

**Article:****“Effectiveness of Information Booklet on knowledge regarding tuberculosis and importance of drug regimen among tuberculosis patients attending clinic at selected hospital, Karad.”**

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**Abstract:**

**Background:** In India, Tuberculosis remains a major public health problem. Tuberculosis is an infectious disease caused by Mycobacterium Tuberculi. The disease primarily affect the lungs and cause Pulmonary Tuberculosis. Present study aimed to assess effectiveness of Information Booklet on knowledge regarding Tuberculosis and importance of drug regimen.

**Objective-** To assess **effectiveness of information booklet** on knowledge regarding importance of drug regimen among Tuberculosis patients attending clinic.

**Methodology :** By using evaluative approach ,pre experimental design-one group pre test-post test design was used. Total 60 subjects selected by using Non-probability purposive sampling technique was used to select the respondents. A structured knowledge questionnaire was administered to assess knowledge of tuberculosis and importance of drug regimen among tuberculosis patients on the first day; then information booklet was administered on the same day of pre test to participants. After 7 days of administration of information booklet, structured knowledge questionnaire was administered to participants to assess the effectiveness of information booklet.

**Results:** Overall knowledge score of sample was 14 (23.3%) are having good knowledge , 33 (55 %). average knowledge and 13 (21.6 %) samples were having poor knowledge regarding tuberculosis and importance of drug regimen The mean pre-test knowledge score ( $10.6 \pm 1.1$ ) whereas in post test knowledge score of sample was 16 (26.6%) are having good knowledge , 34 (56.6%). average knowledge and 10 (16.6 %) samples were having poor knowledge regarding tuberculosis and importance of drug regimen. The mean post-test knowledge score ( $12.8 \pm 1.2$ )

**Conclusion:** There is need to increase Tuberculosis awareness programme through IEC activities to provide information about the disease and treatment facilities and importance of drugs with high protein diet is necessary.

**Keyword-** Effectiveness, Information Booklet, Knowledge, Tuberculosis, importance of drug regimen.

## ORIGINAL ARTICLE

**“Effectiveness of Information Booklet on knowledge regarding tuberculosis and importance of drug regimen among tuberculosis patients attending clinic at selected hospital, Karad.”**

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**Conflicts of interest:**

There are no conflicts of interest

**Introduction:**

India has the highest number of TB cases in the world. In India, Tuberculosis remains a major public health problem. Worldwide 9.4 million cases are detected annually out of which half are sputum positive. . India accounts for one fifth of global incidence of Tuberculosis and tops the list of 22 high Tuberculosis burden countries<sup>1</sup>.

In India, more than 5000 people develop tuberculosis disease every day and nearly 1000 die due to tuberculosis i.e. every 3 minutes two deaths. Deaths due to Tuberculosis exceed the combined deaths due to all other communicable disease. The National Annual Risk of Tuberculosis Infection (ARTI) was estimated at 1.5% i.e. 75 new smear positive pulmonary TB cases are expected per 1, 00,000 population annually. TB primarily affects people in their most productive years with important Socio-economic consequences for the household when an individual falls sick with TB. Poor living conditions, debility and malnutrition predisposes population to disease. The disease is even more common among the poorest and marginalized section of the community<sup>2</sup>.

In India, Tuberculosis remains a major public health problem. Every year approximately 18-lakh people develop Tuberculosis and about 4 lakh die from it. India accounts for one fifth of global incidence of Tuberculosis and tops the list of 22 high Tuberculosis burden countries. According to WHO report, 7 million people receive record level of lifesaving TB treatment but 3 million still miss out.<sup>3</sup>

Tuberculosis is an infectious disease caused by Mycobacterium Tuberculi. The disease primarily affect the lungs and cause Pulmonary Tuberculosis. It can also affect structure such as Intestine, Meninges, Bones and Joints, Lymph glands, Skin and other tissue and body.

- Overall 1/3<sup>rd</sup> of the world's population is currently infected with Tuberculosis.
- HIV infected patients have a 60% more chance of getting infected with Tuberculosis.

➤ 5 to 10% of people who are infected with Tuberculosis become sick or infectious at same time during their life (WHO, Internet information) The various epidemiological studies enumerated indicates that TB continues to be the major public health problem in the country. India accounts for about 1/3<sup>rd</sup> of the global disease burden (WHO)<sup>4</sup>.

TB causes an enormous burden of diseases and deaths around the world. The impact of TB is greatest on the poor, that is 99% of the developing countries. The majority of the people affected by TB are in the economically poor group. TB and poverty go hand in hand because people who are poor get TB and people who get TB become poor (Smith)<sup>5</sup>. Therefore, there are about 2 million new TB cases occurring in the country every year.

Patients' adherence to the treatment depends on many psychological and sociological factors including age, education level and patient's own idea about the disease.<sup>6</sup>

In India, TB is responsible for the death of every third AIDS patients. Moreover, India accounts for about a quarter of the Global TB Burden. The ministry reiterated their commitment to eliminating TB in the country by 2025.<sup>7</sup>

Thus, the researcher felt the need to conduct a study through a information booklet on TB and also to evaluate the effectiveness of booklet regarding the importance of drug regimen and the health facilities available through RNTCP, which in turn contribute to the general health of the Nation.

## STATEMENT OF THE PROBLEM

“Effectiveness of Information Booklet on knowledge regarding tuberculosis and importance of drug regimen among tuberculosis patients attending clinic at sub-district hospital, Karad.”

## OBJECTIVES OF THE STUDY :

- To assess **effectiveness of information booklet on** knowledge regarding importance of drug regimen among Tuberculosis patients attending clinic.

## MATERIAL AND METHODS:

Community based study was conducted in rural area . Pre experimental one group pre test design. A total of 60 subjects participated with probabilities Simple Random Sampling Technique for the study. After obtaining ethical committee approval, a study was conducted using a pre designed , pre tested structured knowledge questionnaire was administered to assess knowledge of tuberculosis and importance of drug regimen among tuberculosis patients on the

first day; then information booklet was administered on the same day of pre test to participants. After 7 days of administration of information booklet, structured knowledge questionnaire was administered to participants to assess the effectiveness of information booklet.

**Selection of Tool** : Structured questionnaire consisting of three sections-

**Section A :-** Socio-demographic variables.

**Section B :-** Knowledge on TB and importance of drug regimen.

**Section C :-** Preventive and control measures.

### **CRITERIA FOR SAMPLE SELECTION :**

#### **INCLUSION CRITERIA:**

##### **Subjects-**

- Who are willing to participate in the study.
- Who can understand Marathi and Hindi.
- Who are available at the time of study.

#### **EXCLUSION CRITERIA:**

##### **Subjects-**

- Who are not willing to participate in the study.
- Who are not available at the time of study.

### **PROCEDURE OF DATA COLLECTION**

Step 1: Formal permission will be obtained from Dean/ Principal, Krishna Institute of Nursing Sciences, Karad.

Step 2: Formal permission will be obtained from Protocol Committee.

Step 3: Formal permission will be obtained from Ethical Committee.

Step 4: Selection of subjects from selected hospital, Karad.

Step 5: Formal permission from subjects (informed consent) attending TB clinic in selected

Sub-district Hospital, Karad.

Step 6: Self introduction of investigator.

Step 7: Administration of Pre-test by standard questionnaire to assess knowledge regarding Tuberculosis and importance of drug regimen among TB patients.

Step 8: Intervention (Information Booklet on knowledge regarding Tuberculosis and importance of drug regimen)

**Session:** 30 minutes (1 day, approximately 10 samples)

Step 9: Administration of Post-test.

Step 10: Analysis and interpretation of data by using statistical measures.

Step 11: Presentation of data and publication.

### **DATA ANALYSIS METHOD:**

It includes descriptive and inferential statistics.

- 1) **Descriptive Statistics:** Analysis includes frequency, percentage, mean, median and standard deviation.
- 2) **Inferential Statistics:** Analysis includes paired 't' test, chi square test and correlation coefficient.

### **Results:**

**Table-I Frequency and percentage distribution of subjects according to socio demographic variables .**

<b>Sr. No</b>	<b>Characteristics</b>	<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
<b>1</b>	<b>Age</b>	20-30 yr	3	5
		31-40 yr	23	38
		41-50 yr	16	27
		51-60 yr	18	30
<b>2</b>	<b>Sex</b>	Male	27	45
		Female	33	55

<b>3</b>	<b>Education</b>	Illiterate	13	22
		Primary Education	22	37
		Secondary Education	21	35
		Graduate and post graduate	4	6
<b>4</b>	<b>Occupation</b>	Housewife	28	47
		Employed	14	23
		Farmer	11	18
		Self employed	7	12
<b>5</b>	<b>Type of Family</b>	Nuclear	27	45
		Joint	33	55
<b>6</b>	<b>Type of Food</b>	Vegetarian	8	13
		Non Vegetarian	8	13
		Mixed	44	74
<b>7</b>	<b>Income of family</b>	Less than 2000	13	22
		2001-3000	16	27
		3001-4000	18	30
		5000 & above	13	22
<b>8</b>	<b>Marital status</b>	Single	2	3
		Married	54	90
		Divorced/Widows	4	7
<b>9</b>	<b>Source of information</b>	Family	14	23
		Neighbor/ Friend	05	8
		Mass media	08	13
		Health worker	33	55

**Table I – Socio-demographic variables**

A total of 60 participants 23 (38 %) in the age group of 31-40 yrs, males 27 (45%) , females 33(55%),having primary education 22(37%),Having occupation housewife 28 (47%), type of family 33(55%),and subjects are taking mixed type of food 44 (74%), total income of family was 18(30%)in Rs.3001to 4000, whereas 54 (90 %)were married, and source of information is from 33(55%) from health workers.

**Table- II : Finding related to pre test and post test knowledge score regarding importance of drug regimen among tuberculosis attending clinic.**

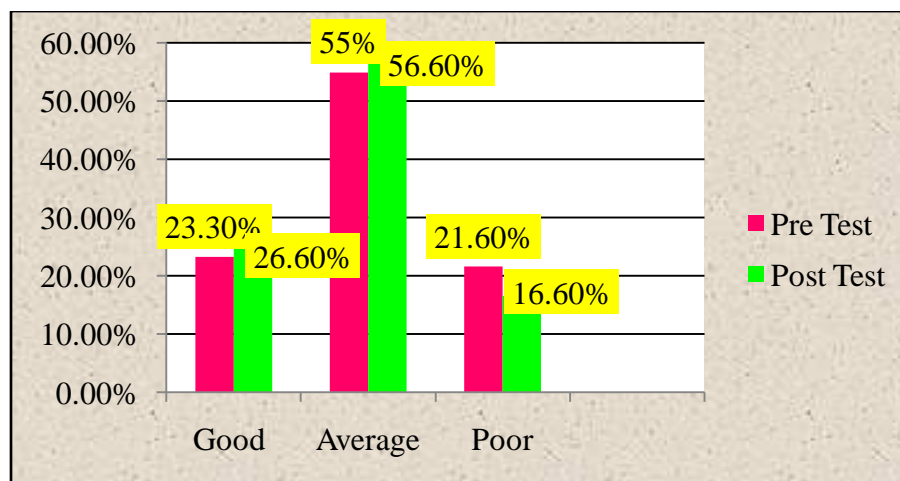
Level of Knowledge	Pre-test		Post test	
	Frequency	Percentage (%)	Frequency	Percentage (%)
<b>Good</b>	14	23.3 %	16	26.6 %
<b>Average</b>	33	55 %	34	56.6 %
<b>Poor</b>	13	21.6 %	10	16.6 %

**Table II :** depicts that the in pre test **33 (55%)** subjects having average knowledge **14 (23.3%)** having good knowledge whereas **13 (21.6%)** having poor knowledge regarding Tuberculosis and importance of drug regimen among TB patient whereas in post test **34 (55%)** subjects having average knowledge **16 (23.3%)** having good knowledge whereas **10 (21.6%)** having poor knowledge regarding Tuberculosis and importance of drug regimen among TB patient.

**TABLE – III Distribution of subject on paired ‘t’ test of pre and post test knowledge score regarding Tuberculosis and importance of drug regimen among TB patients.**

Parameter	Mean	Median	Standard Deviation	‘t’ Value
Pre test	10.6	11	1.1	t=74.348
Post Test	12.8	13	1.2	t=81.763

**Graph –I**



### **Discussion:**

Tuberculosis (TB) remains one of the most common infectious diseases worldwide. Although TB is curable provided the treatment commenced quickly, appropriately and uninterrupted throughout TB treatment duration.

Worldwide tuberculosis remains one of the common infectious diseases.<sup>8-10</sup> It is estimated that in 2017 about 10 million people were infected with TB and 1.3 million deaths among HIV negative people and 3,50,000 deaths among HIV positive<sup>11-12</sup>.



A study conducted by **Wand walo E.R., Morkve.O (2000)**<sup>13</sup> only 30% of the study population had satisfactory knowledge of disease and treatment. The study findings indicate that, there are factors associated with satisfactory knowledge that could assist in designing health education intervention strategies. Whereas in present study 56.6% subjects has increased satisfactory knowledge after intervention of information booklet regarding importance of drug regimen among tuberculosis.

**Ram G. Nautiyal Sneha Mittal and Rajesh k. Singh (2019)**<sup>14</sup> result shown that only two-third (65%) patients had good knowledge about TB. The study concluded that about one third of TB patients had poor knowledge about TB whereas in present study 56.6% subjects has average knowledge after intervention of information booklet and only 16 .6 % had poor knowledge .

The present study in post test showed that 34 (56.6 %) are having average knowledge regarding tuberculosis and importance of drug regimen among TB patients where as 16 (26.6 %) subjects are having good knowledge regarding **tuberculosis and** importance of drug regimen, subjects with literacy of higher education and secondary school education are having knowledge about tuberculosis and importance of drug regimen compare to illiterate.

Study conducted by M. **Kala , K.R. et al** showed that literates were more aware about the various aspects of Tuberculosis as compare to illiterates. Persons with literacy of higher secondary schooling and above had good TB knowledge compare to illiterates. Study revealed some lacunae in the knowledge about Tuberculosis. 6% knew the tests for the diagnosis of Tuberculosis. (68.3%) were well aware that TB is a communicable disease, (93.1%) were aware lung was mainly affected by TB, (87.4%) knew the causes of TB, (78.9%) were well aware the mode of transmission and (81%) knew the common signs and symptoms of TB<sup>15</sup>.

In present study, lower level of knowledge about symptoms, transmission and etiology of the disease were observed in females and in illiterate patient. There is need to be focused on a priority basis for education regarding the disease. World Health Organization also recognizes the importance of tuberculosis-related knowledge, attitude and practice surveys in advocacy, communication and social mobilization strategy planning.<sup>16</sup>

**Conclusion:**

The study revealed that awareness regarding certain aspects of tuberculosis was adequate, but there is need to improve awareness in illiterate individuals and females about the transmission and drug regimen with dietary pattern and precautions during home care management.

**Recommendation:**

Health professionals at the community level should strengthen IEC programs to enhance the awareness in the community about TB treatment available at health centers also preventive and control measures in home setting.

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