

Assess the Compliance on DOTS Regimen Among Tuberculosis Patients at Selected Hospital in Chennai



Nursing

KEYWORDS : compliance, DOTS regimen, Tuberculosis

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ABSTRACT

Tuberculosis is a major cause of morbidity and mortality and a significant public health problem. DOTS were implemented under the Revised National Tuberculosis Control Programme (RNTCP) in India. The study objective was "to assess the compliance on DOTS regimen among tuberculosis patients at SMCH." Material and method: The descriptive design was adapted. All the patients diagnosed with Tuberculosis at SMCH are considered as the population. Sample of 100 tuberculosis patients was selected by convenient sampling technique. A structured interview schedule adopted to collect the data from the samples and checklist were used to assess the compliance of DOTS regimen. Descriptive and inferential statistics was used in data analysis. Result: 85% takes Rifampicin tablet regularly before breakfast, 67% has somebody to remind them to take the drugs. On the other hand, 44% felt shy coming to TB centre and 37% felt inferior. Conclusion: the investigator concluded that mostly the patients are inadequately compliance to DOTS regimen. Therefore, tuberculosis patients can be educated regarding treatment compliance so that relapses can be prevented.

Introduction

Tuberculosis is a specific infectious disease caused by Mycobacterium Tuberculosis. It is the major public health problem globally. There were an estimated number of 8.6 million incident cases of tuberculosis and 1.3 million died from the disease, (940,000 deaths among people who were HIV positive). Nigeria ranks 4th among the 22 high burden countries of tuberculosis with an estimated number of 32,000 cases recorded every year resulting in more than 30,000 deaths annually. A patient centered individualized approach to treatment support is a core element to all tuberculosis control efforts. So the efforts should be made to aware the people that tuberculosis is 100% curable by DOTS regimen.

Direct Observe Therapy Short Term (DOTS), it means that a trained health worker or other designated individual (including family member) provides the prescribed tuberculosis drugs DOTS ensure that the patient take medicine regularly until they are cured. Recommended treatment includes initial, intensive and continuation phase. Standardized treatment regimens are one of the pillars of the DOTS strategy Isoniazid, Rifampicin, Pyrazinamide, Ethambutol, and Streptomycin are the primary antitubercular drugs used Intensive phase last for 2 months and continuation phase last for 4 months.

Problem Statement

Assess the compliance on DOTS regimen among tuberculosis patients in selected Hospital at Chennai

Objectives: This study is to

1. Assess the compliance on DOTS regimen among tuberculosis patients
2. Associate the compliance on DOTS regimen with selected demographic variables.

Assumption

Tuberculosis patients are not adherence to DOTS regimen regularly.

Material and methods

A descriptive research design was adapted, the study was conducted on selected DOTS patients at SMCH, Accessible population is all the patients diagnosed with tuberculosis under DOTS regimen in chest OPD and in patient wards of Saveetha Medical College Hospital and Target population is all the patients diagnosed with tuberculosis in OPD and in patient wards of Saveetha Medical College Hospital during data collection period.

The sample size was 100 using convenient sampling technique, checklist was used to assess the compliance on DOTS regimen. The instrument consists of two parts. Part 1- socio demographic data consists of 7 items in relation to age, religion, educational status, occupation, monthly income, place of living, and ventilation of the house. clinical variables consists of 8 items which includes duration of illness, duration of DOTS regimen, family history of Tuberculosis, family member supports, distance of tuberculosis centre, category of medication, type of tuberculosis centre, medications provided by. Part 2- check lists was used to assess the compliance on DOTS regimen. A check lists under four division, the personal factors have 6 items, socio-economic factors have 6 items, medication factors have 11 items and organisational factors having 7 items was used to assess the compliance on DOTS regimen.

Inclusion criteria:

- Both male and female diagnosed with Tuberculosis
- Tuberculosis patients attended chest OPD and in patient wards at Saveetha Medical College Hospital.
- Tuberculosis patients under continuation phase of DOTS regimen.

Exclusion criteria:

- Patients who are on incomplete treatment
- Patients who are critically ill
- Patients who cannot understand the language (Tamil or English)
- Patients who are not willing to participate in the study

Data collection procedure

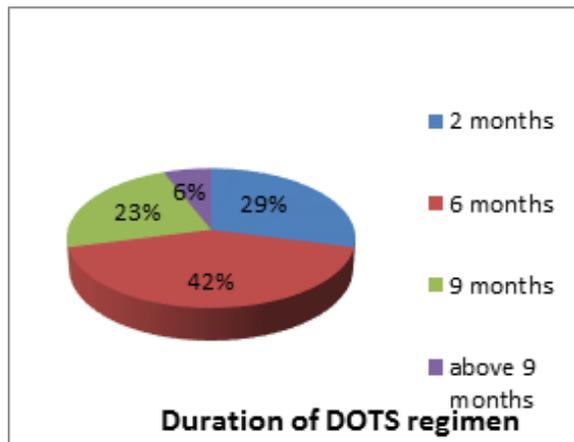
The period of data collection was from 16.02.15 to 27.02.15, after obtaining formal permission from head of department of chest OPD and wards at Saveetha Medical College Hospital saveetha university, Chennai. The necessary permission was obtained from staff in charge. A total of 100 tuberculosis patients were selected for the study by inclusion criteria. Demographic variables were conducted by structured interview and checklist was used to assess the compliance of DOTS regimen. The data were analyzed by using descriptive and inferential statistics

Results

In demographic variables out of 100 Tuberculosis patients 32% are in the age group of 31-40 years, (61%) are Hindu, regarding educational status (36%) are from non formal education, under occupation (50%) are daily wage, (36%) belong to 5001-10,000 monthly family income, (44%) are living in rural area and (69%) have adequate ventilation of the house. In clinical variables

(42%) are below 1 month duration of illness, 6 months duration of DOTS regimen for (42%), (61%) have no family history of tuberculosis, (56%) have family supports from parents, (32%) are within 10km distance of TB centre, (55%) belong to category II of medication, (58%) are from RNTCP centre and (41%) are medications provided by the family members.

Figure I. Presentation of frequency and percentage of duration of DOTS regimen



II. Under description of checklist in personal factors, most of the items rated positively except item no. 5 and 6 for which 44% felt shy coming to TB centre and 37% felt inferior. Under socio-economic factors, among 6 items, item no. 1, 5 and 6 rated positively whereas items 3 and 4 rated negatively, 55% felt that religious belief can cure the disease and 61% prevent them from taking medication during festivals. Under medication factors, out of 11 items, most rated positively, 89% takes Rifampicin tablet regularly before breakfast, 67% has somebody to remind them to take the drugs, Item no. 3 rated negatively for which 38% has interruption in taking medication during travelling. Under organisational factors, all the items rated positively

III. There was no significant association with the demographic variable monthly family income ($X^2 = 8.8$), and was significant with the demographic variables such as age ($X^2 = 0.05$), religion ($X^2 = 0.224$), educational status ($X^2 = 0.35$), occupation ($X^2 = 0.219$), duration of illness ($X^2 = 0.0415$), duration of dots regimen ($X^2 = 1.683$), family history of tuberculosis ($X^2 = 0.007$), family member supports ($X^2 = 0.0646$), place of living ($X^2 = 0.324$), distance of tuberculosis centre ($X^2 = 0.177$), category of medication ($X^2 = 0.023$), and type of tuberculosis centre ($X^2 = 0.097$) at ($p < 0.005$)

Discussion

Mostly the patients are inadequately compliance to DOTS regimen for which these factors showed inadequate compliance of patient. Patients felt shy coming to TB centre, they felt inferior, some believe that religion can cure the disease, travelling interrupt them from taking medications and patients found it difficult to come to TB centre. On the whole, the study confirms the assumption, which was formulated at the beginning of the study and there is inadequate compliance of patients on DOTS regimen.

Implication to Nursing

Nursing education to enable nursing students to know regarding current knowledge about DOTS regimen, and the impact of adherence to the drugs. The nurse administrators in the hospital should develop guidelines for delivering educational package for patients regarding tuberculosis and DOTS regimen. Similar study can be done with large samples, a comparative study can be done between urban and rural population. Similar study can be done at different settings.

Conclusion

Tuberculosis patients can be educated regarding treatment compliance so that relapses can be prevented and moreover psychological problems can be reduced as tuberculosis patients living in the society may experience physical, psychological and social problems because people have many misconceptions and stigma is also attached to this disease. It is required to study the aspects like knowledge of TB clients so that need based information can be provided and get them motivated to get treatment

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