

Assessing Oral Cancer Awareness Among Dental Clinicians of Emilio Aguinaldo College, Manila

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**ASSESSING ORAL CANCER AWARENESS AMONG DENTAL CLINICIANS OF
EMILIO AGUINALDO COLLEGE, MANILA**

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Abstract

Background: Oral cancer is a major public health concern because delayed diagnosis is associated with high morbidity and mortality. Dental clinicians play a crucial role in the early detection and referral of oral cancer, making adequate awareness and knowledge essential.

Objective: This study aimed to assess the level of awareness and knowledge of oral cancer among dental clinicians at Emilio Aguinaldo College, Manila, and to determine whether a significant difference exists between third- and fourth-year clinical students.

Methods: A descriptive quantitative research design was employed. Data were collected using a structured questionnaire adapted from a previously validated study and administered through Google Forms. A total of 48 third- and fourth-year dental clinicians participated in the study. Descriptive statistics, including frequency, percentage, weighted mean, and standard deviation, were used to summarize the data, while an independent-samples test was used to compare the awareness levels of third- and fourth-year students.

Results: The respondents demonstrated a good level of awareness regarding oral cancer, with an overall weighted mean of 3.22, indicating agreement. Their knowledge of the signs and symptoms of oral cancer was also satisfactory, with an overall weighted mean of 3.05. Respondents showed the highest awareness that oral cancer is preventable (weighted mean = 3.31), while knowledge of the various methods for detecting oral cancer received the lowest mean score (weighted mean = 3.06). No statistically significant difference was found in the level of awareness between third- and fourth-year dental clinicians ($p = 0.75$).

Conclusion: Dental clinicians at Emilio Aguinaldo College demonstrated generally good awareness and knowledge regarding oral cancer. However, additional educational activities and training on the detection and early recognition of oral cancer are recommended to further strengthen their competency in identifying suspicious lesions and promoting early diagnosis.

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CHAPTER 1

INTRODUCTION

When human cells become damaged or grow old, they are replaced by new ones. The growth and multiplication of cells in the human body follow an orderly process called cell division wherein a single cell divides to make two cells and these two then divide to make four cells and so on.

Sometimes, this orderly process breaks down and abnormal or damaged cells grow and multiply when they shouldn't form tumors which are lumps of tissue. Tumors can be cancerous or not cancerous.

Cancer can occur anywhere in the body. In women, the most common types include breast, colorectal, lung, cervical and thyroid cancer. On the other hand, lung, prostate, colorectal, stomach and liver cancer are the most common types in men. (WHO, 2022).

The oral cavity is not spared from the occurrence of cancer. Studies show that malignancies in the oral cavity rank as the 16th most prevalent malignant neoplasm worldwide (Miranda-Filho and Bray 2020). Among the malignancies affecting the oral cavity, squamous cell carcinomas account for more than 90% of the cases (National Institute of Dental and Craniofacial Research, 2018).

Oral cancer frequently affects adults over the age of 40, usually men. The human papilloma virus (HPV) and alcohol usage, as well as tobacco and alcohol use or both, are the main risk factors for oral cancer. (National Institute of Dental and Craniofacial Research-2018).

Cancer of the oral cavity has a 50% fatality rate globally. It has resulted in more fatalities than Hodgkin's disease, melanoma, and cervical cancer combined (Miller et al., 2019). Approximately two-thirds of oral cancer fatalities and 25 per 100,000 cases were found in underdeveloped nations. In the Philippines, oral cancer ranks as the third most common cause of morbidity and mortality. According to the WHO, 3,102 people died from oral cancer in the Philippines in 2018, making up 0.51 percent of all fatalities (WHO-2018).

Oral malignancies are very treatable if diagnosed early, with an 80 to 90 percent survival rate. There are chances for earlier detection and to lower morbidity and death since oral cancer frequently has a clinical premalignant phase that is visible under the microscope. Early-stage oral cancer patients who receive treatment have an excellent prognosis, higher survival rates, and better quality of life (Cohen, 2022).

Unfortunately, according to Filipinos' health-seeking habits, cancer patients only seek out medical attention after the sickness is already far along, hence, the Department of Health urges dentists and primary care physicians to conduct routine screenings for oral malignant lesions and to offer counseling to individuals who abuse alcohol, smoke cigarettes, or chew betel nut or tobacco. Moreover, Dentists and dental clinicians can assist in the identification of oral malignancies by performing screening exams as part of normal oral diagnosis (Junhel Dalanon et al 2020).

Statement of the Problem

This study aims to find out the level of awareness on oral cancer of the dental clinicians in Emilio Aguinaldo College, Manila.

Specifically, it would seek to answer the following questions:

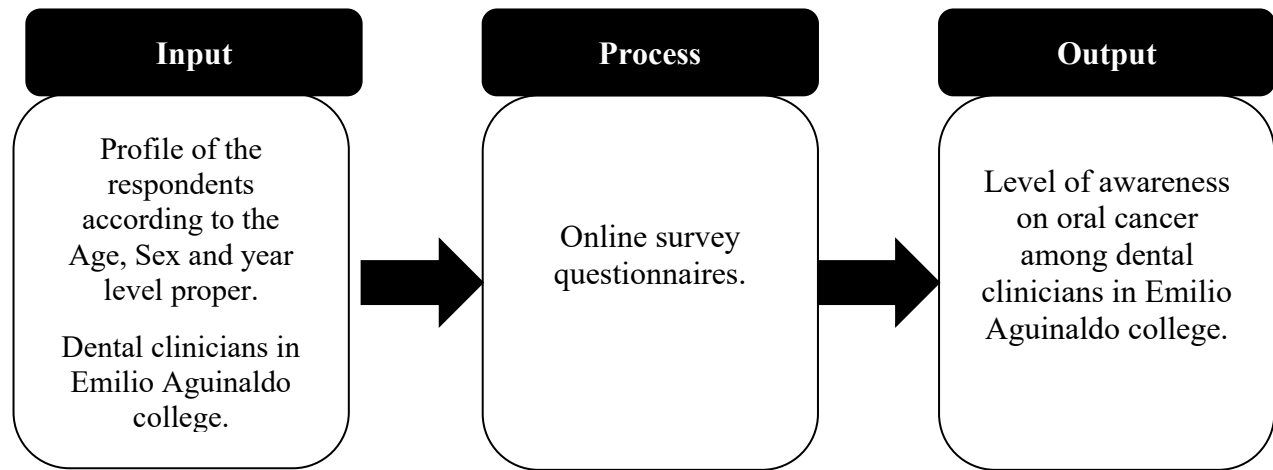
1. What is the profile of the respondents according to:
 - 1.1 Age.
 - 1.2 Sex.
 - 1.3 Clinical year proper.
2. What is the level of awareness of the dental clinicians in Emilio Aguinaldo College regarding knowledge of oral cancer?
3. What is the level of knowledge of dental clinicians in Emilio Aguinaldo college about the signs and symptoms of oral cancer?

Hypothesis

H0: there is no significant difference in the awareness on oral cancer among the 3rd and 4th dental proper clinical levels in Emilio Aguinaldo college.

H1: there is a significant difference in the awareness on oral cancer among the 3rd and 4th dental proper clinical levels in Emilio Aguinaldo college.

Conceptual framework:



Discussion of the Conceptual Framework

The input of the study are the 3rd and 4th dental proper clinical levels currently enrolled in Emilio Aguinaldo College, Manila. The researchers will use online survey questionnaires as the data gathering tool. From the data that will be gathered, the researchers will assess the level of awareness of oral cancer among the dental clinicians.

Significance of the Study

The aim of this study is to assess oral cancer awareness among undergraduate dental clinicians by evaluating their knowledge and awareness on oral cancer.

This study shall benefit the following:

Students: As the primary subjects of the study, these dental students would be able to know their level of awareness about the identifying and diagnosing of oral cancers, as well as the need of referring the patients to the specialists (oral and maxillofacial surgeons).

School Administration: the result of this study will help the administration to identify the weakness of the students regarding detection of oral cancers and will encourage them to solve these weaknesses in the future.

Other Researchers: This research may be included as a guide and a reference material for other researchers on the examination of an awareness campaign if they plan to conduct a similar study.

Scope & Limitation of The Study

This study covered the analysis of the level of awareness of dental students studying at Emilio Aguinaldo College regarding oral cancer.

This study was limited to the Emilio Aguinaldo College, Manila Dentistry clinical students.

Definition Of the Terms

For better understanding and interpretation of this study, the following terms are operationally defined:

1. **Oral Cancer.** It initially appears as a growth or sore in the mouth that does not go away. Oral cancer, which includes cancers of the lips, tongue, cheeks, floor of the mouth, hard and soft palate, sinuses, and pharynx.
2. **Squamous cell carcinoma (SCC)** is one of the most common types of skin cancer. This cancer starts in the flat squamous cells found in the upper part of the epidermis, the skin's outermost layer.

3. **Leukoplakia.** is a gray or white area in the mouth or throat that doesn't come off when scraped.
4. **Erythroplakia.** is a red area that is either flat or raised. If it's scraped, erythroplakia tends to bleed easily.
5. **Clinician.** It is a dental student in the clinical years of the dentistry proper program who is authorized to admit and treat patients in the dental clinic under the supervision of clinical instructor.
6. **Dental Clinic.** It refers to the dental infirmary center in the College of Dentistry where patients are admitted and treated by clinicians under the supervision of a licensed clinical instructor.
7. **Department of Health:** Is the executive department of the Government of the Philippines responsible for ensuring access to basic public health services by all Filipinos through the provision of quality health care and the regulation of all health services and products.
8. **International association of oral pathologist:** An organization that its primary objectives are the development and promotion of the practice and science of oral pathology.
9. **Oral and maxillofacial surgeons:** is a surgical specialty focusing on reconstructive surgery of the face, facial trauma surgery, the oral cavity, head and neck, mouth, and jaws, as well as facial cosmetic surgery.
10. **Awareness:** knowledge or understanding of something; ability to notice things.

Chapter 2

REVIEW OF RELATED LITERATURE AND STUDIES

This part presented and discussed the foreign and local literature and studies that are closely related to the present research. The information here was sought to support this study and lead the researchers to determine the level of awareness of the students regarding oral cancer.

Related Studies

Cancer is a disease in which certain cells in the body grow uncontrollably and spread to other parts of the body. Cancer can start almost anywhere in the human body, which is made up of trillions of cells. Normally, human cells develop and multiply to form new cells as the body needs them. When cells develop old or become damaged, they die, and new cells take their place. (National Cancer Institute-2021).

According to the World Health Organization in 2018, Cancer is the second leading cause of death globally. Lung, prostate, colorectal, stomach and liver cancer are the most common types of cancer in men, while breast, colorectal, lung, cervical and thyroid cancer are the most common among women (World Health Organization-2018). More than one-third of all cancer patients develop complications that affect the mouth. These mild to severe side effects can include mouth sores, infection, dry mouth, sensitive gums and jaw pain. (National Institute of Dental and Craniofacial Research 2018).

Oral cancer is a malignant neoplasia which arises on the lip or oral cavity. Is traditionally defined as a squamous cell carcinoma (OSCC), because in the dental area, 90% of cancers are histologically originated in the squamous cells. Cancer arises from the transformation of normal cells into tumor cells in a multi-stage process that generally progresses from a pre-cancerous lesion to a malignant tumor. These changes are the result of the interaction between a person's genetic factors and three categories of external agents, including physical carcinogens, such as ultraviolet and ionizing radiation. chemical carcinogens, such as asbestos, components of tobacco smoke, alcohol, aflatoxin and biological carcinogens, such as infections from certain viruses, bacteria, or parasites. (National Institute of Dental and Craniofacial Research 2018).

Oral squamous cell carcinoma (OSCC) is a common malignancy of the head and neck region. OSCC has a relatively low survival rate and the incidence of the disease is increasing in some geographic areas. After oral SCCs are generated, tumor cells can deeply invade the local structures and lymph nodes of the neck, leading to further distant metastases. Oral SCC treatment is dependent on disease stage, the potential complications of each therapy, and the patient's quality of life. As early detection is the most critical step in the management of patients with cancer, an effective screening program for oral SCC is imperative (Shang-Hung Chen et al.).

Leukoplakia and erythroplakia are the two most common potentially malignant disorders of the oral cavity. The prognosis and overall survival of a patient with oral cancer is dependent on the early detection of any lesion that might identify a patient with higher risk than normal or with early infiltration before metastatic disease. Leukoplakia and erythroplakia were traditionally known as two "precancerous lesions of the oral mucosa". The term "precancer" defines all

lesions classified as such to have a "precancerous nature" implying that all of them will eventually become malignant (A.W. Van Zyl et al.).

Worldwide In 2018, Pakistan was the country with the second-highest rate of lip and oral cavity cancer after Papua New Guinea. In the Philippines, 3,102 people died from oral cancer, or 0.51 percent of all fatalities. Philippines ranks #58 in the world with a 4.41 per 100,000 people age-adjusted death rate. Males over the age of 50 are at the most risk of developing oral cancer, which is twice as common in men as it is in women, according to the American Cancer Society. Over 50,000 Americans are anticipated to have been given an oral cancer diagnosis in the United States in 2018 (World Health Organization-2018).

The high frequency of risk factors for oral cancer in South-East Asia is a serious cause for worry. Individuals who are exposed to several risk factors have an oral cancer risk that is fifty times greater than that of those who are not (Shilpa Gunjal et al 2020). The main individual etiological variables in the emergence of oral potentially malignant illnesses and malignancies are thought to be tobacco smoking, excessive alcohol use, and betel nut chewing. Oropharyngeal malignancies are also linked to the human papillomavirus (Shilpa Gunjal et al 2020).

The concurrent use of alcohol and tobacco has been acknowledged to have greater harmful effects than just using smoke or alcohol. Drinkers and smokers are more likely to get some cancers, including pharyngeal and oral cancers. Approximately 80% of instances of oral cancer in men and 65% of cases in women are linked to alcohol and tobacco use. It's vital to remember that persons who don't smoke and just rarely drink alcohol account for almost 25% of all cases of oral cancer. Patients who receive an early diagnosis of pharynx and oral cavity malignancies have an overall 5-year

survival rate of 84 percent. The chance of survival for five years is reduced to 65 percent if the cancer has spread to surrounding tissues, organs, or lymph nodes (World Health Organization-2018).

Oral Cancer contributes to one of the important causes of mortality in human beings. These impending malignancies however may present clinically with warning signs such as non-healing ulcer with or without induration or nonhealing socket, white patch with firm consistency, red lesion or lesion with erythematous appearance (Erythroplasia), abnormal lump in the mouth with increase in size, exophytic or ulcer-proliferative growth, mass or lump in the neck and neighboring regions (Lymph node enlargement), tooth pain and referral pain and bleeding from the mouth (Kavitha Muthu et al-2018).

The early diagnosis and prognosis of a cancer make it more likely to respond to effective treatment and can result in a greater probability of surviving, less morbidity, and less expensive treatment. Significant improvements can be made in the lives of cancer patients by detecting cancer early and avoiding delays in care. Your dentist will do a screening examination for oral cancer as part of your regular dental checkup. Your dentist will especially feel your neck, head, face, and oral cavity for any lumps or unusual tissue changes. Your dentist will examine your mouth and check for any sores or discolored tissue in addition to the previous indications and symptoms (Ahmed et al-2019).

A biopsy may be required to determine the presence or extent of a disease. Your doctor can decide which sort of biopsy is best from the various varieties available. Although brush biopsies are fairly simple, many clinicians don't utilize them since, even if the brush biopsy is positive, a knife biopsy is still required to confirm the findings. Additionally, there are two sorts of scalpel biopsies: incisional and excisional, depending on whether just a portion of the area is

required to identify the problem or the entire area. These biopsies are carried out by certain clinicians using lasers. (The Oral Cancer Foundation-2018).

A specialist is referred after a positive screening result for a biopsy and histological examination. shows a graphic of the typical care pathway. It is crucial that dentists are effective in their "gatekeeper" roles since they often serve as the initial step in the journey to care. The ability of dentists to recognize and diagnose oropharyngeal squamous cell carcinoma and oral potentially malignant lesions (OPMLs) has been found to be lacking in investigations. On this subject, there is a need to create programs for general dentists' continuing education. Additionally, the general public lacks knowledge and awareness, which makes it difficult to get an early diagnosis (Hashim et al. 2019; Webster et al. 2019).

Due to ignorance and reliance on subjective assessments of clinical features in contemporary clinical practice, dentists' screening accuracy is still poor (Yang et al. 2018; Grafton-Clarke et al. 2019, Ries et al. 2019).

For early detection of oral cancers, clinicians have a vital role as they are the persons who see and observe oral cavity during routine dental checkups and can help identify suspicious lesions before having any symptoms. Routine dental care is an appropriate setting for improving early diagnosis of oropharyngeal squamous cell carcinoma in the United States, where more than 60% of persons visit a dentist annually. In fact, dentists are the ones who find oropharyngeal squamous cell carcinoma most frequently; they refer patients with suspicious lesions to specialists for diagnosis and care. The typical visit by oral health care professionals includes a noninvasive visual and tactile oral mucosal examination with risk factor evaluation for oral disorders, including oropharyngeal squamous cell carcinoma, and is advised for all patients. (American Academy of Oral Medicine 2019).

CHAPTER 3

RESEARCH METHODOLOGY

This chapter presented the methodology of the research. It included the research design, locale, instrumentation/technique, participants of the study, sampling procedure, and treatment of the data.

Research Design

This descriptive statistical study is one of which information is collected without changing the environment. and represents that the input of the study is the level of awareness of the dental clinicians currently enrolled in Emilio Aguinaldo College.

Research Locale

The study will be conducted among dental clinicians in Emilio Aguinaldo College, school of dentistry. It is located at San Marcelino St. Paco, Manila, Metro Manila. The researchers chose this location as the locale of the study due the limitations imposed by the pandemic.

Population And Sampling Technique

The target population for this study are 50 clinicians, based on the total number of the 3rd and 4th clinical year proper in the 1st semester of the school year 2022-2023. in Emilio Aguinaldo College.

Respondents Of the Study

48 respondents who participated in the survey questionnaire.

Data Gathering Procedures

Quantitative data will be collected using a questionnaire through online platforms due to the limitations imposed by COVID-19. The online questionnaire survey will be adapted from previous researchers that also focus on the level of awareness of the respondents regarding the causes and symptoms of oral cancer.

The objectives of the study will be successfully achieved by the following steps:

- First step: Obtaining informed consent from the respondents.
- Second step: Google forms survey instruments will be sent to the clinicians group chat by Shagera.
- Third step: Accomplished survey instruments will be collected by the researchers by Shagera.
- Forth step: The data from the survey instruments will be then tallied by the researchers by Shagera.

- Fifth step: The data gathered will be submitted to a statistician for analysis.

Research Instrument

The purpose of this study aims to find out the level of awareness on oral cancer of the dental clinicians in Emilio Aguinaldo College.

A questionnaire adapted from a study by Shilpa et. al. with the title assessing oral cancer awareness among dental - and medical students of a Malaysian private university done in 2020 will be used. The said questionnaire is divided into parts the first part is about general knowledge of oral cancer and the second part is awareness of oral cancer where each question is answerable by true or false.

Data Analysis

- Frequency distribution tools will display the frequency of various outcomes
- Percentage and mean value for the data will be documented to evaluate the knowledge attitude and practices of the clinicians.
- Mean value of the obtained survey will be the average value in a collection of numbers and it is a measure of central tendency of a probability.
- Weighted Mean will be used to statistically treat the obtained data from the survey.

CHAPTER 4

PRESENTATION, ANALYSIS, AND INTERPRETATION OF THE DATA

This chapter discusses and presents the data gathered together with the statistical analysis in the interpretation.

Table 1. Profile of the Respondents in terms of Age

Age	Frequency	Percentage
22 years old	1	2.10%
23 years old	4	8.30%
24 years old	8	16.70%
25 years old	11	22.90%
26 years old	14	29.20%
27 years old	8	16.70%
28 years old	1	2.10%
29 years old	1	2.10%
Total	48	100%

Table 1 shows the frequency and percentage distribution of the respondents in terms of age. It can be seen that the majority or 29.20% of the respondents are 26 years old with a

frequency of 14, while the minority or 2.10% of the respondents with a frequency of 1 were 22, 28, and 29 years old respectively.

Table 2. Profile of the Respondents in terms of Sex

Sex	Frequency	Percentage
Female	22	45.80%
Male	26	54.20%
Total	48	100%

Table 2 shows the frequency and percentage distribution of the respondents in terms of sex. It can be seen that the majority or 54.20% of the respondents are male with a frequency of 26, while 45.80%, or 22 of the respondents are female.

Table 3. Profile of the Respondents in terms of Year Level proper

Year Level	Frequency	Percentage
3 rd year proper	10	20.80%
4 th year proper	38	79.20%
Total	48	100%

Table 3 shows the frequency and percentage distribution of the respondents in terms of clinical year level. It can be seen that the majority or 79.20% of the respondents are in their 4th-year proper clinical level with a frequency of 38, while 20.80% of the respondents are in their 3rd-year proper clinical level proper with a frequency of 10.

**Table 4. Level of Awareness of the Dental Clinicians in Emilio Aguinaldo College
regarding Oral Cancer**

AWARENESS OF ORAL CANCER	WEIGHTED MEAN	SD	VERBAL INTERPRETATION
1. Is oral cancer preventable?	3.31	.55	Strongly Agree

2.	Is oral cancer treatable?	3.25	.60	Agree
3.	Does risk of oral cancer increase with age?	3.29	.62	Strongly Agree
4.	Does oral cancer spread to other parts of the body?	3.19	.61	Agree
5.	Do you know the various ways of detecting oral cancer?	3.06	.67	Agree
	GRAND WEIGHTED MEAN	3.22	.44	Agree

Table 4 presents the level of awareness of the dental clinicians in Emilio Aguinaldo College regarding Oral Cancer. It shows that the respondents strongly agreed that oral cancer is preventable which got the highest weighted mean of 3.31. On the other hand, the respondents lowly agreed that they know various ways of detecting oral cancer as it got the lowest weighted mean of 3.06. Overall, the respondents agreed that they are aware of oral cancer with a grand weighted mean of 3.22.

Furthermore, the table also presents that the respondents are most consistent in strongly agreeing that oral cancer is preventable because its standard deviation of .55 is the lowest among all variability. On the contrary, the respondents are least consistent in agreeing that they know the various ways to detect oral cancer because its standard deviation of .67 is the highest among all variability.

This means that the respondents are highly aware that oral cancer is preventable. According to American Academy of Oral Medicine (2019) for early detection of oral cancers, clinicians have a vital role as they are the persons who see and observe oral cavity during routine dental checkups and can help identify suspicious lesions before having any symptoms. Routine dental care is an appropriate setting for improving early diagnosis of oropharyngeal squamous

cell carcinoma in the United States, where more than 60% of persons visit a dentist annually. In fact, dentists are the ones who find oropharyngeal squamous cell carcinoma most frequently; they refer patients with suspicious lesions to specialists for diagnosis and care. The typical visit by oral health care professionals includes a noninvasive visual and tactile oral mucosal examination with risk factor evaluation for oral disorders, including oropharyngeal squamous cell carcinoma, and is advised for all patients. National Institute of Dental and Craniofacial Research (2018) cited that Cancer arises from the transformation of normal cells into tumor cells in a multi-stage process that generally progresses from a pre-cancerous lesion to a malignant tumor. These changes are the result of the interaction between a person's genetic factors and three categories of external agents, including physical carcinogens, such as ultraviolet and ionizing radiation. chemical carcinogens, such as asbestos, components of tobacco smoke, alcohol, aflatoxin and biological carcinogens, such as infections from certain viruses, bacteria, or parasites. So, in order to prevent oral cancer, one must avoid the things that can cause it.

**Table 5. Level of Knowledge of the Dental Clinicians in Emilio Aguinaldo College
regarding Oral Cancer**

KNOWLEDGE ON SIGNS AND SYMPTOMS OF ORAL CANCER	WEIGHTED MEAN	SD	VERBAL INTERPRETATION
1. Can oral cancer manifest without initial complaint or symptoms?	2.98	.67	Agree
2. Can oral cancer appear as a red lesion?	3.21	.65	Agree
3. Can oral cancer appear as a white lesion?	3.15	.55	Agree
4. Can oral cancer	3.19	.53	Agree

appear as a mixture of red and white lesion?			
5. Is swelling a sign/symptom of oral cancer?	3.21	.68	Agree
6. Is an ulcer that does not heal for more than 2 weeks a sign/symptom of oral cancer?	3.04	.65	Agree
7. Is numbness of the tongue or other areas of the mouth a sign of oral cancer?	2.94	.73	Agree
8. Is tongue the most common site for oral cancer?	3.13	.64	Agree
9. Is floor of the mouth the most common site for oral cancer?	2.90	.66	Agree
10. Are cheeks the most common site for oral cancer?	3.00	.77	Agree
11. Is palate the most common site for oral cancer?	2.81	.70	Agree
GRAND WEIGTED MEAN	3.05	.37	Agree

Table 5 presents the level of knowledge of the dental clinicians in Emilio Aguinaldo College regarding Oral Cancer. It shows that the respondents agreed that oral cancer appears as a red lesion and swelling is a sign/symptom of oral cancer which both got the highest weighted mean of 3.21. On the other hand, the respondents lowly agreed that the palate is the most common site for oral cancer which got the lowest weighted mean of 2.81. Overall, the respondents agreed that they are knowledgeable about oral cancer with a grand weighted mean of 3.05.

Furthermore, the table also presents that the respondents are most consistent in agreeing that oral cancer appears as a mixture of red and white lesions since its standard deviation of .53 is the lowest among all variability. On the contrary, the respondents are least consistent in agreeing that cheeks are the most common site for oral cancer which has the highest standard deviation of .77 among all variability.

These findings imply that respondents are saying that oral cancer appears as a red lesion and one of its signs and symptoms is the swelling of the mouth. Also, they believe that oral cancers can also be a mixture of red and white lesions. These findings are proof of what Kavitha Muthu, et al (2018) said that impending malignancies however may present clinically with warning signs such as non-healing ulcer with or without induration or nonhealing socket, white patch with firm consistency, red lesion or lesion with erythematous appearance (Erythroplasia), abnormal lump in the mouth with increase in size, exophytic or ulcer-proliferative growth, mass or lump in the neck and neighboring regions (Lymph node enlargement), tooth pain and referral pain and bleeding from the mouth. Also, as what A.W. Van Zyl et al. cited that the prognosis and overall survival of a patient with oral cancer is dependent on the early detection of any lesion that might identify a patient with higher risk than normal or with early infiltration before metastatic disease. Leukoplakia and erythroplakia were traditionally known as two "precancerous lesions of the oral mucosa".

Table 6. Awareness of oral cancer among the 3rd and 4th clinical levels year proper in Emilio Aguinaldo College

Year Level	Mean	SD	P-value	Alpha	Decision
3 rd year proper	3.18	.52	.75	.05	Failed to reject Ho Not Significant
4 th year proper	3.23	.43			

Table 6 presents the analysis of the awareness on oral cancer among the 3rd and 4th-year dental students at Emilio Aguinaldo College. The table shows that the 4th year proper students are slightly more aware of oral cancer as they have a higher mean which is 3.23 compared to the 3rd year proper students who only have a mean score of 3.18. Also, the 4th year proper students are more consistent in their level of awareness of oral cancer since their standard deviation of .43 is lower than the standard deviation of 3rd year proper students which is .52.

The researchers do not reject the null hypothesis since the p-value of .75 is higher than the alpha level of .05.

Failure to reject the null hypothesis means that there is no significant difference between the level of awareness of oral cancer among the 3rd and 4th year proper students using a 5% level of significance.

This means that both 3rd and 4th year proper dental students have the same level of awareness regarding oral cancer.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter presents the summary of the findings, conclusions, and recommendations of the study.

SUMMARY OF FINDINGS

The main purpose of this study is to find out the level of awareness of oral cancer among dental clinicians in Emilio Aguinaldo College, Manila. The researchers hypothesized that there is no significant difference between the level of awareness of oral cancer of 3rd and 4th-year proper clinical students. The researchers utilized a survey questionnaire and applied statistical tools such as frequency and percentage, weighted mean, and t-test for independent samples.

Based on the results gathered, the following findings are hereby presented:

1. The majority or 29.20% of the respondents are 26 years old with a frequency of 14, while the minority or 2.10% of the respondents with a frequency of 1 were 22, 28, and 29 years old respectively
2. The majority or 54.20% of the respondents are male with a frequency of 26, while 45.80% or 22 of the respondents are female.
3. In terms of year level, the majority, or 79.20% of the respondents are in their 4th-year proper clinical level with a frequency of 38, while 20.80% of the respondents are in their 3rd-year proper clinical level with a frequency of 10.
4. As regards the level of awareness of the dental clinicians in Emilio Aguinaldo College regarding Oral Cancer. It shows that oral cancer is preventable which has the highest weighted mean of 3.31. On the other hand, the respondents lowly agreed that they know various ways of detecting oral cancer as it has the lowest weighted mean of 3.06. Overall, the respondents agreed that they are aware of oral cancer with a grand weighted mean of 3.22. Furthermore, the respondents are most consistent in strongly agreeing that oral cancer is preventable because its standard deviation of .55 is the lowest among all variability. On the contrary, the respondents are least consistent in agreeing that they know the various

ways to detect oral cancer because its standard deviation of .67 is the highest among all variability.

5. As regards the level of knowledge of the dental clinicians in Emilio Aguinaldo College regarding Oral Cancer. It shows that the respondents agreed that oral cancer appears as a red lesion and swelling is a sign/symptom of oral cancer which both have the highest weighted mean of 3.21. On the other hand, the respondents lowly agreed that the palate is the most common site for oral cancer which has the lowest weighted mean of 2.81. Overall, the respondents agreed that they are knowledgeable about oral cancer with a grand weighted mean of 3.05. Also, it shows that the respondents are most consistent in agreeing that oral cancer appears as a mixture of red and white lesions since its standard deviation of .53 is the lowest among all variability. On the contrary, the respondents are least consistent agreeing that cheeks are the most common site for oral cancer which has the highest standard deviation of .77 among all variability.
6. As regards the analysis of the awareness on oral cancer among the 3rd and 4th-year proper dental students at Emilio Aguinaldo College. The findings show that the 4th year proper students are slightly more aware of oral cancer as they have a slightly higher mean which is 3.23 compared to the 3rd year proper students who only have a mean score of 3.18. Also, the 4th year proper students are more consistent in their level of awareness of oral cancer since their standard deviation of .43 is lower than the standard deviation of 3rd year proper students which is .52.
7. Finally, the researchers do not reject the null hypothesis since the p-value of .75 is higher than the alpha level of .05. Failure to reject the null hypothesis means that there is no significant difference between the level of awareness of oral cancer among the 3rd and 4th-year proper students using a 5% level of significance. This means that both 3rd and 4th-year proper dental students have the same level of awareness regarding oral cancer.

CONCLUSION

This research analyzes the awareness of clinical students regarding oral cancer at Emilio Aguinaldo College. As mentioned in the introduction, the purpose of this study was to determine the knowledge and awareness of 3rd and 4th-year proper students on oral cancer.

Based on the foregoing findings, the researchers have the following conclusions. First, most of the respondents of this study are male, already on their 4th-year proper, and 26 years old. Oral cancer is a disease that is preventable, and at the same time, not everyone knew the various ways to detect oral cancer. The respondents' knowledge regarding oral cancer is that they knew it appears as a red lesion and swelling. Overall, they agreed that they are aware and knowledgeable about oral cancer.

Also, the findings show that there is no significant difference in the level of awareness between the third and fourth-year clinical students. With this, we can assume that they both have the same level of awareness of the said disease.

RECOMMENDATIONS

Based on the foregoing finding and conclusions, the researchers would recommend the following:

1. The government should strengthen the dissemination of information on oral cancer and how to prevent it.
2. The school should give more seminars and training to the students on various ways to detect oral cancer.
3. 3. The dental students need to improve their knowledge and awareness regarding oral cancer.
4. Future researchers must expand the coverage of this study using different year levels or it can also be for those newly graduated practitioners in the field.

Author Declarations

Ethics approval

This study was conducted as an undergraduate thesis and was reviewed and approved by the Research Panel of the Faculty of Dentistry, Emilio Aguinaldo College, Manila, Philippines.

Consent to participate

Informed consent was obtained from all participants prior to their participation in the study.

Consent for publication

Not applicable.

Data Availability

The datasets generated and/or analyzed during the current study are available from the corresponding author upon reasonable request.

Competing interests

The author declares that there are no competing interests.

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