

Assessing Oral Cancer Knowledge and Awareness among Dental, Medical and Allied Health Science professionals across India - A survey

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Abstract: The incidence of oral cancer is alarmingly increasing worldwide, especially in developing countries. Knowledge regarding the nature, detection, management and prevention plays an important role in providing integrated treatment for patients seeking care for this life-threatening condition. This study aims in assessing oral cancer knowledge and awareness among dental, medical and allied health science professionals across India. The survey consisted of 30 questionnaires including socio-demographic aspects and specific questions about oral cancer. The study included 1000 participants of age 18-65 years, who were willing to answer the questionnaire provided through an offline and online Google form. The study comprised of 285 BDS, 73 MDS, 415 MBBS, 29 MD/MS and 199 allied health science professionals. Oral squamous cell carcinoma was identified as the most common type of oral cancer by 61.9% of participants. Oral mucosa was the correctly identified site by 51.6%. Leucoplakia was identified as a condition with malignant potential by 33.3%. The most commonly reported barrier to performing oral examinations was a lack of training, knowledge and experience. This study emphasized the need for education and training modules on oral cancer knowledge and awareness to improve the prognostic outcome.

Keywords: Oral cancer, Knowledge, Prevention, Practice, Dental, Medical, Allied Health Care professionals.

I. INTRODUCTION

Oral cancer is considered a major public health problem. It represents the 11th most incident neoplasm with over 202,000 & a male: female ratio of 2:1. Diagnostic delays in oral cancer have resulted in advanced stages which influenced the survival rate and paved more attention towards advanced technology in diagnosis and treatment planning. Several campaigns have increased awareness of oral cancer recently, which have main concern towards delay in treatment of patients seeking help.¹

Most stages remain undiagnosed and become a major morbidity and mortality determinant following treatment. Healthcare professionals ensure early signs and symptoms which facilitates diagnosis and treatment before the progress of the disease.²

Education regarding increased risk factors and behaviour modifications like the use of tobacco and alcohol consumption among patients should be considered.³ Other factors which have their role in oral cancer include a poor diet, poor oral hygiene, and HPV infection. The majority of oral cancers are diagnosed in patients over 40 years of age.⁴

There is a major role of health care professionals having greater chances to identify asymptomatic lesions, through routine examinations and diagnosis before oral cancer starts revealing its devastating consequences.⁴ Present survey hypothesises that there may be differences in health care professional's knowledge due to differences in their expertise, professional outlook, time of experience.

In India, limited studies have assessed these differences justified by the time of experience with regard to oral cancer knowledge. Therefore, the objective of this study was to assess dentists, medical professionals, and allied health science professionals' knowledge about oral cancer using a literature-validated questionnaire.

II. MATERIALS AND METHODS:

This survey-based study was conducted with the approval of the institutional ethical committee from Rungta College of Dental Sciences and Research, Bhilai, with Ref. no. RCDSR/IEC/MDS/2022/S3. The 30 questions set validated by Spaulonci G et al⁴ was modified and randomly distributed through Google form available as a web link through email and social media. The questionnaire was divided into 4 sections: 1) sociodemographic aspect 2) clinical features 3) risk factors 4) self-assessment. After allowing 3 months for responses, a total of 1000 participants responded to the questionnaire after which the received data was fed into an Excel spreadsheet. The participation was anonymous, and no personal identification from the participants were registered.

The questionnaire consisted of 30 questions divided into 4 parts. (Fig.1) The first part covered the participant's general characteristics. Values were not attributed to responses in the first part. The second part addressed the knowledge about the clinical characteristics of oral cancer occurring through 7 questions. Each question was given one point. The third part consisted of 12 questions regarding risk factors and each was given one point. The fourth part included self-evaluation questions for which no values were added. Grades were attributed to each participant according to their knowledge level. The applied criteria were A (excellent) for those who score 80-100% correct answers, B (good) for those who score 60-79% correct answers, C (fair) who score 40-59% correct answers, and D (poor) who score below 39% correct answers.

The internal validity is based on aetiology, clinical features, diagnosis and preventive measures of oral cancer whereas the external validity is based on awareness, results and outcomes of the study. All the responses were presented in the form of frequencies and percentages. The Statistical Package for the Social Sciences (SPSS) was used to enter and analysis of data. Comparisons were made by using the chi-square test. The significance level was set at $P < 0.005$.

III. RESULTS:

A total of 1000 participants responded to the questionnaires in the survey which ranged between ages 18-70 years. There were 68.7% male and 31.3% female participants. (Table 1A).

The assessment of variables according to qualifications were 285 BDS, 73 MDS, 415 MBBS, 29 MD/MS and 199 allied health sciences participants. There was no statistical difference seen in the knowledge of the specialities while answering the questions related to clinical features of oral cancer. (Table 2)

With regards to questions asked for risk factors of oral cancer, there was no statistical difference seen in intra-group count of all specialities. Most of the specialities did not consider family history of cancer, emotional stress, lower consumption of fruits and vegetables, poor denture, consumption of spicy food, poor oral hygiene, sun exposure, HPV and HIV infection to be the causative factor. (Table 3)

The response frequencies according to the factors related to attitudes towards oral cancer diagnosis and the perception of the participant's knowledge of oral cancer are shown in Table 4.

FIGURE.1: Questionnaires applied to assess oral cancer knowledge validated by Spaulonci G et al.⁴

SECTION-1

1. Name of the Doctor:
2. Email:
3. Address:
4. Phone no.
5. Highest qualification
6. Gender:
 - Male
 - Female

SECTION: 2

1. What is your self-assessment of your level of oral cancer knowledge?
 - Excellent
 - Good
 - Fair
 - Poor
2. When you detect malignancy suspected lesions, how do you refer the cases?
 - I perform the diagnostic procedures
 - Dental surgeons specialized in stomatology
 - Physicians
 - Dental schools
 - Specialized hospitals
 - When it is not the main patient's complaint, I wait until they ask for guidance

In questions 3 to 9 answer the condition mentioned as a clinical features for oral cancer

3. Which is the most common type of oral cancer?
 - Lymphoma
 - Squamous cell carcinoma
 - Kaposi's sarcoma
 - Ameloblastoma
 - Adenoma of salivary glands
 - I do not know
4. Which is the most frequent anatomical region for oral cancer?
 - Tongue
 - Oral mucosa
 - Gingiva
 - Palate
 - The floor of the mouth
 - Lips
 - I do not know
5. Among the mentioned issues, which is the most common aspect in patients with initial oral cancer?
 - Alteration in salivation
 - Painless ulcer
 - Red / White Lesion

- Hard nodule
 Pain
 I do not know
6. Which is the predominant age group with oral cancer occurrence?
 Less than 18 years
 18 to 39 years
 40 to 59 years
 More than 60 years
 I do not know
7. When the most characteristic cervical lymph node metastasis in oral cancer is palpated, they are:
 Hard, painful, with mobility
 Hard, painless, with or without mobility
 Soft, painful, with mobility
 Soft, painless, with or without mobility
 I do not know
8. According to epidemiological data, which oral cancer stage is most frequently diagnosed in India?
 Pre-malignant
 Early
 Moderate
 Advanced
 I do not know
9. Which of the following conditions are more commonly associated with oral cancer?
 Leukoplakia / Erythroplakia
 Pemphigus Vulgaris
 Stomatitis
 Candidiasis
 Geographic tongue
 I do not know

SECTION 3: RISK FACTORS

In questions 10 to 21 answer whether or not you consider the condition mentioned as a risk factor for oral cancer

10. Having previously had other types of cancer:
 Yes No
11. Consumption of alcohol:
 Yes No
12. Use of tobacco:
 Yes No
13. Family history of cancer:
 Yes No
14. Emotional stress:
 Yes No
15. Lower consumption of fruit and vegetables:
 Yes No
16. Poor dentures:
 Yes No
17. Consumption of spicy food:
 Yes No
18. Poor oral hygiene:
 Yes No
19. Sun exposure:
 Yes No
20. HPV infection:
 Yes No
21. HIV infection
 Yes No

SECTION 4: SELF ASSESSMENT

22. Do you consider your patients informed about oral cancer (prevention and diagnosis)?
 Yes No I do not know
23. What is your level of performing diagnostic procedures to detect oral cancer?
 High Low I do not know
24. Do you consider that the university provided training on oral cancer examination during your undergraduate program?

- Yes No
25. When was the last time you attended a continuing education course on oral cancer?
 Last year
 During the last two years.
 More than two years.
 Never
 I do not remember.
26. Are you interested in attending a continuing education course on oral cancer in the future?
 Yes No I am not sure.
27. According to your opinion, what is the level of importance of the dental surgeon in the prevention and early diagnosis of oral cancer?
 High
 Medium
 Fair
 Low
 I do not know
28. Do you feel that you have sufficient knowledge about the prevention and detection of oral cancer :
 yes no
29. Do you think you need more information and teaching regarding oral cancer?
 yes no
30. If so, what format would you prefer?
 Information packs lectures Seminar

TABLE 1: Distribution of the number and percentages of responses regarding general characteristics according to the responder's speciality.

TABLE 1 A: Gender distribution in the overall survey.

Gender	Frequency	Percent
Female	313	31.3
Male	687	68.7
Total	1000	100.0

TABLE 1 B: Grading according to knowledge level.

Category	Variables	BDS	MDS	MBBS	MD/MS	ALLIED	TOTAL	P VALUE
Grade obtained	A (excellent)	34	0	37	0	0	71 (7.1%)	0.001*
	B (good)	159	50	168	4	85	466 (46.6%)	
	C (regular)	69	23	210	23	79	404 (40.4%)	
	D (poor)	0	0	0	2	7	9 (9.0%)	

TABLE 2: Distribution of the maximum number and percentage of responses to clinical features of oral cancer questions according to specialities.

Categories	Variables	BDS	MDS	MBBS	MD/MS	ALLIED	TOTAL	P VALUE
Common cancer	SCC	223(78.2%)	60 (82.2%)	233 (56.1%)	19 (65.5%)	85 (42.7%)	620 (61.9%)	.001*
	others	62 (21.8%)	13 (17.7%)	182 (43.8%)	10 (34.5%)	114 (57.3%)	381 (38.1%)	
Anatomical region	Oral mucosa	180 (63.2%)	47 (64.4%)	195 (47.0%)	22 (75.9%)	73 (36.7%)	517 (51.6%)	.001*
	others	105 (36.8%)	26 (35.6%)	220 (53.0%)	7 (24.1%)	126 (63.5%)	485 (48.4%)	
Age group	> 40 years	112 (39.3%)	32 (43.8%)	176 (42.4%)	12 (41.4%)	59 (29.6%)	391 (39.1%)	.001*
	others	173 (60.7%)	41 (56.2%)	239 (57.6%)	17 (58.6%)	140 (70.4%)	610 (60.9%)	
Common aspect	Painless ulcers	121 (42.5%)	30 (41.1%)	177 (42.7%)	8 (27.6%)	73 (36.7%)	409 (40.9%)	.001*
	others	164 (57.5%)	43 (58.9%)	238 (57.3%)	21 (72.4%)	126 (63.3%)	592 (59.1%)	
Regional lymph node metastasis	Hard, painless with or without mobility	157 (55.1%)	47 (64.4%)	198 (47.7%)	12 (41.4%)	68 (34.2%)	482 (48.2%)	.001*
	others	128 (44.9%)	26 (35.6%)	217 (52.3%)	17 (58.6%)	131 (65.8%)	519 (51.8%)	
Most common stage	early	77 (27.0%)	16 (21.9%)	180 (43.4%)	12 (41.4%)	72 (36.2%)	357 (35.7%)	.001*
	others	208 (73.0%)	57 (78.1%)	235 (56.6%)	17 (58.6%)	127 (63.8%)	644 (64.3%)	
Condition	Leukoplakia	150 (52.6%)	48 (65.8%)	89 (21.4%)	10 (34.5%)	36 (18.1%)	333 (33.3%)	.001*
	others	135 (47.4%)	25 (34.2%)	326 (78.6%)	19 (65.5%)	163 (81.9%)	668 (66.7%)	

TABLE 3: Distribution of the number and percentage of responses to specific questions addressing the knowledge about risk factors of oral cancer according to speciality.

Categories	Variables	BDS	MDS	MBBS	MD/MS	ALLIED	TOTAL	P VALUE
History of previous cancer	Yes	169 (59.3%)	59 (80.8%)	331 (79.8%)	19 (65.5%)	178 (89.4%)	756 (75.5%)	.001*
	No	116 (40.7%)	14 (19.2%)	84 (20.2%)	10 (34.5%)	21 (10.6%)	245 (24.5%)	
Alcohol	Yes	174 (61.1%)	65 (89.0%)	331 (79.8%)	23 (79.3%)	171 (85.9%)	764 (76.3%)	.001*
	No	111 (38.9%)	8 (11.0%)	84 (20.2%)	6 (20.7%)	28 (14.1%)	237 (23.7%)	
Tobacco use	Yes	209 (73.3%)	66 (90.4%)	389 (93.7%)	26 (89.7%)	188 (94.5%)	878 (87.7%)	.001*
	No	76 (26.7%)	7 (9.6%)	26 (6.3%)	3 (10.3%)	11 (5.5%)	123 (12.3%)	
Family history	Yes	148 (51.9%)	47 (64.4%)	129 (31.1%)	18 (62.1%)	67 (33.7%)	409 (40.9%)	.001*
	No	137 (48.1%)	26 (35.6%)	286 (68.9%)	11 (37.9%)	132 (66.3%)	592 (59.1%)	
Emotional stress	Yes	160 (56.1%)	54 (74.0%)	122 (29.4%)	22 (75.9%)	67 (33.7%)	425 (42.5%)	.001*
	No	125 (43.9%)	19 (26.0%)	293 (70.6%)	7 (24.1%)	132 (66.3%)	576 (57.5%)	
Fruits and vegetable consumption	Yes	160 (56.1%)	52 (71.2%)	128 (30.8%)	24 (82.8%)	70 (35.2%)	434 (43.4%)	.001*
	No	125 (43.9%)	21 (28.8%)	287 (69.2%)	5 (17.2%)	129 (64.8%)	567 (56.6%)	
Poor denture	Yes	124 (43.5%)	48 (65.8%)	126 (30.4%)	16 (55.2%)	59 (29.6%)	372 (37.3%)	.001*
	No	161 (56.5%)	25 (34.2%)	289 (69.6%)	13 (44.8%)	140 (70.4%)	628 (62.7%)	
Spicy Food	Yes	180 (63.2%)	59 (80.8%)	127 (30.6%)	26 (89.7%)	72 (36.2%)	464 (46.4%)	.001*
	No	105 (36.8%)	14 (19.2%)	288 (68.4%)	3 (10.3%)	127 (63.8%)	537 (53.6%)	
Oral Hygiene	Yes	158 (55.4%)	60 (82.2%)	127 (30.6%)	24 (82.8%)	66 (33.2%)	435 (43.5%)	.001*
	No	127 (44.6%)	13 (17.8%)	288 (69.4%)	5 (17.2%)	133 (66.8%)	566 (56.5%)	
HPV	Yes	143 (50.2%)	52 (71.2%)	134 (32.3%)	23 (79.3%)	69 (34.7%)	421 (42.1%)	.001*
	No	142 (49.8%)	21 (28.8%)	281 (67.7%)	6 (20.7%)	130 (65.3%)	580 (57.9%)	
HIV	Yes	113 (39.6%)	42 (57.5%)	130 (31.3%)	9 (31.0%)	58 (29.1%)	352 (35.2%)	.001*
	No	173 (60.4%)	31 (42.5%)	285 (68.7%)	20 (69.0%)	141 (70.9%)	649 (64.8%)	

TABLE 4: Distribution of the number and percentage of responses about the attitude towards diagnosis, prevention of cancer and perception about this issue according to speciality

Category	Variable	BDS	MDS	MBBS	MD/MS	ALLIED	Total	p value
Patient is informed about oral cancer	Yes	214 (75.1%)	54 (74.0%)	300 (72.3%)	22 (75.9%)	150 (55.4%)	740 (73.9%)	.136
	No	49 (17.2%)	15 (20.5%)	102 (24.6%)	6 (20.7%)	38 (19.1%)	210 (21.0%)	
	Don't know	22 (7.7%)	4 (5.2%)	13 (3.1%)	1 (3.4%)	11 (5.5%)	51 (5.1%)	
Perform diagnostic procedures	High	103 (36.1%)	45 (61.6%)	279 (67.2%)	18 (61.1%)	127 (48.3%)	572 (57.1%)	.001*
	Low	133 (46.7%)	21 (28.5%)	120 (28.9%)	9 (31.0%)	56 (21.1%)	339 (33.9%)	
	Don't know	49 (17.2%)	7 (9.6%)	16 (3.9%)	2 (6.9%)	16 (8.0%)	90 (9.0%)	
University training	Yes	214 (75.1%)	62 (84.9%)	336 (81.0%)	23 (79.3%)	163 (61.9%)	798 (79.7%)	.199
	No	71 (24.9%)	11 (15.1%)	79 (19.0%)	6 (20.7%)	36 (18.1%)	203 (20.3%)	
References	Dentist	97 (34.0%)	22 (30.1%)	92 (22.2%)	6 (20.7%)	36 (18.1%)	253 (25.3%)	.001*
	Others	183 (66.0%)	51 (69.9%)	323 (77.3%)	23 (79.3%)	163 (61.9%)	748 (74.7%)	
Continuing education course attended	Last year	110 (38.6%)	42 (57.5%)	172 (41.4%)	14 (48.3%)	95 (47.7%)	433 (43.3%)	.001*
	Others	175 (61.5%)	31 (42.5%)	243 (58.3%)	15 (51.7%)	104 (52.3%)	568 (56.7%)	
Importance of dentist in oral cancer	High	169 (59.3%)	44 (60.3%)	181 (43.6%)	19 (65.5%)	103 (51.8%)	516 (51.5%)	.001*
	Low	4 (1.4%)	0 (0%)	17 (4.1%)	0 (0%)	7 (3.5%)	28 (2.8%)	
Sufficient knowledge	Yes	176 (61.3%)	63 (86.3%)	349 (84.1%)	24 (82.8%)	167 (83.9%)	719 (71.8%)	.001*
	No	109 (38.2%)	10 (13.7%)	66 (15.9%)	5 (17.2%)	32 (16.1%)	222 (22.2%)	
Information and teaching need	Yes	257 (90.2%)	65 (89.0%)	378 (91.1%)	24 (82.8%)	187 (84.0%)	911 (91.0%)	.214
	No	28 (9.8%)	8 (11.0%)	37 (8.9%)	5 (17.2%)	37 (18.0%)	90 (9.0%)	
Teaching format	Information pack	104 (36.5%)	28 (38.4%)	209 (50.4%)	10 (34.5%)	106 (54.3%)	459 (45.9%)	.001*
	Lecture	79 (27.7%)	27 (37.0%)	161 (38.8%)	12 (41.4%)	62 (31.2%)	341 (34.1%)	
	Seminar	102 (35.8%)	18 (24.7%)	45 (10.8%)	7 (24.3%)	29 (14.6%)	209 (20.9%)	

IV. DISCUSSION

The ability to routinely identify patients at high risk of developing oral cancer and to detect the disease at an early stage are the challenges shared by doctors of their respective specialities in India.⁵ In our survey, the specialties who showed their interest were BDS, MDS, MBBS, MD/MS, BAMS and Allied healthcare professionals. Dentists were more knowledgeable about oral cancer signs and symptoms than other specialities and they considered themselves to be more proficient at performing oral cancer examinations by identifying clinical features, risk factors and diagnosis. This finding was relevant to the findings of the survey done in Massachusetts by Applebaum E et al⁶. Based on our findings, dental students received focused training in risk factors and oral examination while medical schools have limited such training due to curriculum covering oral cancer examination was the brief reason.⁷

Oral squamous cell carcinoma is the most frequently identified oral cancer. Its incidence is increasing by approximately 300,000 new reported cases annually. It has a poor prognosis and a recurrence rate of 30%.⁸ This study reports that overall 61.9% of the participants reported it correctly in which intra-group count was MDS (82.2%), BDS (78.2%), MD/MS (65.5%), MBBS (56.1%), allied health sciences (42.7%).

Oral cancer affecting the tongue shows aggressive behaviour with a 5 years survival rate of only 60%. This indicates that regardless of the accessibility in the oral cavity during clinical examination, oral cancer is initially misdiagnosed and ignored by patients or treating professionals.⁹

It is advisable that the first detectable changes in epithelium on its way is establishing a potential malignancy including leukoplakia and erythroplakia as the most common one.⁸ Only 28.8% of participants of each speciality knew about red and white lesions as the most common aspect seen with initial oral cancer irrespective of a previous study done by Golburean O et al⁹.

39.1% of all specialities are in favour of oral cancer appearing in the 40 to 59 years of age group in which intragroup count was MDS (43.8%), MBBS (42.4%), MD/MD (41.4%), BDS (39.3%), Allied health sciences (29.6%). This finding is relevant to a previous study done by Awajobi O et al², Borse V et al¹⁰, and Anushya P et al¹¹. This study showed that most of the responders do not know about regional metastasis, only 48.2% of all specialities acknowledge that regional lymph nodes be palpated for metastasis and find them to be hard, painless with or without mobility in which intragroup count was MDS (64.4%), BDS (55.5%), MBBS (47.7%), MD/MS (41.4%), Allied health science (34.2%). Our findings are in correlation with the findings of Spaulonci G et al⁴. 10% of the participants responded for an advanced stage to be frequently diagnosed. This finding is in correlation with study by Laimer J et.al.⁵

51.6% of all specialities claimed oral mucosa to be the most frequently affected anatomical site in which intra-group count was MD/MS (75%), MDS (64.4%), BDS (63.2%), MBBS (47%), Allied health sciences (36.7%). This finding is in correlation with findings of Anushya P et al.¹¹

40.9% of all specialities found painless ulcers to be initially seen in oral cancer in which intra-group count was MBBS (42.7%), BDS (42.5%), MDS (41.1%), Allied health sciences (36.7%), MD/MS (27.6%). This finding varies with finding of Pardo N et al.¹² where painful ulcer lasting more than 3 months showed maximum prevalence.

35.7% of all specialities responded to the early stage of oral cancer to be frequently diagnosed in India in which intragroup count was MBBS (43.4%), MD/MS (41.4%), Allied health sciences (36.7%), BDS (27%), MDS (21.9%). This finding is in correlation with survey done by Ojha B et. at¹³ where the study showed early signs of the disease found to be low. 33.3% of all specialities noted that leukoplakia/erythroplakia be commonly associated with oral cancer in which intra-group count was MDS (65.8%), BDS (52.6%), MD/MS (34.5%), MBBS (21.4%), Allied health sciences (18.1%). This finding is in correlation with findings of Habib K et.al.¹⁴

The response frequencies according to the factors regarding diagnosis, prevention and perception of oral cancer showed that there was a difference in the opinion given by each speciality towards some of the questions asked.

Risk Factors:

75.5% of the specialities responded positively to asking patients for previous history of cancer in which intra-group count was Allied health sciences (89.4%), MDS (80.8%), MBBS (79.8%), MD/MS (65.5%), BDS (59.3%) of intra-group count. Increased knowledge about tobacco and alcohol as risk factors through anti-tobacco campaigns has contributed to the awareness of oral cancer. 87.7% of all specialities responded for tobacco use causing oral cancer in which intragroup count was Allied health sciences (94.5%), MBBS (93.7%), MDS (90.4%), MD/MS (89.7%), BDS (73.3%). 76.3% of all specialities claimed that alcohol consumption caused oral cancer in which intra-group count was MDS (89%), Allied health sciences (85.9%), MBBS (79.8%), MD/MS (79.8%), BDS (61.1%). This finding is in correlation with the findings of Prado NS,¹² Joseph B⁷.

Most of the specialities do not consider family history of cancer, emotional stress, lower consumption of fruits and vegetables, poor denture, consumption of spicy food, poor oral hygiene, sun exposure, HPV and HIV infection to cause cancer.^{15,16}

Self-Evaluation:

In total 73.9% of all the specialities finds it appropriate to inform the patient about their condition. A maximum response of 57.1% of all the specialities found their diagnostic skills to be high. 79.7% of all specialities claimed that their university provided training about oral cancer knowledge. As asked for a continuing education course attended by the speciality during last year there was noticeably less response obtained 43.3%. There was indeed more response given for 51.5% by all the specialities who find dentists to have importance in identifying oral cancer. 77.8% of the specialities find themselves in a safe position to have sufficient knowledge about oral cancer. 91% want to have more information and teaching about oral cancer for which 45.9% have claimed information packs, 34% for lectures and 20% for the seminar. This findings are in correlation with findings of Macpherson L et.al¹⁷, Firincioguluri M et.al¹⁸, Warnakulasuriya S et.al.¹⁹

Knowledge Score:

We have analysed the score by observing the responses for clinical features and risk factors. Every correct response was given one point. The responses were then categorised as A (excellent) grade, B (good) grade, C (regular) grade, and D (poor) grade. Among the specialities, 285 of BDS and 73 of MDS specialities in which 159 and 50 participants obtained a B grade respectively, among 415 MBBS and 29 MD/MS specialities in which 168 and 23 participants obtained a C grade respectively, among 415 allied healthcare professionals in which 85 participants obtained a B grade. The grades given to each speciality indicated that many concepts are still not well-defined and need to discuss means to stimulate oral cancer knowledge.

The design of oral cancer screening campaigns properly calibrated becomes urgent, especially among individuals with high risk for oral cancer. A network of private and public dentists, and other healthcare professionals at health centres or hospitals including general practitioners, and nurses would form an ideal oral cancer screening team providing access for everyone. Primary healthcare professionals can contribute to efficient oral cancer screening.²⁰

V. CONCLUSION

With the increase in the global incidence of oral cancer, the responsibilities of dental, medical, and other practitioners in the prevention and detection of oral cancer assume even more importance. The level of awareness and knowledge about oral cancer among dental specialities, medical specialities, and allied healthcare specialities is less than acceptable and needs improvement and reforms in the teaching curricula. This goal can be achieved through clarification campaigns, encouraging professionals in attending continuing education courses for more proper assessment about oral cancer.

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