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An exploratory study to assess the knowledge regarding DOT'S therapy among tuberculosis patients attending OPD'S in selected health centres of Pune city

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Abstract

A study was undertaken to assess the knowledge regarding DOT'S Therapy among Tuberculosis patients attending OPD'S in selected health centres of Pune city.

The objective of the study were to assess the knowledge regarding DOT'S Therapy among Tuberculosis patients and to associate the findings with selected demographic variables.

Quantitative approach was chosen for the research study. The research design used for the study was exploratory design. The study consists of 100 samples which were selected by non probability convenient sampling. The study was conducted in two randomly selected Health centres areas of Pune District (Pote DOT'S Clinic Padmavatiand Bibewadi Clinic in Pune City). The data was collected by administering structured questionnaire to 100 participants under study. The questionnaire consists of two parts. Section-1 which deals with demographic data of participant and Section -2 which consist of questions related to knowledge regarding DOT'S Therapy. The validity of the tool was done by 5 experts from various fields of Nursing i.e. Medical and Surgical Nursing, Community Health Nursing and Mental Health Nursing. The reliability of questionnaire was established by the method of test retest method and was found to be 0.793.

In this study it is found that 05% people are showing average knowledge about DOT'S Therapy and 95% peoples are showing good knowledge about DOT'S Therapy. Overall result shows that people are having Good knowledge regarding DOT'S Therapy. In this study TB was Most prevalent in the adults in 20-30 years of age groups. There is no significant association between the selected demographic variables and the knowledge of the patients regarding DOT'S Therapy i.e. age, gender, occupation, education, marital status, duration of DOT'S Therapy and income of the family.

Keywords: tuberculosis, DOT'S therapy, knowledge, health centre's, OPD'S

1. Introduction

"Infectious disease will last as long as humanity itself......"

K. Park

Tuberculosis has been a major cause of death an suffering since incident Mycobacterium. Tuberculosis is most after transmitted by the inhalation route as droplets infections.

Therefore interpreting the transmission of the TB source of considerable importance in control TB. Till the recovery of streptomycin, Isoniazid and paraminosliculic (PAS) in the mid 1940 it was not possible to cure TB. Subsequently, "short course chemotherapy (SCC) becomes available with the introduction of Rifampicin, pyrazinamide and Ethambutol Even through predictable curative drug therapy is available. TB continue to plague mankind. Worldwide TB remains a serious to have been declared, a "global emergency "in 1933 by the world health organisation (WHO) thus it becomes evident that more availability of antituberculosis drug enough to control TB. from a public healthy point the view, irregular, incomplete treatment of TB is more dangerous that no treatment to all when patient fail to complete standard treatment regimen's or receive the

wrong treatment, they continue to remain infectious, may harbour drug resident strain that, DOT'S directly observed therapy. Means that a supervisor watches the client swallowing the medication for all dose over the course of treatment. This ensures that a TB client take the correct dose, and at the correct time DOT'S may be healthy worker a trained and supervisor community member. There must be clearly defined line of accountability between the TB control staff and the person administrating DOT'S. It is important to ensure confidentiality and that DOT acceptable to the patient (WHO) 1977.

The TB report and prevention investment in low and middle income continue fall almost \$ 2.3 billion short of the \$ 9.2 billion needed in 2017. In addition, at least an extra \$ 1.2 billion per year is required to accelerate the development of new vaccine, diagnostic and medicines.

2. Methodology

A non experimental study enrolling the 100 tuberculosis patients of taking DOT'S Therapy was Conducted during the month of 9/01/2018 to 24/01/2018 from the setting. An exploratory design was used to evaluate the knowledge of tuberculosis patients regarding DOT'S Therapy. The sample was selected by using non probability convenient sampling

method. The collected data were analyzed by using descriptive and inferential statistics.

3. Results

Table 1: frequently and percentage distribution of the tuberculosis patients according to their demographic variables. N = 100

Sr.no.	Characteristics	Frequency	Percentage
1.	Age		
	20 -30	43	43%
	31 – 40	39	39%
	41 – 50	18	18%
2.	Gender		
	Male	71	71%
	Female	29	29%
3.	Occupation		
	Home Maker	23	23%
	Job	60	60%
	Business	14	14%
	Other	03	03%
4.	Education		
	Primary	03	03%
	Secondary	41	41%
	Higher Secondary	37	37%
	Graduate	14	14%
	Illiterate	05	05%
5.	Marital Status		
	Single	18	18%
	Married	82	82%
	Divorced	00	00%
	Separated	00	00%
	Widowed	00	00%
6.	Duration of DOT'S Therapy		
	Months	99	99%
	Years	01	01%
7.	Income		
	Upto Rs 10000	39	65%
	Rs 11000 to Rs 20000	20	33%
	Rs 21000 to Rs 30000	01	02%
	Rs 31000 and above	00	00%

The data given in table - 1 shows that majority (43%) of the clients were in the age group of 20 – 30 years. Majority (71%) of the clients were in the Gender of male. Majority (60%) of the clients were doing job. Majority (41%) of the clients were educated upto secondary level. Majority (82%) of the clients were in married. Majority (99%) of the clients were taken DOT'S Therapy in months and Majority (65%) of the clients were in the income ranged upto Rs. 10000.

Table 2: showing overall knowledge score of tuberculosis patients regarding DOT'S Therapy. N = 100

Marks obtained	Number of samples	Percentage
0 – 5 (poor knowledge)	00	00%
6 – 10 (Average knowledge)	05	05%
11 – 15 (Good knowledge)	95	95%

The data represents in table -2 shows that majority of clients (95%) scored between 11 – 15 which was considered as Good knowledge, majority of the clients (05%) scored between 6 – 10 which was considered as Average knowledge and Majority of the clients (00%) scored between 0 – 5 which was considered as poor knowledge.

Table 3: Mean and standard deviation values of knowledge scored regarding DOT'S Therapy.

Sr. No	Categories	Mean N = 1000	Standard deviation N = 100
1.	Identification of knowledge score	12.69	1.5524

The data represents in table -3 shows that the mean and the standard deviation of the total score according to the categories. The mean of the total score is 12.69 and the standard deviation is 1.5524.

Table 4: Association of knowledge score with regarding DOT'S Therapy with selected demographic variables. N = 100

Demographic data	Table value ($x2$)	Chi-square value	P-value
Age	4	1.322	0.9
Gender	1	1.1741	0.1

Occupation	8	3.2521	0.9
Education	6	2.2426	0.99
Marital Status	8	O.24319	0.9
Duration of DOT'S Therapy	8	4.16503	0.1
Income	2	4.2768	0.9

The data represents in table -4 shows that the t-value of the selected demographic variables are smaller than t – value which shows that is no association between the selected demographic variables and knowledge of tuberculosis patients regarding DOT'S Therapy.

4. Discussion
A study was conducted for two randomly selected Health centres areas of Pune District with objectives to assess the knowledge regarding DOT'S Therapy among Tuberculosis patients. This study was conducted among 100 TB patients registered for treatment with DOT'S Therapy during the year 2017 and 2018. Results: The study showed that (95%) of samples had good knowledge regarding DOT'S Therapy. Only (05%) samples had the average knowledge regarding DOT'S Therapy. In this study TB was Most prevalent in the adults in the 20 – 30 years of age groups. The study an almost number of male participants is (71%) and female participants (29%) in this study most participants (41%) secondary education was highest level of education attained followed by higher secondary education.

A study was conducted in combodia to describe the implementation of DOT'S program. The WHO recommended strategy was implemented in a phase manner throughout the country. The study revealed that two and a half year after the start of the programmed DOT'S was implemented in 85% of all the public hospital and case detection rate has reached 127 smear positive cases and 149 PTB all from per 100000. 90% patients received DOT'S. 89% were cured or completed treatment 5% defaulted. The study concluded that DOT'S strategy was successful in treatment of patients

5. Conclusion
Majority of the participants had good knowledge regarding DOT'S Therapy there is an essential need for further education, Knowledge, regular check -up, sputum test and vaccine for such personnel would be required.

6. Recommendations
- Similar study can be undertaken for larger so that result can be generalized.
- The same study can be done with an Experimental research approach having a control group.

7. References
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