

# Effectiveness of Planned Teaching Programme (PTP) on Knowledge regarding Tuberculosis and RNTCP among Student Nurses at selected Nursing Colleges of Hubli, Karnataka

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## Abstract

A pre experimental study was conducted to evaluate the effectiveness of planned teaching programme on knowledge regarding tuberculosis and RNTCP among student nurses at selected Nursing colleges of Hubballi. Totally 50 student nurses were selected by probability simple random sampling technique. The knowledge was assessed by using structured knowledge Questionnaire. The study results reveal that, 27 (54%) had an average knowledge, 14(28%) had good knowledge and 09 (18%) had poor knowledge, where as in post test majority of Subjects 44 (88%) had good knowledge and 06 (12%) of them had average knowledge. Paired 't' test value 32.64 in knowledge scores revealed that there is a gain in knowledge regarding tuberculosis and RNTCP after administrating planned teaching programme at 0.05 level of significance. The study findings concluded that the planned teaching programme was effective in improving the knowledge of student nurses regarding tuberculosis and RNTCP.

**Keywords:** Planned Teaching Programme; Tuberculosis; RNTCP; Student Nurses.

## Introduction

Tuberculosis (TB) remains as an important public health problem in India. More than eight million people develop active tuberculosis annually and most of the cases are detected in the developing world. About one-third of the global population is infected with Mycobacterium tuberculosis and at risk of developing the disease. More than eight million people develop active tuberculosis annually, with more than 90% of deaths occurring in the developing world making tuberculosis still one of the most important global public health threats.

Early detection and adequate treatment are critical measures for disease control. The World

Health Organization (WHO) has published guidelines for tuberculosis control in low-income countries [6,7]. However, inadequate case detection and poor treatment continue to be some of the major factors for the increasing burden of tuberculosis globally [8,9]. Since the inception of Directly Observed Treatment Short Course (DOTS), the awareness, diagnosis, and treatment of tuberculosis have improved considerably.

Tuberculosis remains a major public health problem in India. Over 2 million people die of tuberculosis worldwide each year and 4 lakh of them die in India alone. Tuberculosis represents 3.75 of India disease burden, 11 times that of malaria and is leading cause of death in the 15-45 year group.

Some studies have documented inadequate tuberculosis knowledge and poor compliance with tuberculosis treatment guidelines among practicing physicians, and other health professionals. Such studies need to be conducted regularly to check the compliance about Revised National Tuberculosis Control Programme (RNTCP) and the need for modifying the tuberculosis control program. Hence study was undertaken to evaluate the effectiveness of planned teaching programme on knowledge

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regarding tuberculosis and RNTCP among student nurses.

*Objectives*

1. To assess the knowledge regarding tuberculosis and RNTCP among student nurses.
2. To evaluate the effectiveness of Planned Teaching Programme (PTP) on knowledge regarding tuberculosis and RNTCP among student nurses in terms of gain in knowledge scores.
3. To find out an association between pre-test knowledge scores and their selected socio-demographic variables.

**Methodology**

*Research Approach*

Evaluative Research Approach

*Research Design*

Pre-Experimental; one group pretest post test design

*Sampling Technique*

Probability; Simple Random Sampling Technique

*Sample Size: 50*

*Setting of Study*

Selected Nursing Colleges of Hubli.

*Tool used*

Structured Knowledge Questionnaire to assess knowledge regarding tuberculosis and RNTCP

among student nurses.

Section I: Socio-demographic variables of subjects.

Section II: Knowledge items on tuberculosis and RNTCP.

*Procedure of Data Collection*

The formal permission was obtained from the principal of selected nursing colleges of Hubli. The written consent was obtained by the subjects. The pre-test includes structured knowledge questionnaire to assess knowledge of subjects regarding tuberculosis and RNTCP. Planned Teaching Programme (PTP) was administered at the end of the pre-test. The post-test of the study was carried out 7 days later, using the same tool as the pre-test. Data collected was then tabulated and analyzed.

**Results**

*The Findings Related to Socio-Demographic Variables of Subjects*

The majority of the subjects 45 (90%) belonged to age group 20-22years, while minimum number 5 (10%) belonged to the age group of 22 years & above. In terms of gender, the maximum number of subjects 34 (68%) were females where as the minimum number 16 (32%) were males. The maximum number of subjects 32 (64%) were Christians, 12 (24%) were Hindu and the minimum number 6 (12%) were belongs to Muslim religion. The majority of the subjects 28 (56%) belonged to rural and while minimum number 22 (44%) belonged to the urban area. There was no exposure to any training programme on Tuberculosis and RNTCP.

*Analysis and Interpretation of Knowledge Scores of Student Nurses Regarding Tuberculosis and RNTCP*

**Table 1:** Pre-test and post-test percentage of knowledge scores of subjects in different items of Tuberculosis and RNTCP.

Sl. No	Items on Tuberculosis & RNTCP	Total score	Mean % of knowledge scores of subjects		
			Pre-test(x)	Post-test(y)	Gain in knowledge
1	Anatomy & physiology of respiratory system	1000	58.64	87.28	28.64
2	Tuberculosis	1250	42.62	81.96	39.34
3	RNTCP	750	39.48	74.82	35.34

Table 1 reveals that the percentage of gain in knowledge scores in the area of anatomy and

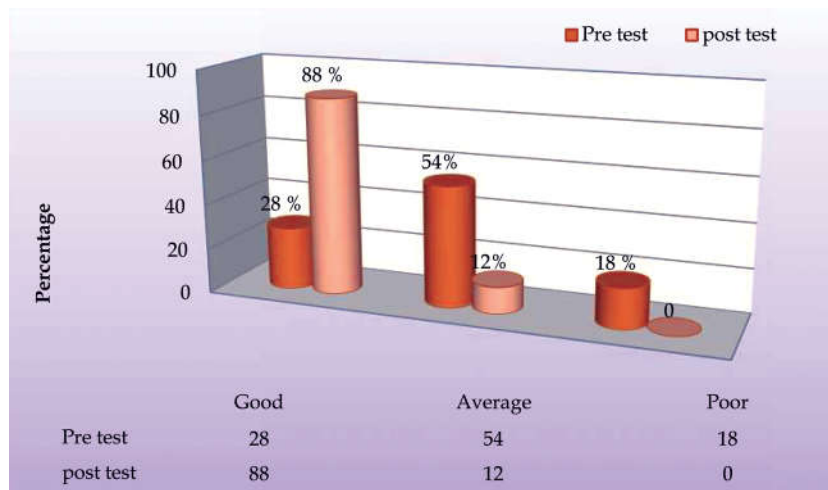
physiology of respiratory system was 28.64, Tuberculosis was 39.34% and RNTCP was 35.34%.

**Table 2:** Frequency and percentage distribution of knowledge scores of subjects regarding Tuberculosis and RNTCP

Knowledge score	Pre test		Post test	
	Freq	%	Freq	%
Good	14	28	44	88
Average	27	54	06	12
Poor	09	18	00	00

Table 2 reveals that in pre-test majority of subjects 27 (54%) had an average knowledge, 14 (28%) had good knowledge and 09 (18%) had poor

knowledge, where as in post test majority of Subjects 44 (88%) had good knowledge and 06 (12%) of them had average knowledge.



**Graph 1:** Percentage distribution of knowledge scores of subjects regarding Tuberculosis and RNTCP

### Findings Related to Evaluation of Effectiveness of Planned Teaching Programme

**Table 3:** Mean difference ( $\bar{d}$ ) Standard Error of difference (SED) and paired 't' values of knowledge scores of subjects regarding Tuberculosis and RNTCP

Domains	Mean difference ( $\bar{d}$ )	Standard Error of difference (SED)	Paired 't' values	
			Calculated	Tabulated
Knowledge	5.93	0.7	32.64	1.960

Table 3 depicts that the calculated paired 't' test values in knowledge was greater than the tabulated value i.e  $32.64 > 1.960$ . Hence  $H_1$  is accepted. Hence planned teaching programme was effective in improving knowledge of student nurses regarding Tuberculosis and RNTCP.

### Analysis and Interpretation of Data to Find Out Association between Pretest Knowledge and Selected Socio Demographic Variables

Since  $c^2_{cal}$  value  $<$   $c^2_{tab}$  value. These Probability values of  $c^2$  contingency revealed that the gain in knowledge scores and socio demographic variables are independent. This means that gain in knowledge scores has nothing to do with socio demographic variables of student nurses. Hence there is no association between pre-test knowledge and selected

demographic variables.

### Conclusion

Overall pre-test knowledge scores regarding Tuberculosis and RNTCP was average. There was a need for planned teaching programme for student nurses regarding Tuberculosis and RNTCP. Post test results showed significant improvement in the level of knowledge on Tuberculosis and RNTCP. Thus, it can be concluded that planned teaching programme (PTP) was effective specialised tool for student nurses to increase and update their knowledge on Tuberculosis and RNTCP. The results revealed that there was no association between pre-test knowledge and sociodemographic variables.

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