



## REVIEW ARTICLE

### TO ASSESS AND EVALUATE THE CLIENT VOLUNTEER TEACHING IN TERMS OF KNOWLEDGE, REGARDING TUBERCULOSIS AMONG PATIENT IN SELECTED DOTS CENTRES AMBALA, HARYANA

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#### ABSTRACT

**Objective:** The objectives of the study were to assess and evaluate the knowledge before and after administration of client volunteer teaching and find out the association of knowledge of tuberculosis patient with selected variable.

**Methodology:** Quasi-experimental research approach with one group pre-test and post test design was used and 100 respondents were selected by purposive sampling technique in selected DOTS centre of Ambala, Haryana. The content reliability for structured knowledge questionnaire was formulated by Kuder- Richardson 20(Kr -20) i.e 0.83.

**Result:** The mean of structured knowledge questionnaire before and after administration of client volunteer teaching was 13 and 16.23 respectively. where as In the area wise were knowledge score: the highest of pre-test score was in the area of concept of tuberculosis, risk factors and causes (51.37%) and post test score in the area of Investigation, treatment and prevention (45%). Further the finding shows Knowledge with residence (2.710), ventilation (3.76) and lightening (3.39) and age (3.15), Type of house (2.103), BCG (2.406), were found statistically significant at 0.05 level of significance respectively.

**Discussion:** In the present study, mean post test knowledge score (16.23±3.73) was higher than mean pre test knowledge scores (13.00 ± 4.00). Nearly similar types of finding were reported by Raman Lal Patidar that the total mean pre –test score 52.73% and post –test score 81.05% which shows the increase in post test knowledge.

**Conclusion:** The study concluded that the client volunteer teaching was effective in improving the knowledge of the tuberculosis patient.

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## INTRODUCTION

Tuberculosis is an infectious disease spread by person to person at all age and sex group. Tuberculosis (TB) is regarded as one of the highest burden among communicable diseases. (Al. Jabri and Dorvlo, 2006) The global incidence rate of tuberculosis is growing at approximately 1.1 percent per year and the number of cases at 2.4% per year. One Third of the world's population is already infected with the Tuberculosis bacterium. (Park, 18<sup>th</sup> edition) Tuberculosis remains a major public health problem worldwide. In recent years, increasing efforts have been dedicated to assessing the health-related quality of life experienced by people infected with tuberculosis. Tuberculosis is the leading cause of death from outside the infectious diseases. TB has affected mankind of over 50000

year and still continues the major cause of morbidity and mortality. (Guo et al., 2009) India two deaths occur every three minutes from tuberculosis (TB). But these deaths can be prevented with proper care and treatment. TB patient can be cured and battle against Tb can be won. (Central TB division) At present there are 38,104 tuberculosis patients in Haryana, who have access to highly effective directly observed treatment strategy In Ambala district of Haryana population covered by RNTCP is 11.8 lakh till 2013. In Ambala District number of suspected cases examined was 14082, out of which 12 % were smear positive cases, however patient registered for treatment was 1652. (T. B India 2013)

## MATERIALS AND METHODS

Quasi-experimental research approach with one group pre-test and post test design was used and 100 respondents were selected by purposive sampling technique in selected DOTS

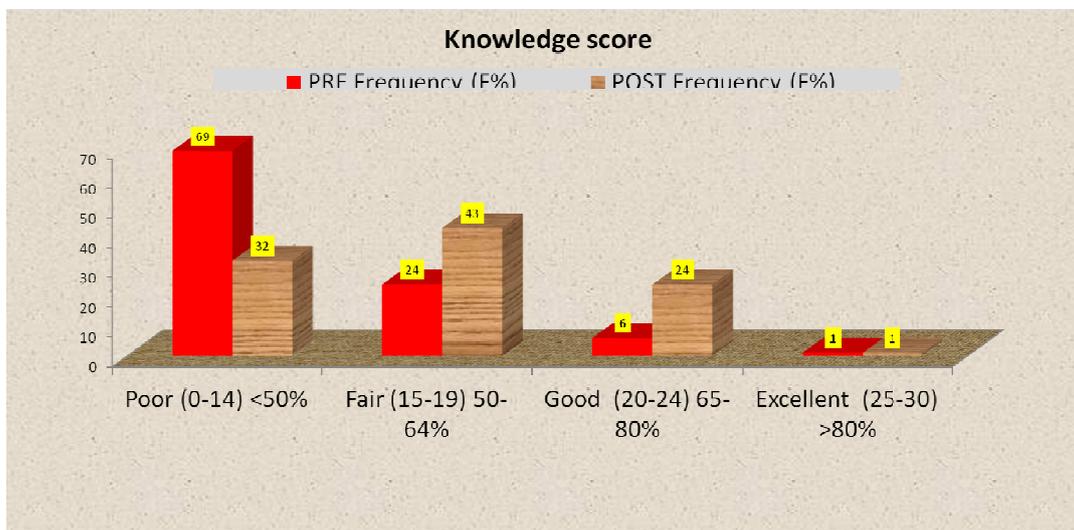
centre of Ambala, Haryana. The tools used for data collection were structured knowledge questionnaire. Content validity the tools were established by submitted to nine expert including, Five experts were from community health nursing, two from Medical surgical nursing, One were from Obstetric and gynaecological nursing and one from preventive and social medicine. The content reliability of structured knowledge questionnaire by Kuder- Richardson 20(Kr -20). The item analyses of the structured knowledge questionnaire were analyzed for item difficulty and discrimination value. The item difficulty varied from range of 30%to 80% and discrimination value 0.20 to 0.5. Item difficulty and discrimination index were found to vary within acceptable range. Ethical approval was obtained from the Institutional Committee for conducting the research study. The purpose for carrying out research project was explained to the study subject and assurance for confidentiality was given. The approval taken to conduct the final from district tuberculosis officer of DOTS Centre civil hospital, Ambala, Haryana.

married. For majority of the tuberculosis patient (45%) was having education up to primary. Majority of the patient (74%) were unemployed /house wife. Majority patient (73%) were in the joint family. The majority of tuberculosis patient (74%) had total family income per month of <5000. Most of the tuberculosis patient (74%) was live in the urban area. Most of the patients (56%) were live the kaccha house and rooms in residing hose most (85%) were had 2- 4. Most of the (68%) were having adequate ventilation and (69%) were having adequate lightening in the house. 70% of the tuberculosis patient were live their own house. Majority of the tuberculosis patient (72%) family member were not affected by the tuberculosis. Most of the tuberculosis patient (82%) had duration of illness is less than one year. Most of the patient (66%) was in category I. Majority of the patient (74%) had hospitalization due to tuberculosis. Majority of the patient (70%) were satisfied with their health education provided. Maximum Number of patient (81%) done BCG vaccination at birth time.

**Table 1. Frequency distribution of tuberculosis Patient in Terms of level of Knowledge before and after administration of client volunteer teaching**

N=100				
Level of Knowledge	Percentage	Range of score	Pre-test (f)	Post-test f
Poor	< 50%	0-14	69	32
Fair	50-64%	15-19	24	43
Good	65- 80 %	20-24	6	24
Excellent	>80 %	25- 30	1	1

Maximum Score: 30  
Minimum Score: 00



**Figure 1. Bar graph shows the frequency of tuberculosis patient in terms of level of knowledge regarding tuberculosis**

**Table 2. Mean, Median Difference, Standard Deviation of Difference ,Standard error of mean Difference form pre-test to post-test knowledge Scores and t\_ value**

N= 100						
Knowledge test	Mean	Mean D	SD <sub>D</sub>	SE <sub>MD</sub>	t	P value
Pre-test	13.00					
Post-test	16.23	3.23	0.27	0.52	6.12*	0.01

t(99)=1.98 \* significant (p<0.05)

## RESULTS

### Sample characteristics

Majority of tuberculosis patient were Male (76%) in the age group of 18-40 years (56%), maximum numbers of tuberculosis patient (90%) were in Hindu and (78%) were

### Knowledge

The majority of tuberculosis patient (69%) had below poor knowledge (0-14) in pre-test and in post test the tuberculosis patient (43%) had average knowledge (20-24). The data presented in tables 1 shows that t value is significant at that the

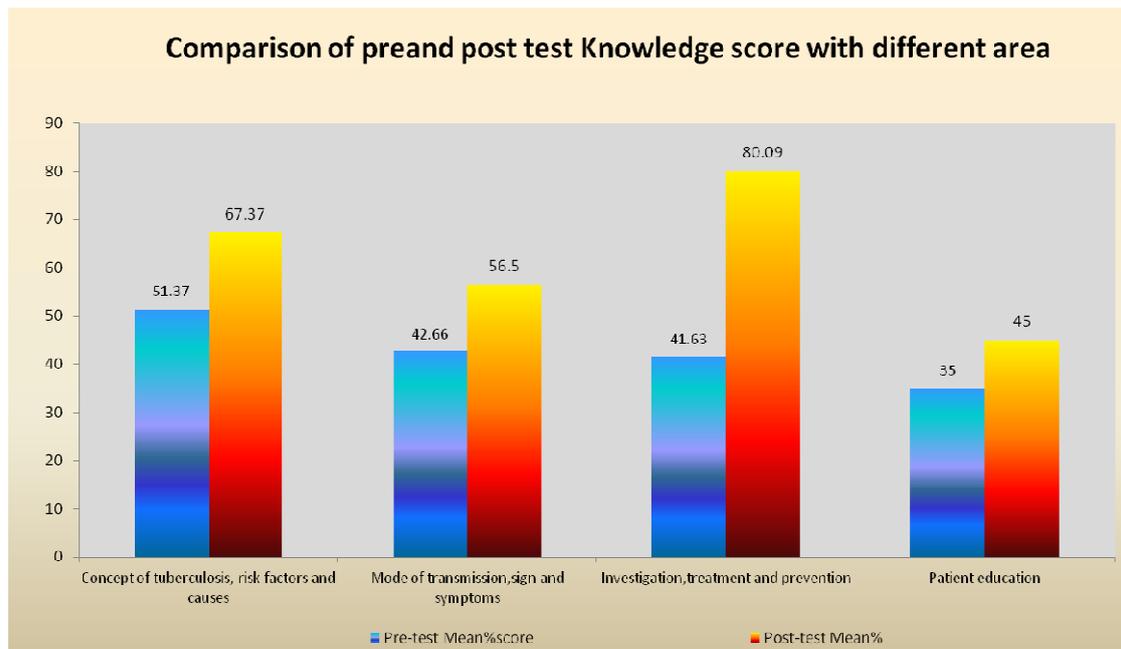


Figure 2. Bar Graph showing Comparison of mean percentage of pre-test & post test knowledge Score in specific content areas Obtained by tuberculosis patient

Table 3. Area Wise mean Difference, standard Deviation of difference, Standard Error of Mean Difference and t Value of pre-test and post –test Knowledge Scores

Knowledge area	Pre-test And post test			T Value	P Value
	Mean <sub>D</sub>	SD <sub>D</sub>	SD <sub>ED</sub>		
Concept of tuberculosis, risk factors and causes	1.28	0.08	0.23	5.45*	0.01
Mode of transmission, sign and symptoms	0.83	0.1	0.14	5.83*	0.01
Investigation, treatment and prevention	4.23	0.19	0.28	14.64*	0.01
Patient education	0.51	0.28	0.20	2.52*	0.01

t (99)= 1.98 \* significant (P ≤0.05)

mean post test knowledge score (16.23) was higher than mean pre-test knowledge score (13.00) with a mean difference of 3.23. The computed t value of 6.12 was found statistically significant at 0.05 level of significance which showed that there was significant difference in the mean pre –test and post –test knowledge score. Data presented in Table 2 reveals that the computed t value in the area of Concept of tuberculosis, risk factors and causes, Mode of transmission, sign and symptoms, investigation, treatment and patient was found to be statistically significant at 0.05 % level. In the area of knowledge questionnaire found that modified gain score computed between the pre-test and post –test knowledge score reveals that maximum gain in knowledge relative to possible gain was in the area of Investigation, treatment and prevention.

**Association**

ANOVA and t test value of tuberculosis patient regarding tuberculosis knowledge with residence (2.710), ventilation (3.76) and lightening (3.39) was found statistically significant at 0.05 level of significance.

**DISCUSSION**

In the present study, mean post test knowledge score (16.23±3.73) was higher than mean pre test knowledge scores (13.00 ± 4.00). Nearly similar types of finding were reported by **Raman lal patidar** in his study i.e the total mean pre –test percentage 52.73% and post –test percentage 81.05% which shows the increase in post test knowledge. The t value was computed to determine the significance of difference the mean

pre-test and post-test knowledge scores. A similar type of study to assess the effectiveness conducted by by **Raman lal patidar** “t” calculated 21.87 is more than “t” table 2.000 at the 0.05 level of significance so it shows the very highly significant and association between pre-test and post-test knowledge score.

**Conclusion**

The study concludes that the client volunteer teaching was effective in increasing the knowledge of tuberculosis patient regarding tuberculosis.

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