

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

**Mrs. Syed Sumiya, Mr. Vipin A., Mrs. Anjani Devi Nelavala, Ms. Ankita Trigunayat  
Faculty of Nursing, Rama University, Kanpur**

**Email id: sumiya.rcn@ramauniversity.com**

**ABSTRACT**

Tuberculosis is an infectious bacterial pathogen caused by the bacillus called Mycobacterium Tuberculosis an acid fast rod shaped bacillus 0.8-5µm in length and 0.2- 0.6µm in thickness. It typically affects the lungs (pulmonary TB) but can affect other sites as well (extra pulmonary TB). It is transmitted through the air. This disease damages the lungs and other organs in the human body. The study's general objective is to determine the knowledge regarding tuberculosis among non medical students. The design we used in this study was pre test only design. The samples were selected by using non probability convenience random sampling. The total number of samples were 100. The data was collected by using self structured questionnaire. The finding of the study concludes that there is significant association between knowledge score and selected demographic variable like Age, Gender, Religion, Course at 0.05 level of significance. Hence, hypothesis H1 is accepted.

**1. INTRODUCTION:**

Tuberculosis is one of the very chronic infections and is a leading disease in the world. It usually affects 80 percent of the cases and is caused by Mycobacterium Tuberculosis. Warning signs of cough, Haemoptysis, and chest pain, shortness of breath, fever, weight loss, and drenching night sweat. TB is spread mainly through the air in form of droplets.<sup>1</sup> When infectious people cough, sneeze, talk, laugh or spit, droplets containing Mycobacterium tuberculosis are sprayed into the air. People nearby may inhale the bacteria and become infected. Mycobacterium tuberculosis can remain viable as airborne droplet suspended in the air for a long time or as part of house dust for weeks.<sup>2</sup> However, transmission usually occurs only after substantial exposure to someone with active TB. A person can be infected by Mycobacterium tuberculosis for many years without getting sick or spreading the organism to other people.<sup>3</sup> If the immune system is

weakened by immunosuppressive disease like HIV infection, diabetes mellitus, malignancy, chronic kidney disease, extremes of ages, and immunosuppressive agent, latent TB infection can develop into active disease.<sup>4</sup> If a person with active disease is left untreated, he or she will infect on the average between 10 and 15 people every year.<sup>5</sup>

## **2. NEED FOR THE STUDY**

Roughly one-third of the world's population has been infected with *M. tuberculosis*, and new Infections occur at a rate of one per second. However, not all infections with *M. Tuberculosis* cause tuberculosis disease and many infections are asymptomatic. There were an estimated 3.2 million cases and 480,000 TB deaths among women.<sup>6</sup> There were also an estimated 1.0 million cases of TB in Children and 140,000 deaths. In 2014, an estimated 480,000 new cases of MDR-TB and an Estimated 190,000 people died of MDR-TB. Due to its vast public health implications, it is one of the three communicable diseases specifically mentioned under the Millennium Development Goals (MDGs).<sup>7</sup> This has contributed to structured efforts on a global scale with notable Improvements in National TB Programmes (NTPs) worldwide. In spite of this though, TB Remains a public health challenge globally.<sup>8</sup> In Somalia, the effort of controlling tuberculosis began in the early 1960s with the establishment of TB centers and sanatorium in three major urban areas of the country.<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 level of knowledge towards tuberculosis among non medical students of Rama university, Kanpur, Uttar Pradesh.
2. To find out the association between knowledge scores with their selected demographic variables.

**Hypothesis:**

**H0:** There is no significant association between knowledge score with their selected demographic variables.

**H1:** There is a significant association between knowledge and attitude score with their selected demographic variables.

#### **4. METHODS AND MATERIALS:**

**Research Variable-** The research variable in the present study is knowledge regarding tuberculosis of non medical students of Rama university, Kanpur, Uttar Pradesh.

**Demographic variables-** The demographic variables for this present study are – Age, Gender, Religion. Residence, Course.

**Population-** Population for the present study are the non medical students of Kanpur, Uttar Pradesh.

**Target Population-** Non medical students of Rama University Kanpur, Uttar Pradesh.

**Accessible Population-** The students selected for this study are from engineering, agriculture, mass communication, management.

**Sample-**The samples are the non medical students (engineering, agriculture, mass communication, management) students Rama University, Kanpur, Uttar

**Sample Size-** The sample size in the present study was 100 students.

**Sampling Techniques-** In this study, Non Probability Convenience Random Sampling Techniques was used.

**Sampling Criteria:**

**Inclusion Criteria-**

- First year students from Engineering, agriculture, mass communication, management
- Students available at the time of study.

**Exclusion Criteria-**

- Students who are not willing to participate.

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

The tools used for the study are demographic variables and self structured knowledge questionnaire. These tools consist of two sections.

**SECTION A-** It deals with demographic data such as Age, Gender, Religion. Residence, Course.

**SECTION B-** Consists of 30 questions regarding Tuberculosis in Self Structured Knowledge Questionnaire. Each question comprise of 1 mark.

The maximum score for the correct response to each item is 1 and for incorrect response as 0.

The total highest 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-**

Before the data collection, the investigator obtains the formal permission from the Principal of selected colleges of Rama University, Kanpur, Uttar Pradesh .Consent was taken from form the students to conduct study on them. After this, questionnaire was administered and the assessment of knowledge has been done.

## **7. RESULT AND FINDINGS-**

### **SECTION- A**

The major findings of the study are-

- Majority of the students 71% were in the age group of 18-20 years.
- Majority of the students 67% were male.
- Majority of the students 69% belongs to Hindu religious.
- Majority of the students 73% were from the rural area.

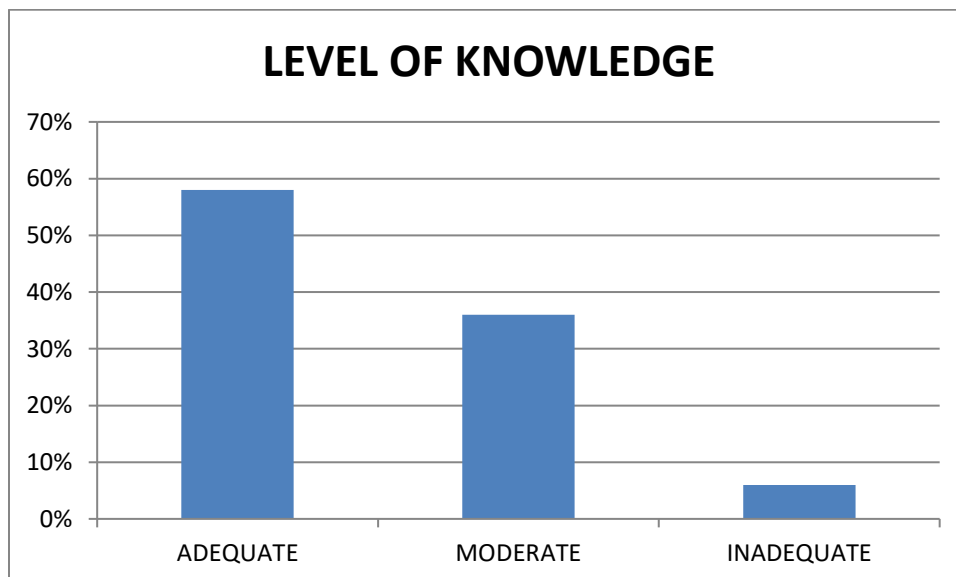
- Majority of the students 53% were from B.Tech.

## 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  | Score in Percentage | Mean  | S.D. |
|-------|--------------------|-------------|------------|---------------------|-------|------|
| 1     | Adequate           | 0-10        | 58         | 58%                 |       |      |
| 2     | Moderate           | 11-20       | 36         | 36%                 | 13.13 | 4.94 |
| 3     | Inadequate         | 21-30       | 6          | 6%                  |       |      |
|       | <b>TOTAL</b>       |             | <b>100</b> | <b>100%</b>         |       |      |



**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 Variables                                                              | Adequate           | Moderate          | Inadequate        | Chi Square | Inference                      |
|-------|------------------------------------------------------------------------------------|--------------------|-------------------|-------------------|------------|--------------------------------|
| 1.    | Age in yrs<br>a. 17-18 years<br>b. 19-20 years<br>c. 21-22 years<br>d. 22 yr above | 0<br>5<br>2<br>1   | 6<br>47<br>2<br>2 | 6<br>19<br>8<br>2 | 13.46      | df- 6<br>P>0.05<br>significant |
| 2.    | Gender:<br>a. Female<br>b. Male                                                    | 3<br>5             | 10<br>47          | 20<br>15          | 15.34      | df-2<br>P>0.05<br>significant  |
| 3.    | Religion:<br>a. Hindu<br>b. Muslim<br>c. Christian<br>d. Other                     | 15<br>12<br>8<br>0 | 49<br>7<br>1<br>0 | 5<br>2<br>1<br>0  | 20.16      | df-6<br>P>0.05<br>significant  |

|    |                |   |    |    |       |                 |
|----|----------------|---|----|----|-------|-----------------|
| 4. | Residence      |   |    |    | 4.73  | df-2            |
|    | a. Urban       | 6 | 46 | 21 |       | p<0.05          |
|    | b. Rural       | 2 | 11 | 14 |       | non significant |
| 5. | Course         |   |    |    | 13.46 | df- 6           |
|    | a. B.Tech      | 0 | 6  | 6  |       | P>0.05          |
|    | b. Agriculture | 5 | 47 | 19 |       | significant     |
|    | c. Mass com.   | 2 | 2  | 8  |       |                 |
|    | d. Management  | 1 | 2  | 2  |       |                 |

The above table represents that there is a significant association between knowledge score and selected demographic variables like Age, Gender, Religion, Course.

Thus hypothesis H1 was selected.

## 8. RECOMMENDATIONS:

**Nursing Implication:** The findings of the study had an implication in nursing education and nursing research.

**Nursing Education:** The nurse educators can recommend this topic to the students for teaching practice in colleges.

**Nursing research-** Use of research finding should become part of quality assurance evaluation to enhance the individual performance as a whole.

**Recommendations-** Based on these findings of the study, the following recommendations have been made-

- A similar study can be repeated by increasing the size of sample.
- A similar study can be repeated in other schools or colleges.

## 9. CONCLUSION-

From the findings of the present study, it can be concluded that there is significant association between knowledge score and selected demographic variable like Age, Gender, Religion, Course. at 0.05 level of significance. Hence, hypothesis H1 is accepted.

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