

The Assessment Of Knowledge Regarding Oral Cancer Among Nursing Students

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Abstract

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Aim. The aim of the study is to assessment of knowledge regarding oral cancer among nursing students.

Methodology. A descriptive cross-sectional study design was used. A purposive sampling technique was used. The study population was in regarding oral cancer among nursing students size is 158.

Results. The study was descriptive cross-sectional so descriptive statistics was applied, frequency distribution was calculated, data normality was checked. The study reported that the participants with low knowledge were 50 (28.1%), the participants with high knowledge were 108(71.9%).

Conclusion. The study concluded that the majority of nursing students have good knowledge regarding oral cancer

Introduction

Background:

Oral cancer is the serious issue in the worldwide which leads to many deaths (Mosaddad, Namanloo et al. 2023). Oral cancer is the cancer of the lip, and the structures include in oral cavity (Howard, Agrawal et al. 2021). Oral cancer is consider as the cancer of the head and neck (Goyal, Hennessy et al. 2023). Oral cancer is most common in the middle countries (Shrestha, Joshi et al. 2020). Mostly cancer occurs in the young men and women due to poor oral hygiene and smoking that lead to the high mortality and morbidity globally (Lipsky, Su et al. 2021). One of the most common types of oral cancer is oral squamous cell carcinoma (Stepan, Mazul et al. 2023). It put major effect on developed and underdeveloped countries (Lopes, Gomes et al. 2022). Oral cancer is the deforming diseases caused due to tobacco, smoking, and alcohol consumption (Hussain, Alturki et al. 2023). And some other factors such as low socioeconomic status, poor nutrition and regional isolation (Ekezie, Awwad et al. 2022). Around 85% of oral cancer is preventable by reducing the causing factors (Umapathy, Natarajan et al. 2023).

In 2020, Oral cancer is considered as 6th most common cancer in the worldwide (Kumari, Debta et al. 2022). Recent studies revealed that 377,713 cases were reported of oral cancer per year and 98,412 new cases reported per year in the world and 48,143 deaths recorded due to oral carcinoma per year (González- Moles, Aguilar-Ruiz et al. 2022). This cancer is common in men than female (Ribeiro- Rotta, Rosa et al. 2022). In Europe the incidence of oral cancer is 17.3% and in north America the incidence of oral cancer is 7.3% (Chou, Lin et al. 2023). In Asia the incident rate is 65% (Flo, Matziorinis et al. 2022). The incidence is very high as compared to other countries due to local life style and cultural practices (Charly, Jean-Paul et al. 2022). In Pakistan, oral cancer is the 2nd most common cancer (Younas, Riaz et al. 2023). In male 15.9 cases recorded with oral cancer (Chieng, Dalal et al. 2023). The incidence of oral cancer in Pakistan is 13.0 per 100,000 population and mortality rate of oral cancer is 8.2 per 100,000 population (Hernández- Morales, González-López et al. 2023). Mostly Nurses are the forefront of patient care, are in a unique position to contribute to early detection and management of oral cancer. Their knowledge about the risk factors, symptoms, and screening techniques can significantly influence the early diagnosis and treatment of the disease. However, there is evidence suggesting that many nursing students may not receive adequate education regarding oral cancer, leading to a gap in knowledge that could impact their effectiveness in clinical practice.

Evaluating the knowledge levels of nursing students regarding oral cancer can shed light on the effectiveness of current educational strategies in fostering clinical competence. Given the complex nature of oral cancer, including its various etiological factors and diagnostic challenges, it is critical that nursing education programs provide a robust foundation in oral health.

This research will help to uncover whether existing teaching methods and content sufficiently equip students with the necessary skills and understanding to perform thorough oral examinations, identify high- risk patients, and initiate timely referrals. By addressing these aspects, the study not only aims to reinforce the role of nurses in oral cancer management but also seeks to advocate for curriculum development that aligns with best practices in oncology nursing education.

The knowledge about the oral cancer is important among dental students same like that the knowledge of oral cancer is also very crucial among the student nurses for the prevention and diagnosis of oral cancer at earlier. This cancer is highly preventable when it diagnosed at early stages so the lack of knowledge on oral cancer increasing the high incidence rate of oral cancer and the late detection of oral cancer that lead to the poor prognosis. It was seen that oral cancer is increasingly among young population who are taking tobacco products like cigarette smoking.

Assessment of knowledge among student nurses will directly increase awareness and prevention from oral cancer and it will able the health care practitioners to enhance their abilities to diagnose the potentially intra cancerous lesion at early stages. It is necessary for the nursing students to be aware about the oral cancer and their risk factors and the best possible treatment according to their stages. This knowledge will be helpful for adults in quitting the use of narcotics and it will also provide the knowledge about the occurrence of oral cancer its causes, and the affected area where the cancer affect. The knowledge about oral cancer is beneficial for the student nurses, other medical staffs and healthcare providers for the proper counseling and care of the patients who are suffering from oral cancer and used tobacco products and don't bother the oral hygiene.

Although this cancer is very common in worldwide and the literature is also available in Pakistan but the most of studies are conducted in dental students and less studies are available on the oral cancer among nursing students that's why the knowledge about the oral cancer is limited in the nursing students so there is need to develop and implementation of the nursing education on the topic of oral cancer and cancer

treatment as well that's why the aim of the study is to assess the knowledge of oral cancer among students nurses.

Problem statement:

Globally, Oral cancer is the 6nd common cancer.it is the cancer of head and neck. It leads to high mortality or morbidity rate in worldwide (Liu, Huang et al. 2022). It is common in young adults as compared to old aged male or female (Kolegova, Patysheva et al. 2022). In young adults it is due, to excessive use of tobacco, alcohol consumption adopting local lifestyle and poor dental care (Naser, Momani et al. 2023). The early detection of oral cancer at the stage of (1,2),and reducing the use of tobacco and modifying lifestyles and prevention from risk factors abate the occurrence of oral cancer and drop the mortality or morbidity rates. The awareness about oral cancer also play important role in depreciation of oral cancer (Rodrigues, Botelho et al. 2023). So the aim of the study is to assess the knowledge of oral cancer among nursing students.

Significance:

This study will be helpful to the nursing students to know the determinants of oral cancer and this knowledge will help in the prevention of oral cancer and it also give awareness to the other to lessen the use of smoking and improve the quality of life. The significance of this study lies in its potential to enhance nursing education by identifying specific gaps in knowledge about oral cancer among nursing students. By Understanding, these deficiencies are crucial, as nursing students are future frontline healthcare providers who will play a vital role in the early detection and prevention of oral cancer.

By assessing their knowledge levels, the research can inform curriculum developers and educators about the need for more comprehensive training on oral health, thereby ensuring that nursing graduates are well-equipped to recognize early signs of oral cancer, conduct appropriate screenings, and educate patients on preventive measures. Although, this study has broader implications for public health outcomes, particularly in the realm of cancer prevention. Improving the knowledge and skills of nursing students can lead to increased awareness and early detection of oral cancer, which is known to significantly improve survival rates. By equipping nursing students with the necessary competencies, the study contributes to reducing the delays in diagnosis and treatment often associated with oral cancer, potentially leading to better patient outcomes and a decrease in healthcare costs related to advanced-stage cancer treatments.

Aim of the study:

The assessment of knowledge regarding oral cancer among the student nurses.

Objective:

To evaluate the knowledge about oral cancer among student nurse.

Research Question:

What is the level of knowledge regarding oral cancer among students?

Operational Definition:

Oral cancer:

Operational Definition: Oral cancer refers to malignancies that occur in the oral cavity, including the lips, tongue, gums, and floor of the mouth. For the purpose of

this study, oral cancer will be defined specifically as cancers classified under the International Classification of Diseases (ICD) codes C00-C14, which includes squamous cell carcinoma and other related tumors.

Nursing Students:

Operational Definition: Nursing students are defined as individuals who are currently enrolled in an accredited nursing education program at a college or university. This study will focus on students from various academic years (e.g., first-year to final-year students) who have completed at least one foundational health science course.

Knowledge:

The knowledge of the student will be assessed through an adopted, modified translated questionnaire. Questionnaire consists on 10 items. Questionnaire consists of 10 items ranging from on nominal scale. The participants who will tick the right option will be given 1 mark. The total knowledge score will be 10 (100%).The participant will be score on the basis of according percentage.

<33.3% = poor knowledge

33.3% - 66.6 = Moderate knowledge

>66.6% = Good knowledge

CHAPTER: 2

LITERATURE REVIEW

Oral cancer is occurring in the lip, oral cavity, nasopharynx and pharynx. Oral cancer is known as oral squamous cell carcinoma. It is the 7th most common cancer. The incidence and mortality rate of oral cancer in 2019 is 529,500 and 292,300. In Asia 50% cases of oral cancer was reported worldwide and annually 168,850 cases new cases was recorded that causes the high incidence and high mortality rate.

The understanding of oral cancer among nursing students is critical, as these future healthcare providers play a pivotal role in early detection and patient education. Research indicates that nursing students often possess limited knowledge regarding the risk factors, symptoms, and prevention strategies associated with oral cancer. Such gaps in knowledge not only hinder effective patient communication but also compromise the ability to provide comprehensive care. Therefore, enhancing the educational curriculum to incorporate targeted oral cancer training is essential for equipping nursing students with the skills necessary to identify at-risk populations and promote proactive health behaviors.

A descriptive cross sectional research was conducted in Nepal in 2020. The aim of the study was to assess the awareness of oral cancer among nursing students in Nepal. The result of the study showed out of 116,89 (76.7%) students were age of 21-25 years. One hundred and twelve students (96.6%) were aware that various form of tobacco increase risk of oral cancer; however, only 55(47.4%) students knew alcohol drinking as a risk factor. Only 29(25.0%) students were aware of loose fitting denture as a risk factor for oral cancer. Ninety six (82.8%) students knew white or red patch as possible sign of oral cancer. However only six (5.2%) students were aware of the most common site of oral cancer. Only 16 students (13.8%) students considered that they are adequately trained to screen oral cancer. One hundred and fifteen (99.1%) students demand more education on oral cancer (Keshwar et al., 2020)

A descriptive cross sectional research was conducted in India. The aim of the study is to evaluate the knowledge of oral cancer and screening practices of undergraduates nursing student in Karaikal district in Puducherry. The result showed around 41 % (n=50) were from academic year of nursing, with a male to female ration of 1:9. The examination of oral cavity was done by 80% (n=98) of the participants. The majority (77.2%) identified tobacco is a risk

factor and around 84.3 % (n=103) participants respond that non healing ulcer after biting to be a sign of cancer. However the correct responses for the common sites for oral cancer occurrence in oral cavity, surfaces of tongue and lymph node examination in, metastatic oral cancer were low. The need for more education for nursing students and willingness to participant in oral cancer programs was marked by 100% and 91% students respectively. (Kaliamoorthy et al., 2021).

A descriptive cross sectional research was conducted in southeast Georgia in 2023. The aim of the study was to assess the knowledge, attitude and behavior intention about oral cancer among public health students. The result of study included 129 public health student we found that participant have some knowledge about oral cancer risk factors, but they were not aware about the survival rate of it. About 58.9% of the participants responded the survival rate for oral cancer is more than 61%. The majority of the respondents (67%) had never heard about oral cancer exams. In the focus group, four major theme were identified: lack of knowledge, strategies to educate the community about oral cancer, current public health practices around oral cancer prevention, and role of public health professionals in this. Participants felt that need for collaboration between oral health and public health to raise awareness about oral cancer in the community (Kaur & Shah, 2023).

A descriptive cross sectional research study was conducted in Nepal in 2019. The aim of the study was to investigate the awareness among undergraduate's dental students and dental surgeon of three dental institutions of Nepal. The result of the study was that 120 (23.6%) of the participants were well informed about the clinical appearance of oral cancer at 95% confidence interval (19.91-27.29%). Most of the participants i.e. 457 (89.96%) and 395 (77.75%) were that smoking and chewing tobacco were most commonly recognized risk factors. Only 200 (39.37%) were aware that non healing ulcer is considered as the changes associated with oral cancer. 344 (67.7%) said they have no knowledge about the prevention and detection of oral cancer (Poudel, Srii et al. 2020).

A descriptive cross sectional research study was conducted in Syria in 2022. The aim of the study was to assess the knowledge of the Syrian medical students about the risk factors of oral cancer, oral cavity changes associated with oral cancer, and the relation between the relation with human papilloma virus and oral cancer. The result of the study include 301 out of 401 medical students responded to the questionnaires bringing the response rate to 75.25%. The study revealed adequate knowledge about oral cancer, general information, clinical features, risk factors and relation to HPV. Clinical students shower higher levels of awareness compared to pre-clinical students. No significance in knowledge was found between genders (Alzabibi, Alolabi et al. 2022).

Despite the valuable insights gained from existing research, significant gaps remain in understanding the extent of nursing students' knowledge regarding oral cancer. While some studies have addressed awareness and educational interventions, few have explored the long-term retention of knowledge gained through targeted training or the impact of such education on clinical practice.

Additionally, the varying perceptions of oral health among nursing students across different educational settings remain underexplored. Addressing these gaps is crucial for developing a more effective nursing curriculum that prioritizes oral health and prepares future nurses to address the challenges associated with oral cancer prevention and management.

The above mentioned literature/Highlight the issue of and indicating the intense need for further study on the particular topic in the student nurses'. Hence, the aim of the study is to assess the knowledge regarding oral cancer among student nurses.

CHAPTER NO 3 METHODOLOGY

Study Design:

A descriptive cross sectional research study will be used.

Setting:

The Study setting will be Superior University Department of Nursing.

Sampling Technique:

A simple random (Lottery Method) Sampling technique will be used.

Sample size:

The sample size will be (158) calculated through slovin's formula $n = \frac{N}{1+N(e)^2}$

Where,

n = Sample size

N = Population size e = Margin of error

a. Eligibility criteria:

Inclusion criteria:

The participants who are study in superior university in nursing department (1st, 2nd, 3rd year) only those students will be Included in the study.

Exclusion criteria:

4th year students and Teachers will be excluded from this study.

Ethical consideration:

The ethical consideration will be followed which is set by the committee of nursing department, Superior University. Participants will be ensured for data privacy and they are not forced to participate in this study. Participants will be given enough information regarding study and their participation in the study. There will be no harm. Their confidentiality will be maintained.

Data Collection Tool:

Data collected will be gathered by using an adopted version of tool to assess the Knowledge regarding oral cancer among nursing students.

Data Collection:

Data will be gathered from the BSN Students studying in superior university department of nursing. Furthermore, the participant will be targeted through simple random sampling.

Population of the study:

The population will be students studying in superior university department of nursing.

Duration of the study:

The study will take approximately 9 months.

CHAPTER NO 4

The chapter deals the analysis and interpretation of data. It is arranged according to research topic, with tables providing a visual representation of the data and interpretation following each tables

DEMOGRAPHIC DATA

Table: 1 Gender distribution of respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
MALE	82	51.9	51.9	51.9
Valid FEMALE	76	48.1	48.1	100.0
Total	158	100.0	100.0	

Fig no: 1

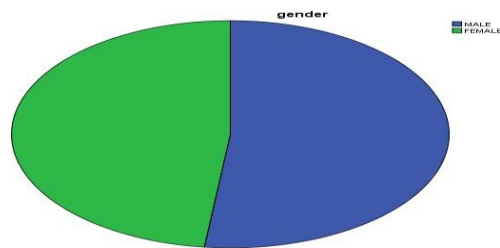


Table 1 shows that 51.9% respondents are males and 48.1% respondents are females respectively.

Table: 2 Age distribution of respondent's

	Frequency	Percent	Valid Percent	Cumulative Percent
18-20	35	22.2	22.2	22.2
21-22	93	58.9	58.9	81.0
Valid 23-24	30	19.0	19.0	100.0
Total	158	100.0	100.0	

Fig no 2

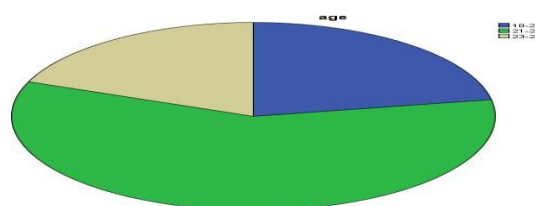


Table 2 shows that the (22.2%) respondents lies in 18-20 age and (58.9%) respondents lie between the 20- 22,and (19%) of the respondents lie in the age of 23-24.

Table No 3 Educational level of respondent

	Frequency	Percent	Valid Percent	Cumulative Percent
1ST YEAR	44	27.8	27.8	27.8

2ND YEAR	90	57.0	57.0	84.8
Valid 3RD YEAR	20	12.7	12.7	97.5
4TH YEAR	4	2.5	2.5	100.0
Total	158	100.0	100.0	

Fig no 3

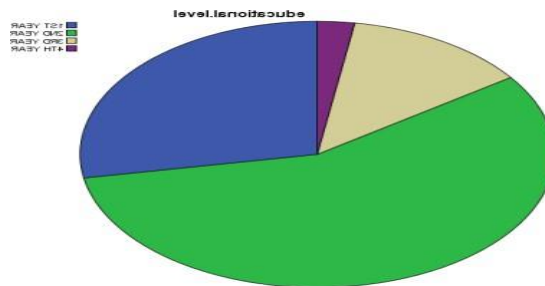


Table 3 shows that (27%) respondents are in 1st year, (57%) are in 2nd year, and (12.7%) are in 3rd year and only (2.5%) respondents are in 4th year.

Table no 4 Smokers

	Frequency	Percent	Valid Percent	Cumulative Percent
YES	15	9.5	9.5	9.5
NO	128	81.0	81.0	90.5
Valid SOMETIMES	15	9.5	9.5	100.0
Total	158	100.0	100.0	

Fig no 4

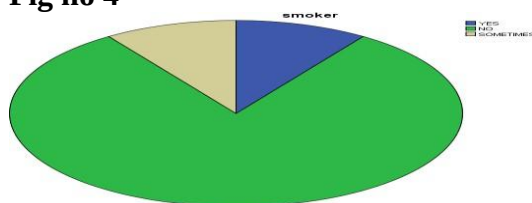


Table 4 shows that (9.5%) respondents are smokers and (81%) are nonsmokers and (9.5%) respondents use smoking sometime.

Table no 5 Alcohol use

	Frequency	Percent	Valid Percent	Cumulative Percent
YES	17	10.8	10.8	10.8
NO	139	88.0	88.0	98.7
Valid 3.00	2	1.3	1.3	100.0
Total	158	100.0	100.0	

Fig no 5

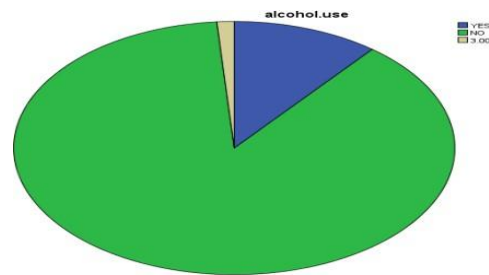


Table 5 shows that (10.8%) respondents are alcohol consumers (88%) are nonalcoholic consumers and (1.3%) respondents used alcohol sometimes

Knowledge variable

Table no 6 Do you carry out oral health check on a patients admissions?

	Frequency	Percent	Valid Percent	Cumulative Percent
YES	103	65.2	65.2	65.2
Valid NO	55	34.8	34.8	100.0
Total	158	100.0	100.0	

Fig no 6

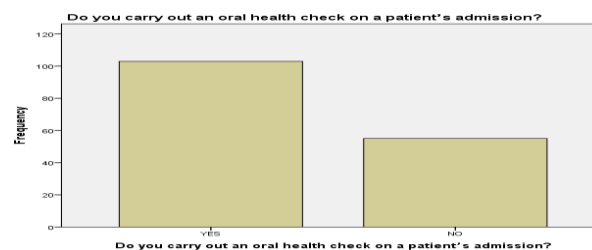


Table 6 shows that (65.2%) respondents carry oral checkup, and (34%) respondents don't carry out oral health checkup at the time of patients' admission.

Table no 7 Do you think it's important to examine a patient's mouth on admission?

	Frequency	Percent	Valid Percent	Cumulative Percent
YES	124	78.5	78.5	78.5
Valid NO	34	21.5	21.5	100.0
Total	158	100.0	100.0	

Fig no 7

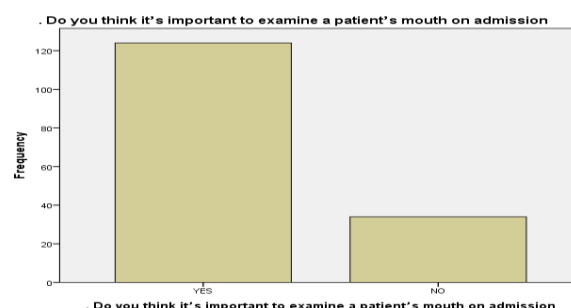


Table 7 shows that (78%) respondents consider necessary to mouth examination on admission and (21%) respondents is not agree with mouth examination at time of admission

Table no 8 Do you screen patients seen during a physical examination for signs of oral cancer?	Frequency	Percent	Valid Percent	Cumulative Percent
YES	100	63.3	63.3	63.3
Valid NO	58	36.7	36.7	100.0
Total	158	100.0	100.0	

Fig no 8

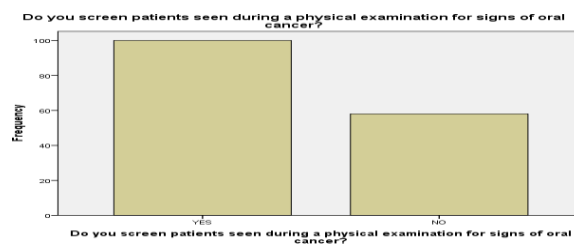


Table 8 shows that (63.3%) respondents done physical examination for check the sign of oral cancer and (36.7%) respondents never screen the patient oral examination for the sign of cancer.

Table no 9 Do you know the Main etiology of oral cancer?

	Frequency	Percent	Valid Percent	Cumulative Percent
YES	80	50.6	50.6	50.6
Valid NO	78	49.4	49.4	100.0
Total	158	100.0	100.0	

Fig no 9

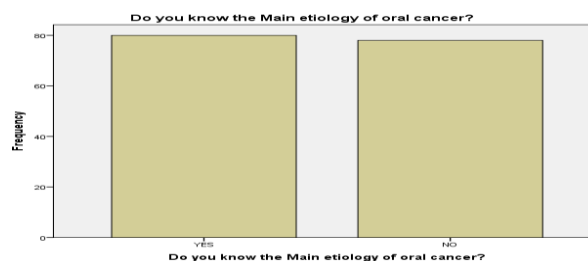


Table 9 shows (50.6%) respondents are aware the etiology of oral cancer and (49.4%)

respondents are not aware about the cause of oral cancer.

Table no 10 Are you aware about the treatments available for oral cancer?	Frequency	Percent	Valid Percent	Cumulative Percent
YES	88	55.7	55.7	55.7
Valid NO	70	44.3	44.3	100.0
Total	158	100.0	100.0	

Fig no 10



Table 10 show 55.7% respondents are aware about the treatment of oral cancer and 44.3% respondents are not aware about the treatment available for oral cancer.

Table no 11 Are you aware of the treatment cost of oral cancer?

	Frequency	Percent	Valid Percent	Cumulative Percent
YES	65	41.1	41.1	41.1
NO	93	58.9	58.9	100.0
Total	158	100.0	100.0	

Fig no 11

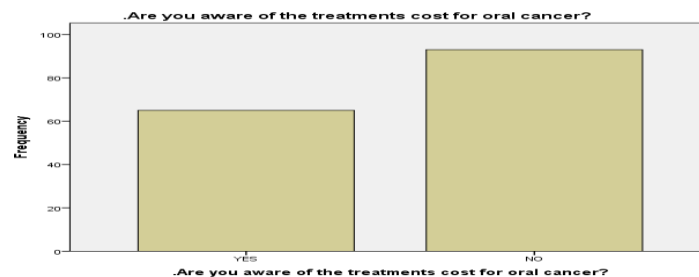


Table 11 shows (41.1%) respondents are well aware the treatment cost of oral cancer and (58.9%) are not aware about the cost of treatment. Table no 12 Do you feel that the presence of ulceration that has not healed since the biting incident is suspicious oral cancer lesion?

	Frequency	Percent	Valid Percent	Cumulative Percent
YES	90	57.0	57.0	57.0
Valid NO	68	43.0	43.0	100.0
Total	158	100.0	100.0	

Fig no 12

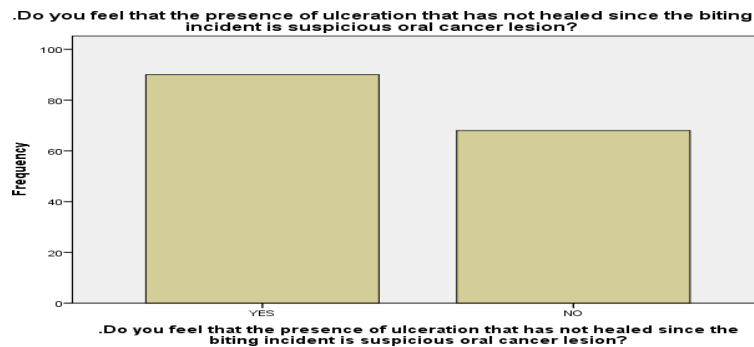


Table 12 shows that (57.%) respondents believed that the presence of ulceration which is not healed leads to suspicious oral cancer lesion and (43.0%) respondents don't believe on it.

Table no 13 Is volume of alcohol consumption and tobacco use per day is related to oral cancer?

	Frequency	Percent	Valid Percent	Cumulative Percent
YES	133	84.2	84.2	84.2
Valid NO	25	15.8	15.8	100.0
Total	158	100.0	100.0	

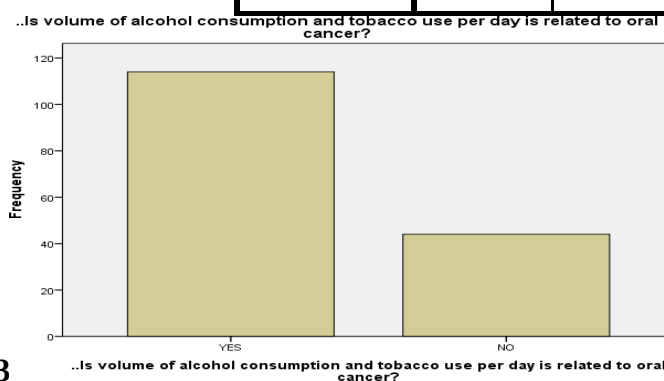


Fig no 13

Table 13 shows (72.2%) of respondents are agreed with the usage of alcohol and tobacco related to oral cancer but (27.8%) respondents are not agreeing with this.

Table no 14 Do you feel nursing student needs more education about screening for oral cancer?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid YES	114	72.2	72.2	72.2
NO	44	27.8	27.8	100.0
Total	158	100.0	100.0	

Fig no 14

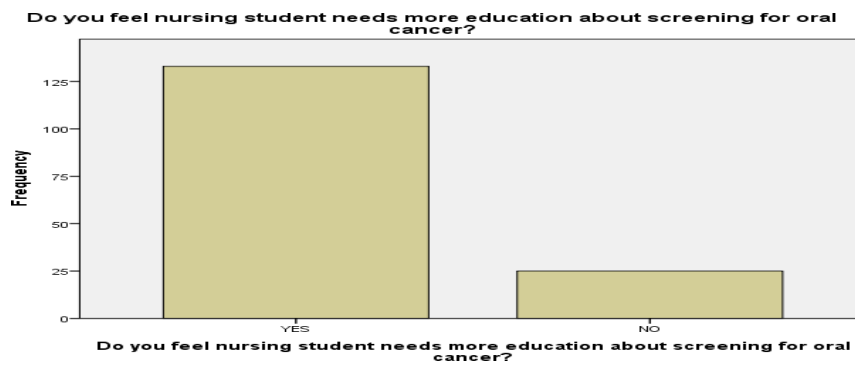


Table 14 shows that (84.2%) respondents feel there is more need of education among nurses about oral cancer and (15.8%) respondents don't bother the educational need on oral cancer among nurses. Table no 15 Would you be willing to participate in a network to promote early screening for oral cancer?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid YES	132	83.5	83.5	83.5
NO	26	16.5	16.5	100.0
Total	158	100.0	100.0	

Fig no 15

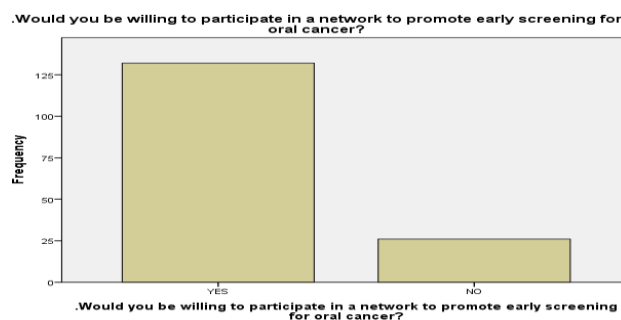


Table 15 shows that (83.5%) respondents are willing to participate in network to prompt the early screening of oral cancer and only (16.5%) respondents are not willing to promote the early screen SECTION A

Sr no	Demographic characteristics	Frequencies (%)
1	Gender	
	Male	82(51.9%)

	Female	76(48.1%)
2	Age distribution of respondent	
	18-20	35(22.2%)
	21-22	93(58.9%)
	23-24	30(19.0%)
3	Education distribution of respondent	
	1 st year	44(27.8%)
	2 nd year	90(57.0%)
	3 rd year	20(12.7%)
	4 th year	4(2.5%)
4	Smoking user of respondent	
	Smoking user	15(9.5%)
	Non smoker	128(81.0%)
	Sometimes use	15(9.5%)
5	Alcohol user of respondent	
	Alcohol consumer	17(10.8%)
	Non-alcohol consumer	139(88.0%)
	Sometimes user	2(1.3%)

Table A shows that the demographics and lifestyle behaviors of the respondents reveal several notable trends. The gender distribution among the respondents is fairly balanced, with a slightly higher percentage of males (51.9%) compared to females (48.1%). The age distribution reveals that most respondents fall within the 21-22 age range, comprising 58.9% of the sample, suggesting a predominance of young adults. Additionally, 22.2% are aged 18-20, while 19.0% are in the 23-24 age brackets, indicating that the majority of participants are in the early stages of adulthood. In terms of education level, a significant portion of respondents are in their second year of study (57.0%), followed by 27.8% in their first year, reflecting a student population mainly in the earlier stages of their academic journey. A smaller percentage is in their third year (12.7%), and only 2.5% are in their fourth year, indicating limited representation from students nearing graduation. Regarding lifestyle behaviors, smoking is not widespread, as 81.0% of the respondents are non-smokers, while 9.5% report regular smoking and another 9.5% smoke occasionally. Alcohol consumption follows a similar trend, with the majority abstaining (88.0%), whereas 10.8% are alcohol consumers and a minimal 1.3% drink occasionally.

SECTION B

KNOWLEDGE VARIABLES

SR.no	Items	Yes F (%)	No F (%)
1	Do you carry out oral health checkup on a patient's admission?	103(65.2%)	55(34.8%)
2	Do you think it's important to examine a patient's mouth on admission?	124(78.5%)	34(21.5%)
3	Do you screen patients seen during a physical examination for signs of oral cancer?	100(63.3%)	58(36.7%)
4	Do you know the Main etiology of oral cancer?	80(50.6%)	78(49.4%)

5	Are you aware about the treatments available for oral cancer?	88(55.7%)	70(44.3%)
6	Are you aware of the treatment cost of oral cancer?	65(41.1%)	93(58.9%)
7	Do you feel that the presence of ulceration that has not healed since the biting incident is suspicious oral cancer lesion?	90(57.0%)	68(43.0%)
8	Is volume of alcohol consumption and tobacco use per day is related to oral cancer?	133(84.2%)	25(15.8%)
9	Do you feel nursing student needs more education about screening for oral cancer?	114(72.2%)	44(27.8%)
10	Would you be willing to participate in a network to promote early screening for oral cancer?	132(83.5%)	26(16.5%)

Table B illustrates the participants' knowledge of oral cancer, revealing that majority (65.2%) regularly conduct oral health checkups during patient admissions, yet 34.8% do not, indicating a gap in standard practice. Similarly, while 78.5% of respondents understand the importance of examining a patient's mouth upon admission, 21.5% are unaware of this critical measure. Screening for signs of oral cancer during physical examinations is practiced by 63.3% of participants, leaving 36.7% who do not engage in this essential preventive activity. Awareness of the etiology of oral cancer is evenly split, with 50.6% informed and 49.4% uninformed, reflecting a need for more widespread understanding. While 55.7% of respondents are aware of available treatments for oral cancer, 44.3% remain unaware. Notably, only 41.1% of participants are knowledgeable about the cost of treatment, with a majority (58.9%) lacking this information. In terms of identifying early signs, 57.0% recognize non-healing ulcers as a suspicious indicator of oral cancer, while 43.0% do not. A substantial majority (84.2%) is aware of the link between alcohol and tobacco use and oral cancer, yet 15.8% remain unaware of this significant risk factor. Finally, 72.2% believe nursing students need further education on oral cancer screening, whereas 27.8% do not see this as a priority and majority of respondents (83.5%) are willing to participation in social media to promote the oral cancer earlier screening and only (16.5%) don't focus in participating or promoting the early screening.

CHAPTER NO 5

DISSCUSSION

The current study aim to assess the knowledge regarding oral cancer among the nursing students. The current study expose that 22.2% participants lies within the age bracket of 18-20 and 58.9% participant fall in the age of 21-22, and only 19.0% participant fall in the age bracket of 23-24 respectively. But according to Previous study which is conducted in the Nepal this study revealed the age distribution in which most of the respondents (76.7%) were in the age of between 21-25 years and only 23.3% respondents recorded in the age between 18-20 years.

The present study revealed that female nursing students demonstrated a slightly lower level of knowledge regarding oral cancer only (48.1%) than males having ratio of

(51.9%). This finding aligns with a study by Essa et al. (2021), which reported that (38.3%) female participants participated in this study and majority of (61.7%) males are contributed in this study. This study found a significant positive correlation between the gender differences in which female's student demonstrating low level of involvement as compared to the male's participants.

The finding of this study underscores the critical importance of conducting oral assessments upon patient admission. Majority of nursing students (78.5%) recognized that evaluating the oral cavity is essential for early detection of potential health issues like cancers and infections. Minority of nursing students (21.5%) represent that oral examination is not so important for patient at the time of admission.

Another study represents that (41%) participants are the 3rd year nursing student and around (25.4%) participant's respondents are in 2nd year and 36.6% are the 1st year students. The recent study acknowledges that only, (12.7%) students are the part of 3rd year and (57.0%) respondents are in 2nd year moreover (27.8%) respondents are in 1st year. Our findings suggest that (9.5%) nursing students are habitual of smoking and (81.0%) respondent students are non-smokers because of the awareness and the effects on health or (9.5%) participants are smoking sometimes.

The study conducted in Sri Lanka in 2018 and the data from this cross sectional study support the hypothesis that significant ratio of nursing students are engaged in smoking (10.3%) responding students are smoking user and (20.5%) respondents reported as ever smoker. The current study's outcomes suggest that mostly participants (65.2%) had carried out oral examinations at the time of patient's admissions and only (34.8%) students do not performed oral checkup at admission times. The result of recent studies is lower than as compared to previous one. Further investigations into the topic (2020) reveals that (97.4%) of respondents had performed oral checkup and about (2.6%) of student do not assessed oral health of patient at admission time.

Building on the finding of previous research conducted in Karaikal Puducherry in 2021 in which (85.2%) respondents screen the oral cavity of patient to detect oral cancer. The current study's outcomes suggest that (63.3%) nursing students screen patient and physical examination for the sign of oral cancer.

Only (36.7%) nursing students do not screen physical examination for oral lesion signs, and sites of oral cancer. This recent study is correlated to the previous study conducted in India showing that the respondents have screen patients having average knowledge regarding signs and detection of oral cancer.

In addition to the existing literature, this study reveals that about (65.8%) of the students identified tobacco is the main etiology of cancer and some of student perception about alcoholism, old age and sun exposure is only about (3%). This study conducted in Chennai (2016) about the cause of oral cancer is similar to the recent study which shows (50.6%) participants are aware about the etiological factors of oral cancer and (49.4%) nursing students are not well known about the causes which leads to the oral cancer.

Awareness of the available treatment options for oral cancer remains a critical factor in improving patient's outcome, as early and appropriate intervention is crucial. This study assesses the respondent's knowledge by asking whether they were aware of available treatments. Our findings showed a range of responses, with (55.7%) of participants indicating yes suggesting some familiarity with available treatments. This aligns with previous research, which also found that certain groups are generally aware of treatment options. However, (44.3%) of participants responded no highlights gaps in awareness. This pattern of limited awareness in certain area reflects similar challenges reported in other studies. Overall, our results suggest a need for targeted educational efforts to ensure all individuals are informed about oral cancer treatment options.

Analysis of another studies conducted in Turkey 2024 which suggest that (65.7%) participants reported that non healing oral sore over a long period they might serve as

indicator of oral cancer. In our present study shows that (57.0%) of participants knowledge regarding to the presence of oral lesions that is not healed which lead to the oral cancer and half of participant (43.0%) respondents has poor knowledge about this.

This result of this study indicate that (84.2%) students responded for there is need of education on oral cancer to enhance the knowledge, awareness and their skills for the early detection of cancer. Only (15.8%) respondents need no education on oral cancer. This cross sectional study conducted in India Davangere city have similar results with the current study.

Despite low level of education on oral cancer among nursing students (83.2%) participants were willing to participate in network to increase the knowledge and awareness on oral cancer among nursing students. The results of the cross sectional study conducted in 2019 in saveetha medical college are consistent with the current study.

CHAPTER NO 6

CONCLUSION

The study assessed the knowledge of oral cancer among nursing students indicates that while there is a solid foundation of knowledge among nursing students but there are critical areas that necessitate targeted education interventions to enhance awareness and improve clinical practices in treatment costs, etiology, and early symptom recognition of oral cancer. These initiatives will enhance the earlier detection and prevention from oral cancer.

STRENGTH AND LIMITATIONS:

Strength:

The strength of the study indicated that it is conducted in nursing student instead paramedical staffs.

This study is conducted in Pakistan and other studies are conducted in different countries

This study focuses on the 1st, 2nd, 3rd and 4th year students but other studies done in specific years or among staff nurses.

Limitations:

The limitations of the study conducted in Pakistan and no Pakistan literature is discussed in this study

The data collection is limited to a single institute not other institutions are involved in it.

Recommendations:

Our study finding based on the improving the key areas where gaps were identified and proposing actionable steps to improve knowledge and practice. So there is intense need to focus on nursing student skills for early detection and prevention in their future professional role

Integrated comprehensive modules on oral cancer within nursing curriculum which cover the risk factors, diagnosis techniques, treatment options and preventive measures

Organize regular workshop and training where nursing students can learn alongside dental students and other healthcare professionals.

Focus on the clinical exposure and practical experience for hand on practices and examination.

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