancer.

In a study conducted by Aydın (24), dental patients' oral cancer awareness and attitudes were assessed. In their study 44% of the study participants had never heard of oral cancer, yet smoking was the most frequently identified cause and sore in the mouth was the most frequently identified symptom. In our study, smoking took the first place with 78% and followed by 55% tobacco chewing (55%). Their study also reported that 4% of the participants would consult a doctor when a symptom is present, similar with our study (5%). In addition, the rate of woman patients "referring to a doctor when there is a symptom" as a method of diagnosis of oral cancer (73.5%) was statistically higher than that of men (49%) ($p=0,021$; $p<0.05$) in our present study.

Peker and Alkurt (17) also reported the levels of public awareness and knowledge about early signs and risk factors of oral cancer among a group of 1022 dental patients in

Turkey and found that in total 60.7% of participants had never heard of oral cancer. While 79.2% of the participants were unaware of the early signs related to oral cancer, 29.9% of them were unaware of risk factors of the disease. The risk factors associated with oral cancer that were most often correctly identified by the participants were smoking (57.6%, n=589); regular consumption of alcohol (27.9%, n=285); excessive exposure to sunlight (15%, n=153); eating hot, spicy foods (9.9%, n=101); and biting the cheek or lip (6.8%, n=69) respectively. There were no statistically significant differences between age, gender, and education levels for awareness of risk factors. In our study the rates of participation in the statement “causes of oral cancers” are 78% smoking, 55% chewing tobacco, 51% drinking alcohol, 43% genetic predisposition, 41% unhealthy nutrition, 41% chemicals, 39% irregular life and stress, 33% decayed teeth, 27% inappropriate dentures, 10% other answers and 10% of the participants have no idea. Moreover, woman participants (63.3%) who answered “alcohol use” to the question “What do you think causes oral cancer?” is highly statistically significant than that of man patients (39.2 %) ($p=0.027$, $p<0.05$). To the question “What do you think are the symptoms of oral cancer?”, woman patients rate of answering “wound in mouth” (69.4 %) is statistically higher than man participants (47.1%) ($p=0.040$, $p<0.05$).

This study’s reliance on self-reported data may be seen as a limitation. Respondents may exaggerate, or they may under-report the severity or frequency of conditions. Patients might also simply be mistaken or misremember the material covered by the survey.

5. CONCLUSION

It is concluded that in comparison to men, women smokers have higher levels of understanding, education, and optimistic attitudes toward oral cancer. However, the issue of delayed diagnosis can be addressed by patient self-examination of early symptoms of illness and the development of effective interventions to improve clinician awareness and preventive attitudes. Moreover, a comprehensive knowledge on oral cancer to undergraduates and dental graduates should be given through a review of dental curriculum and formal continued education.

Acknowledgement:

This study was based on undergraduate thesis of Merve Öztürk.

REFERENCES

- [1] Keser G, Pekiner FN. Assessing Oral Cancer Awareness Among Dental Students. *J Cancer Educ* 2019; 34(3):512-518.
- [2] Jaber MA. Dental practitioner’s knowledge, opinions and methods of management of oral premalignancy and malignancy. *Saudi Dent J* 2011; 23:29–36.
- [3] Oliveira JMB, Pinto LO, Lima NGM, Almeida GCM. Oral cancer: assessment of academic dentistry and nursing knowledge as for the risk factors and diagnostic procedures. *Rev Bras Canc* 2013; 59: 211–218.
- [4] Carter LM, Ogden GR. Oral cancer awareness of undergraduate medical and dental students. *BMC Med Educ* 2007; 15:44–52.
- [5] Kebabcıoğlu Ö, Pekiner FN. Assessing oral cancer awareness among dentists. *J Cancer Educ*. 2017; 33:1020-1026.
- [6] Le Campion ACOV, Ribeiro CMB, Luiz RR, da Silva Júnior FF, Barros HCS, Dos Santos KCB et al. Low survival rates of oral and oropharyngeal squamous cell carcinoma. *Int J Dent* 2017; 5815493.
- [7] Düzlü M, Karamert R, Bakkal FK, Cevizci R, Tutar H, Zorlu ME, Dilci A, Eravcı FC. The demographics and histopathological features of oral cavity cancers in Turkey. *Turk J Med Sci*. 2016; 46:1672– 1676.
- [8] Rupel K, Ottaviani G, Gobbo M, Poropat A, Zoi V, Zacchigna S, Di Lenarda R, Biasotto M. Campaign to Increase Awareness of Oral Cancer Risk Factors Among Preadolescents. *J Cancer Educ*. 2019; doi: 10.1007/s13187.019.01504-7.
- [9] International Agency for Research on Cancer (IARC) Working Group on the Evaluation of Carcinogenic Risk to Humans. 2004. Tobacco smoke and involuntary smoking, Monographs on the evaluation of carcinogenic risk to humans, vol 83. International Agency for Research on Cancer, Lyon <http://monographs.iarc.fr/ENG/Monographs/vol83/mono>
- [10] Husain N, Neyaz A. Human papillomavirus associated head and neck squamous cell carcinoma: controversies and new concepts. *J Oral Biol Craniofac Res* 2017;7(3):198–205.
- [11] Torre LA, Siegel RL, Ward EM, Jemal A. Global cancer incidence and mortality rates and trends—an update. *Cancer statistics, Cancer Epidemiol Biomark Prev* 2016; 25(1):16–27. <https://doi.org/10.1158/1055-9965.EPI-15-0578>.
- [12] Güneri P, Epstein JB. Late stage diagnosis of oral cancer: components and possible solutions. *Oral Oncol* 2014; 50(12):1131–1136.
- [13] Varela-Centelles P, Estany-Gestal A, Bugarín-González R, Seoane – Romero JM. Oral cancer awareness in Spain: a pilot study. *Oral Dis* 2018; 24(1–2):124–127.
- [14] Rogers SN, Hunter R, Lowe D. Awareness of oral cancer in the Mersey region. *Br J Oral Maxillofac Surg* 2011; 49:176–181.
- [15] Neville B.W., Day T. A. Oral Cancer and Precancerous Lesions. CA: A Cancer Journal for Clinicians 2009; 2:195-199.
- [16] Formosa J, Jenner R, Nguyen-Thi MD, Stephens C, Wilson C, Ariyawardana A. Awareness and Knowledge of Oral Cancer and Potentially Malignant Oral Disorders among Dental Patients in Far North Queensland, Australia. *Asian Pac J Cancer Prev* 2015; 16:4429–4434.
- [17] Peker I, Alkurt MT. Public Awareness Level of Oral Cancer in a Group of Dental Patients. *J Contemp Dent Pract* 2010; 11:049-056.
- [18] Wimardhani YS, Warnakulasuriya S, Subita GP, Soegyanto AI, Pradono SA, Patoni N.2019. Public awareness of oral cancer among adults in Jakarta, Indonesia. *J Invest Clin Dent* 10:e12379.
- [19] Shield KD, Ferlay J, Jemal A, et al. The global incidence of lip, oral cavity, and pharyngeal cancers by subsite in 2012. *CA Cancer J Clin* 2017; 67:51-64.
- [20] Özbayrak S, Pekiner FN. 2016. Oral cancers: clinical findings and treatment approaches in point of early diagnosis. Quintessence Publication, İstanbul.815493.

- [21] Varela-Centelles P, Estany-Gestal A, Bugarín-González R, Seoane-Romero JM. Oral cancer awareness in Spain: A pilot study. *Oral Dis* 2018; 24:124–127.
- [22] Formosa J, Jenner R, Nguyen-Thi MD, Stephens C, Wilson C, Ariyawardana A. Awareness and Knowledge of Oral Cancer and Potentially Malignant Oral Disorders among Dental Patients in Far North Queensland, Australia. *Asian Pac J Cancer Prev* 2015; 16:4429–4434.
- [23] Park J H, Slack-Smith L, Smith A, et al. Knowledge and perceptions regarding oral and pharyngeal carcinoma among adult dental patients. *Aust Dent J* 2011; 56, 284-289.
- [24] Aydın Ü. Patients' oral cancer awareness and perceptions of oral cancer screening with a fluorescence visualization device. *Cumhuriyet Dental Journal* 2014; 1:117-128.

How to cite this article: Keser G, Ozturk M, Namdar Pekiner F. Assessment of Awareness and Knowledge of Oral Cancer Among Tobacco-Using Dental Patients. *Clin Exp Health Sci* 2021; 11: 279-284. DOI: 10.33808/clinexphealthsci.753980