

Research Article

# A Study to Assess the Knowledge Regarding Risk Factors of Oral Cancer among Adults of a Selected Rural Community of New Delhi

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#### How to cite this article:

Bhattacharya S, Kumari D. A Study to Assess the Knowledge Regarding Risk Factors of Oral Cancer among Adults of a Selected Rural Community of New Delhi. Int J Nurs Midwif Res. 2024;11(3):7-14.

Date of Submission: 2024-08-07 Date of Acceptance: 2025-09-10

## ABSTRACT

Aim: The objectives of the study were to assess the knowledge about risk factors of oral cancer and to develop and disseminate an informational pamphlet within the community.

Introduction: In India, 1 in 9 individuals is expected to be diagnosed with cancer in their lifetime. Oral cancer ranks 6th globally in cancer incidence, with India having the highest prevalence, especially in states like Uttar Pradesh and Maharashtra. Tobacco use is linked to 95% of oral cancer cases. This study assessed knowledge regarding oral cancer risk factors among adults in a selected rural community of New Delhi.

Methodology: A descriptive survey design was adopted. The study was conducted in Pul-Pehladpur using a random sampling technique in family settings. A structured knowledge questionnaire was used to assess awareness.

Results: Out of 100 participants, 58% had poor knowledge, 41% had average knowledge, and only 1% had good knowledge of oral cancer. While 59% did not use tobacco and 56% did not consume alcohol, many lacked oral hygiene practices: 44% did not brush regularly, 56% did not floss, and 70% did not attend regular dental check-ups. Additionally, 79% did not use oral appliances, 90% had not been diagnosed with any oral/dental condition, and 98% had not experienced symptoms of oral cancer. About 43% stored tobacco in their mouth.

Conclusion: The study revealed low awareness about oral cancer, its risk factors, and prevention. These findings highlight the urgent need for educational initiatives to enhance public knowledge and promote preventive practices regarding oral cancer.

**Keywords:** Community, Oral Cancer, Population, Prevalence, Tobacco

#### Introduction

Oral cancer ranks as the sixth most prevalent malignancy worldwide. In Southeast Asia, it is a significant health concern due to widespread habits such as alcohol consumption, smoking, and betel quid chewing. Despite recent advancements in cancer diagnosis and treatment, oral cancer remains a major challenge. (1) The global incidence of cancer of the lip and oral cavity in 2020 was approximately 377,713 new cases. Oral cancer is more lethal in males than in women, more prevalent in men and older individuals, and significantly influenced by socioeconomic status. (2) The study of oral cancer is crucial for several reasons: early detection and prevention, high mortality rate, increasing incidence, quality of life, economic impact, understanding cancer biology, development of new treatments, and improved diagnosis. Overall, the study of oral cancer is important for improving our knowledge of the disease, developing effective treatments, and reducing the risk of oral cancer in individuals and society.

## **Objectives**

- To assess the knowledge about risk factor of oral cancer.
- To develop and disseminate the information pamphlet among the community.

## Methodology

The research design adopted for the study was descriptive design approach, using survey method. The sample subjects comprised of individuals of the rural community in Pul-Pehladpur, random sampling technique was used. The structured knowledge questionnaire was used to assess the knowledge regarding risk factors of oral cancer. The reliability was assessed using KR-20 formula and was found to be 0.78. Experts from the college of Rufaida college of Nursing established the content validity of the tool and pamphlet. The Knowledge scores were categorized in the Good (16-20), Average (11-15) and Poor (0-10)

The data was first tabulated and then analyzed in accordance with the objectives of the study, by using descriptive statistics. The analysis of data is presented in 3 sections.

#### **Demographic Data**

The data presented in Table No. 1 shows that the maximum of the subjects, i.e. 31% (31) were in the age group of 36 - 45 years, 28% (28) were in the age group of 18-25 years, 24% (24) were in the age group of 46 and above and 17% (17) were in the age group of 26-35 year. 52% (52) were females and 48% (48) were male and 1% (1) was others. Majority of subjects were 61% (61) were Hindu, 19% (19) were Muslim,19% (19) were Christian and 1% (1) was others. Majority of subjects 24% (24) were illiterate,

23% (23) have studied up to primary school, 21% (21) have studied up to secondary school, 10% (10) have studied up to senior secondary, 17% (17) are diploma/graduate and 5% (5) are post graduate and above. Majority of subjects i.e 54% (54) were married, 40% (40) were unmarried, 4% (4) were divorced, 1% (1) were separated and 1% (1) was widow. Majority of subjects i.e 42% (42) were unemployed, 21% (21) were in business, 19% (19) were in private job, 17% (17) were students and 1% (1) were in government jobs. Majority of subjects i.e 62% (62) were not consume the alcohol and 38%(38) were consume the alcohol. Majority of subjects i.e 64% (64) do not smoke and 36% (36) are smoker. Majority of subjects i.e 72% 72 have heard about oral cancer and only 28% (28) have not heard about oral cancer. Majority of sample subjects i.e 81% (81) not suffering from oral cancer currently in his/her family and 19% (19) are suffering from oral cancer.

Table I.Frequency and percentage distribution of demographic data among Subjects

N=100

Demographic Data	Frequency (F)	Percentage (%)			
Age (in years)					
18-25	28	28%			
26-35	17	17%			
36-45	31	31%			
46 and above	24	24%			
Gender					
Male	48	48%			
Female	52	52%			
Transgender	1	1%			
	Religion				
Hindu	61	61%			
Christian	19	19%			
Islam	19	19%			
Others, Specify	1	1%			
Edi	ucational Status				
Illiterate	24	24%			
Primary	23	23%			
Secondary	21	21%			
Senior secondary	10	10%			
Diploma /Graduate	17	17%			
Post graduate and above	5	5%			
Marital Status					
Unmarried	40	40%			
Married	54	54%			
Separated	1	1%			

ISSN: 2455-9318

DOI: https://doi.org/10.24321/2455.9318.202412

Divorced	4	4%	
Widow	1	1%	
Occupation			
Unemployed	42	42%	
Business	21	21%	
Private job	19	19%	
Government job	1	1%	
Student	17	17%	

## Analysis of Knowledge of the Risk Factors of Oral Cancer Among Subjects

The table no. 2 shows that the majority of the subjects i.e., 58% (58) had poor knowledge, 41% (41) had average knowledge and 1% (1) had good knowledge score.

The figure 1 depicts the knowledge score of the subjects on oral cancer., showing majority of subjects were having poor and average knowledge and very less percentage o subjects had good knowledge on oral cancer.

Table 2.Frequency and percentage distribution of subjects

N=100

Level of Knowledge	Score Range	Frequency (F)	Percentage (%)
Good knowledge	16-20	1	1%
Average Knowledge	11-15	41	41%
Poor Knowledge	0-10	58	58%

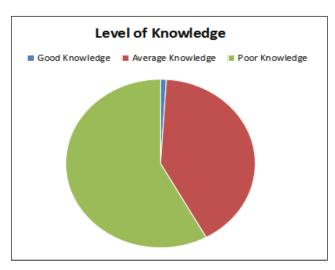


Figure 1.Pie diagram showing percentage distribution of subjects regarding knowledge of oral cancer.

## Risk Assessment of Subjects on Oral Cancer

According to data presented in table no. 3, majority of subjects i.e. 59% were not the current users of tobacco, a significant percentage i.e. 42% were consumers of alcohol, Majority of subjects practice regular brushing. Very few subjects i.e. 56% practice floshing, while 70% of subjects don't get regular dental check ups. Majority of subjects I.e. 53% wear dentures but a great percentage i.e. 79% don't use any oral appliances. 90% of subjects haven't been diagnosed with any oral and dental condition and 90% of subjects haven't faced any warning signs of oral cancer I past sic months. Maximum subjects i.e. 57% consume tobacco in some other forms

Table 3.Frequency and percentage distribution of subjects regarding risk assessment on oral cancer

N= 100

S.No	ltems	Frequency (F)	Percentage (%)	
	Do you currently use tobacco?			
1.	Yes	41	41%	
	No	59	59%	
	Do you consume alcohol?			
2.	Yes	42	42%	
	No	58	58%	
	Do you practice regular brushing?			
3.	Yes	56	56%	
	No	44	44%	
	Do you practice flossing?			
4.	Yes	44	44%	
	No	56	56%	

ISSN: 2455-9318

	Do you get regular dental check ups?		
5.	Yes	30	30%
	No	70	70%
	Do you wear denture?		
6.	Yes	53	53%
	No	47	47%
	Do you use any oral appliances?		
7.	Yes	21	21%
	No	79	79%
	Have you ever been diagnosed with any oral or dental condition (e.g., gum disease, oral lesions)?		
8.	Yes	10	10%
	No	90	90%
	Have you noticed any warning sign of oral cancer in the past six month?		
9.	Yes	02	02%
	No	98	98%
	Do you consume tobacco in other forms (Cigarettes, Bidi, Gutka)?		
10.	Yes	57	57%
	No	43	43%

#### Discussion

The present study reveals that the subject were taken from the selected community. As per the present study, 58% of individuals had poor knowledge about risk factors of oral cancer, followed by 41% with average knowledge, and only 1% had good knowledge.

The findings of the current study align with those of Fotedar V, Fotedar S, Shailee G, Manish M, Kavita S. who conducted a study to assess the knowledge, attitudes, and practices regarding oral cancer among undergraduate medical students at Indira Gandhi College in Shimla, India. Data were collected from 186 medical students from their third to fifth years, with a response rate of 96.5%. Overall, the students had a good understanding of oral cancer, with female students showing slightly higher knowledge levels than male students. Students in their fifth year (interns) had the highest levels of knowledge. Approximately 66.6% of participants disagreed or strongly disagreed that their knowledge about the detection and prevention of oral cancer was sufficient. Furthermore, 94.6% of respondents agreed or strongly agreed that more training and knowledge were required regarding oral cancer. (3)

The findings of the current study are not congruent with those of Amarasinghe K, Usgodaarachchi S, Udaya JW,

and Newell W, who conducted a similar study in Sri Lanka on 1,029 individuals aged 30 years and above. The study found that 84% of the participants were aware of oral cancer, but only 23% were familiar with oculopharyngeal muscular dystrophy. The results revealed that 32% of participants were unaware that chewing betel quid posed a risk, 65% did not know that smoking tobacco was a risk factor, and 81% were unaware of the dangers of heavy alcohol consumption. In total, 76% of the participants lacked awareness of the risks associated with frequent use of areca nut. The majority of individuals who smoke, chew betel quid, or consume alcohol are often unaware that these behaviors significantly increase their long-term health risks. (4,5)

#### Limitations

The study was conducted on a small sample of only one community in New Delhi.

#### **Conclusion**

The study concluded that among 100 individuals, 58% had poor knowledge, 41% had average knowledge, and only 1% were fully aware of the disease. The findings highlighted widespread misconceptions and a lack of awareness regarding oral cancer's causes, risk factors, transmission, diagnosis, symptoms, treatment, and prevention. This

ISSN: 2455-9318

DOI: https://doi.org/10.24321/2455.9318.202412

underscores the need for education and initiatives to improve public understanding and adherence to preventive measures against oral cancer.

## Acknowledgement

We would like to place on record the hard work and the tireless efforts in data collection and compliance of the group research project of Post Basic B.Sc. Nursing ii Year students, Batch 2023-2024 of Rufaida college of Nursing, Jamia Hamdard namely, Ms. Aashiya, Mr. Anav Massey, Ms. Angelmary Joshy, Ms. Joshna Joji, Ms. Asma Praveen, Ms. Dechen Dolma, Ms. Ishika Verma, Ms. Hameeda, Ms. Mimum Yirang, Ms. Noor Shama.

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ISSN: 2455-9318