

# A Descriptive Study to Assess the Knowledge Regarding Lymphatic Filariasis among B.Sc. (N) 3<sup>rd</sup> Year Student at Selected College of Nursing, Raipur (C.G) in the year 2023

Chandni Gardia<sup>1</sup>, Ankit Diamond<sup>2</sup>, Roshni Lall<sup>3</sup>

<sup>1</sup>Assistant Professor, Medical Surgical Nursing, Columbia College of Nursing Raipur (C.G), India

<sup>2</sup>Associate Professor, Deepmala College of Nursing Bareilly, U.P, India

<sup>3</sup>Associate Professor, CMTC College of nursing Damoh, MP, India

**Abstract:** *Introduction and background of the study:* Filariasis is a neglected tropical disease caused by parasitic worms called filariae. Filariae are microscopic roundworms that dwell in the blood and tissues of humans, which are transmitted to humans by mosquitoes [1]. The most important filarial diseases for humans are lymphatic filariasis, in which the adult worms are found in the lymphatic system. The lymphatic form of filariasis will be the focus of the site. Lymphatic filariasis is also referred to sometimes as "elephantiasis." Elephantiasis is actually an extreme clinical feature of filariasis [2, 3]. The painful and profoundly disfiguring visible manifestations of the disease, lymphoedema, elephantiasis and scrotal swelling occur later in life and can lead to permanent disability. These patients are not only physically disabled, but suffer mental, social and financial losses contributing to stigma and poverty. In 2018, 893 million people in 49 countries were living in areas that require preventive chemotherapy to stop the spread of infection. The global baseline estimate of people affected by lymphatic filariasis was 25 million men with hydrocele and over 15 million people with lymphoedema. At least 36 million people remain with these chronic disease manifestations. Eliminating lymphatic filariasis can prevent unnecessary suffering and contribute to the reduction of poverty [5, 6].

**Keywords:** Filariasis, Lymphatic filariasis, Elephantiasis, Mosquitoes, Preventive chemotherapy

## 1. Background of the Study

According to recent surveys, about 120 million people in 81 countries of the world are infected from this disease, and 1.34 billion people who live in endemic areas are at high risk of this life-threatening infection. Globally, research plans are needed to design effective drugs and drug targets, new vector control strategies, and diagnostic techniques. At the same time, the treatment of filariasis also requires disease-specific clinical care and patient education with counseling to eradicate this disease [9,10]. Moreover, statistical analysis along with bioinformatics tools of the mass drug administration (MDA) surveillance reports should be carried out which could provide new opportunities to get an insight into the proteins or genome which may contribute to its inhibition process

## 2. Need for the Study

The infection spreads from person to person by mosquito bites. The adult worm lives in the human lymph vessels, mates, and produces millions of microscopic worms, also known as microfilariae [12]. Microfilariae circulate in the person's blood and infect the mosquito when it bites a person who is infected. Microfilariae grow and develop in the mosquito. When the mosquito bites another person, the larval worms pass from the mosquito into the human skin, and travel to the lymph vessels [13]. They grow into adult worms, a process that takes 6 months or more. An adult worm lives for about 5–7 years. The adult worms mate and release millions of microfilariae into the blood. People with

microfilariae in their blood can serve as a source of infection to others [14].

Altogether, 24 of 252 samples were positive for filariasis with a mean microfilaria count of 0.8. The entomological investigations showed 7.4% infection and 1.4% infectivity rates in vectors. Study reveals the emergence of new foci of lymphatic filariasis in Madhya Pradesh. We conclude that filariasis surveys should be carried out in non-endemic areas of India to achieve the goal of elimination [15]. So the investigator felt that there is a need to do the study to improve the knowledge with newer strategies

## Statement of the problem

A descriptive study to assess the knowledge regarding lymphatic filariasis in B.Sc. Nursing 3<sup>rd</sup> year student at selected College of Nursing, Raipur (C.G.) in the year 2023.

## 3. Objectives

- To determine the level of knowledge regarding the lymphatic filariasis of Bsc nursing at selected nursing college of Raipur (C.G)
- To evaluate the knowledge of descriptive survey on knowledge regarding lymphatic filariasis with their socio demographic variable among B.sc Nursing 3<sup>rd</sup> year students.

## Hypothesis

**H1:** There will be significant association between knowledge of student and selected demographic variables regarding

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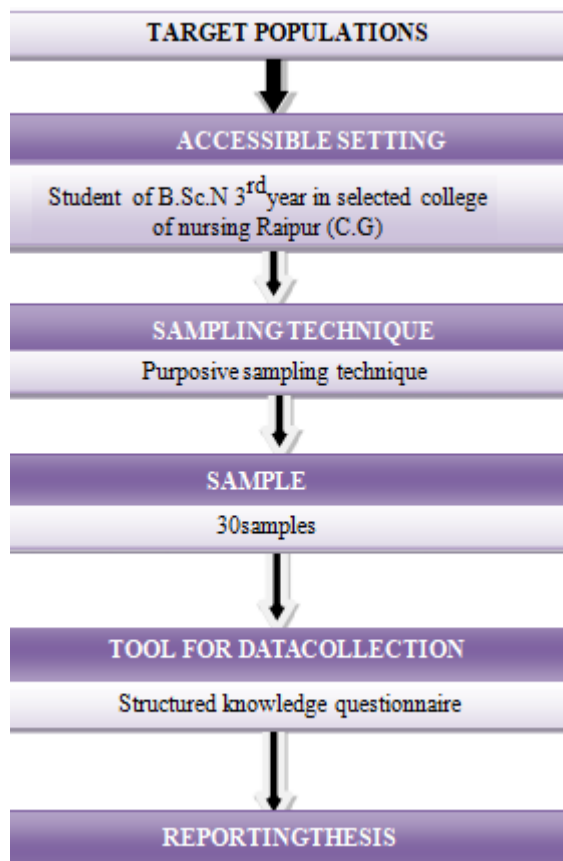
lymphatic filariasis among B.Sc. (N) 3<sup>rd</sup> year student at selected College of nursing Raipur (C.G)

**Research Approach**

A descriptive study approach is used to assess knowledge regarding filariasis among B.Sc. (N) 3<sup>rd</sup> year at various college of nursing Raipur (C.G.)

**Research Design**

A evaluative research design is used to assess knowledge regarding filariasis among B.Sc. (N) 3<sup>rd</sup> year at selected college of nursing Raipur (C.G.)



**Settings**

The setting for the research study was Columbia college of nursing (C.G)

**Population**

The target population in this study consist of students of 3<sup>rd</sup> year of B.sc nursing who are studying in Columbia college of nursing Raipur (C.G)

**Sample Size**

Sample size for this study consists of 30 students.

**Sample and Sampling Techniques**

Sampling is the process of selecting representation units of population for study in a research. It is the process obtaining the information about an entire population by examining only a part of it. Sample chosen in the present study were the B.Sc. (N) 3<sup>rd</sup> year at selected College of nursing Raipur (C.G) In this study the purposive sampling technique was used for the collection of data.

**Description of the Tools**

**Tools or Instruments**

The tool used in this study is questionnaire.  
A- It consists of socio demographic variables  
B- Questionnaire related to filariasis.

**Pilot Study**

A pilot study was conducted in college of nursing, Raipur (C.G) from 02/09/2023 to 12/09/2023. The written permission was obtained from the authority of the college. The purpose of the study was explained to the respondents and confidentiality was assured. The questionnaire was administered to 10 nursing student, who fulfilled the sampling criteria. An informed consent was taken from the respondent prior to the test. The average time taken for filling the questionnaire was 25 to 30 minutes,.

The tool and the structured questionnaire was found to be feasible comprehensible, and acceptable by the respondents. Data analysis was done by using descriptive and inferential statistics. The analysis of pilot study revealed that objective of the study fulfilled. Based on the investigator proceeded with the actual data collection for the main study.

- Mean, standard deviation, paired “t” test was used to identify the relationship and compare between knowledge.
- Chi-square was used to find the association between demographic variables, knowledge

**4. Summary**

Assessment of Frequency and Percentage Distribution of Nursing Student according to their Socio Demographic Variables.

S. No.	Demographic Variables	Frequency (F)	Percentage (%)
1	<b>AGE</b>		
	• 18-20	14	46.66%
	• 21-23	15	50%
	• 24-26	0	0%
2	• Above 27	1	3.33%
	<b>Gender</b>		
	• Male	9	30%
3	• Female	21	70%
	<b>Marital Status</b>		
	• Married	2	6.66%

	• Unmarried	27	90%
	• Divorced	1	3.33%
	• Widow/Widower	0	0%
4	<b>Religion</b>		
	• Hindu	21	70%
	• Muslim	2	6.66%
	• Christian	7	23.33%
	• Others	0	0%
5	<b>Previous Knowledge Regarding Filariasis</b>		
	• Yes	23	76.66%
	• No	7	23.33%

Above table depict out of 30 subjects 15(50%) were in the group of 21-23 years, majority of subjects 21(70%) were female, majority of subjects 27(90%) were unmarried, majority of subjects 21(70%) were hindu, majority of subjects 23 (76.66%) had a previous knowledge regarding filariasis

The above table depicts level of knowledge among nursing students regarding lymphatic filariasis 16.66% have poor knowledge , 26.66% have average knowledge, 43.33% have good knowledge, 13.33% have excellent knowledge lymphatic filariasis.

The Level of Knowledge Regarding Lymphatic Filariasis among Nursing Students (N=30)

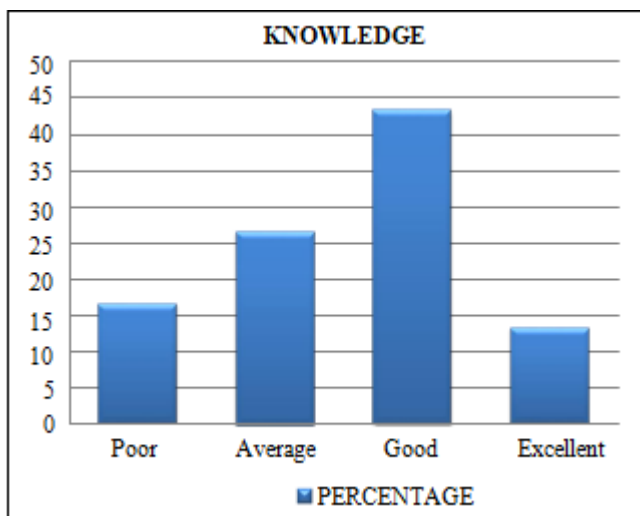
S. No.	Level Score of Knowledge	Frequency	Percentage
1.	Poor (0-5)	05	16.66%
2.	Average (06-15)	08	26.66%
3.	Good (16-25)	13	43.33%
4.	Excellent (26-30)	04	13.33%
	<b>Total</b>	<b>30</b>	<b>100%</b>

Mean and Standard Deviation of Level of Knowledge regarding Lymphatic Filariasis.

Nursing Student Knowledge	Mean	Mean Percentage	Standard Deviation
	15.76	52.53%	7.48

The above table explains that the knowledge level of the students, mean is 15.76 with a mean percentage of 52.53% and the standard deviation of the knowledge level score having 7.48.

Diagrams depicting the level of knowledge regarding lymphatic filariasis among nursing student



Find out the association between the lymphatic filariasis and selected demographical variables.

S.No.	Selected Demographic Variable	Impact of Smartphone (SCORE)				Chi- Square Value	DF	P - Value	Inference
		Poor	Average	Good	Excellent				
1	<b>AGE</b>					4.76	9	16.92	Non- significant (0.05 level)
	• 18-20	4	3	6	1				
	• 21-23	3	2	7	3				
	• 24-26	0	0	0	0				
	• Above 27	0	1	0	0				
2	<b>Gender</b>					8.2	3	7.82	Non- significant (0.05 level)
	• Male	2	3	4	0				
	• Female	5	9	3	4				
3	<b>Marital Status</b>					2.89	9	16.92	Non- significant (0.05 level)
	• Married	0	1	1	0				
	• Unmarried	7	5	12	3				
	• Divorced	0	0	1	0				

	• Widow/Widower	0	0	0	0				
4	<b>Religion</b>					15.141	9	16.92	Non- significant (0.05 level)
	• Hindu	2	7	9	3				
	• Muslim	0	1	1	0				
	• Christian	0	1	4	2				
	• Others	0	0	0	0				
5	<b>Previous Knowledge Regarding Filariasis</b>					2.43	3	7.82	Non- significant (0.05 level)
	• Yes	4	6	11	2				
	• No	3	1	3	0				

The above table depicts -To associate the level of knowledge with selected demographic variables and found there is no significant association between level of knowledge with regards to age , gender, marital status, religion , previous knowledge at 0.05 level of significance.

## 5. Result

It is found that there is an increased risk in the lymphatic filariasis while providing critical care nursing in which there is a significantly increased rate of filariasis that leads to risk of mortality. For which there is a need for the nursing students to have a significant amount of knowledge regarding lymphatic filariasis, Hence the investigator took up this challenge to evaluate the level of knowledge regarding lymphatic filariasis among the student nurses at various college of nursing Raipur (C.G)

- Out of 30 subjects 15(50%) were in the group of 21-23 years, majority of subjects 21(70%) were female, majority of subjects 27(90%) were unmarried, majority of subjects 21(70%) were hindu , majority of subjects 23 (76.66%) had a previous knowledge regarding filariasis
- Level of knowledge among nursing students regarding lymphatic filariasis 16.66% have poor knowledge , 26.66% have average knowledge, 43.33% have good knowledge, 13.33% have excellent knowledge regarding lymphatic filariasis.

The Chi-square test showed that there is no significant association between level of knowledge with the selected demographic variables like age, gender, marital status, religion of the student and the source of knowledge with 0.05 level of significance. So, Hypothesis H1 = Is rejected

Chi-square test was used to find out the association between the level of knowledge with the selected demographic variables.

## 6. Summary

The summary of the study includes discussion, objective, conclusion, recommendation and nursing implication, etc. Research has adopted various strategies to improve the survey method. The present study was conducted to evaluate the level of knowledge regarding lymphatic filariasis among nursing student. In order to achieve the objective of the study, a survey study was adopted. Convenience sampling technique was used. The sample size of the study is 30 nursing students in various college of nursing Raipur (C.G)

## 7. Recommendations

On the basis of the findings of the study following recommendations have been made for the study:

- 1) Similar study can be conducted in a larger sample to generalize findings
- 2) A study can be conducted to find out the effectiveness of different teaching modules regarding lymphatic filariasis.

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