

ORAL CANCER RESEARCH --- ALL ABOUT KNOWLEDGE, ATTITUDE AND PRACTICE AMONG INTERNATIONAL STUDENTS AT UNITED KINGDOM

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ABSTRACT

Objective: To evaluate knowledge attitude and awareness level of oral cancer disease among international students of University of Bedfordshire.

Materials and Methods: This descriptive cross-sectional study was conducted on 100 overseas students having age group of 16-45 years from Bedfordshire University which have 5 ethnic group; Asian, African, White British, Black British, British Pakistani. Sample size of 100 participants with 95% confidence level and confidence interval of 9.05 was calculated. Data collection was through survey method and tool was used self administered questionnaire. To analyse collected data, Microsoft excel software was used, content analyses were performed. Frequency and percentages were calculated and presented in graphs and table form.

Results: Awareness level of participants were high about cigarette smoking - 70% and information regarding poor oral hygiene - 60% as a risk factor of oral cancers. Meanwhile low awareness level regarding risk factors like alcohol consumption - 66% and smokeless tobacco - 65% has been founded. Subsequently students who had more awareness about sign & symptom of oral cancer were found which were ulcer/wound that fails to heal - 63%, bleeding - 56%, swelling - 63%. Low level of awareness was reported about sign symptom of disease like, difficulty with swallowing/chewing - 66% and information in regards to teeth loosening only 67% were found among participant.

Conclusion: Knowledge, attitude and practice of oral cancers among university students concluded not to be satisfactory. Therefore, strong awareness campaign of oral cancers to be implemented.

Keywords: Oral Cancers, Awareness(KAP), Alcohol, Tobacco, Human papillomavirus, Dental Habits

INTRODUCTION

Oral cancer is a global health problem and malignant disease of mouth affect equally male and female, and above fifty years of age people.^{1,5} Oral cancer is 6th major cause of deaths worldwide and

the most common type is squamous cell carcinoma.^{2,3,4,5} The risk factors of oral cancer are tobacco smoking, smokeless tobacco, other risk factors are excessive alcohol consumption, exposure to ionizing radiation.^{6,7,8} Oral sex also cause oral cancer by transmission of (HPV) human papilloma virus.⁹ Poor oral hygiene is cause of oral squamous cell carcinoma.¹⁰ Less common risk factors include ill-fitting dentures may trap carcinogenic substances (alcohol/ tobacco) that cause oral cancer.¹¹

Common sites of oral cancer involves tongue

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(40%), floor of mouth (30%), buccal mucosa and the gingiva.^{12,13} Symptoms of oral cancer includes; unhealed oral ulcers, red/ white patch in oral cavity, difficulty in chewing and swallowing, numbness in the mouth, swelling of the mouth lasting more than three weeks, unusual bleeding, loosen teeth without any apparent reason, difficulty in speech and moving the jaw, halitosis and weight loss.¹⁴

Survival rate of oral cancer patient is very poor despite of availability of advance treatments, still 50% oral cancer patient not survived.^{15,16} Early diagnoses of oral cancer is effective way of reducing mortality and morbidity.^{17,18}

Oral cancer can be cure when early diagnoses made by professionals therefore there is urgent need to scale up the level of awareness of oral cancer disease and educate people to seek professional routine examination of oral cavity.

The main objective of this study was to explore the knowledge, attitude and practice of students in Bedfordshire University (UK) about oral cancer disease, its risk factors and sign & symptoms.

MATERIALS AND METHODS

Descriptive cross sectional study was conducted out on oversease students of Bedfordshire University UK, to evaluate awareness level of students regarding oral cancers for the purpose of dissertation for the degree award of “Master in Public Health” (program 2012-2013). total duration for this project was 6 month, data collected in January 2013, data analysis and proof reading was completed in month of January to March 2013. Final submission of this dissertation was in month of April 2013. Ethical permission for this research paper from the Bedfordshire University Ethics Committee was obtained.

Present research was, non-interventional cross sectional type of study with “quantitative and qualitative approach”. data collected by a “survey method” and tool was a questionnaire, which is a convenience sample.

Questionnaire of this study was taken from another published study “Awareness of oral cancers among the students of the University of Bedfordshire-Luton Campus - is there a need for oral cancer awareness programme” carried out by Abayomi-ojumu, Olayinka.¹⁹

Sample of 100 students from different ethnic groups, selected from University of Bedfordshire, campus University Square Luton in UK. Sample size calculated, 95% confidence level and confidence interval of 9.05. Data analyzed by using content analysis. key themes were acknowledged and then responses were classified under main themes. Responses were integrated into texts, graphs and charts. For better understanding of the collected data, the raw data was converted into percentages.

Overseas students of university of Bedfordshire from evening/ morning and full time / part time study program were included in this study. Age group selected for this study was adults from 16 to 45 year those enrolled in university of Bedfordshire without any gender specification.

RESULTS

Responses are shown in tables and graphs and data presented in frequency and percentage.

A total 100 out 102 questionnaires were returned with valid responses (98.0%, 1.96%). While in remained 100 valid responses 98% fully filled and 2% partially filled.

Gender distribution of student percentages was 66% male and 34% female (Table 1). Age ranges of participants were 16 year to 45 years. The 63% of participant’s age ranges from 16 – 25 year, 32% of participant’s age ranges from 26 – 35 year, participants with age group of 36 – 44 were 2% and participants having age of 45 plus were 1% (Table 2). The participants exhibit diversity in ethnic group and for the purpose of analysis it was divided into five groups; majority of them were Asian 52%, African 8%, Black British 2%, White British 7%, British Pakistani 2% (Figure 1). The percentage of educational levels and programs of participants there were 50% undergraduates, 44% postgraduates, 90% full time students and 4% part time (Table 3 & 4).

Participants of this study around 25% visited the dentist only one time a year, around 15% visited two times a year and participants more than 8% twice a year. The main reason for visiting dentist was only pain 24%. next question about consultation to whom if participants had oral problem; majority around 62% reported they would consult the Dentist, 33% consulted General practitioner and 3% consulted oral hygienist. Question about visit to dentist in last one

year; 52% of participants had visited the dentist and remaining 48% reported that they have not been to the dentist in the last one year. (Table 5)

Participant awareness level about screening program were only 27% and who did not heard of oral cancer screening program were 45%. The participants who have an idea of oral cancer screening were 27% and who have no idea was 1%. So meanwhile participants who did not have awareness about oral cancer screening were 46% and who have awareness were 54%. (Table 6)

Participants Awareness Level of Risk Factors Associated with Oral Cancer (Table 7.1-8.1): Awareness level of risk factors of students were; who correctly linked alcohol as being a risk factor were 32%, participants who stated that alcohol is not associated with oral cancer were 31% and participants who reported that they don't know were 35%. The respondents who have no level of knowledge about alcohol being a risk factor were totally 66%. Respondents who correctly answer the cigarette as risk factor were reported 70%, who reported as not risk factor were 25% and who don't know were 5%. Tobacco being another risk factor was correctly replied by 33% respondents; other 20% participants stated that it's not a risk factor and 45% participants did not know about it. So total of 65% participants did not have any information in regard to tobacco being a risk factor. 60% of respondents reported Poor oral hygiene of being a risk factor, 20% did not stated as a risk factor and 20% don't know. 30% reported UV light as being a risk factor in comparison to 20% who do

not considered it as a risk factor and 43% respondent did not. 50% of participants reported Viruses being a risk factor & 12% stated it as not being a risk factor & respondents having no information about it were 32%. Spicy food/ hot food; 10% correctly replied it had a risk factor remaining have had no awareness regarding this. Coffee, tea beverages and chocolate were interestingly (15% & 10%) believed that were risk factors, other respondent's correctly answered 66%-52% report that they are not risk factors and 19%-22% reported they did not know. Betel was reported as risk factor of being 20% and respondent gave incorrectly answer that it's not a risk factor was 32% and who did not know were 46%. So the majority didn't have awareness regard betel as a risk factor.

Awareness level of participant were 63% correctly in regard to wound/ulcer that does not heal, regarding bleeding 56% answered correctly, swelling 63%, white or red patches 49%, loss of feelings/ numbness and pain- 42%, as sign and symptom of oral cancer. At the same time as minority of participants correctly identify like mobility of teeth – 33%, difficulty in swallowing or chewing – 34% as symptoms of oral cancer. 53% respondents correctly identify tooth decay/ caries as not a sign of oral cancer. In spite of this, participants having no level of knowledge regarding signs and symptoms of oral cancer are in greater need for oral cancer awareness session (Table 8.2).

Table 1: Gender distribution of Participants

Variables	Categories	Frequency	Percent
Gender	Male	66	66%
	Female	34	34%

Table 2: Age Distribution of Respondents

Age Categories	Frequency	Percentage %
16-25	63	63.0
26-35	32	32.0
36-44	2	2.0
>45	1	1.0
Total	98	98.0
Missing System	2	2.0

Table 3: Participant's Distribution on the basis of Study Level

	Frequency	Percentage
Undergraduate	50	50
Postgraduate	44	44
Total	94	94
Missing System	6	6

Table 4: Types of Program

	Frequency	Percent
Full Time	90	90.0
Part Time	4	4.0
Total	94	94.0
Missing System	6	6.0

Table 5: Dental Behaviour of Responders

Frequency/Reason For Dental Visit In The Last One Year	Frequency	Percentage
Once	25	25.0
Twice	15	15.0
>Twice	8	8.0
Pain	24	24.0
Other Reason (Never Went)	1	1.0
Total	73	73.0
Missing System	27	27.0
Medical Professionals Visited For Dental Pains		
Gp	33	33.0
Dentists	62	62.0
Oral	3	3.0
Hygeinist	98	98.0
Total	2	2.0
Missing System	100	100
Dental Visit In Last One Year		
Yes	52	52.0
No	48	48.0
Total	100	100
Missing System	0	0

KNOWLEDGE & AWARENESS OF STUDENTS REGARDING ORAL CANCER SCREENING:**Table 6: Have you heard of mouth cancer screening?**

	Frequency	Percentage
Yes	27	27
No	45	45
Have a idea	27	27
No idea	1	1

STUDENTS KNOWLEDGE IN RELATION TO ORAL CANCER RISK FACTOR:**Table 7.1: Displaying Student's responses about knowledge of Oral Cancer Risk Factor**

Response	Categories	Frequency	Percentage
Alcohol	Yes	32	32.0
	No	31	31.0
	Don't Know	35	35.0
	Total	98	98.0
	Missing System	2	2.0
Cigarette	Yes	70	70
	No	25	25
	Don't Know	5	5
Tobacco	Yes	33	33
	No	20	20
	Don't Know	45	45
	Total	98	98
	Missing System	2	2
Poor Oral Hygiene	Yes	60	60.0
	No	20	20.0
	Don't Know	20	20.0

Table 7.2: Responses related to UV Light as being risk factor for Oral Cancer

UV Light	Frequency	Percentage
Yes	30	30.0
No	23	23.0
Don't Know	43	43.0
Total	96	96.0
Missing System	4	4.0

Table 7.3: Responses related to Viruses being a risk factor for Oral Cancer

UV Light	Frequency	Percentage
Yes	50	50.0
No	12	12.0
Don't Know	32	32.0
Total	94	94.0
Missing System	6	6.0

Table 7.4: Responses related to Spicy/Hot Food being a risk factor for Oral Cancer

Spicy Food/Hot Food	Frequency	Percent
Yes	10	10.0
No	67	67.0
Don't Know	20	20.0
Total	97	97.0
Missing System	3	3.0

Table 7.5: Responses related to Coffee, Tea, Beverages, Betel, and Chocolate being a risk factor for Oral Cancer

Coffee, Tea, Beverages	Frequency	Percent
Yes	15	15.0
No	66	66.0
Don't Know	19	19.0

Table 8.1: Responses related to Coffee, Tea, Beverages, Betel, and Chocolate being a risk factor for Oral Cancer

Response	Categories	Frequency	Percent
Delayed Wound/Ulcer Healing	Yes	15	15.0
	No	66	66.0
	Don't Know	19	19.0
	Total	100	100.0
Betel	Yes	20	20.0
	No	32	32.0
	Don't Know	46	46.0
	Total	98	98.0
	Missing System	2	2.0
Chocolate	Yes	10	10.0
	No	52	52.0
	Don't Know	22	22.0
	Total	84	84.0
	Missing System	16	16.0

AWARENESS AMONG STUDENTS REGARDING SIGNS AND SYMPTOMS OF ORAL CANCER:

Table 8.2: Displaying replies to Symptoms and Signs of Oral Cancer

Response	Categories	Frequency	Percent
Coffee, Tea, Beverages	Yes	63	66
	No	10	10
	Don't Know	27	27
	Total	100	100
Bleeding	Yes	56	56
	No	17	17
	Don't Know	27	27
	Total	100	100
White Or Red Patches	Yes	49	49
	No	13	13
	Don't Know	37	37
	Total	99	99
	Missing System	1	1
Swelling/Chewing Difficulty	Yes	63	63
	No	8	8
	Don't Know	29	29
	Total	100	100
Numbness	Yes	42	42
	No	17	17
	Don't Know	41	41
	Total	100	100
Bad Breath	Yes	24	24
	No	46	46
	Don't Know	29	29
	Total	99	99
	Missing System	1	1
Perssistent Pain	Yes	42	42
	No	21	21
	Don't Know	37	37
	Total	100	100
Loosening Of Teeth	Yes	33	33
	No	31	31
	Don't Know	36	36
	Total	100	100
Hoarseness/Change In Voice	Yes	23	23
	No	35	35
	Don't Know	31	31
	Total	89	89
	Missing System	11	11

Hole/Cavity In The Teeth	Yes	14	14
	No	53	53
	Don't Know	31	31
	Total	98	98
	Missing System	2	2

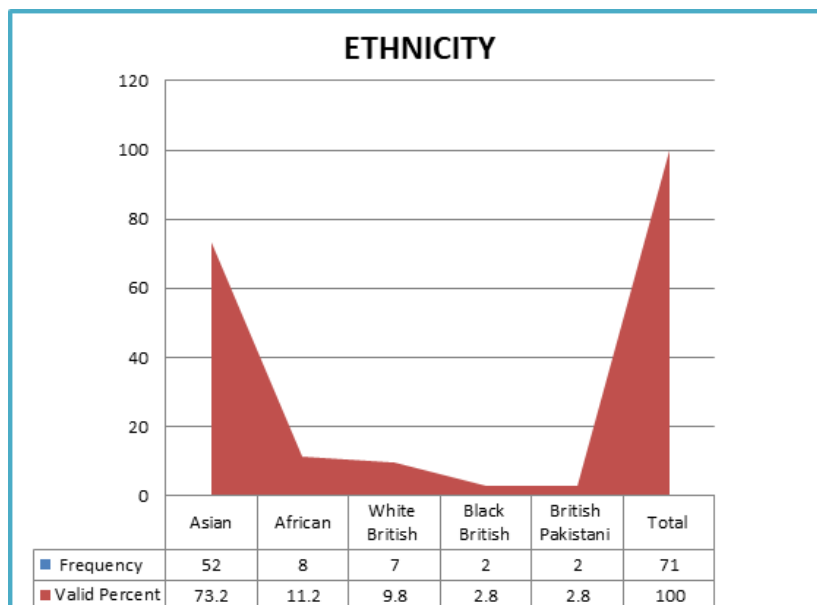


Fig 1: Area Chart of Ethnic Distribution of Responders

DISCUSSION

Past study conducted by Waranakulasuriya in 1999, “An alarming lack of public awareness towards oral cancer” the finding of this study revealed that only 56% of people are aware from oral cancer and people who know about other types of cancers were 85%. In same paper majority of population were aware about they can get oral cancers as with smoking is a risk factor 76% people were aware. In contrast either alcohol consumption plays a major role in oral cancer very few 19% people were know about this fact.²⁰ Another study was conducted by West in 2006, “Awareness of mouth cancer in Great Britain”, In this study population were less aware about early signs 33.8% (white patches) and risk factors 19.7% aware from alcohol as risk factor, which consider low awareness level and population were on high risk of disease.²¹ Another similar study was conducted in 2008 by Abayomi-Ojumu, Olayinka “Awareness of oral cancer among the students of the university of Bedfordshire-Luton campus- is there a

need for oral cancer awareness” it also show similar results as this study have.¹⁹

Present study conducted in 2013 on students of Bedfordshire University, the results of this research are more similar to above studies. The knowledge of respondents regards poor oral hygiene & cigarette smoking as a risk factor of disease was good but less aware-full from alcohol consumption and tobacco. Subsequently these results clear that population have strong and effective campaign on cigarette smoking, poor oral hygiene. Participants reflect low awareness level regarding UV-light and betel chewing, however use of betel nut among Asian has been recognized as main risk for oral cancers. Unfortunately in this studies Asian ethnic group show only 20% awareness related to betel quit chewing.

Unfortunately some oral tumors not detected earlier because of no symptoms and lead poor survival rate.^{22,23} Early diagnoses is not possible until patient visit to dental professional and this is only key to cure oral cancer because pain like symptom start in late

stage. Low awareness level observed in this study.

Subsequently, awareness plays an important role for both public health practitioner and general population. Knowledge related to sign and symptom may encourage the patient to seek professional assistance. There is dire need to educate people on individual/ national and international level through organized efforts, like educating people via seminars and workshops as well as strong advertisements through multi/ social media.

Limitation of present study result was not inferences on generalization because of small sample size. This study was non interventional cross sectional which lacking oral screening of participant.

CONCLUSIONS

This study concluded that the overall level of awareness of university students were low. Hence, the participants were belong to higher educational class of population. There is need to create more awareness and educate population regarding oral cancers to promote health of population.

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