



RESEARCH ARTICLE

ORAL CANCER AWARENESS AMONG NON-MEDICAL PROFESSIONALS - A CROSS-SECTIONAL STUDY IN LADAKH

Dr. Mohd Hussain¹, Dr. Rubeena Anjum², Dr. Mandeep Kaur³, Dr. Nidhi Khajuria⁴, Dr. Nitish Bhat⁵ and Dr. Ashanka Bhardwaj⁵

1. Post Graduate Student, Department of Oral & Maxillofacial Pathology & Oral Microbiology, IGGDC, Jammu.
2. Professor & Head, Department of Oral & Maxillofacial Pathology & Oral Microbiology, IGGDC, Jammu.
3. Assistant Professor, Department of Oral & Maxillofacial Pathology & Oral Microbiology, IGGDC, Jammu.
4. Lecturer, Department of Oral & Maxillofacial Pathology & Oral Microbiology, IGGDC, Jammu.
5. Tutor, Department of Oral & Maxillofacial Pathology & Oral Microbiology, IGGDC, Jammu.

Manuscript Info

Manuscript History

Received: 15 September 2021

Final Accepted: 17 October 2021

Published: November 2021

Key words:-

Oral Cancer, Awareness, Risk Factors,
Non-Medical Professionals, Ladakh

Abstract

Introduction: Oral Cancer is the fifth-most common cancer and is the cause of 130,000 deaths worldwide annually. It is a global health problem with an increasing incidence and mortality rate and also has one of the lowest survival rates. Therefore, the aim of this study is to assess the awareness about Oral Cancer among non-medical professionals in Ladakh.

Methodology: A questionnaire-based survey was conducted over a period of six months among the different areas of Ladakh to assess the knowledge and awareness about Oral Cancer among non-medical professionals in Ladakh. A questionnaire containing 20 questions pertaining to awareness, signs, symptoms and risk factors of Oral Cancer was submitted to the participants.

Results: Participants who completed the questionnaire had a poor understanding of Oral Cancer, particularly with regard to etiology, signs, symptoms & risk factors.

Conclusion: Overall, the awareness about Oral Cancer among the non-medical professionals in Ladakh was not satisfactory pointing to the need of mass awareness and dissemination of information about Oral Cancer and its risk factors.

Copy Right, IJAR, 2021,. All rights reserved.

Introduction:-

Oral cancer is a universal health problem with an increasing incidence and mortality rate and also has one of the lowest survival rates that remain unaffected in spite of recent therapeutic advances. Oral cancer is the fifth-most common cancer and is the cause of 130,000 deaths worldwide annually.¹ Risk factors for oral cancers include smoking, alcohol use, smokeless tobacco products, and HPV infections, with smoking and alcohol having synergistic effects. The contribution of each of these risk factors to the oral cancer burden varies across regions. Smokeless tobacco products and betel quid with or without tobacco are the major risk factors for oral cavity cancer in India and other neighbouring countries.² Unfortunately, most oral cancers are diagnosed in advanced stages, necessitating aggressive treatment and associated morbidity, resulting in higher mortality rates than when diagnosed early.³ Survival rates are about 80% when the tumour is diagnosed at an early stage and less than 30% in cases

Corresponding Author:- Dr. Mohd Hussain

Address:- Department of Oral & Maxillofacial Pathology & Oral Microbiology, IGGDC, Jammu, J&K.

presenting with distant metastasis.⁴ Since at least two-thirds of all cases are due to lifestyle factors, such as tobacco and alcohol abuse, these behaviours are changeable by the use of effective primary prevention programs.⁵ Therefore, this study was undertaken with the aim to assess the knowledge and thus raise the awareness among the non-medical professionals in Ladakh about the signs, symptoms & risk factors of oral cancer.

Methodology:-

A cross-sectional descriptive questionnaire-based study was conducted between February 2021 to July 2021 in which a total of 234 non-medical professionals were selected from various areas of Ladakh.

The questionnaire consisted of 20 questions about the general awareness, sign, symptoms and risk factors of oral cancer. Socio-demographic information such as age, gender, educational level was recorded. The responses for each question were Yes, No & I don't know and respondents were expected to choose only one appropriate response. The questionnaire was divided into four sections, demographics, general awareness, sign & symptoms, risk factors of Oral Cancer. Once the final version of the questionnaire was established, these were sent to participants by using various social media platforms and the responses were recorded. After completion the respondents were provided an educational pamphlet with description of the risk factors, signs and symptoms of oral cancer, and the importance of detecting the disease in its early stages. Finally, data were recorded and statistically analysed and tabulated.

Results:-

A total of 234 non-medical professionals were included in the study in which 144 were males and 90 were females. The participants were between the age groups of 17-45 years and the mean age was 27 years. The education level of 48 participants were 12th, 108 participants were Graduate and 85 participants were post graduate and PhDs.

In this study participants with higher qualification had more knowledge and awareness about Oral Cancer than participants with lower qualification. [Table 1]

Furthermore, among all the participants 66.2% participants had heard about Oral Cancer, 28.6% participants had never heard about Oral Cancer and 5.1% participants don't know about Oral Cancer. Of all the respondents, 21.4% participants think oral cancer is contagious, 53% don't think oral cancer is contagious and 25.7 % don't know whether oral cancer is contagious or not. When asked whether Oral cancer is preventable, 77.4% participants think oral cancer is preventable, 1.3% thinks as non-preventable and 21.4% participants don't know. [Graph 1]

Majority of participants 54.7% thinks abnormal growth in the mouth can be a sign of Oral Cancer, and almost half of the participants 50% responds that appearance of red or white spot in mouth can be a sign of Oral Cancer. [Graph 2]

Of all the participants 35.5% thinks that continuous pain in the jaw can be a sign of Oral Cancer and 34.6% knows that reduced mouth opening is a sign of Oral Cancer. [Graph 2]

Majority of the participants 82.1% were aware that smoking is a risk factor for Oral Cancer, 74.1% were aware that alcohol is a risk factor for Oral Cancer and 74.4% participants were aware that smoke less tobacco is a risk factor for Oral Cancer. Only 38% think sedentary lifestyle is a risk factor for Oral Cancer whereas 41.9% think family history of oral cancer a risk factor for Oral Cancer. [Graph 3]

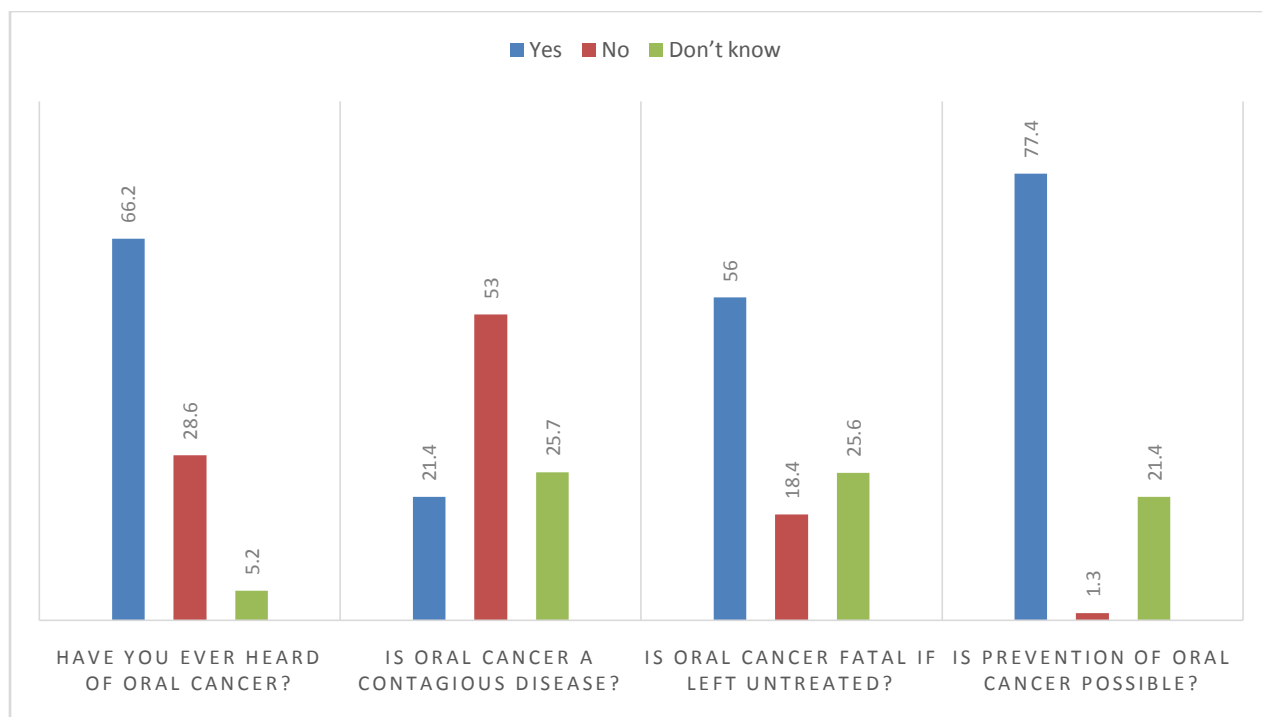
Of the respondents only 31.2% knows that sharp tooth as an irritating agent can be a risk factor for Oral Cancer, 65.4% knows that viruses can be a risk factor for oral cancer and 51.7% knows that nutritional deficiency to be a risk factor for Oral Cancer. [Graph 4]

		Q. have you ever heard of oral cancer?			
		Yes	No	Don't know	P value
Your Qualification	12 th	22	12	6	0.01*
	Graduate	74	34	1	
	PGs/Phd	59	21	5	
*P value<0.05					
		Q. Is Oral Cancer a contagious disease?			

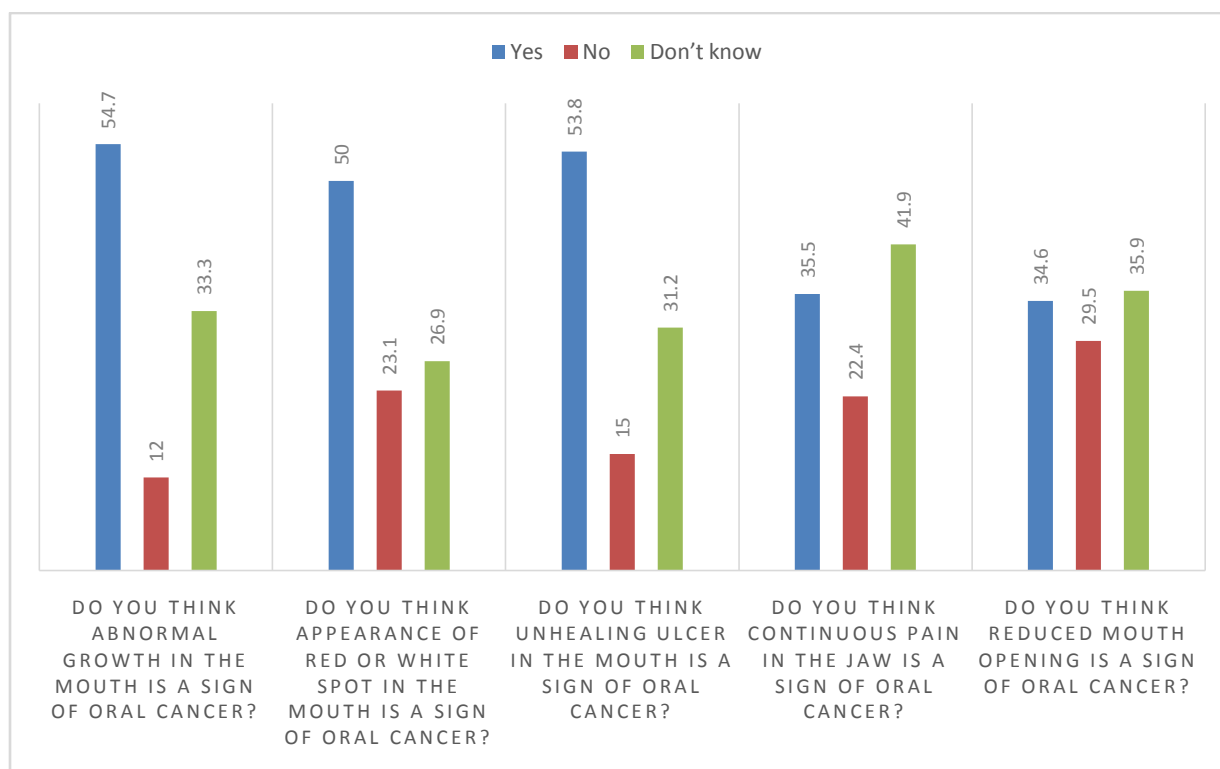
		Yes	No	Don't know	P value
Your Qualification	12 th	12	23	3	0.002*
	Graduate	21	66	22	
	PGs/Phd	17	35	32	
*P value<0.05					
		Q. Is Oral Cancer fatal if left untreated?			
		Yes	No	Don't know	P value
Your Qualification	12 th	26	7	7	0.05
	Graduate	63	24	22	
	PGs/Phd	42	12	31	
		Q. Is prevention of Oral cancer possible?			
		Yes	No	Don't know	P value
Your Qualification	12 th	28	0	12	0.17
	Graduate	83	3	20	
	PGs/Phd	70	0	15	
		Q. Do you think an abnormal growth in the mouth is a sign of Oral Cancer?			
		Yes	No	Don't know	P value
Your Qualification	12 th	21	13	6	0.00*
	Graduate	72	5	32	
	PGs/Phd	35	10	40	
*P value<0.05					
		Q. Do you think an appearance of red or white spot in the mouth is a sign of Oral Cancer?			
		Yes	No	Don't know	P value
Your Qualification	12 th	24	10	6	0.3
	Graduate	54	26	29	
	PGs/ Phd	39	18	28	
		Q. Do you think an unhealing ulcer in the mouth is a sign of Oral Cancer?			
		Yes	No	Don't know	P value
Your Qualification	12 th	22	4	14	0.105
	Graduate	61	22	26	
	PGs/ Phd	43	9	33	
		Q. Do you think continuous pain in the jaw is a sign of Oral Cancer?			
		Yes	No	Don't know	P value
Your Qualification	12 th	22	4	14	0.002*
	Graduate	43	22	44	
	PGs/ Phd	18	27	40	
*P value<0.05					
		Q. Do you think reduced mouth opening is a sign of Oral Cancer?			
		Yes	No	Don't know	P value
Your Qualification	12 th	20	9	11	0.00*
	Graduate	48	29	32	
	PGs/ Phd	13	31	41	
*P value<0.05					
		Q. Do you think smoking is a risk factor for oral cancer?			
		Yes	No	Don't know	P value
Your Qualification	12 th	32	3	5	0.4
	Graduate	87	12	10	

	PGs/ Phd	73	3	9	
		Q. Do you think alcohol is a risk factor for oral cancer?			
		Yes	No	Don't know	P value
Your Qualification	12 th	32	5	3	0.287
	Graduate	79	17	12	
	PGs/ Phd	63	7	15	
		Q. Do you think smokeless tobacco is a risk factor for oral cancer?			
		Yes	No	Don't know	P value
Your Qualification	12 th	33	4	3	0.045*
	Graduate	79	13	17	
	PGs/ Phd	55	6	24	
*P value<0.05					
		Q. Do you think sedentary lifestyle is a risk factor for oral cancer?			
		Yes	No	Don't know	P value
Your Qualification	12 th	21	6	13	0.00*
	Graduate	46	39	24	
	PGs/ Phd	22	11	52	
*P value<0.05					
		Q. Do you think family history of cancer is a risk factor for oral cancer?			
		Yes	No	Don't know	P value
Your Qualification	12 th	22	13	5	0.00*
	Graduate	56	27	26	
	PGs/ Phd	20	41	24	
*P value,0.05					
		Q. Do you think sharp tooth as a risk factor for oral cancer?			
		Yes	No	Don't know	P value
Your Qualification	12 th	19	15	6	0.00*
	Graduate	48	41	20	
	PGs/ Phd	6	60	19	
*P value<0.05					
		Q. Do you think some viruses, bacterias may be a cause of oral cancer?			
		Yes	No	Don't know	P value
Your Qualification	12 th	25	7	8	0.108
	Graduate	77	18	14	
	PGs/ Phd	51	10	24	
		Q. Do you think nutritional deficiency may be a cause of oral cancer?			
		Yes	No	Don't know	P value
Your Qualification	12 th	14	17	9	0.05*
	Graduate	65	22	22	
	PGs/ Phd	42	26	17	
*P value <0.05					

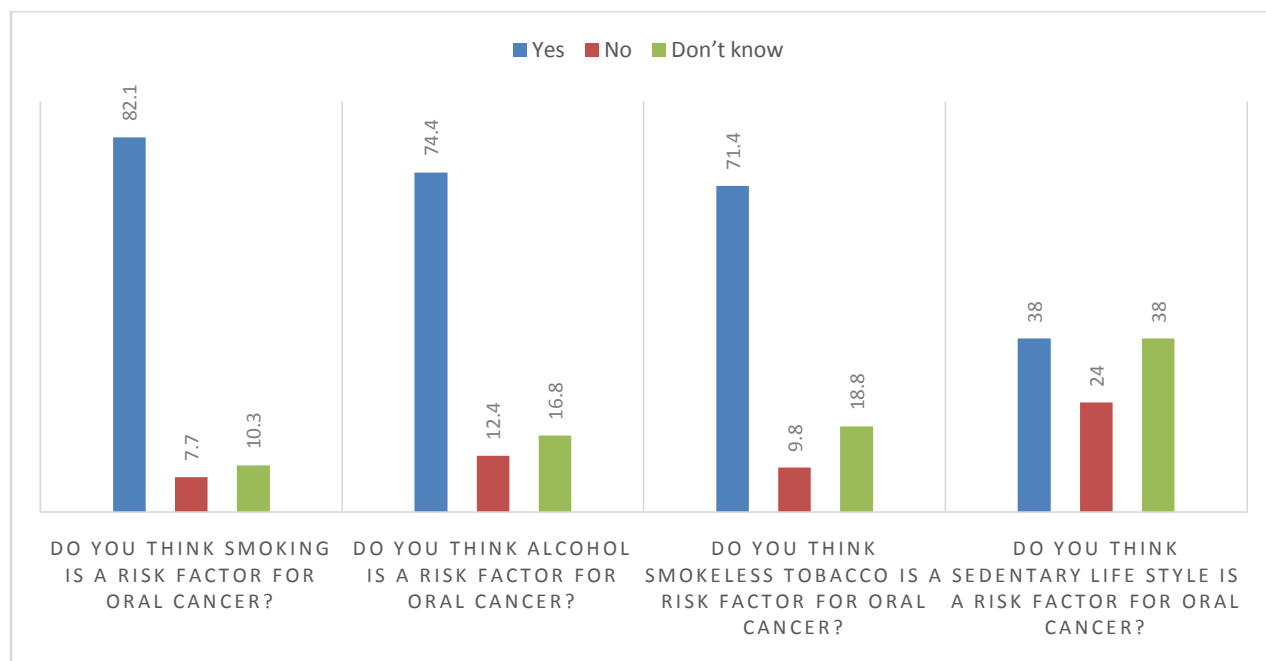
Table 1:-



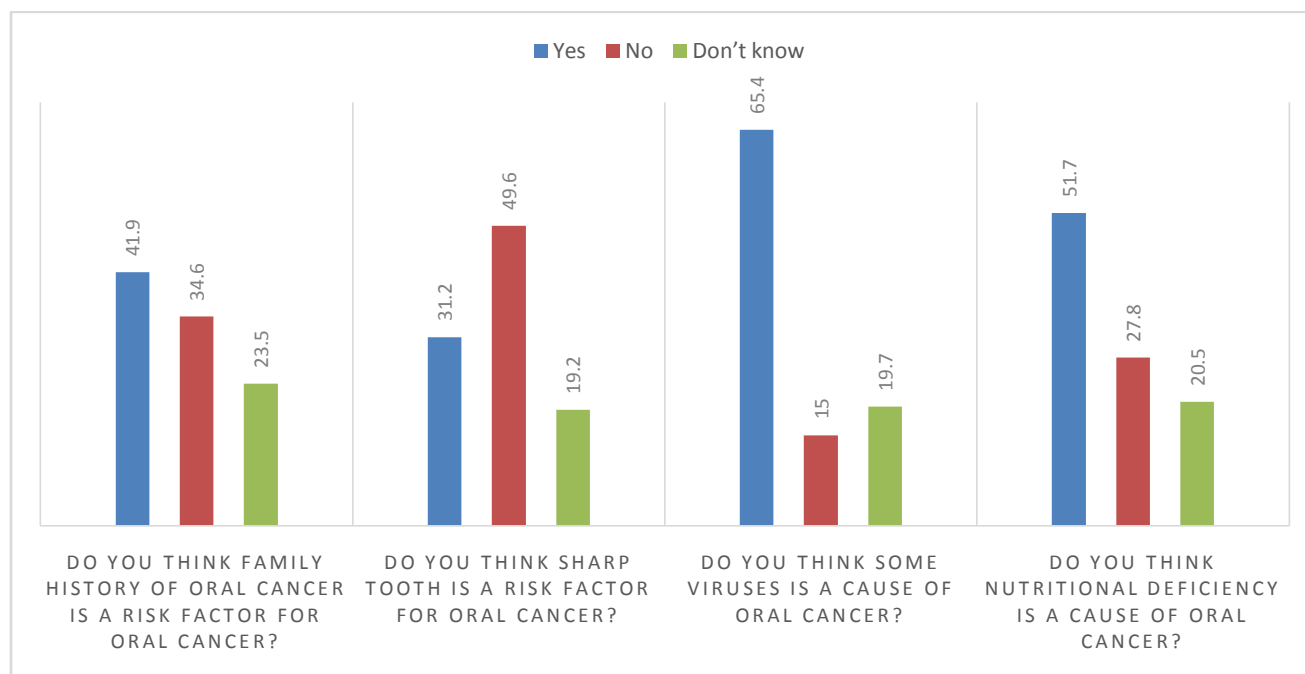
Graph 1:-



Graph 2:-



Graph 3:-



Graph 4:-

Discussion:-

Majority of oral cancers have been observed to arise from long-standing premalignant lesions especially in high incidence areas.⁶ Oral cancer is largely preventable by avoiding known risk factors and national and international guidelines stress the importance of early detection.⁷ Delayed presentation of oral cancer is mainly due to lack of awareness of the public about oral cancer and its associated risk factors which also results in increased treatment morbidity and reduced survival rates.⁸ Relatively little attention has been given in educating the youth about the risk factors, signs and symptoms of oral cancer. There should be raising awareness and educating the youths on signs,

symptoms and risk factors of oral cancer, which leads in early clinical presentation. Therefore, this study was conducted to assess the awareness about Oral Cancer among non-medical professionals in Ladakh.

When questions on oral cancer were asked a total of 66.2% had heard about oral cancer which was consistent with the study done by Srikanth Reddy et al in which about 60% of study population had heard about oral cancer.⁹

In our study 21.4% participants think oral cancer as a contagious disease which was consistent with the study done by Mamta Agrawal et al where 10% participants think oral cancer as contagious disease which can be a misconception about oral cancer.²

In the current study 77.4% participants had knowledge that oral cancer is preventable which was consistent with the study done by Mamta Agrawal et al in which 74.1% of the respondents think that oral cancer can be prevented.²

In our study 54.7% participants had knowledge that an abnormal growth in the mouth is a sign of oral cancer which was consistent with the study done by Wolff et al who said that swelling anywhere in the oral cavity can be a sign of oral cancer.¹⁰

In the current study half of the participants (50%) had knowledge that appearance of red or white spot in mouth can be a sign of Oral Cancer which was consistent with the study done by Padma K Bhat et al in which 50.5% responded that appearance of red or white spot in the mouth is a sign of oral cancer.¹

In our study 53.8% participants responded that unhealing ulcer in the mouth is a sign of Oral cancer which was in line with the study done by Padma K Bhat et al in which 51% of participants think that unhealing ulcer in the mouth is a sign of oral cancer.¹

In the present study 35% of participants had knowledge that continuous pain in jaw is a sign of oral cancer, whereas 34.6% participants had knowledge that reduced mouth opening is a sign of oral cancer. These results were in contrast to that of Mamta Agrawal et al in which 45% of participants think that continuous pain in jaw is a sign of oral cancer and 63% of participants think reduced mouth opening to be a sign of oral cancer. In our study these were the least identified symptoms.²

In the present study 82.1% participants had knowledge that smoking is a risk factor for oral cancer, 74.4% participants think that alcohol consumption is a risk factor for oral cancer, 71.4% participants think that smokeless tobacco is a cause of oral cancer. These results were in contrast to the study done by Pakfetrat et al where only 15.9% responded smoking as a risk factor for oral cancer and only 6.6% responded alcohol consumption a risk factor for oral cancer.⁵

According to this study 41.9% participants were not aware that family history of oral cancer is a risk factor of oral cancer which was in consistent with the study done by Padma K Bhat et al in which 47.0% participants don't know that family history of oral cancer is a risk factor for oral cancer.¹

Conclusion:-

Almost all the participants had never undergone any kind of oral cancer screening

In the present study, although the majority of participants were aware about the major risk factors for oral cancer like tobacco, smokeless tobacco and alcohol, but many were still unaware about the other risk factors like family history of oral cancer, sedentary lifestyle & nutritional deficiency. This study highlights the need of awareness about Oral Cancer among non-medical professionals in Ladakh so as to develop, monitor & implement a comprehensive oral cancer education & promotion program.

References:-

1. Bhat PK, Sushma SG, Jayachandra MY, Aruna CN, Murthy M. Awareness about oral cancer among nonhealth professional students –A cross-sectional study in Bengaluru city. J Oral Maxillofac Pathol 2020; 24:492-8.
2. Agrawal M, Pandey S, Jain S, Maitin S. Oral cancer awareness of the general public in Gorakhpur city, India. Asian Pac J Cancer Prev 2012; 13:5195-9

3. Shiboski CH, Shiboski SC, Silverman Jr S: Trends in oral cancer rates in the United States, 1973e1996. *Community Dent Oral Epidemiol* 28: 249e256, 2000
4. Petti S, Scully C: Oral cancer knowledge and awareness: primary and secondary effects of an information leaflet. *Oral Oncol* 43: 408e415, 2007
5. Pakfetrat A, Falaki F, Esmaily HO, Shabestari S. Oral cancer knowledge among patients referred to Mashhad Dental School, Iran. *Arch Iran Med* 2010;13:543-8.
6. Lumerman H, Freedman P, Kerpel S (1995). Oral epithelial dysplasia and the development of invasive squamous cell carcinoma. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod*, 79, 321-
7. Llewellyn CD, Johnson NW, Warnakulasuriya KA (2004). Risk factors for oral cancer in newly diagnosed patients aged 45 years and younger: a case-control study in Southern England. *J Oral Pathol Med*, 33, 525-32
8. Warnakalasuriya KAAS, Harris CK, Scarrot DM, et al (1999). An alarming lack of public awareness towards oral cancer. *BDJ*, 187, 319-22.
9. Srikanth Reddy B, Doshi D, Padma Reddy M, Kulkarni S, Gaffar A, Ram Reddy V. Oral cancer awareness and knowledge among dental patients in South India. *J Craniomaxillofac Surg* 2012;40:521-4.
10. Wolff KD, Follmann M, Nast A. The diagnosis and treatment of oral cavity cancer. *Dtsch Arztebl Int* 2012;109:829-35.