A Study To Evaluate The Effectiveness Of Structured Teaching Programme On Knowledge On Tuberculosis Among Tuberculosis Patients In Bangalore Urban District
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ABSTRACT:
An evaluative study to assess the effectiveness of structured teaching programme on tuberculosis among the tuberculosis patients, who are coming to RNTCP outpatient department in a selected hospital Bangalore. The samples consisted of 300 tuberculosis patients, the age group of above 18 years selected by purposive sampling method. The mean percentage of post test knowledge score 80.06 with mean and S.D of 39.23+ - 2.23 was higher than the pre test knowledge score 44.71% with the mean and SD of 21.91+ - 2.27. Statistical paired ‘t’ test value was 92.84 at 0.05 level shows that there was a significant improvement in the knowledge level among tuberculosis patients regarding tuberculosis. The result proved that S.T.P on tuberculosis prepared by the investigator has helped the tuberculosis patients to improve their knowledge on tuberculosis.

Key words: S.T.P, tuberculosis, patients, and knowledge were operationally defined for the purpose of the study.

INTRODUCTION
Health is a fundamental human right and a worldwide social goal. As understanding of health and disease along with delivery of quality health care is basis for all health care agencies. Health has evolved over the centuries as a concept from an individual concern to worldwide social goal and encompasses the whole quality of life. The purpose of health services is to improve health status of population and is essential for social and economic development. All health services viz., preventive, promotive and rehabilitative must be designed to meet the health needs of the community. The “tuberce bacillus” was first described on 24 march 1882 by Robert Koch, who subsequently received the Nobel prize in physiology or medicine for this discovery in 1905, the bacterium is also known as “Koch’s bacillus”. India is the highest TB burden country in the world and accounts for nearly one-fifth (20 percent) of global burden tuberculosis, 2/3 of cases in SEAR. Every year, approximately 1.8 million persons develop tuberculosis, of which about 0.8 million are new smear positive highly infections cases. Tuberculosis kills about 0.32 million people every year.

To control TB, the Govt of India started the National Tuberculosis Control programme in the year 1962 and adopted and implemented DOTS in different parts of the country since 1993, a full pledged programme was begun in 1997 and it was fully covered by 2005.

NEED FOR STUDY:--
The problem of tuberculosis is now universal, after the epidemic of AIDS. Nearly one third of world’s population is infected with mycobacterium tuberculosis (MBT) and Three million people die due to tuberculosis every year. In 1993, WHO declared tuberculosis as a global emergency. India is included in the list of high tuberculosis burden countries. It is estimated that between the years 2000 and 2020, nearly one billion people will be newly infected, 200 million people will get sick and 35 million will die from tuberculosis worldwide, if control of the disease is not further strengthened.

STATEMENT OF THE STUDY
A study to evaluate the effectiveness of structured teaching programme on knowledge on tuberculosis among tuberculosis patients in Bangalore urban district

OBJECTIVE OF THE STUDY
1. To assess the pre-test knowledge scores on Tuberculosis among Tuberculosis Patients
2. To analyse the post-test knowledge scores on Tuberculosis among Tuberculosis Patients
3. To evaluate the effectiveness of Structured Teaching Programme on Tuberculosis among Tuberculosis Patients
4. To find out the association between knowledge level with demographic variables of the subjects
5. To examine the relationship between pre-test and post-test knowledge on Tuberculosis among Tuberculosis Patients

ASSUMPTIONS
1. Tuberculosis patients are able to identify the meaning , causes, etiology , treatment, self care, prevention and rehabilitation.
2. Tuberculosis patients will be willing to express their knowledge regarding meaning , causes, etiology, treatment, self care, prevention and rehabilitation.
3. Structured Teaching Programme is an accepted teaching strategy.

LIMITATIONS
1. The study is limited to Tuberculosis patients only.
2. Tuberculosis patients who are available at the period of study.
3. Effectiveness of Structured Teaching Programme in terms of knowledge scores only.
4. Measurement of knowledge scores of Tuberculosis patients once before and after effectiveness of Structured Teaching Programme.

CONCEPTUAL FRAMEWORK
The conceptual framework of the study was based on modified health belief model of Rosenstoch
METHODOLOGY

RESEARCH APPROACH
Descriptive and evaluative approach was used in this study. Descriptive approach was used to assess the knowledge of tuberculosis patients regarding tuberculosis. Evaluative approach was used to test the effectiveness of structured teaching programme (STP) on tuberculosis.

RESEARCH DESIGN
Pretest, post test one group design

<table>
<thead>
<tr>
<th>Selected Group</th>
<th>Pre test</th>
<th>Interventio n</th>
<th>Post test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuberculosis patients (N=300)</td>
<td>Knowledge (O1)</td>
<td>P(X)</td>
<td>Knowledge (O2)</td>
</tr>
</tbody>
</table>

VARIABLES UNDER STUDY

Independent Variable
In this present study the independent variables was structured teaching programme on tuberculosis.

Dependent Variable
In the present study the dependent variables are knowledge scores of tuberculosis patient’s performance on pre test and post.

Extraneous Variables
In this study the extraneous variables are age, gender, type of family, number of children, source of information regarding TB, present complaints, since how long suffering from TB, Type of treatment, family history of TB, religion, personal habits, Incidence of other diseases, marital status, leisure time activities, educational status, occupation, family income per month, response after the regular treatment, response on present health status and exposure to mass media.

POPULATION
In the present study population consist of 300 tuberculosis patients who are presently attending the RNTCP department in the selected Health facilities during the study period.

SETTING : PHC Taluk, (Urban Health Centre) Bangalore, Karnataka.
SAMPLE : Tuberculosis patients who are coming to RNTCP department for DOTS in Government Hospital Anekal, Bangalore
SAMPLE SIZE: The sample size was 300.

CRITERIA FOR SAMPLE SELECTION

1. Inclusion Criteria:
- Tuberculosis Patients:
  - Presently attending the RNTCP department in the selected Health Facilities.
  - Who give consent for the study
  - Who can read and write Kannada
  - Who come under the Health Facilities selected for the study.
  - Above 18 years of age group

2. Exclusion criteria
- Tuberculosis Patients:
  - Who are not attending RNTCP department in the selected health facilities
  - Who have not given consent for the study.

SAMPLING TECHNIQUE
In this study purposive and convenient sampling technique are used.

Selection of the Tool
The tool consist of base line proforma, structured knowledge questionnaire, and structured teaching programme (STP) was used to assess the knowledge of tuberculosis patients on “Tuberculosis”, will be developed.

Development of the Tool
After an extensive review of literature and discussion with experts, a self administered structured knowledge questionnaire and structured teaching programme (STP) was used to assess the knowledge of Tuberculosis patients on “Tuberculosis”, will be developed.

Data Collection Procedure
The investigator obtained written permission from the district tuberculosis officer prior to the collection of data. The purpose of the study was explained to the subjects and informed consent was obtained. Confidentiality was assured to all the subjects to get their co-operation.

RESULTS
Among the selected Tuberculosis patients highest percentage 109(36.33%) patients belonged to the age group 30-39 years. Majority of the patients 168(56%) were males and 132(44%) were females. Majority of the patients education, 79(25.33%) were having high school education. In relation to the distribution of subjects by family income (Rs.) per month, 140(46.7%) were having monthly income of Rs.3001 – 5000 /month, 90(30%) were having income of Rs.7001 and above per month, 61(20.3%) were having Rs.5001-7000./month and 9(3%) were having Rs. 1000 - 3000/month.

With regard to the present complaints, 185(61.66%) had cough, 102(34%) had fever, 78(26%) had loss of weight, 21(7%) had loss of appetite, 18(6%) had other complaints. Majority of the samples 133(44.33%) were suffering from 0 to 12 months, 90(30%) were suffering from 13 to 24 months, 77(25.66%) were suffering from more than 25 months. In relation to the type of treatment, 213(71%) were taking from the DOT’s therapy Cat-I and 87(29.00%) were taking from the DOT’s therapy Cat–II. With regard to the family history of tuberculosis, 53(17.66%) family history and 247(82.33%) did not had family history of Tuberculosis.

In relation to the personal history, 119(39.66%) had tobacco and gutaka, 96(32%) were had smoking, 86(28.66%) had habit of consuming alcohol, 84(28%) had all the habits, 35(11.66%) had tobacco consuming. Majority of the samples had an associated illness, 103(34.33%) had hypertension, 89(29.66%) had diabetes mellitus, 50(16.66%) had HIV/AIDS, 47(15.66%) had renal problems, 42(14%) had cardiac problems, 21(6.7%) had...
other problems and 40(13.3%) did not had any other symptoms.

Table : Pre test and Post test Knowledge scores of the Tuberculosis patients on Tuberculosis N=300

<table>
<thead>
<tr>
<th>Aspects</th>
<th>Max score</th>
<th>Knowledge of Tuberculosis patients</th>
<th>Paired 't' Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Range</td>
<td>Mean</td>
<td>Mean (%)</td>
</tr>
</tbody>
</table>
| Pre test | 49       | 12-28 | 21.91 | 44.71 | 2.2  
| Post test | 49       | 32-44 | 39.23 | 80.06 | 2.2  
| Difference | 49       | 13-21 | 17.32 | 35.35 | 0.0  |

<table>
<thead>
<tr>
<th>Knowledge Level</th>
<th>Classification of Tuberculosis patients</th>
<th>Pre test</th>
<th>Post test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numb er</td>
<td>Percent</td>
<td>Numb er</td>
<td>Percent</td>
</tr>
<tr>
<td>Inadequate &lt; 50 % Score</td>
<td>266</td>
<td>88.66</td>
<td>00</td>
</tr>
<tr>
<td>Moderate 51-75 % Score</td>
<td>034</td>
<td>11.33</td>
<td>038</td>
</tr>
<tr>
<td>Adequate &gt; 75 % Score</td>
<td>00</td>
<td>00</td>
<td>262</td>
</tr>
</tbody>
</table>

*Significant at P<0.05 level

The table shows that out of 300 patients in pretest, 266(88.66%) had inadequate knowledge, only 34(11.34%) had moderate knowledge and none of the Tuberculosis patients were having adequate knowledge in pretest. Post test knowledge score shows that 262(87.33%) Tuberculosis patients had adequate knowledge on tuberculosis and 38 (12.66%) samples had moderate knowledge. None of them came under inadequate knowledge group.

Graph: Pre test and Post test mean knowledge scores of the Tuberculosis patients on tuberculosis.

Table : Classification of Tuberculosis patients on level of knowledge about Tuberculosis.

<table>
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</tr>
</tbody>
</table>

Testing of hypothesis:
H: There will be significant difference between the mean pre-test and post-test knowledge scores of tuberculosis patients

In the pretest mean percentage knowledge score was found to be 44.71% with mean and SD of 21.91 ± 2.27. In the post test mean percentage score was 80.06% with mean and SD of 39.23±2.23. The mean percentage difference was 35.35% with mean and SD of 17.32±0.04.

Hence the stated research hypothesis is there will be significant difference between the mean pre-test and post-test knowledge scores of tuberculosis patients is accepted because there was significant mean pre test and post test difference, the mean post test score was higher than the pre test score. So the research hypothesis was accepted.

CONCLUSIONS

This study proved that Tuberculosis patients had poor knowledge (inadequate level) regarding Tuberculosis before administration of STP then their knowledge improved to a remarkable extent after STP. The findings of this study shows that the STP were effective in terms of gain in knowledge score which will help to know the importance of prevention of spread of disease, treatment, self care and follow-up care etc.

The following recommendations are made based on the present study

1. Replication of the same study on a larger sample may help to draw more definite conclusions and make generalization.
2. A study can be conducted on burden of tuberculosis on family.
3. A comparative study can be conducted to assess the knowledge attitude and practice of points regarding tuberculosis between rural and urban area.
4. An experimental study can be conducted in identifying the learning needs of the TB patients who are at risk of spreading TB
5. A similar study can be conducted using Self Instructional Module.

BIBLIOGRAPHY

- **Gururaj G, Imai M K** (2003), Suicide prevention: information for educational institution: Dept of epidemiology. NIMHANS, pp 7-8
- **Swamy RK**, END line evaluation study under RNTCP Central tuberculosis
- **Nancy, Knechel** (2009), Tuberculosis; Pathophysiology, Clinical peculiarities and Diagnosis, Critical Care Nurse, Vol 29., No.2., pp 34-43.