Original Research Article

Knowledge, attitude and practices regarding tuberculosis among patients with TB attending tribal health care centres of H.D. Kote taluq, Mysuru district

Prakash Boralingiah^{1*}, Dennis Chauhan²

¹Department of Community Medicine, JSS Medical College, Jagadguru Sri Shivarathreeshwara University, Mysuru, India

²Department of Community Health Activities, Swami Vivekananda Youth Movement, Saragur, H.D. Kote Taluk, Karnataka, India

Received: 17 October 2017

Revised: 13 November 2017

Accepted: 14 November 2017

*Correspondence:

Dr. Prakash Boralingiah,

E-mail: prakashdr90@yahoo.com

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ABSTRACT

Background: Tuberculosis is a major global health problem. The current global picture of tuberculosis shows continued progress but not fast enough. During the year 2013, an estimated 9 million people developed tuberculosis, which is equivalent to 126 cases per 100000 populations. High mortality rate due to TB among tribal clearly suggest the lack of awareness regarding the disease. The objective of the study was to assess the knowledge, attitude and practices of tribal patients regarding tuberculosis.

Methods: A community based retrospective and prospective follow up study was undertaken during February 2014 to October 2014. All the patients attending VMH, Sargur and H.D. Kote Govt hospital who are diagnosed for TB in past three months and those who will be diagnosed for the same in the next 6 months were included for the study. A pretested structured questionnaire was used for data collection. Data collected was entered in Microsoft excel sheet and analyzed by using SPSS-22.0.

Results: 6.3% of study subjects knew TB was caused by bacteria or some germs. Majority responded that TB was caused due to smoking, alcohol consumption, not taking food or sins of the past. 88% knew the symptoms of TB. 16% of the study subjects knew the organs affected by TB. More than half (66%) had unsatisfactory knowledge on TB on using a Knowledge score. 78.1% agreed that completely cured TB patients could marry.

Conclusions: The present study highlights the lack of awareness among the tribal patients even though they receive the treatment from DOTS provider. Social stigma regarding TB is a barrier in successful implementation of RNTCP. Creating awareness through specific, effective and innovative IEC and BCC campaigns in tribal areas is required for the successful implementation of DOTS.

Keywords: Knowledge, Attitude, Practices, Tribal

INTRODUCTION

Tuberculosis is a major global health problem. The current global picture of tuberculosis shows continued progress but not fast enough. During the year 2013, an

estimated 9 million people developed tuberculosis, which is equivalent to 126 cases per 100000 populations. Most of the cases were from Asia (56%) and African regions (29%).¹ In India incidence per lakh population has reduced from 216 in 1990 to 171 in 2013. TB mortality

has reduced from 38 per lakh population in 1990 to 19 in 2013.² The South East Asia Region (SEAR) accounts for 39% of global burden in terms of incidence and India alone accounts for 24% of world's TB cases.³ High mortality rate among tribal clearly suggest the lack of awareness among tribal people regarding the disease. Factors which contribute to patient's adherence to treatment and its outcome are numerous and it is important to identify and address these factors.⁴ High mortality rate among tribal because of TB clearly suggests the lack of awareness among tribal people regarding the disease.⁵ Many of the cultural and socioeconomic factors among tribal population will determine the health seeking behaviour and treatment outcomes in relation to TB. Hence the present study is undertaken with the objective of assessing knowledge, attitude and practices among patients of TB in tribal area.

Objective

To assess the knowledge, attitude and practices of tribal patients regarding tuberculosis

METHODS

A community based Retrospective and Prospective follow up study was carried out during the period

February 2014 to October 2014 at Govt. hospital H.D. Kote and VMH, Sargur of H.D. Kote taluq. Approval was obtained from the ethics committee of JSS Medical College, Mysore and VMH, Sargur for conducting the study. Required permission was obtained from the concerned authorities of the hospitals. All the patients attending VMH, Sargur and H.D. Kote govt hospital who are diagnosed for TB in past three months and those who will be diagnosed for the same in the next 6 months and gave consent for participating in the study were included as study subjects. Serious and terminal patients were excluded from the study. Eligible cases were identified from the TB registers at H.D. Kote Govt. Hospital (TU) and VMH (TU). A pretested structured questionnaire was used to collect the information. The study subjects were interviewed either by house visit or by doing the field visit to the place of work. Data thus obtained was coded and entered into Microsoft excel and analyzed using SPSS version 22.

RESULTS

Table 1 shows that majority of the study population were from Jenukuruba community, comprising of 68.7% of the study population. Most of the study subjects were in between the age group of 16 to 30 yrs, accounting for 78% of the study population. 53% of the study subjects were males, 43.8% were illiterates.

Table 1: Socio-demographic profile of patients.

Sl No	Details	Number	Percentage (%)
1	Sex	Male	53.1
		Female	46.9
2	Age	16-30Yrs	78.1
		31-60 Yrs	21.9
3	Education	Illiterate	43.8
		Primary school	28.1
		Middle school	15.6
		Secondary	12.5
4	Tribal category	Jenu kuruba	68.8
		Kadu Kuruba	6.3
		Yerava	12.5
		Soliga	12.5
5	Type of occupation	Unemployed	3.1
		Unskilled	75
		Semiskilled	3.1
		Skilled	18.8
6	History of smoking	Present	34.4
		Absent	65.6
7	History of alcohol	Present	43.8
		Absent	56.2
8	Socio-economic status	I- Upper class	0
		II-Upper middle	3.1
		III-Lower middle	15.6
		IV-Upper lower	46.9
		V-Lower	15.6
		Non- Respondents	18.8

Majority (75%) of the study subjects were involved in unskilled occupation, while 18.8% were involved in skilled occupation. (46.90%) of study subjects belonged to upper lower, lower middle (15.6%) and lower (15.6%) socio-economical status according to modified B G Prasad socio economic scales. History of smoking was present among 34.4% of study subjects and history alcohol use was present in 43.8% of study subjects (Table 1).

Table 2 shows that majority (53.1%) of the study subjects were receiving medicines from government staff and 40.6% of them received medicines from the private DOTS providers. Majority of the DOTS providers (90.7%) were staying within 500 meters distance from the patient's residency. 34.4% of patients received DOTS from anganwadi workers. 25% of them received DOTS from ASHA workers who were DOTS providers and for 40.6% of the study subjects, others provided DOTS.

Table 2: Adherence practices.

Sl. No	Question	n (%)
01	Weekly how many days you are taking medicine	3 days
		19 (59.4)
		7days
2	How many you are taking at single time	11 (34.4)
		Non responded
		02 (6.3)
		1,3
		7 (21.9)
3	Who is giving you the medicine	7
		19 (59.4)
		0
		3 (9.3)
4	How many times you have missed in last one week (in first visit)	Others
		3 (9.4)
		Govt staff
5	How far is the DOTS provider staying from your home	17 (53.1)
		Outside DOTS provider
		13 (40.6)
6	Occupation of DOTS providers	None
		02 (6.3)
		Not missed
		32 (100)
5	How far is the DOTS provider staying from your home	0 to 500 mtrs
		29 (90.7)
6	Occupation of DOTS providers	More than 500 mtrs
		03 (9.3)
		AWW
6	Occupation of DOTS providers	11 (34.4)
		ASHA
		8 (25)
6	Occupation of DOTS providers	Others
		13 (40.6)

Table 3: Distribution of study subjects with respect to correct knowledge regarding tuberculosis.

Questions	Correct answer n (%)
Related to general aspects of Tuberculosis	
1. What is the cause of TB disease >	02 (6.2)
2. How does it spread?	22 (69)
3. What are the symptoms of the disease?	28 (88)
4. Which part of the body does it affect?	05 (16)
Related to diagnosis and treatment	
5. How can this disease be diagnosed?	11 (34)
6. Do you think this disease is treatable?	24 (75)
7. Before diagnosis, did you know treatment for TB is free in Government?	06 (18.8)
8. How long do you have to take treatment?	26 (81)
Related to preventive aspects of TB	
9. How can you prevent spreading of the disease to family members?	18 (56)

Knowledge of study subjects was assessed for causation, symptoms, diagnosis, treatment and prevention of TB by using open ended question. Only 6.3% of the subjects knew that, the TB was caused by Bacteria or some germs. Majority said TB was caused due to smoking, alcohol consumption, not taking good food or sins of past life. More than 65% of the subjects could almost correctly say how it spreads. 88% of the study subjects knew the

symptoms of Tuberculosis. Only 16% of the subjects answered about parts of the body it could affect. 36% of the subjects were aware diagnosis can be done using X ray or sputum examination. About 75% were positive that the disease is curable with proper medication. 18.8% of them were aware that free treatment for TB was available in government centres even before starting treatment, 81% correctly answered regarding the duration of the

treatment they had to receive. 56% were aware how to prevent the spread of the disease to family members (Table 3).

Table 4: Knowledge score among study subjects.

Sl No	Knowledge level	Knowledge score	No. (%) of subjects
1	Unsatisfactory	≤6/9	21 (66)
2	Satisfactory	>6/9	11 (34)

The knowledge questionnaire contained 9 questions. Based on total number of correct answers given subjects were classified into two categories. Those who correctly answered more than 6 questions out of 9 questions were considered to have satisfactory knowledge. Less than 6 correct answers were considered to have unsatisfactory knowledge. This criterion was fixed based on the median value. More than half (66%) had unsatisfactory knowledge on tuberculosis. 36% had satisfactory knowledge scores (Table 4).

Table 5: Attitude towards tuberculosis among study subjects.

Questions	Yes n (%)	No n (%)
a. Can a completely cured TB patient marry?	25 (78.1)	7 (21.9)
b. Would you negotiate marriage for your son/daughter with an ex TB patient?	23 (71.8)	9 (28.2)
c. Will you eat and talk with other family members as before?	19 (59.3)	13 (41.7)
d. Are you afraid that others will come to know your TB status?	12 (37.5)	20 (62.5)

Table 6: Questions related to practice (related to stigma).

Questions	Answers (%)
a. How TB patients are regarded in your community?	Non respondent
	2 (6.3)
	Most people reject
	6 (18.8)
b. What would be reaction; if you were found out you have TB?	Most people friendly, but avoid
	15 (46.9)
	Most people support and help
	9 (28.1)
c. How your relationship would change if your close family get TB?	Non respondent
	2 (6.3)
	Shame and /or embarrassment
	7 (21.8)
	Fear and/or hopeless
	14 (43.8)
	Others
	9 (28.1)
	Non respondent
	2 (6.3)
	Sympathy, support and help
	19 (59.3)
	Friendly but avoid
	11 (34.4)

Majority (78.1%) agreed that completely cured TB patient could marry. When asked if they should negotiate marriage son/daughter with an ex TB patient, majority (71.8%) responded that they would. More than half of the subjects were eating and talking with other family members. Only 37% of the patients were hesitant to reveal their disease to others (Table 5).

Majority (46.9%) agreed that most people in their community are friendly but at the same time they avoid the patient also. On enquiring about support and help, most people (28.1%) responded that they would. Only 18.8% of people reject the TB patient in their community.

Overall the acceptance level is good in the tribal community regarding TB.

Regarding the change in relationship with close family members who have TB, more than 50% of study subjects responded that they would show sympathy, support and help. 34.4% of study subjects said they would friendly but at the same time avoid the patient (Table 6).

DISCUSSION

Most of the study population belongs to Jenukuruba community, comprising of 68.7% of the study population. According to this study majority of study subjects were from productive age group of 16 to 30 yrs. This will indirectly increase the financial burden on the families of the patients.

In a study conducted by Murry et al also stated that TB affects the most productive age groups. While morbidity and mortality in any age group has significant social and economic costs, death in prime aged adults (economically productive age) who are parent and bread earners in most societies have a particularly enormous burden.⁶

Majority of the patients (93.8%) came in direct contact with TB patients before developing TB. It shows the lack of awareness regarding preventive measures by the patient as well as the people suffering from TB. History of smoking was present among 34.4% study subjects.. Similarly Jerard et al also found that tuberculosis was significantly associated with smoking It shows that

people who smoke have a greater risk of becoming infected with tuberculosis and of having that infection turn into active TB disease.⁷

In the present study the history of alcohol use was present in 43.8% of study subjects. In a similar study conducted by Rajeshwari et al, it was observed that patient delay was greater if the patient was an alcoholic.⁸ It shows that the people who consume alcohol have a greater risk of becoming infected with tuberculosis leading into active TB disease.

Adherence to the long course of TB treatment is a complex, dynamic phenomenon with a wide range of factors impacting on treatment-taking behavior. Patients' adherence to their medication regimens was influenced by the interaction of a number of these factors. The findings of this review could help inform the development of patient-centered interventions and of interventions to address structural barriers to treatment adherence.¹⁰ Similarly in this study, three different visits made to patient to know the factors influencing the treatment adherence.

During the first visit the adherence was 100%. The commonest reason influencing adherence was (68.8%) the motivation from the hospital staff/ DOTS provider. During the second visit the commonest reason (50%) influencing adherence was self-motivation by the patient to cure the disease. The commonest reason for losing adherence was the local migration for work (12.4%). Nabil et al in their study, revealed that barriers to DOTS adherence stem from a multiple dimensions of socio-cultural influences, leading to a clash between cultural and public systems as well as a gap between patient and provider's perspectives.⁹

During the third visit the commonest reason influencing adherence was the self-motivation/ and should not spread to others. Again the commonest reason for non-adherence was the local migration for work (12.4%), Negligence as well as the bad habits of the patient (12.5%).

Similarly in their study Nabil et al stated that the main reason for not completing the treatment was the impression of being cured. Several studies have reported feeling cured as the main reason for defaulting.⁹

Local migration for work and bad habits are two important factors for non adherence to treatment.

In this study, the knowledge level of study subjects was assessed for causation, symptoms, diagnosis, treatment and prevention of TB by using open ended questions. More than half (66%) had unsatisfactory knowledge on tuberculosis. 34% had satisfactory knowledge scores. Similarly in a study conducted by Wandwalo et al, in Mwanza, Tanzania, also found that, only 30% of the study population had satisfactory knowledge.¹²

Another study by Rajeshwari et al, also stated that poor awareness especially regarding symptoms and treatment results and consequences were reported to have been associated with treatment non- completion.⁸

In relation to attitude, 78.1% agreed that completely cured TB patient could marry. When asked about the negotiation of their son/daughter's marriage with an ex TB patient, 71.8% said they would. More than half of the subjects were eating and talking with other family members. Only 37% of the patients were hesitant to reveal their disease to others. Overall the attitude was good among tribal community. Similar study was conducted by Wandwalo et al, had highlighted the importance of build on existing knowledge and dispels misconceptions among TB patients. Dissemination of specific information of tuberculosis patients should remain an important tool in tuberculosis control.¹²

Majority (46.9%) agreed that most people in their community are friendly but at the same time they avoid the patient also. On inquiring about support and help, 43.8% agreed that they had fear or hopelessness at the time of diagnosis. Only 21.8% had shame or embarrassment when they came to know about their TB status. 28.1% of the patients had other opinions.

In this study 22% responded that they would be shamed and /or have embarrassment, if they were found to have TB. In a study by Nabil, et al conducted on 'to study is the first to explore knowledge, attitude and treatment default in Fez region', majority of the respondents, both adherent patients and non-adherent patients, indicated that they would feel embarrassed and ashamed if they learned they had TB.⁹

A study in Egypt revealed that the significant risk factors for treatment failure were non-adherence to treatment, due to deficient health education and poor patient knowledge about the disease. Poor compliance with treatment was common among patients with poor knowledge, disruption of medication often occurred because patients failed to fully understand the necessity and importance of prolonged, uninterrupted treatment in this study.¹¹ In a study by Nabil, et al conducted on 'to study is the first to explore knowledge, attitude and treatment default in Fez region' found that, Poor awareness especially regarding symptoms and treatment results and consequence were reported to have been associated with treatment non-completion, in accordance with other settings results.⁹

Again 34.4% of study subjects said that would be friendly but avoid the patient. Similarly in a study was conducted by Wandwalo et al, had also highlighted the importance to build on existing knowledge and dispel misconceptions among TB patients. Dissemination of specific information of tuberculosis patients should remain an important tool in tuberculosis control.¹²

CONCLUSION

The present study reveals lack of awareness among the tribal patients suffering from TB even though they receive the treatment from DOTS provider. Social stigma is a barrier in successful implementation of RNTCP. Creating awareness about disease causation, transmission and prevention through specific, effective and innovative IEC and BCC campaigns in tribal areas with specific focus on their socio cultural behaviour is required in these tribal areas.

ACKNOWLEDGEMENTS

My sincere thanks to the study subjects of H D Kote Taluk and their family members, whose co-operation made my study possible. I am immensely grateful to District Tuberculosis Officer, Mysore and District Health Officer, Mysore who have helped me carry out my study. I thank all the staff from TB Unit and Field worker of Vivekananda Memorial Hospital, Saragur. I also thank the entire DOTS providers who extended their full cooperation during the entire period of study.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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Cite this article as: Boralingiah P, Chauhan D. Knowledge, attitude and practices regarding tuberculosis among patients with TB attending tribal health care centres of H.D. Kote taluq, Mysuru district. Int J Community Med Public Health 2017;4:4744-9.