

## Original Article

# Knowledge, Attitude and Practices Regarding Tuberculosis among adult Residents of Urban Field Practice Area of Shri B M Patil Medical College, Vijayapura

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**Background :** Tuberculosis (TB) remains a severe public health burden across the globe, including India. India alone accounts for approximately 24% of all incidents TB cases globally. According to a recent WHO report, approximately one million deaths occur due to TB every year globally, of which 0.24 million were Indians. A high awareness of Tuberculosis (TB) is very important for its prevention and control in the community.

**Aims and Objective :** To study the Knowledge, Attitude and Practices regarding TB among adults of urban field practice area.

**Materials and Methods :** A cross-sectional study was conducted among adult residents of urban field practice area of Vijayapura. The information was collected about Knowledge, Attitude and Practices regarding TB (its signs and symptoms, mode of spread, cause, investigations, treatment and prevention) among adults. Chi-square test was applied to study the effect of socio-demographic characteristics on KAP regarding TB.

**Results :** A total of 390 subjects were interviewed for the survey. About 28.46% of the subjects were in the age group 19-28 years. The median age of the study subjects was 42 (SD±14) years. Of these, 170 (43%) were male subjects and 220 (56%) were female. Based on the knowledge variables, 31.28% felt that pollution is the cause followed by 22.56% ascertained the cause to habits like Smoking and Tobacco use. About 16.67% said bacteria can cause TB and 11.54% did not have any knowledge about the cause of TB. About 60.52% of the patients said that TB is a very serious disease and 3.33% said that they did not know about the seriousness of the disease.

**Conclusion :** The study participants had good knowledge of TB but there were several misconceptions regarding its cause. Community-based awareness programs on TB need to be increased among residence of urban field practice area.

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**Key words :** Knowledge, Attitude, Practice, Tuberculosis, Urban Community.

**T**uberculosis (TB) is a very ancient disease; its description has been found in Buddhist and Chinese writings. Even Egyptian mummies as old as 500 BC show evidence of a man suffering from TB. In India, it is known by many names as 'Kshaya Rog,' Tapedik, and Rajayaakhsma, whereas in the Western world, it is known as Phthisis, Roman as Tabes and Greek as consumption<sup>1</sup>.

Tuberculosis is one of the leading global focuses of infectious disease. As per the statistics by the World Health Organization in the year 2017, the incidence of TB was approximately 10 million people, with a mortality of 1.6 million. India accounts for 27% of the incidence and 29% of the mortality. The Government of India (GOI) has attempted to control TB for the past five decades with significant advances<sup>2</sup>. More recently,

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### Editor's Comment :

- The study highlights that while participants generally have a good understanding and attitude towards TB, there is a significant gap in their knowledge about its causes and preventive measures.
- Despite government initiatives like free treatment and the DOTS program, awareness of these resources is low. To address this, both the government and the healthcare community need to enhance efforts in spreading TB knowledge, especially through better utilization of mass media.
- Improving public awareness about TB symptoms and the importance of early diagnosis and treatment is crucial for effective disease control.

GOI has declared TB as one of the infections of national interest and planned to eliminate TB before 2025<sup>3</sup>.

Numerous lifestyle determinants, such as patient compliance, patient attitude, standard of living, quality of life, healthcare delivery and policies, contribute to the festering of this disease. These need to be improved in developing countries. The knowledge of the patient, his attitude toward the disease and compliance with treatment are critical factors in the management of

the disease. India is one of the major TB-affected countries of the World with prevalence rates of 211 per 10000 population and incidence rates of 171 per 10,000 populations per year<sup>4</sup>.

Ending the TB epidemic by 2030 is one of the sustainable development goals. Countries, mostly high TB burden areas, must be on track to meet this sustainable development goal<sup>5</sup>. Awareness of individual impacts of TB transmission and early screenings for TB could help to end TB<sup>6</sup>. Factors contributing to the progression of latent TB to active TB were :

- Poor nutritional status.
- Smoking.
- HIV infection.
- Re-infection, which could increase the load of the bacilli.
- Poor socio-economic status<sup>7</sup>.

Individuals with a low economic class, having no access to health facilities and lack knowledge about the disease as well as a mode of transmission were determinants for contracting the disease. Individual attitude is also crucial in the control of Tuberculosis transmission<sup>8</sup>.

In such a community where TB, a highly communicable infectious disease, is so prevalent and where the social stigma attached to the same is so high, the knowledge, attitude and practice of a TB patient gain tremendous importance. This study is, therefore, directed toward evaluating the patient's understanding and subsequent response to the disease and treatment. This will give us an insight into why TB, even after being preventable and curable, is still the second most common cause of death attributable to infectious disease.

#### MATERIALS AND METHODS

A community-based cross-sectional study was conducted among adults aged 19 years and above in the urban field practice area Chandabowdi, under the Department of Community Medicine, Shri B M Patil Medical College, Vijayapura. The study period was from June, 2021 to December, 2021. Based on the assumption of a 95% confidence interval, 5% margin of error and the proportion of awareness about TB 54.4%<sup>9</sup>, a total sample of 390 was needed.

After obtaining informed oral consent from the study subject, a pre-tested and pre-structured questionnaire was used to record data. Individuals who stayed as guests in the selected households, those who were <19 years of age, not willing to participate and who had chronic illnesses were excluded from the study. The information obtained from patients included socio-demographic characteristics, knowledge regarding TB,

including its signs and symptoms, mode of spread, cause, investigations and treatment, prevention methods and choice of treatment facilities for TB. Before starting the interview, each respondent was explained in brief about the need and purpose of the study. The importance of their cooperation for the study's success and possible benefits to the community through its findings were emphasized. The Institutional Ethical Committee approved the study protocol and questionnaire. Data were entered and analyzed using SPSS.

#### RESULT

A total of 390 subjects were interviewed for the survey. 28.46% of the subjects were in the age group 19-28 years and only 23.59% of the subjects were in the age group > 60 years. The median age of the study subjects was 42 (SD±14) years. Out of these, 170 (44%) were male subjects and 220 (56%) were female. Majority of the study subjects were married 72.31% and 14.10% of the study participants were Divorced/separate/widowed. About 39.49% were illiterates whereas among literates 25.90% studied up to primary school and 7.17% were graduates and postgraduates. In our study, 24.1% were professional, doing business and working as clerks. 21.02 were unskilled workers and only 13.59% was skilled workers and remaining 22.57% were home maker, 18.72% were unemployed (Tables 1&2).

Table 1 — *Socio-demographic characteristics of the Participants (n=390)*

Variables	Frequency	Percentage	
Age	19-28	111	28.46
	29-38	76	19.50
	39-48	62	15.90
	49-58	49	12.56
	Above 60	92	23.59
Gender	Male	170	43.59
	Female	220	56.41
Marital status	Married	282	72.31
	Unmarried	53	13.59
	Divorced/separate/ widowed	55	14.10
Education	Illiterate	154	39.49
	Primary	101	25.90
	Secondary	68	17.44
	Higher secondary	39	10.0
	Graduate	18	4.62
Occupation	Postgraduate	10	2.55
	Professional	18	4.61
	Clerk	31	7.95
	Business	45	11.54
	Skilled workers	53	13.59
	Unskilled workers	82	21.02
	Unemployed	73	18.72
Homemaker	88	22.57	

Table 2 — Knowledge about the cause, symptoms, spread and treatment of Tuberculosis (n=390)

Knowledge variables	Frequency	Percentage
<b>Cause of TB :</b>		
Bacteria	65	16.67
Habits like smoking/ tobacco use	88	22.56
Pollution	122	31.28
Shortage of food	70	17.95
Don't know	45	11.54
<b>Symptoms of TB* :</b>		
Cough	200	51.33
Weight loss	169	43.34
Loss of appetite	117	30.00
Fever	146	37.33
Don't know	31	8.00
<b>Spread from human to human :</b>		
Yes	228	58.46
No	162	41.54
<b>Treatment of TB :</b>		
Medicines given by health institutions	294	75.38
Herbal medicines	26	6.67
Religious methods	13	3.34
Self-treatment	21	5.38
Don't know	36	9.23

\*Multiple answers

Based on the knowledge variables, 31.28% felt that pollution is the cause followed by 22.56% ascertained the cause to habits like smoking and tobacco use. About 16.67% said bacteria can cause TB and 11.54% did not have any knowledge about the cause of TB. About 51.33% said that symptoms of TB were cough, 43.34% said it was weight loss, 30% said it was loss of appetite, 37.33% said that it was fever and about 8% did not have any idea of the symptoms of TB. About 58.46% believed that it spreads from person to person and 41.54 people who said it not spread by person to person. About the treatment of TB, 75.38% medicines given by health institutions will work better followed by 6.67% said herbal medicines will help in treatment of TB. About 3.34% said religious methods and 5.38% said self-treatment will help. About 9.23% said they had no knowledge of the treatment of TB.

About 60.52% of the patients said that TB is a very serious disease and 3.33% said that they did not know about the seriousness of the disease. About 44.62% said they will help the patient of TB is taking care, 9.49% expressed abandonment, 12.56% was afraid of infection and 17.95% had compassion towards the patients with TB (Table 3).

About 55.38% said they would go to doctor to seek advice if had tuberculosis, 11.28% said they will ask a family member, 14.67% will ask friends and 8% shall ask others. About 45.90% expressed that if they get diagnosed with TB, they will go to health facility and get treated. About 29.33% said they will go to pharmacy, 14.10% said will go to traditional healers

Table 3 — Attitude of the subjects towards tuberculosis (n=390)

Attitude variables	Frequency	Percentage
<b>How serious is the disease?</b>		
Very serious	236	60.52
Somewhat serious	86	22.05
Not very serious	55	14.10
Don't know	13	3.33
<b>Feeling towards the patient with TB</b>		
Helping him or her out	174	44.62
Abandonment	37	9.49
Avoid meeting them	60	15.38
Fear of infection	49	12.56
Compassion	70	17.95
<b>Reaction if diagnosed with TB</b>		
Fear	221	56.67
Hopelessness	117	30.00
Don't know	52	13.33

and 6.15% said they did not know where they should be going if diagnosed with this disease. About 53.85% said the community will treat the patient with rejection, 22.82% will react with compassion and 13.33% said they shall support them throughout the course to make him feel better (Table 4).

## DISCUSSION

Study showed that the Community is familiar about Tuberculosis as a disease as around 89% of the participants have heard about TB. This is similar to the study done in Ethiopia by Tolossa, *et al* where 94.9% were aware of the disease and a study in Tamil Nâdu by Chinnakali, *et al* where 94% have heard about the disease<sup>9,10</sup>. About 31.28% felt that pollution is the cause followed by 22.56% ascertained the cause to habits like smoking and tobacco use. About 16.67% said bacteria can cause TB and 11.54% did not have any knowledge about the cause of TB. However, with earlier studies in Somali region Melaku, *et al*, Deribew,

Table 4 — Practice of the subjects towards tuberculosis (n=390)

Practice	Frequency	Percentage
<b>From whom you would take advice if had tuberculosis</b>		
Doctor	216	55.38
Family member	44	11.28
Friends	57	14.67
Others	31	8.00
Don't know	42	10.67
<b>If diagnosed with TB, where will you seek medical help?</b>		
Self-treatment	18	4.62
Go to health facility	179	45.90
Go to pharmacy	114	29.23
Traditional healers	55	14.10
Don't know	24	6.15
<b>Behaviour to the community towards the people with TB</b>		
Rejection	210	53.85
Compassion and pity	89	22.82
Support	52	13.33
Don't know	39	10.00

*et al*,<sup>11,12</sup> respondents had limited information concerning 50.91% bacteria as a causative agent of TB. Instead, most of them perceived mainly 2.73% cold air or 36.36% smoking and chewing, 6.36% shortage of food, as the cause of TB, which is similar with other studies.

Poor awareness regarding aetiology of the disease may have a negative impact on patients' attitude towards health-seeking behaviour and preventive methods as most people with such beliefs may not visit health facilities or they may consider various traditional alternatives. About 51.33% said that symptoms of TB were cough, 43.34% said it was weight loss, 30% said it was loss of appetite, 37.33% said that it was fever and about 8% did not have any idea of the symptoms of TB. Regarding the awareness on TB symptoms, 62.3% reported cough as the main symptom. In a study done by Konda SG in an urban township in Mumbai, 48.4% of the subjects, and in the study by Chinnakali, *et al* in Puducherry, 82% of the subjects and in the study by Tolossa, *et al* in Ethiopia, 72.4% of the subjects mentioned persistent cough as the most common symptom<sup>9,10,13</sup>.

About 60.52% of the patients said that TB is a very serious disease and 3.33% said that they did not know about the seriousness of the disease. Whereas the Ethiopian study reported that 55.4% of the respondent's considered TB as a very serious Disease<sup>9</sup>. About 55.38% said they would go to doctor to seek advice if had Tuberculosis, 11.28% said they will ask a family member, 14.67% will ask friends and 8% shall ask others. About 45.90% expressed that if they get diagnosed with TB they will go to health facility and get treated. Which is consistent with the finding of a previous study from Eastern Ethiopia Jango Bati, *et al*<sup>14</sup>.

### CONCLUSION

The study concluded that study participants had good knowledge and attitude towards TB. But this knowledge is not effectively seen in explaining the cause of TB and effective preventive mechanisms of TB. With a variety of initiatives taken by the government such as providing free treatment and DOTS program, it is equally surprising as well as disappointing to find out that most of the people are not aware of the very existence of those. Every effort should be taken by not only the Government but also the healthcare community in spreading the knowledge about TB. Currently, mass media such as Television, Newspapers, Radio, etc, are not being adequately utilized. Making use of these forms of communication would go a long way in making the people more aware

about the symptoms of TB. This will lead to an active involvement of the general population in the control of the disease with early diagnosis and treatment. We feel that the only way to tackle this problem currently is to improve the knowledge regarding TB in general and the importance of initiation of early treatment.

**Ethical clearance :** Taken

**Source(s) of support :** Nil

**Conflicting Interest :** Nil

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