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## A Study of Sociodemographic Profile, Awareness and Knowledge about Tuberculosis in Patients of Tuberculosis at Dots Centre

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### ABSTRACT

**Introduction:** Tuberculosis (TB) is an infectious disease caused by *Mycobacterium Tuberculosis*, is the second leading infectious cause of death in world. The study was carried out in the DOTS centre in Coimbatore region. **Material and Methods:** It was a cross – sectional observational, descriptive epidemiological study. This study was a humble effort to throw light on sociodemographic profile, knowledge and awareness regarding TB among patients with TB. **Results and Discussion:** A total of 300 patients were included in the study. Majority of the cases (31.66%) belongs to the age groups of 21-40 years. Out of 300 patients, 223 (74.33%) of patients had aware on the aetiology of tuberculosis. Most of the patients 210 (70.00%) were aware of fact that Tuberculosis could be transmitted from one person to another person via coughing and close contact. About 196 (65.33%) of patients had the knowledge about the importance of BCG vaccine for Tuberculosis. **Conclusion:** Apart from pharmacological treatment, poor knowledge of TB among patients on TB also needs great attention.

**Key words:** Tuberculosis, Knowledge of TB, RNTCP, Transmission.

### 1. INTRODUCTION

Tuberculosis is the first infectious disease reported by the world health organisation as a global threat to health. According to the experts in world health organisation every other person in the world is infected with tuberculosis and 5% of them will develop the disease in the next 5 years, unless they are diagnosed and properly treated.

A case of untreated smear positive TB can infect up to 15 people annually and more than 20 people during the natural course of untreated disease. The basic ways of setting control of tuberculosis are early diagnosis of the infected and bacillus secretors, adequate treatment, regular BCG vaccination, as well as raising health awareness and knowledge of the disease.

The revised national tuberculosis control programme (RNTCP), based on the internationally recommended directly observed treatment short course (DOTS) strategy, was launched in 1997 and achieved a nation wide coverage by march 2006. The RNTCP provides free diagnostic services and treatment to benefit the poor and vulnerable groups of society.

Few studies conducted to know about the awareness of TB found that awareness and knowledge vary from place to place. A study regarding awareness about TB conducted in Surat, a region in south gujarat, India, showed 80% people know about symptoms of TB. Another study conducted by Indian chest society showed that 84% subjects were aware of the free treatment available for TB under national program. This study was a humble effort to throw light on sociodemographic profile, knowledge and awareness regarding TB among patients with TB.

## 2. MATERIALS AND METHODS

The study was carried out in the DOTS Centre in Coimbatore region. It was a cross-sectional observational, descriptive epidemiological study. The study was carried out from July 2015 to December 2016. Patients were interviewed at a time when they visited out patients department. Patients were informed about the purpose of the study and their informed written consent was taken and then they were asked questions regarding knowledge and awareness about TB. The data such as demographic details such as name, age, sex, literacy, mode of transmission, etiology and prevention of TB was prepared as study tool and tested. Patient were categorized to receive category I DOTS for newly detected cases and category II DOTS for patients who were previously treated.

### 2.1 Inclusion Criteria

- Include patient's different age group and gender proven cases of PTB and EPTB.
- Associated with or without Acid Fast Bacilli positivity.
- Patients with HIV & AIDS

### 2.2 Exclusion Criteria

- Not willing to participate.
- Patients know case of cancer.

### 2.3 Statistical Analysis

- The data was analyzed using SPSS version 20 software chi-square test were used for compared proportions.

## 3. RESULTS

### 3.1 Distribution of patient according to their socio demographic profile

A total of 300 patients were included in the study. The patients are divided in to four groups viz 0-20 years, 21-40 years, 41-60 years, and above 60 years. Majority of the cases (31.66%) belongs to the age groups of 21-40 years.

Out of total 300 patients, in which females 145 (48.33%) were found to be having a slightly lesser number of incidences than males 155 (51.66%) in the ratio of 1:1.06.

### 3.2 Distribution of patient according to knowledge and awareness about TB

Most of the patients 210 (70.00%) were aware of fact that Tuberculosis could be transmitted from one person to another person via coughing and close contact. 52 (17.33%) of patients were believe that food and water is mode of transmission. Only 11 (03.66%) were unaware about mode of transmission.

Out of 300 patients, 223 (74.33%) of patients had aware on the etiology of tuberculosis, 45 (15.30%) of patients were believe that virus is the causative agent and 32(10.66%) of patients have no knowledge about the cause of the disease.

Most of the patients believed that tuberculosis is preventable disease. Out of 300 patients, 172 (57.33%) of patients stated covering mouth and proper disposal of sputum are the commonest precaution for preventing the disease, followed by 58 (19.33%) of patients BCG vaccine and clean environment and 48 (14.66%) of patients clean environment and separate utensils & food

About 196 (65.33%) of patients had the knowledge about the importance of BCG vaccine for Tuberculosis, and remaining 104 (34.66%) of patients are unaware about its importance in prevention of TB disease but, most of them heard about this vaccine.

## 4. DISCUSSION

Knowledge and awareness regarding various aspects of tuberculosis are very important among the masses to curb it. The mass survey carried out by health government of India reported poor level of awareness among disadvantaged section of the society.

In this study, most of the patients 210 (70.00%) were aware of fact that tuberculosis could be transmitted from one person to another person via coughing and close contact. Only 11 (3.60%) were unaware about mode of transmission. In study conducted by Ehtisham Ahmad et al., revealed that about half of the study subjects were unaware the mode of spread.

Out of 300 patients, 223 (74.33%) of patients had aware on the etiology of tuberculosis. A study done by Ehtisham Ahmad et al., 47.70% patients attributed to correct etiology of the disease.

About 196 (65.33%) of patients had knowledge about the importance of BCG vaccine for tuberculosis. A study done by Madu Vidhani et al., only 9.1% of patients knew that tuberculosis can be prevented by BCG vaccine. Thus mass media and IEC activities should continue to provide the awareness regarding BCG vaccine and other vaccine for preventable disease.

## 5. CONCLUSION

Apart from pharmacological treatment, poor knowledge of TB among patients on TB also needs great attention. Health education session on TB should be tailored according to the sociodemographic characteristics of the population with special focus on young age group, illiterate and poor people. Therefore as a medical practitioner and health care service provider, it is

essential to have full knowledge and positive attitude regarding tuberculosis.

## CONFLICT OF INTEREST

The authors declare that there is no conflict of interests regarding the publication of this paper.

Table 1. Age wise distribution

S. No.	Age Group (Years)	No. of Patients (N=300)	Percentage (%)
1	0-20	60	20.01%
2	21-40	95	31.66%
3	41-60	80	26.66%
4	Above 60	65	21.66%

Table 2. Gender wise distribution

S. No.	Gender	Number of Patients (300)
1	Males	155 (51.66%)
2	Females	145 (48.33%)

Table 3. Residence wise distribution

S. No.	Residence	Number of Patient (300)	Percentage (%)
1	Rural	224	74.67%
2	Urban	76	25.33%

Table 4. Education wise distribution

S. No.	Education	Number of Patient (300)	Percentage (%)
1	Illiterate	85	28.33%
2	School Level	124	41.33%
3	Degree Level	91	30.33%

Table 5. Awareness regarding mode of transmission

S. No.	Mode Of Transmission	Number of Patients (N=300)	Percentage (%)
1	Coughing & Close Contact	210	70.00%
2	Food & Water	52	17.33%
3	Public Area	14	04.66%
4	All The Above Modes	13	04.33%
5	Unaware	11	03.66%

Table 6. Awareness about etiology of TB disease

S. No.	Causes	Number of Patients (N=300)	Percentage (%)
1	Bacteria	223	74.33%
2	Virus	45	15.30%
3	Unaware	32	10.66%

Table 7. Knowledge regarding prevention of disease

S. No.	Prevention Methods	Number of Patients (N=300)	Percentage ( %)
1	Covering mouth and proper disposal of sputum	172	57.33%
2	BCG vaccine and clean environment	58	19.33%
3	clean environment and separate utensils & food	44	14.66%
4	Only BCG vaccine	15	05.00%
5	Only covering the mouth	11	03.66%

Table 8. Awareness about importance of BCG vaccination

Awareness	Number of patients (N=300)	Percentage (%)
Known	196	65.33%
Unknown	104	34.66%

## REFERENCES

1. World Health Organization. Media Centre. Tuberculosis Fact Sheet No. 104. Available at: <http://www.who.int/mediacentre/factsheets/fs104/en/index.html> (last accessed on January 13, 2014).
2. TB Facts.org. Information about Tuberculosis. TB Statistics for INDIA: TB Facts under RNTCP. Available at: <http://www.tbfacts.Org/tb-statistics-india.html> (last accessed on April 4, 2014).
3. Vidhani M, Vadgama P. A study among patient taking treatment of TB in rural area of Surat in Gujarat. *Natl J Med Res* 2012; 2(4):452–55.
4. Chinnakali P, Ramakrishnan J, Vasudevan K, Gurumurthy J, Upadhyay RP, Panigrahi KC. Level of awareness about TB in urban slums: implications for advocacy and communication strategy planning in the National Program. *Lung India* 2013; 30(2):139–42.
5. Matta S, Singh D, Bhala S, Rasanias S, Singh S, Sachdev TR. A study on knowledge and family attitude of patient's regarding pulmonary TB attending the DOTS center of Safdarjung hospital of New Delhi. *Indian J Prev Soc Med* 2005; 36:16–20
6. IEC Baseline Survey: Central TB Division, 2007. Report Compilation. New Delhi: New Concept Information Systems.
7. Ehtisham A, Khalil S, et al., A study of Knowledge and Awareness regarding Pulmonary tuberculosis in patients under treatment for Tuberculosis in a rural area of Aligarh – UP,1-10