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Knowledge of Tuberculosis: A Survey Among Tuberculosis Patients at Tertiary Health Care Center in Pune City.

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ABSTRACT

It is crucial that basic knowledge about the tuberculosis and availability of treatment should be known to members of community to prevent any undue delay in availing the service. The present study attempted to understand the knowledge of tuberculosis and its treatment among tuberculosis patients at tertiary health care center in Pune City. A cross sectional study was conducted at outer patient pulmonary clinic of one of the randomly selected tertiary health care hospitals of Pune City. A total of 300 tuberculosis patients were interviewed. A pretested questionnaire form was completed by face to face interview. The data was entered in Microsoft office excel sheet and analyzed. The study revealed inadequacies in the knowledge of tuberculosis amongst patients particularly about side effects of drugs ($\chi 2 = 58.9$, $df = 1$, $p < 0.001$). The combined use of methodologies should be encouraged to deliver health education about various aspects of tuberculosis

KEYWORDS: knowledge, patients, tuberculosis

Introduction

India is the highest TB burden country in the world and accounts for nearly one fifth (20%) of global burden of tuberculosis (Kishore J., 2011). Every year approximately 1.8 million persons develop tuberculosis of which about 8, 000, 00 are infectious and until recently 3, 70, 000 cases died of it annually-1000 every day. In India, today two deaths occur every three minutes from tuberculosis but these deaths can be prevented (Kishore J., 2011).

The National Tuberculosis Control Programme (NTCP) was reviewed in India in 1992 and Revised National Tuberculosis Control Programme (RNTCP) was drawn and formally launched in March 1997 with phased coverage in various states throughout India. (Sunderlal, 2009)

DOTS has been identified as one of the most effective strategies for treating tuberculosis infections and it has been documented to be effective worldwide on a programme basis. (Park K., 2009).The DOTS strategy relies greatly on passive case finding for Tuberculosis treatment and it's success depends on the patient's health awareness, ability to recognize early signs and symptoms and accessibility to health services for immediate self reporting.(F.Karim et al., 2011).

It is of paramount importance that basic knowledge about the tuberculosis and availability of treatment should be known to members of community to prevent any undue delay in availing the service. It is well acclaimed that the perceptions regarding tuberculosis amongst community influence the health seeking behaviour of people for their symptoms.

The present study attempted to understand the knowledge of tuberculosis and it's treatment among tuberculosis patients at tertiary health care center in Pune City.

Objective

To assess the knowledge about various aspects of tuberculosis among patients attending tertiary health care centre in Pune City.

Material and Methods

A cross sectional study was conducted at the outer patient pulmonary clinic of one of the randomly selected tertiary health care hospitals of Pune City. A total of 300 tuberculosis patients who were put on DOTS therapy were interviewed between the period of 1st March 2009 to 30th May 2009. All paediatric tuberculosis patients were excluded from study.

A pretested structured questionnaire form was designed which was completed by face to -face interview after obtaining informed consent from the patients.

The questionnaire consisted of two sections: Section one, dealing with patient background characteristics (age, sex, residence, educational level, previous history of treatment with anti-TB chemotherapy, type of health facilities attended and type of TB).Section two was related with patients' knowledge through basic questions about the disease and its treatment like symptoms of TB, mode of spread of TB, treatment regimen, type and colour of prescribed drugs, importance of intensive phase, side effects of drugs etc.

The marking system for each complete question was assigned. The data was entered in Microsoft office excel sheet and analyzed.

Results and Discussion

In present study, of 300 patients, 216 were males and 84 were females patients. The probable reasons for over-presentation of males as compared to females may be due to the facts that males have fairly large number of contacts due to more outdoor activities. Majority of patients (89%) were from economically productive age group i.e. age bracket of 21 – 40 years.

Out of three categories, 186 (62%) patients belonged to category I, 78(26%) belonged to category II and only 36(12%) patients were from category III.

Table 1: Knowledge of Patients about Transmission and Symptoms of Tuberculosis (n =300)

Question	No. of patients with correct response	Percentage of patients with correct response	p value
Do you know the symptoms of tuberculosis?	43	14.3	< 0.001
How do acquire TB infection?	77	25.6	< 0.001

Out of 300 patients, 33(11%) could not answer correctly while 224(74.7) patients were knowing only 1-2 symptoms. The difference was statistically significant, ($\chi 2 = 231.1$, $df = 2$, $p < 0.001$).The study done by foundation for research in community health by Mukund Uplekar et.al (1996) in Pune district showed that 79 % of patients listed cough as symptom of tuberculosis,48% of them listed weakness , 23% of them opted for weight loss and 21% of patients stated fever as a symptom of tuberculosis.

The study conducted by Action Aid India (1998) showed 80% stated cough as a symptom of TB, 69% of them listed blood in sputum followed by 57% as chest pain and fever by 44% as main symptoms of tuberculosis.

The table 1 shows that when asked about mode of spread of tuberculosis, 25.6% of patients answered correctly and 74.4% either answered incorrectly or were not knowing regarding the mode of transmission of TB. The difference was statistically significant. ($\chi 2 = 70.01$, $df = 1$, $p < 0.001$).

In comparison with present study, high level of knowledge of patients was observed in study conducted in Sudan (Mohamed A.I.et.al, 2007) where 402(40.4%) of patients were aware that tuberculosis is airborne disease.

Table 2: Knowledge of Patients about tuberculosis treatment (DOTS). (n =300)

Question	No. of patients with correct response	Percentage of patients with correct response	p value
What is the colour of prescribed drugs?	262	87.3	< 0.001
How many tablets you are consuming in a day?	227	75.7	< 0.001
What is the total treatment schedule of the drugs to be taken?	238	79.3	< 0.001
What are the side effects of drugs	83	27.7	< 0.001
What you will do if you experience side effects?	173	57.7	< 0.05

Around 12% of patients were not knowing regarding colour of tablets i.e. red and white. More than two third (87%) of patients answered correctly regarding colour of tablets. The difference was found to be statistically significant ($\chi2 = 165.7$, df = 1, $p < 0.001$).

The table 2 shows that 79.3% of patients rightly said about schedule of treatment i.e. either 6 months or 8 months. The remaining 20.7% of patients were unaware of treatment schedule. The difference was statistically significant. ($\chi2 = 102.1$, df = 1, $p < 0.001$). Mukund Uplekar and Sheela Rangan (1996) revealed that tuberculosis patients when asked about duration of treatment, 64% of them gave correct response, 27% gave incorrect response and 9% of patients were not knowing the duration of treatment of tuberculosis.

This study showed less knowledge about the duration of treatment in TB patients (64%) as compared to present study (79.3%).This may be due to strengthening of ACSM (Advocacy, Communication and Social mobilization) component under RNTCP programme. The knowledge about duration of TB treatment was found to be less in study conducted by Mohamad A.I. et. al (2007) where only 48.2% of patients knew about correct duration of TB treatment.

The present study reported that more than half of patients i.e.72.3% could not tell common side effects of DOTS medicines. The difference was found to be statistically significant

($\chi2 = 58.9$, df = 1, $p < 0.001$).

All 300 (100%) patients were aware that DOTS treatment is free of cost. The majority of patients i.e.85% stated that DOTS therapy was convenient for them while 45 (15%) said that it was not convenient for them.

Conclusion and Recommendations

The study revealed inadequacies in the knowledge of tuberculosis amongst patients. Their ability to acquire basic knowledge about tuberculosis and it's treatment has important public health implications.

The combined use of methodologies like role play, demonstration, question- answer session, Socratic method of communication, setting up various examples film show, printed handouts, Posters, Group Discussion etc.should be encouraged to deliver health education about various aspects of tuberculosis. Sustained training of the health care providers to strengthen their scientific knowledge about tuberculosis is crucial for educating patients.

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