

**A STUDY TO ASSESS THE KNOWLEDGE REGARDING THYROID CANCER AMONG  
ADULTS IN A SELECTED COMMUNITY AT KOLLAM**Aswathy S. Kumar<sup>1</sup>, Bincy Varghese<sup>1\*</sup>, Blessy Sabu<sup>1</sup>, Chinchumol C.<sup>1</sup>, Chinju Francis<sup>1</sup> and Amala L.<sup>2</sup><sup>1</sup>Fourth Year BSc Nursing Students, Bishop Benziger College of Nursing, Kollam, Kerala 691001, India.<sup>2</sup>Assistant Professor, Community Health Nursing Department, Bishop Benziger College of Nursing, Kollam, Kerala, India.**\*Corresponding Author: Bincy Varghese**

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**ABSTRACT**

**Introduction:** Thyroid cancer is the fifth most common cancer in women in the USA, and an estimated over 62,000 new cases occurred in men and women in 2015. The incidence continues to rise worldwide. Differentiated thyroid cancer is the most frequent subtype of thyroid cancer and in most patients the standard treatment (surgery followed by either radioactive iodine or observation) is effective. Patients with other, more rare subtypes of thyroid cancer-medullary and anaplastic-are ideally treated by physicians with experience managing these malignancies. Targeted treatments that are approved for differentiated and medullary thyroid cancers have prolonged progression-free survival, but these drugs are not curative and therefore are reserved for patients with progressive or symptomatic disease. **Materials and Methods:** Quantitative approach with descriptive Non-experimental research design was used in this study. The study was conducted in a selected Community at Kollam, Kerala. The target population was adults in selected community. The Non-probability convenient sampling technique was used to collect data. Formal permission was taken by institutional ethics committee and consent taken from adults in selected community at Kollam and data were collected through a knowledge questionnaire. The tool which consisted of Demographic Proforma and knowledge related to Thyroid cancer (general knowledge, causes, signs and symptoms, diagnostic measures, treatment, and its management). The data were analyzed using descriptive and inferential statistics. **Result:** The study revealed that 16% of the adults had poor knowledge, 69% had moderate knowledge and 15% had good knowledge. There was no significant association between knowledge and demographic variables like age, sex, diet, habits, occupation and source of information at 0.05 level of significance. **Conclusion:** Thyroid cancer is the fifth most common cancer in women in the USA, and an estimated over 62,000 new cases occurred in men and women in 2015. The incidence continues to rise worldwide. The study found that 16% of the adults had poor knowledge, 69% had moderate knowledge, and 15% had good knowledge regarding thyroid cancer among 100 participants.

**KEYWORDS:** Assess knowledge, thyroid cancer and adults.**INTRODUCTION**

Thyroid cancer is cancer that develops from the tissues of the thyroid gland. It is a disease in which cells grow abnormally and have the potential to spread to other parts of the body. Thyroid cancer begins in the thyroid gland. This gland is part of the endocrine system, which regulates hormones in the body. The thyroid gland is located in the front of the neck, just below the larynx (voice box). The thyroid produces hormones that regulate heart rate, blood pressure, body temperature and weight. The thyroid gland absorbs iodine from the bloodstream to produce thyroid hormones to regulate the body's metabolism. A healthy thyroid gland is barely palpable, which means it is hard to find by touch. Thyroid cancer starts when healthy cells in the thyroid

change and grow out of control, forming a mass called a tumor.

Thyroid cancer can occur at any age, but about two-thirds of all cases are found in people between the ages of 20 and 55. Women are diagnosed with 3 of every 4 thyroid cancers. The highest rates are in the 45 to 49 age group for females and the 70 to 74 age group for males. Incidence rates are significantly higher in females than males in a number of (mainly older) age groups. Historically, thyroid cancer incidence is highest in whites, followed by Asians/Pacific Islanders, American Indian/Alaskan natives, and blacks. The most common types of thyroid cancer are papillary and follicular. These types are often curable, especially when found early.

Other less common types include medullary and anaplastic thyroid cancer. Anaplastic thyroid cancer is usually diagnosed after age 60. Older infants (10 months and older) and adolescents can develop medullary thyroid cancer (MTC), especially if they carry the RET proto-oncogene mutation.

Thyroid cancer might not cause any symptoms at first. But as it grows, it can cause signs and symptoms. As thyroid cancer grows, it may cause a lump (nodule) that can be felt through the skin on neck, changes to voice including increasing hoarseness, difficulty swallowing, pain in the neck and throat.<sup>[4]</sup> Fine needle aspiration biopsy (FNA) is the gold standard for the examination of thyroid nodules. Ultrasound is critical in detection, diagnosis, and management of thyroid nodules. Higher TSH is associated with increased likelihood of diagnosis of thyroid cancer. Treatment of thyroid cancer depends on its stage. Treatments, which are usually successful, include surgery, hormone therapy, radioactive iodine, radiation and in some cases chemotherapy.

Thyroid cancer is the seventh most common cancer in women. Worldwide, an estimated 586,202 people were diagnosed with thyroid cancer in 2020. The 5-year relative survival rate is almost 100% for localized papillary, follicular, and medullary thyroid cancers. For localized anaplastic thyroid cancer, the 5-year relative survival rate is 39%. Most thyroid cancers can be cured, especially if they have not spread to distant parts of the body.

## OBJECTIVES

- To assess the knowledge regarding thyroid cancer among adults in a selected community at Kollam.
- To find out association between the knowledge regarding thyroid cancer among adults and selected demographic variables.

## MATERIALS AND METHODS

Approach: quantitative research approach

Design: Non experimental descriptive research design

Population: Adults in selected community at Kollam

Sample: Adults between the age of 20-60 years in Pallithottam Kollam

Sampling technique: Non-probability convenient sampling technique

Setting: Pallithottam, Kollam

Data collection method: self structured knowledge questionnaire

Inclusion criteria

- Adults who are in the age group between 20-60 years.
- Adults who are able to read and write Malayalam

Exclusion criteria

- Adults who are absent at the time of data collection process
- Adults who are not willing to participate in this study.

Data collection process:

We communicated the purpose and significance of the study with the participants through direct

communication. Data were collected through self-structured questionnaire.

## Ethical approval and informed consent

Ethical Clearance and approval was obtained from the Institutional Ethics Committee of Bishop Benziger College of Nursing, Kollam and obtained legal permission from the Medical officer of the community health center Pallithottam and also informed consent was obtained from the participants. The respondents were assured the anonymity and confidentiality of the information provided by them. The privacy of the research participants was maintained. The ethical principles in research which included beneficence, justice, maleficence, honesty, confidentiality and non-discrimination was strictly followed in the study. The participants were given the right to withdraw from the research study at any time.

## Tool

### Section A

#### Demographic proforma

Section A consisted of information regarding demographic variables such as age, sex, diet, habits, occupation and source of information of adults in selected community at Kollam.

### Section B

Self structured knowledge questionnaire.

## Reliability

Reliability is concerned with the degree of consistency or accuracy with which an instrument measures that attribute it is designed to measure. After obtaining legal permission from the medical officer of the community health center Pallithottam, the tool was administered to 10 adults between the age group of 20-60 years. Reliability coefficient was calculated using Karl Pearson correlation coefficient method. The reliability coefficient of tool was 0.84. This indicates that the tool was reliable.

## Analysis

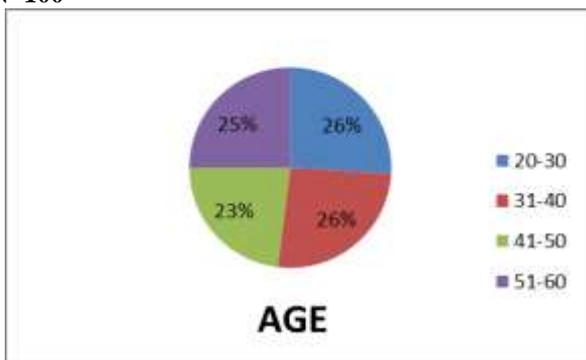
### Descriptive analysis

1. Percentage distribution of sample as per demographic variables
2. Level of knowledge regarding Thyroid cancer among adults in selected community at Kollam.

### Inferential analysis

1. Association between level of knowledge and selected demographic variables using Chi Square test.

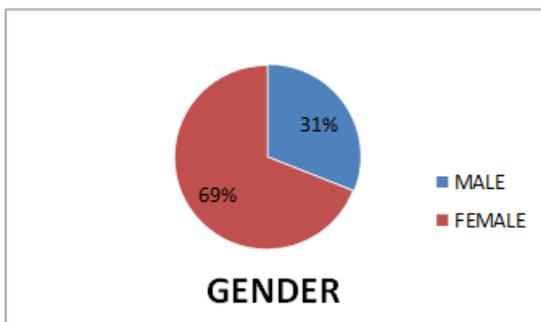
**Percentage distribution of sample according to age**  
N=100



**Figure 1: Percentage wise distribution of the sample according to age.**

The data presented in fig 1 shows that out of 100 sample, 26% were in the age group of 20-30 years and 26% were in the age group of 31-40 years, 23% were in the age group of 41-50 years and 25% were in the age group of 51-60 years.

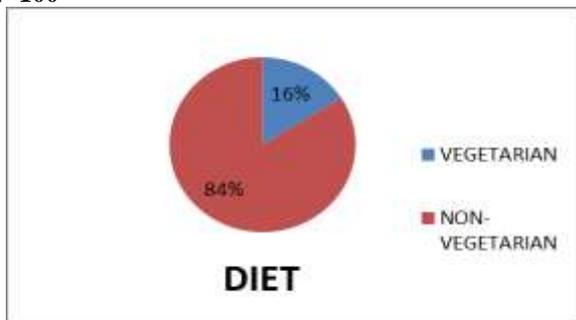
**Percentage wise distribution of sample according to gender**  
N= 100



**Figure 2: Percentage wise distribution of sample according to sex.**

The data presented in fig 2 shows that out of 100 sample, 31% were males, 69% were females.

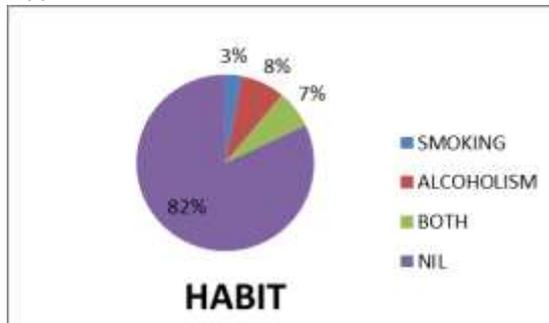
**Percentage wise distribution of sample according to diet**  
N=100



**Figure 3: Percentage wise distribution of sample according to diet.**

The data presented in fig 3 shows that out of 100 samples, 84% were Non Vegetarians and 16% were vegetarians.

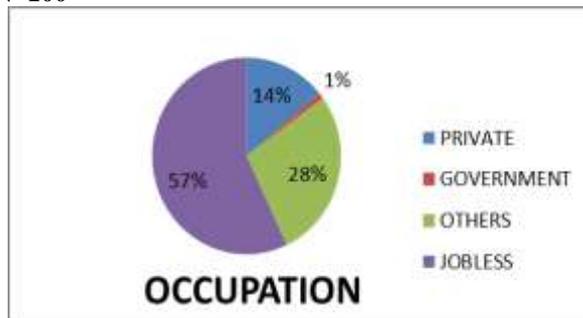
**Percentage wise distribution of sample according to habit**  
N=100



**Figure 4: Percentage wise distribution of sample according to habits.**

The data presented in fig 4 shows that out of 100 sample, 3% had the habit of smoking, 8% had the habit of alcoholism, 7% had both, 82% had no bad habits.

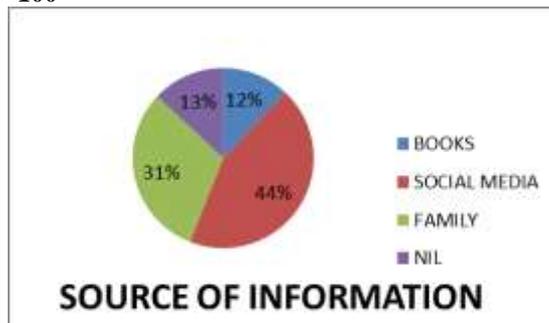
**Percentage wise distribution of sample according to occupation**  
N=100



**Figure 5: Percentage wise distribution of sample according to occupational status.**

The data presented in fig 5 shows that out of 100 sample, 14% work in private Sector, 1% work in government sector, 28% had other job, 57% had no job.

**Percentage wise distribution of sample according to source of information**  
N=100



**Figure 6: Percentage wise distribution of sample according to source of information.**

The data presented in fig 6 shows that out of 100 sample, 12% had source of information from books, 44% had source of information from social media, 31% had source of information from family and 13% had no source of information.

#### Frequency and percentage distribution of score on knowledge regarding thyroid cancer.

N=100

Score	Range	Frequency	Percentage
1-8	Poor	16	16%
9-16	Moderate	69	69%
17-25	Good	15	15%

#### Association between knowledge regarding thyroid cancer and selected demographic variable

N=100

SI NO	Socio demographic variables	Poor	Moderate	Good	Df	Chi square test	Table value	Level of signifiacnce at P < 0.05
<b>1</b>	<b>Age</b>							
	20-30 yrs.	3	20	3	6	2.845	2.447	NS
	31-40 yrs.	4	18	4				
	41-50 yrs.	3	17	3				
	51-60 yrs.	5	15	5				
<b>2</b>	<b>Gender</b>							
	Male	9	20	2	4	8.078	2.776	NS
	Female	6	61	2				
<b>3</b>	<b>Diet</b>							
	Veg	2	11	3	4	3.365	2.776	NS
	Non veg	12	61	11				
<b>4</b>	<b>Habit</b>							
	Smoking	1	2		6	10.937	2.447	NS
	Alcoholism	3	4	1				
	Both	8	61	13				
	Nil	3	4					
<b>5</b>	<b>Occupation</b>							
	Private	6	6	2	6	12.329	2.447	NS
	Government			1				
	Others	3	21	4				
	Jobless	6	43	8				
<b>6</b>	<b>Source of information</b>							
	Books	2	7	3	6	8.68	2.447	NS
	Social media	6	31	7				
	Family	3	25	3				
	Nil	4	8	1				

The findings of the present study revealed that there was no significant association between knowledge and selected demographic variables like age, sex, diet, habit, occupation and source of information.

#### RESULTS

The study was conducted in adults among Pallithottam, Kollam. The demographic data revealed that 26% of the sample were under the age group of 20-30 years of age, 26% sample were under the age group of 31-40 years of age, 23% sample were under the age group of 41-50 years of age, 25% sample were under the age group of 51-60 years age. Regarding sex, 31% belonged to male, 69% belonged to female. Most of the adults were non-vegetarians (84%), 16% adults were vegetarians. Regarding habit, it was found that 3% had smoking, 8% had alcoholism, 7% had both alcoholism and smoking, 82% had none of these. 14% work in private

sector, 28% of adults work in other sectors, 57% of adults were jobless and 1% were working in government sector. Regarding source of information, 12% sample had source of information from books, 44% had source of information from social media, 31% had source of information from family and 13% had no source of information regarding thyroid cancer. The present study revealed that 16% of the adults had poor knowledge, 69% had moderate knowledge, and 15% had good knowledge. The association was found out by using Chi square test. It was inferred that the present study showed that there was no significant association between knowledge and selected demographic variables like age, sex, diet, habits, occupation and source of information. (Calculated values were lesser than table value at 0.05 level of significance).

## DISCUSSION

- **To assess the knowledge regarding thyroid cancer among adults in selected community area at Kollam**

The present study revealed that 16% of adults had poor knowledge, 69% of adults had moderate knowledge, and 15% of adults had good knowledge regarding thyroid cancer.

The above findings are supported by a cross-sectional study conducted in Saudi Arabia to evaluate the knowledge and awareness regarding thyroid cancer. Research design selected for the study was non-experimental design. Simple random sampling technique was used for the selection of 2030 participants. The tool used for the data collection was electronic self-administered questionnaire, which had two sections. Section-A provides about socio-demographic data and Section-B deals with practices for detecting thyroid cancer. Collected data was analyzed by using descriptive and inferential statistics in terms of frequencies, percentage, mean, standard deviation, chi-square values. The result of this study showed that 50.3% had low knowledge, 40.3% of them had moderate level of knowledge and 9.3% had adequate level of knowledge and awareness regarding thyroid cancer.

- **To find out the association between the knowledge regarding thyroid cancer among adults and selected demographic variable such as age, sex, diet, habit, occupation and source of information**

There is no association between the knowledge regarding thyroid cancer among adults and selected demographic variables such as age, sex diet, habit, occupation, and source of information.

## CONCLUSION

The present study was aimed to assess the knowledge regarding thyroid cancer among adults in a selected community area at Kollam. A self-structured knowledge questionnaire was given to adults. The present study revealed that 16% had poor knowledge, 69% had moderate knowledge and 15% had good knowledge regarding thyroid cancer. The association between the knowledge regarding thyroid cancer among adults and selected demographic variables was computed by chi-square test. The present study showed there is no significant association between knowledge of adults regarding thyroid cancer with age, sex, diet, habitat, occupation, and source of information (calculated value greater than table value at 0.05 level of significance).

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Nil

## Conflict of interest

There are no conflicts of interest.

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