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Awareness on Oral Cancer among the community People of Baglung

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Abstract

Background: Oral cancer is the leading cause of death globally and affecting developing countries as well. A descriptive cross sectional study design was conducted to assess awareness on oral cancer among community people of Baglung.

Methods: Study was conducted in selected hospitals in in ward no 3 of Galkot municipality, Baglung using a non-probability purposive sampling technique to select the 116 sample. Face to face interview was carried out through structured questionnaire to collect the data. The data was coded, entered into SPSS version 16, and analyzed using both descriptive and inferential statistics (Chi-square test).

Results: The finding of the study revealed that 44% of the respondents were in the age group of 30-39 years with mean age of 33.59±6.62 years and more than half of respondents (56%) were females whereas majority of the respondents 33.6% were home maker. Majority of the respondents 89.7% were aware that oral cancer is not a contagious disease. The study revealed that cent percent of the respondent were aware of lump inside mouth and 47.4% were aware about a growth of non-healing mouth ulcer as a sign and symptoms of oral cancer. The study revealed that only 8.6.% of respondents had adequate awareness.

Conclusion: In conclusion, most of the respondents have inadequate level of awareness on oral cancer. There is need for awareness program on oral cancer among adults in community through mass campaign and training.

Keywords: Awareness, Oral Cancer, Middle Age Adult

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Introduction

Background of the Study

Oral cancer is a significant public health issue, contributing to high morbidity and mortality worldwide (Nazar et al., 2022). It ranks as the sixth most common cancer globally, exerting a profound impact on patients' quality of life and imposing substantial financial burdens, especially when diagnosed at an advanced stage (Adeoye et al., 2022).

This disease is particularly prevalent in developing nations, where it remains one of the leading causes of cancer-related deaths. Ranked among the top ten most prevalent cancers worldwide, oral cancer accounts for approximately 2.1% of all cancer cases, with the highest incidence reported in Southeast Asia (Bajracharya et al., 2018). Each year, at least 120,000 lives are lost to oral cancer, and around 275,000 new cases are diagnosed. Notably, oral squamous cell carcinoma (OSCC) is the most common form, responsible for over 90% of oral cancer cases, affecting areas such as the lips, tongue, and pharynx (Alshami et al., 2019).

The prevalence and distribution of oral cancer vary across different regions, with China, India, the US, Indonesia, Brazil, Pakistan, Bangladesh, Russia, Japan, and Mexico being among the most affected countries. South Asian nations, particularly India, Pakistan, and Bangladesh, bear the heaviest burden. The economic implications of treatment, particularly in densely populated countries like China, further strain healthcare systems (Zhang et al., 2022).

Several risk factors contribute to the development of oral cancer, including tobacco use (both smoking and chewing), excessive alcohol consumption, and human papillomavirus (HPV) infection. More than 90% of oral cancers are squamous cell carcinomas affecting the oral and oropharyngeal regions (Zhang et al., 2022). Additionally, poor oral hygiene, nutritional deficiencies, prolonged inflammation, immunosuppression, and UV exposure (especially for lip cancer) also play a role. Notably, HPV types 16 and 18, as well as HIV, have been linked to an increased risk of oral cancer (Singh et al., 2017; Irani, 2020).

Early detection is crucial in improving survival rates and treatment success. Delayed diagnosis significantly increases morbidity and mortality, emphasizing the need for better screening methods and treatment approaches. Surgery remains the primary treatment for oral cancer, while radiotherapy and chemotherapy are reserved for cases where surgical intervention is not feasible (Irani, 2020).

Fortunately, oral cancer is largely preventable by eliminating known risk factors. Global health guidelines stress the importance of early detection, as oral cancer often develops in visible areas, allowing for painless, non-invasive examinations. Early signs such as white or red patches, ulcers, or abnormal growths in the oral mucosa can serve as warning indicators. When diagnosed in its early stages, oral cancer is highly treatable, with better prognostic outcomes and lower treatment costs (Zachar et al., 2020).

Despite the availability of preventive measures, public awareness remains low. A study conducted at Kantipur Dental College in Kathmandu, Nepal, involving 471 participants aged 15–85, revealed that 41.8% had never heard of oral cancer. Only 31.6% recognized tobacco use as a major risk factor, while 15.5% and 10.8% identified white and red patches,

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respectively, as early warning signs (Bajracharya et al., 2018). Similarly, a household survey in Gorakhpur, India, which assessed awareness among 2,093 participants, found that literacy levels significantly influenced knowledge about oral cancer symptoms and risk factors. Awareness was highest among individuals with a high school education or above, while younger populations demonstrated better knowledge of the disease. However, a lack of awareness persists among high-risk groups, highlighting the urgent need for targeted education and prevention initiatives, especially among vulnerable communities (Agrawal et al., 2012).

Enhancing awareness, promoting early diagnosis, and implementing preventive strategies can significantly reduce the burden of oral cancer, ultimately saving lives and improving public health outcomes.

Rationale of the Study

Oral cancer remains a significant global health threat, with high mortality rates, particularly in its advanced stages. Research suggests that public awareness of this disease is generally low, making early detection challenging. One of the primary obstacles in combating oral cancer is the difficulty in recognizing early warning signs, which are often misidentified as non-malignant oral conditions by both patients and healthcare professionals (Alshami et al., 2019). Studies indicate that the combined use of tobacco and alcohol exponentially increases the risk of developing oral cancer. Notably, the risk associated with using both substances together is greater than or equal to the risk posed by alcohol multiplied by the risk linked to tobacco use alone (Shimpi et al., 2018). This highlights the urgent need for targeted awareness campaigns addressing these preventable risk factors.

A lack of public knowledge remains a primary reason for delayed diagnosis and treatment of oral cancer. Numerous studies have emphasized the necessity of widespread awareness initiatives to educate communities about risk factors, early symptoms, and prevention strategies. Both screening and health education have been recognized as key strategies in preventing oral cancer. Educational interventions have been instrumental in improving public understanding and influencing health-related behaviors. However, knowledge about oral self-examinations and preventive measures remains alarmingly low, especially in developing nations with high oral cancer incidence rates (Singh et al., 2017).

The prevalence of oral cancer continues to rise daily. In Nepal, awareness remains particularly low, despite the increased risk associated with tobacco use, excessive alcohol consumption, and betel quid chewing—habits that are widely practiced. While a few studies have explored oral cancer awareness in Nepal, the growing disease burden calls for further research and awareness initiatives. Given the increasing trend of oral cancer cases and its status as a leading cause of death in the country, there is a pressing need to educate the public about risk factors and prevention strategies through lifestyle modification thus researcher was interested to conduct study on awareness of oral cancer among community people of Baglung.

Methods

A descriptive cross-sectional design was used to assess the awareness of oral cancer among community people of Baglung. The study was conducted in ward no 3 of Galkot municipality,

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Baglung. The study population consisted of male and female adult community people of ward 3, Galkot municipality. Non-probability purposive sampling was used to select the sample the sample size of 116 community people.

Structured face to face interview was conducted. The development of interview schedule was based on objectives of the study, extensive literature review and consulting with research advisor. The interview schedule was translated into Nepali language and back to back translation was done. For each right answer 1 score was given and 0 for wrong answer. For multiple response questions, score 1 was given for each correct response and 0 for no response. The total score was the sum of all individual scores. The level of awareness was categorized into two levels: Adequate and inadequate based on mean value. Data was analyzed by using SPSS 16, descriptive statistics i.e., frequency, percentage, mean, range, standard deviation was computed inferential statistics i.e., Chi square test were used to find out the association. P value of<0.05 was considered significant.

Results

Out of 116 community people, 44 percent of the respondents were belonging to the age group 30-39 with mean age 33.59±6.62 years. Similarly, 56% respondents were female. Regarding educational status, 35.3% respondents can read and write only. Among all respondents, 77.6% of respondents were janajati. Likewise, 33.6% respondents were housewife. Similarly, 52.6% respondents had heard about oral cancer and the major source of information was through radio and television. Cent percent respondents had no family history of oral cancer (Table 1).

Table 1

Background Information of the Respondents (n =116)

Characteristics	Number	Percentage
Age group in years		
20-29	43	37
30-39	51	44
40-49	22	19
Mean Age±SD=33.59±6.62		
Gender		
Female	65	56.0
Male	51	44.0
Educational Status		
Can read and write	41	35.3
Basic Education	17	14.7
Secondary Education	34	29.3
Bachelor	11	9.5
Masters and above	13	11.2
Ethnicity		
Janajati	90	77.6

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Brahmin/Chhetri	26	22.4
Occupation		
Housewife	39	33.6
Business	19	16.4
Service	17	14.7
Student	16	13.8
Labour	13	11.2
Agriculture	12	10.3
Source of Information		
Radio/Television	61	52.6
Newspaper	19	16.4
Internet	15	12.9
Health Worker	11	9.5
Family Friends	10	8.6

Table 2

Oral cancer	**Number**	**Percentage**
Meaning		
Oral cancer means the cancer of oral cavity	116	100
Oral cancer is a contagious disease	12	10.3
>40years age is susceptible to oral cancer	95	81.9
Male as a higher incidence of oral cancer	91	78.4
Risk factors*		
Smokless tobacco	116	100
Alcohol	116	100
Smoking	116	100
Excessive exposure to sunlight	20	17.2
Heredity	43	37.1
Sign/symptoms *		
Painless white patches in mouth	72	62.1
Non-healing ulcer	55	47.4
Difficulty or painful swallowing	116	100
Bleeding from mouth	41	35.3
Lump inside mouth	116	100
Swelling in oral cavity	61	52.6
Can be detected early	105	90.5
Diagnostic measure *		
X-ray	82	70.7

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Biopsy	75	64.7
CT-Scan	46	39.7
MRI	38	32.8

Awareness on meaning, Risk factors, Sign and symptoms and Diagnostic measures of the Respondents (n= 116)

Multiple Response*

Table 2 illustrates that cent percent of the respondents stated the meaning of oral cancer as the cancer of oral cavity. Majority (89.7%) of the respondents expressed that oral cancer is not a contagious disease. Similarly, 81.9 percent of respondent stated >40 years age group is susceptible to oral cancer whereas 78.4 percent of the respondents expressed male as a higher incidence of oral cancer. Cent percent of the respondents expressed smoking, smokeless tobacco and alcohol as a risk factors for developing oral cancer. Likewise cent percent respondent stated painful swallowing and lump inside mouth as sign and symptoms of oral cancer. Most of the respondents (90%) mentioned oral cancer can be detected early. Similarly 70.7 percent respondents correctly stated X-ray as a diagnostic measure.

Table 3

Characteristics	**Number**	**Percent**
Treatment of oral cancer *		
Surgical	97	83.6
Chemotherapy	80	69
Radiotherapy	49	42.2
Immunotherapy	26	22.4
Preventive measures *		
Avoid alcohol consumption and smoking	116	100
Avoid smokeless tobacco	116	100
Maintain oral health regularly	116	100
Avoid excessive sunlight exposure	21	18.1
Perform mouth self-examination	65	56
Meaning of Oral self-examination		
To examine self-mouth time to time	75	64.7
Appropriate time for Oral self-examination		
Monthly	33	28.4
Oral self-examination could be performed*		
Look and feel inside lips and the front of gums.	95	81.9
Tilt head back to inspect and feel the roof of mouth.	46	39.7
Pull cheek out to inspect it.	41	35.3

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Pull out tongue and look at its top and bottom.	58	50
Feel for lumps or enlarged lymph nodes in both sides of neck	67	57.8

Awareness on Treatment, Preventive measures and Oral self -examination of Respondents (n=116)

***Multiple Responses**

Table 3 shows that, majority (83.6%) of the respondents expressed surgery as treatment method of oral cancer. Cent percent of the respondents expressed avoiding alcohol consumption, smoking and smokeless tobacco as a preventive measure of oral cancer. Likewise 64.7 percent of respondents stated the meaning of oral self- examination. Similarly, 28.4 percent of respondent correctly stated the appropriate time for oral self -examination. Most (81.9%) of respondents expressed look and feel inside lips and the front of gums as a step to perform oral self -examination.

Table 4

Level of Awareness of Respondents on Oral cancer (n= 116)

Awareness Level	**Number**	**Percentage**
Adequate	10	8.6
Inadequate	106	91.4
Mean Score (30.11±3.88)		

Table 4shows that only (8.6%) of respondents had adequate level of awareness whereas majority (91.4%) of the respondents possessed inadequate awareness on oral cancer. The awareness level was categorized by mean score 30.11±3.88 with minimum score 21 and maximum score 40.

Table 5

Association between Level of Awareness with Selected Background Variables of the Respondents (n=116)

Variables	**Level of Awareness**		**χ2**	***p* value**
	Adequate No (%)	**Inadequate No (%)**		
Age in years				
0-34 years	4 (6.8%)	55 (93.2%)	.517	.472
35-45 years	6 (10.5%)	51(89.5%)		
Gender				
Male	3 (5.9%)	48 (94.1%)	.866	.352

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Female	7 (10.8%)	58 (89.2%)		
Education				
Can read and write	4 (9.8%)	37 (90.2%)	.000	.989
Others	6 (9.7%)	56 (90.3%)		
Ethinicity				
Janajati	8 (8.9%)	82 (91.1%)	.037	.848
Brahmin/Chhetri	2 (7.7%)	24 (92.3%)		
Occupation				
Paid	3 (4.9%)	58 (95.1%)	2.239	.135
Unpaid	7 (12.7%)	48 (87.3%)		
Source of information				
Medias	8 (13.1%)	53 (86.9%)	3.298	.069
Others	2 (3.6%)	53 (96.4%)		

Table 5 shows that there was no significant association between level of awareness and selected background variables.

Discussion

This study was conducted to identify level of awareness on oral cancer among 116 adults. In this study, 44% of the respondents were belongs to the age group 30-39 with the mean age 33.59±6.62 years. similarly, in this study 56% of the respondents were female which is the similar to the study conducted in North-central Wisconsin.(Shimpi et al., 2018).

The present study shows that 89.7% adults responded that oral cancer is not a contagious disease whereas 81.9% adults responded that > 40 years age are more susceptible to oral cancer which was not similar to the study conducted in Saudi Arabia where 43.3% responded as oral cancer is not contagious disease (Al-Maweri et al., 2015). Current study revealed that 78.4% responded male has a higher incidence of oral cancer which was similar to the study conducted in Baghdad, which revealed 71.4 percent of the respondents thought that male are more affected than female (Alshami et al., 2019).

In this study, cent percent of the respondents stated smoking and alcohol consumption as a risk factor which was not similar to the study conducted in Belagavi city, india, which revealed that 45.5% knew about one or more risk factors of oral cancer.(Kadammanavar et al., 2015). In this study cent percent of the respondent stated that a growth or lump inside mouth and difficulty or painful swallowing as a sign and symptoms of oral cancer. Which is not similar to the study conducted in Saudi Arabia, which revealed that 41% lump and 30% difficulty or painful swallowing as a sign and symptoms of oral cancer.(Al-Maweri et al., 2015).

In present study cent percent of the respondents stated avoidance of alcohol and smoking, smokeless tobacco (paan, gutka, betel nut) as a preventive measures of oral cancer which is different from the study conducted in Kathmandu, Nepal which revealed that only 29.10 percent of respondents stated as preventive measures. (B. Bajracharya et al., 2021)

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The current study highlighted that 91.4 percent of respondents had inadequate awareness on oral cancer. The finding was inconsistent with the study conducted in Saudi Arabia which showed 46.4% had inadequate awareness level on oral cancer.(Al-Maweri et al., 2015)

Present study shows that there is no significant association between selected background variables and level of awareness on oral cancer. Which is the dissimilar to the study conducted in Gorakhpur city, India which revealed significant relationship between level of awareness on oral cancer and socio-demographic variables (Agrawal et al., 2012).

Conclusion

The study concluded that most of the respondents have inadequate level of awareness on oral cancer. There was no statistically significant association between respondent levels of awareness with background variables. There is need for awareness program on oral cancer among adults in community through mass campaign and training.

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