



**EFFECTIVENESS OF STRUCTURED TEACHING MODULE ON KNOWLEDGE REGARDING REVISED NATIONAL TUBERCULOSIS CONTROL PROGRAM AMONG FINAL YEAR B.SC NURSING STUDENTS OF SELECTED NURSING COLLEGES AT BANGALORE**

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**ABSTRACT**

Tuberculosis is a major public health problem that has been traumatizing human race for centuries. This study was aimed at determining the level of knowledge regarding RNTCP among the final year B.Sc Nursing students and the effect of a structured teaching programme in improving their knowledge. One group pretest-posttest design was adopted for the study and a sample size of 300 final year B.Sc Nursing students drawn randomly from 6 colleges. The data obtained was analyzed using descriptive and inferential statistical methods and interpreted in relation to the objectives of the study. The level of significance was set at 0.05. It was found that, the knowledge of RNTCP among the subjects was inadequate in the greater majority of the respondents. The teaching programme was found to be effective in improving knowledge on RNTCP among the subjects with t-value of 1.647. Knowledge level among the subjects on RNTCP was inadequate and paired "t" test indicated at  $p=0.05$  that, teaching on revised national tuberculosis control program was effective in increasing the knowledge level of final year B.Sc. Nursing students

**KEY WORDS:** Teaching programme, Knowledge, RNTCP, B.Sc Nursing students.



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## INTRODUCTION

TB is found to be the third leading cause of death worldwide. India is the highest TB burden country accounting for one fifth (21%) of the global incidence. Global annual incidence estimate is 9.4 million cases out of which it is estimated that 2 million cases are from India. India is 17th among 22 High Burden Countries in terms of TB incidence rate. It is one of the most important public health problems worldwide. It infects one third of the world's population. There are approximately 9 million new cases of all forms of Tuberculosis occurred annually and 3 million people die from it each year. Out of these 95% of TB cases and 98% of TB deaths were in developing countries. Incidence of the disease and mortality is most common (75%) in adults age group of 15-59 which is the most productive age group whereas maximum death occur in children due to meningeal and miliary tuberculosis particularly in developing countries.<sup>1,7</sup>

Tuberculosis is a very ancient disease as its description has been found in the ancient Buddhist and Chinese writings. Hippocrates (460-377 BC) also made few observations of tuberculosis and surprisingly to this day, despite the increasing understandings in its pathogenesis and treatment, it continues to be a major public health problem affecting people of all ages, creed, race and gender. TB Kills most people in India than HIV, STD, Malaria, Leprosy and all tropical diseases combined. Every year, 30,000 children are forced to leave school because their parents have tuberculosis, and 100,000 women lose their status as mother and wives because of the social stigma. India's Revised National Tuberculosis Control Programme (RNTCP) is based on the 'Directly observed therapy, short course' (DOTS) approach of the Global TB Strategy of WHO. This strategy emphasizes case-finding by sputum-smear examination and the administration of protocol-based standardized short-course therapy under direct observation, at least during the initial phase. The revised programme has improved case-finding facilities, made available short-course chemotherapy in an uninterrupted manner, increased the cure rates, and has provided data on adherence and outcome. The RNTCP adopted the operational and managerial strategy suggested by WHO, and also based its treatment regimens on the WHO guidelines on treatment of tuberculosis published in 1997, which recommended either daily or 3 times a week administration of drugs as equivalent options for use.<sup>2</sup> Human resource development (HRD) for DOTS activities

within the RNTCP, should address a broad agenda which includes the overall management of training and issues related to staffing. The long-term goal for HRD for DOTS is to reach and sustain a situation where staff at different levels of the health system has the skills, knowledge, and attitudes (in other words are competent) necessary to successfully implement and sustain DOTS activities and there are sufficient numbers of all staff categories involved in DOTS (clinical and managerial) at all levels.<sup>2</sup>

## OBJECTIVES

1. To assess the knowledge level of final year B.Sc. Nursing students regarding RNTCP
2. To determine the effectiveness of a structured teaching programme in improving knowledge among the students regarding RNTCP.

## MATERIALS AND METHODS

A quasi experimental research design (One group pretest-posttest design) was adopted for the purpose of this study. A sample size of 300 comprising of final year B.Sc Nursing students was drawn from 6 Nursing colleges (50 from each college) used simple random sampling technique. Data was collected using structured pre-tested questionnaire. Pretest was conducted and administration of the structured teaching programme followed by the posttest was done after 4 weeks in each college respectively.

## RESULTS

### *Knowledge on RNTCP*

From table 1, majority of the college students demonstrated having an inadequate knowledge in the initial assessment, 33% were having moderate level of knowledge regarding RNTCP while none of them was having adequate level of knowledge on the programme. In the post test, a majority, 51% demonstrated adequate level of knowledge, 47.4% demonstrated moderately adequate level of knowledge and only 1.3% had inadequate knowledge.

### *Effectiveness of intervention in improving Knowledge of RNTCP*

From table 2, the mean enhancement between the pre and post test is 10.59 with a t value of 1.647 which is statistically significant at 0.05 level of significance.

**Table 1**  
**Pre and Post test knowledge level of final year B.Sc. Nursing students**

KNOWLEDGE LEVEL	PRETEST		POST TEST	
	FREQUENCY	PERCENTAGE (%)	FREQUENCY	PERCENTAGE (%)
INADEQUATE	201	67	4	1.3
MODERATE	99	33	143	47.4
ADEQUATE	0	0	153	51

**Table 2**  
**Significant difference between pre and post test knowledge score**

KNOWLEDGE LEVEL OF RNTCP	N = 300						t VALUE
	PRETEST		POST TEST		ENHANCEMENT		
	MEAN	S.D	MEAN	S.D	MEAN	S.D	
	11.19	2.92	21.78	5.82	10.59	2.9	1.647*

\* Significant at 0.05 level of significance

## DISCUSSION

### Knowledge of RNTCP

Majority of the college students demonstrated having an inadequate level of knowledge from the initial assessment, 33% were having moderate level of knowledge regarding RNTCP while none of them was having an adequate level of knowledge on the programme. Although, this agrees with the findings of some previous studies<sup>3,4</sup>, it goes in contrast with some others.<sup>5,6</sup> This further shows how the college curriculum implementation needs to lay additional emphasis on the RNTCP and the national health programmes in general as they form one area in which funds and efforts are being continuously invested by the public and private sectors to address the burden of the major diseases bedeviling the Indian population. Moreover, if final year B.Sc Nursing students, a set of students who are about to kick-start their nursing careers demonstrate undesirably low level of knowledge on RNTCP, could be a cardinal indicator of why previous studies concluded that even some health care providers are having inadequate knowledge regarding the programme. In the post test, there was a remarkable shift in the levels of knowledge about RNTCP among the subjects. Majority, 51% demonstrated adequate level of knowledge, 47.4%

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revealed moderately adequate knowledge and only 1.3% had inadequate knowledge.

### Effectiveness of structured teaching programme in improving Knowledge on RNTCP

The mean enhancement between the pre and post test is 10.59 with a t value of 1.647 which was statistically significant at 0.05 level of significance. This implies that, the intervention was significant in enhancing the level of knowledge and awareness about RNTCP among the college students and supports the findings of a study conducted to ascertain the impact of a sensitization workshop on knowledge of RNTCP among medical students.<sup>3</sup>

## CONCLUSION

Knowledge on RNTCP among the final year nursing students was inadequate, the structured teaching module was found to be very effective in improving their levels of knowledge and awareness about the programme.

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