

**“A STUDY TO ASSESS THE KNOWLEDGE TOWARDS TUBERCULOSIS  
AMONG NON MEDICAL STUDENTS OF RAMA UNIVERSITY,  
KANPUR, UTTAR PRADESH.”**

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**Abstract**

*Tuberculosis is an infectious ailment due to the bacillus called Mycobacterium Tuberculosis, an acid-fast rod-fashioned bacillus measuring 0.8-fiveµm in duration and 0.2-0.6µm in thickness. It commonly impacts the lungs (pulmonary TB) but can also contain different areas (extrapulmonary TB).It is conveyed via the atmosphere. This illness harms the lungs and various organs within the human body. The primary goal of the study is to assess the awareness of tuberculosis among students who are not in the medical field. The approach employed in this research was a pre-test only design. The samples were chosen through non-probability convenience random sampling. The overall count of samples was 100. The data was gathered through a self-designed questionnaire. The study's results indicate a notable correlation between the knowledge score and specific demographic variables such as Age, Gender, Religion, and Course at the 0.05 level of significance. Therefore, hypothesis H1 is considered valid.*

**KEYWORDS:** *Tuberculosis, Extrapulmonary TB*

**1. INTRODUCTION:**

Tuberculosis is a highly persistent infection and ranks as a major illness globally. It typically impacts 80 percent of cases and is triggered by Mycobacterium Tuberculosis.<sup>1</sup> Cough, haemoptysis, chest pain, shortness of breath, fever, weight loss, and excessive night sweats are warning symptoms.<sup>2</sup> TB is mainly spread through droplets in the air.

When infected individuals cough, sneeze, talk, laugh, or spit, releasing droplets that contain Mycobacterium tuberculosis is expelled into the atmosphere.<sup>3</sup>

Mycobacterium tuberculosis can exist as airborne droplets in the air for extended

periods or as components of household dust for weeks. However, transmission typically requires significant exposure to an individual with active TB.<sup>4</sup> An individual can harbor Mycobacterium tuberculosis for several years without displaying symptoms or transmitting the bacteria to others.<sup>5</sup>

**2. NEED FOR THE STUDY**

Approximately one-third of the global population has been infected with M. tuberculosis, and new infections happen at a rate of one every second.<sup>6</sup> Nonetheless, not every infection with M. Tuberculosis leads to tuberculosis disease, and many infections remain asymptomatic. An estimated 3.2 million cases of TB and 480,000 deaths occurred among women. Additionally, there were around 1.0 million cases of TB in

children and 140,000 deaths reported. In 2014, around 480,000 new instances of MDR-TB were reported, with approximately 190,000 fatalities attributed to MDR-TB.<sup>7</sup> Owing to its significant impact on public health, it ranks among the three communicable diseases explicitly referenced in the Millennium Development Goals (MDGs).<sup>8</sup> This has led to organized global initiatives with important advancements in National TB Programs (NTPs) across the globe. Nonetheless, tuberculosis continues to be a global public health challenge.<sup>9</sup>

### 3. STATEMENT OF THE PROBLEM

“A study to assess the knowledge towards tuberculosis among non medical students of Rama university, Kanpur, Uttar Pradesh.”

#### The objectives of the present study were:

1. To assess the knowledge of tuberculosis among non-medical students at Rama University in Kanpur, Uttar Pradesh.
2. To determine the relationship between knowledge scores and the chosen demographic variables.

#### Hypothesis:

H0: There is no notable relationship between the knowledge score and the chosen demographic variables.

H1: A substantial relationship exists between knowledge and attitude scores and their chosen demographic variables.

### 4. METHODS AND MATERIALS:

- **Research Variable-** The focus of this study is the level of awareness regarding tuberculosis among non-medical students at Rama University, located in Kanpur, Uttar Pradesh.

- **Demographic variables-** The demographic elements for this study are - Age, Gender, Religion. Home, Course.
- **Population-** The participants in this study are non-medical students from Kanpur, Uttar Pradesh.
- **Target Population-** Non-medical students at Rama University located in Kanpur, Uttar Pradesh.
- **Accessible Population-** The students selected for this study come from engineering, agriculture, mass communication, and management fields.
- **Sample-** The participants consist of non-medical students (engineering, agriculture, mass communication, management) from Rama University in Kanpur, Uttar Pradesh.
- **Sample Size-** The study at hand included a sample group of 100 students.
- **Sampling Techniques-** This study employed Non-Probability Convenience Random Sampling Techniques.
- **Sampling Criteria:**
  - **Inclusion Criteria-**
    - ✓ First-year students majoring in engineering, agriculture, mass communication, and management.
    - ✓ Students present during the research period.
  - **Exclusion Criteria-**

- ✓ Pupils who are disinclined to participate

**5. DEVELOPMENT AND DESCRIPTION OF TOOLS USED IN THE STUDY-**

The instruments employed for the research include demographic factors and a self-designed knowledge questionnaire. This tool comprises two parts.

**SECTION A-** It concerns demographic information like Age, Gender, and Religion. Residence, Course.

**SECTION B-** Includes 30 inquiries concerning Tuberculosis in the Self Structured Knowledge Questionnaire. Each question is worth 1 mark.

Each question's maximum score for a correct response is 1, whereas an incorrect response earns 0. The total peak score is 30.

**TABLE NO- 1 Classification of the level of knowledge based on the percentage of score-**

Sr.No.	Level of Knowledge	Score
1	Inadequate	0-10
2	Moderate	11-20
3	Adequate	21-30

Demographic data was collected by using a structured baseline performa prepared by investigator.

**6. DATA COLLECTION PROCEDURE-**

7. Prior to collecting data, the researcher secures official approval from the

Principal of chosen colleges at Rama University, Kanpur, Uttar Pradesh. Consent was acquired from the students to carry out the study involving them.

**8. RESULT AND FINDINGS- SECTION- A**

The key results of the research are-

- The age group of 18-20 years comprised 71% of the students.
- The student population was predominantly male, with 67% being male.
- The largest portion of the students, 69%, is affiliated with the Hindu faith.
- A large portion of the students, 73%, came from the rural side.
- Most of the students, 53%, were pursuing B.Tech.

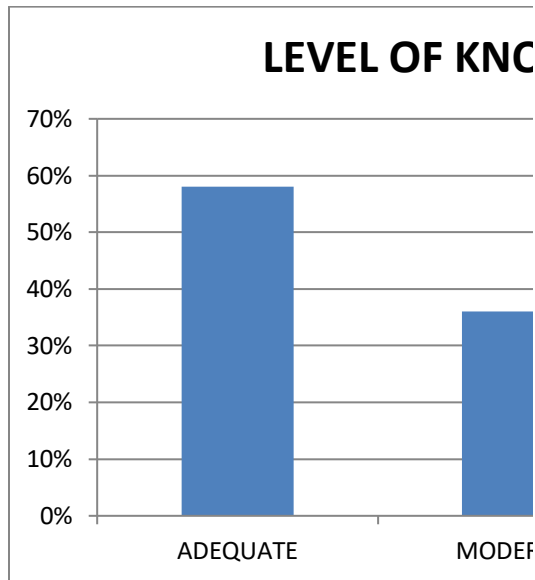
**SECTION-B**

Assessment of the knowledge regarding tuberculosis among non medical students of Rama university, Kanpur, Uttar Pradesh.

**TABLE NO- 2 Percentage wise distribution of non medical students of Rama university, Kanpur, Uttar Pradesh. according to their knowledge score.**

Sr.No.	Level of Knowledge	Score Range	Frequency	Percentage	Mean	Standard Deviation
1	Inadequate	0-10	58	58%		
2	Moderate	11-20	36	36%	13.1	3.94
3	Adequate	21-30	6	6%		

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**Figure no. 1** Column diagram represents the percentage wise distribution of knowledge score regarding tuberculosis among the non medical students of Rama University, Kanpur, Uttar Pradesh.

**Table no.2** shows the percentage wise distribution of non medical students which represents that majority 58% were having adequate knowledge, 36% were having moderate knowledge and 6% were having inadequate knowledge.

**SECTION-C**

Association between Demographic variable with their Knowledge Score.

Sr. No	Demographic Variable	Adequate	Moderate	Inadequate	Chi Squa	Inference
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1.	Age in yrs a. 17-18 years b. 19-20 years c. 21-22 years d. 22 yr above	0 5 2 1	6 47 2 2	6 19 8 2	<b>13.46</b>	<b>df-6 P&gt;0.05 significant</b>
2.	Gender: a. Female b. Male	3 5	10 47	20 15	<b>15.34</b>	<b>df-2 P&gt;0.05 significant</b>
3.	Religion: a. Hindu b. Muslim c. Christian d. Other	15 12 8 0	49 7 1 0	5 2 1 0	<b>20.16</b>	<b>df-6 P&gt;0.05 significant</b>
4.	Residence	6	46	21	<b>4.73</b>	<b>df-2</b>

	a. Urban	2	11	14		<b>p&lt;0.05 non significant</b>
	b. Rural					
5.	Course				<b>13</b>	<b>df-6</b>
	a. B.Tech	0521	642	6192	<b>.46</b>	<b>P&gt;0.05 significant</b>
	b. Agriculture					
	c. Mass com.					
	d. Management					

and the chosen demographic factors, such as Age, Gender, Religion, and Course. Consequently, hypothesis H1 was chosen.

**9. RECOMMENDATIONS:**

**Nursing Implication:** The results of the research influenced nursing education and nursing inquiry.

**Nursing Education:** Nurse educators may suggest this subject to students for practical teaching in colleges.

**Nursing research** - Incorporating research findings should be integral to quality assurance assessments to improve overall individual performance.

**Recommendations** - In light of the study's findings, the following suggestions have been proposed -

- A comparable study can be conducted by enlarging the sample size.
- An analogous study could be conducted in different schools or universities.

**10. CONCLUSION-**

The results of the current study indicate that there is a notable correlation between the knowledge score and the chosen demographic factors, such as Age, Gender, Religion, and Course, at the 0.05 significance level. Thus, hypothesis H1 is considered valid.

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The table above indicates a substantial correlation between the knowledge score

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