A Study To Evaluate The Effectiveness of Structured Teaching Program on Knowledge Regarding Mode of Transmission And Importance of Drug Regimen Among Tuberculosis Patients In Selected Hospitals, Bangalore

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Abstract- *Tuberculosis is the leading infectious causes of death worldwide. It affects people of all ages and is highly infectious. Almost two billion people and infected around the globe, with 49% of the TB cases in south Asia. Approximately 2.5 million people in each yr affected by TB, while 95% of deaths occur in developing countries. According to WHO in 2000, approximately 2.2 million develop TB of which about 1 million positive and highly infectious cases. The research design used for this study was quasi-experimental one group pre and post test design. 50 TB patients were selected based on inclusion criteria through convenience sampling technique. The pre test was conducted with the help of self administered questionnaire to assess the knowledge of mode of transmission and importance of drug regimen among TB patients. After pre test the structure teaching programme on mode of transmission and importance of drug regimen among TB patients was given. On 7th day post test was conducted using the same method. The result showed that the present study pre test knowledge score among TB patients mean score is 21.24 with SD 2.78 and post test knowledge score among TB patients mean score is 34.5 with SD 6.4. The calculated paired "t" value is 13.19which shows highly significant improvement in the knowledge on mode of transmission and importance of drug regimen at p<0.05level.*

I. INTRODUCTION

Tuberculosis is one of India's major public health problems in India.. According to WHO estimates, India has the world's largest tuberculosis epidemic. Many research studies have shown the effects and concerns revolving around TDR-TB, especially in India. In India, TB is responsible for the death of every third AIDS patient. moreover, India accounts for about a quarter of the Global TB Burden.[7] The ministry reiterated their commitment to eliminating TB in the country by 2025. Globally, it is estimated that 3.3% of all new TB cases had MDR-TB in 2009. Each year, about 440,000 MDR-TB cases are estimated to emerge, and 150,000 persons with MDR-TB die. (**WHO 2011)**

Drug-resistant TB is widespread and found in all countries surveyed. It emerges as a result of treatment mismanagement, and is passed from person to person in the same way as drug-sensitive TB. • Multidrug-resistant TB (MDR-TB) is caused by bacteria that are resistant to the most effective anti-TB drugs (isoniazid and rifampicin). MDR-TB results from either primary infection or may develop in the course of a patient's treatment. • Extensively drug-resistant TB (XDR-TB) is a form of TB caused by bacteria that are resistant to isoniazid and rifampicin (i.e. MDR-TB) as well as any fluoroquinolone and any of the second-line anti-TB injectable drugs (amikacin, kanamycin or capreomycin). • These forms of TB do not respond to the standard six month treatment with first-line anti-TB drugs and can take two years or more to treat with drugs that are less potent, more toxic and much more expensive.

Of the estimated 250,000 MDR-TB cases expected to occur among all TB patients notified in 2009 in the high MDR-TB/XDR-TB burden countries, 24,511 were reported to have been enrolled on treatment. 13 countries with data on treatment outcomes for MDR-TB cases reported a success of 25%-82% among patients that started on treatment in 2007. **WHO (2013)**

In 2011, out of the estimated global annual incidence of 8.8 million TB cases, nearly 2.3 million were estimated to have occurred in India. Under India's Revised National TB Control Programme (RNTCP) millions of TB patients have been treated, and countless lives have been saved. But TB incidence in India continues to remain high. (**Jamie Rylance 2015**)

Reliable and relevant research can help to improve tuberculosis control worldwide. In recent years, various organizations have assessed research needs and proposed priorities for tuberculosis. We found 33 documents that specifically outline priorities in tuberculosis research. The top priority areas were drug development (28 articles), diagnosis and diagnostic tests (27), epidemiology (20), health services research (16), basic research (13), and vaccine development and use (13). The most focused questions were on the treatment and prevention of multidrug-resistant tuberculosis in people co-infected with HIV. Methods used to identify these priorities were varied. Improvements can be made to ensure the process is more rigorous and transparent, and to use existing research or systematic reviews more often. WHO, Stop TB Partnership, and other organizations could adopt an incremental process of priority development, building on the existing knowledge base. (**JAMIE RYLANCE, 2010**)

While Indian studies have assessed care providers' knowledge and practices, there is no systematic review on the quality of tuberculosis (TB) care. Results show that, 47 studies included, 35 were questionnaire surveys and 12 used chart abstraction. None assessed actual practice using standardized patients. Heterogeneity in the findings precluded meta-analysis. Of 22 studies evaluating provider knowledge about using sputum smears for diagnosis, 10 found that less than half of providers had correct knowledge; 3 of 4 studies assessing self-reported practices by providers found that less than a quarter reported ordering smears for patients with chest symptoms. In 11 of 14 studies that assessed treatment, less than one third of providers knew the standard regimen for drug-susceptible TB. Adherence to standards in practice was generally lower than correct knowledge of those standards. Eleven studies with both public and private providers found higher levels of appropriate knowledge/practice in the public sector. The study concluded that quality of TB care, particularly in the private sector. Improvement of quality of care should be a priority for India.(**S. SATYANARAYANA, 2015**)

Need of the study

TB is the second most common causes of death due to infectious disease at the global level. It affects people of all ages ad is highly infectious. During therapy however improved a marked decline in incidence over the next 3 decade.

In 1995, three million people died due to TB in the world. The report on TB in association with world TB day 2004 shows that 40% of the Indian population is infected with the TB. TB remains the single largest infectious disease carrying high death annually, about 5 deaths every minute. Every year about 8 million people develop TB worldwide. In India nearly 2 million people develop TB were 450000 die from it. **(K. PARK, 17th EDITION)**

The national TB (2005) reported that annual incidence rate of infections per lakh of population; out of 126 cases follow up at 3 subsequent survey over a period of 5yrs, 49.2% died 32.5% cured and 18.3% continued to remain sputum positive. With DOTS, health care workers observe patients as they take their medicine. Left alone, many people with TB fail to take entire course of medication there by contributing to the spread of drug resistant TB. **(*P.G. Gopi, 2000*)**

II. STATEMENT OF THE PROBLEM

A Study to Evaluate the Effectiveness of Structured Teaching Program on Knowledge Regarding Mode of Transmission and Importance of Drug Regimen among Tuberculosis Patient in Selected Hospitals, Bangalore.

III. OBJECTIVES

1. To assess the pre and post test level knowledge among clients with TB regarding mode of transmission and importance of drug regimen within pre and post test.
2. To evaluate the effectiveness of client with TB regarding mode of transmission and importance of drug regimen between pre and post test.
3. To find the association between the selected demographic variables and the post test mean scores with their selected demographic variables.

Null Hypothesis:

NH1: There is no significant difference between the pre and post test knowledge scores among clients with TB regarding mode of transmission and importance of drug regimen.

NH2: There is no significant association between the selected demographic variables and the post test mean scores with their selected demographic variables.

Assumption:

1. TB Patient may not have knowledge about mode of transmission and importance of drug regimen.
2. TB patients may know general information about TB.

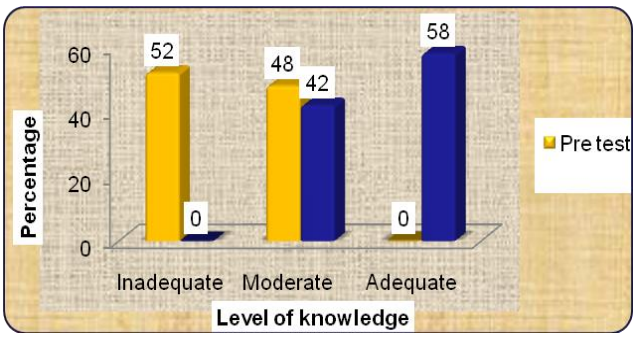
IV. MATERIAL AND METHODS

The study was done period of one month. Permission was obtained from the medical officer of KCG hospital, Bangalore. The research design used for this study was quasi-experimental design. 50 TB patients were selected based on inclusive criteria through convenience sampling technique. Rapport was established with selected subjects & a brief introduction about the research purpose was given. The pretest was conducted with the help using self-administered structured questionnaire, to assess the knowledge.

After, the pretest the structured teaching programme regarding mode of transmission and importance of drug regimen was given to the same group. The session of structured teaching programmed on regarding mode of transmission and importance of drug regimen lasted for about 30 minutes. At the end of teaching the investigator clarified the doubts. Totally, the teaching and discussion lasted for about 45 minutes.

The post test was conducted for the same group on seven days after structure teaching programmed on regarding mode of transmission and importance of drug regimen by using self administered structured questionnaire. Collected data were entered in excel sheet and analyzed with proper statistical method.

V. RESULTS



Pre and post-test knowledge level on various assessment phases of TB patients regarding mode of transmission and importance of drug regimen

In the present study a total of 50 subjects were enrolled in group. The overall pre test knowledge score regarding mode of transmission and importance of drug regimen among TB patients, 26(52%) had inadequate knowledge, 24(48%) had moderately adequate knowledge. The overall post test knowledge score regarding mode of transmission and importance of drug regimen among TB patients, 21(42%) had moderately adequate knowledge, 29(58%) had adequate knowledge. In pre test mean value for overall knowledge on mode of transmission and importance of drug regimen among TB patients was 21.24 with the standard deviation of 2.78 were as in post test mean value for overall knowledge on on mode of transmission and importance of drug regimen among TB patients was 34.5 with the standard deviation of 6.4. The enhancement pre and post test mean score was 13.26 with SD 7.1 and the calculated paired "t" test value is 13.19 shows that there was a significant improvement in the knowledge regarding mode of transmission and importance of drug regimen among TB patients at $p<0.05$ level. The association of demographic variables with post test level of knowledge using chi-square test revealed that there is a significant association between post test level of knowledge and selected demographic variables such as age, educational status, since the obtained value is less than the table value at $p<0.05$ level significance.

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