



Knowledge about Treatment aspects of Pulmonary Tuberculosis Patients registered under Revised National Tuberculosis Control Programme (RNTCP), at Mangalore, South India

KEYWORDS

Knowledge of Treatment aspects of PTB patients of RNTCP

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ABSTRACT

Background: Correct knowledge of Tuberculosis patients of Directly Observed Treatment Short course(DOTS) of RNTCP is important.

Objective: To assess the knowledge of Tuberculosis patients regarding treatment aspects and its association with few socio-demographic variables.

Methods: A cross-sectional study was conducted, by randomly selecting 349 pulmonary tuberculosis adult patients registered under RNTCP in Mangalore, Karnataka; using predesigned, structured, pre-validated questionnaire.

Results: Among the participants, 96.3% were aware of the correct treatment duration under RNTCP, 77% of all being literate (P=0.035) but 49.9% were under misconception that "getting rid of symptoms means getting rid of the disease". More males than females have better understanding about disease recovery (P < 0.05)

Conclusion: This study highlighted that though the awareness about some basic facts about TB treatment was adequate there is a great need to improve it among illiterate patients and females, by removing misconceptions.

Introduction:

Tuberculosis is a major public health problem in India with estimated TB prevalence given by World Health Organization (WHO) statistics for 2011 is 3.1 million. Karnataka State recorded 70,595 cases in 2011 (WHO, 2011). Several factors like individual's perception of the disease, socio-economic level, extent of awareness about the disease and DOTS centres etc have been identified in the epidemiological perspective of tuberculosis. TB knowledge among the population is important for the early detection & treatment of TB patients, a factor that determines the success of TB control interventions (Rajeshwari et al, 1999)

Revised National Tuberculosis Control Programme (RNTCP) in India adopted passive surveillance strategy of the chest symptomatic for identification of cases of Pulmonary TB (PTB). Hence it is crucial for the community to have basic information about PTB & services provided under the programme. The perception of TB prevailing in the community influence health seeking behavior of the people for their symptoms. While care seeking behavior of chest symptomatic has been explored in various studies, there is lack of information on community perceptions of PTB (Ganapathy S, et al, 2008). The current study was conducted with the objective to assess the knowledge about certain facts related to treatment of PTB patients, in the context of complete, continuous treatment (including variables like duration of treatment, complete cure strategy, source of information, community's perception etc) & associated socio-demographic factors.

Materials & methods: This is a cross-sectional study design with quantitative analysis based on the responses provided to the pretested, pre-validated, structured questionnaire, by 349 randomly selected, voluntarily participating, adult PTB patients registered under 12 DOTS centres (out of 13 – the centre recording fewest cases omitted) of RNTCP in Mangalore taluk South Karnataka. Earlier, Ethic Committee approval and participants' written consent was

taken. Data was analysed using SPSS version 16.

Results:

Socio-demographic profile of 349 study participants were as follows:

The **Mean age (+/- SD)** of the participants -- 45.10 (+/- 14) years

Gender: More Males (75.9%) than Females (24.1%)

Religion: Hindu (78.2%), Muslim (14.6%) and Christian (7.2%)

Literacy level: 22.9% illiterate, 77.1% literate

Employment status: employed 69.6%, unemployed 30.4%

Socio-economic status: With Modified BG Prasad classification for socio-economic status the study participants in class I, II, III, IV, V were 65, 227, 51, 06, nil, respectively. When divided into 2 groups of income < Rs 2578 (class III+IV= 57) and > 2578 (class I+II= 292); lower income group showed predominant correlation with the misconception "After starting TB treatment when symptoms disappear, patient is cured." (Fisher's Exact test, P=0.032) Thus patients often default treatment course.

Table 1: Distribution of Knowledge Variables

Sr no	Variables	Number	Percentage
1	Correct duration of treatment	2 yrs	1 .3
		6-8 months	336 96.3
		3 months	4 1.1
		1 month	2 .6
2	Discontinuation of medication leads to treatment failure	True	334 95.7
		False	15 4.3

3	When patient gets rid of symptoms – that is fully cured	True	174	49.9
		False	175	50.1
4	TB disease can be completely cured only if treatment completed	True	195	55.9
		False	154	44.1
5.	Source of Information for general population	Media	318	91.1
		Print materials	7	2.0
		Health-workers	24	6.9
6.	What are people's attitude towards TB patient?	Rejection	12	3.44
		Talk friendly & trying to avoid	262	75.07
		Always support & help	75	21.49

Among the participants, 96.3 % were aware of the correct duration of the treatment under RNTCP; more in literate (P = 0.035, Table 2)

For response “ getting rid of symptoms means getting rid of the disease” 49.9 % participants responded positively. (table 1) This is common among tuberculosis patients to discontinue further treatment ,which eventually lead to drug resistance problem during retreatment.

Almost 60% of participants agreed for the statement “TB disease can be completely cured only if treatment completed as per doctor’s advice.”

For response “How is a Person with TB regarded in a Community” 75 % participants responded that community pretends friendliness, but try to avoid the patient.

The source of information was mass media (ie Radio, TV, News-paper) for 91% participants.

More males than females do not agree with comment “When you are free of symptoms after starting Rx, you are recovered” (P= 0.031, Table 2,Response 5)

Table 2 : Distribution of Knowledge variables according to Literacy & Gender

	Knowledge Variables Responses	Literacy status				P value	Gender			P value
		Illiterate N=80 (100)	Literate N=269 (100)	Total N= 349 (100)			Male N=265 (100)	Female N=84 (100)	Total N= 349 (100)	
1	Total duration of Rx under RNTCP Correct Wrong	75(93.75) 05(6.25)	261(97.03) 08(2.97)	336(96.27) 13(3.73)	0.035*	256(96.60) 09(3.40)	80(95.24) 04(4.76)	336(96.27) 13(3.73)	0.084	
2	Sputum Exam during Rx period – done to see effectiveness of Rx YES NO	79(98.75) 01(1.25)	268(99.63) 01(0.37)	347(99.43) 02(0.57)	0.354	264(99.62) 01(0.38)	83(98.81) 01(1.19)	347(99.43) 02(0.57)	0.367	
3	Discontinuing Rx of your own leads to failure of Rx YES NO	75(93.75) 05(6.25)	259(96.28) 10(3.72)	334(95.70) 15(4.30)	0.142	252(95.09) 13(4.91)	82(97.62) 02(2.38)	334(95.70) 15(4.30)	0.169	
4	Disease is fully cured if patient takes full course as Dr’s advice YES NO	43(53.75) 37(46.25)	152(56.51) 117(43.49)	195(55.87) 154(24.13)	0.93	146(55.09) 119(44.91)	49(58.33) 35(41.67)	195(55.87) 154(24.13)	0.088	
5.	When you are free of symptoms after starting Rx, you are recovered YES NO	36(45.00) 44(55.00)	138(51.30) 131(48.70)	174(49.86) 175(50.14)	0.062	126(47.55) 139(52.45)	48(57.14) 36(42.86)	174(49.86) 175(50.14)	0.031*	
6.	Source of information about TB for community a)Media b)Posters/brochures c)Health manpower	73(91.25) 01(1.25) 06(7.5)	245(91.08) 06(2.23) 18(6.69)	318(91.12) 07(2.00) 24(6.88)	0.094	242(91.32) 07(2.64) 16(6.04)	76(90.48) 00(0.00) 08(9.52)	318(91.12) 07(2.00) 24(6.88)	0.073	
7.	What are people’s attitude towards TB patients a)Rejection b)Talk friendly but trying to avoid c)Always support & help	01(1.25) 64(80.00) 15(18.75)	11(4.09) 198(73.61) 60(22.30)	12(3.44) 262(75.07) 75(21.49)	0.108	08(3.02) 201(75.85) 56(21.13)	04(4.76) 61(72.62) 19(22.62)	12(3.44) 262(75.07) 75(21.49)	0.107	

Discussion

The Mean age (+/- SD) of the participants in this study was 45.10 (+/-14) years, while it was 53 (+/- 20) years in similar study by Freitas etal(2012).Our study recorded 78.2% Hindus which is comparable with Vidhani etal(2012) and Karampudi etal(2014) studies reporting 78.4% and 78% Hindu respectively.

This study reported 76% male patients. Same trend observed in similar studies in India, Gujrat-61.4%(Vidhani et al 2012), Maharashtra- 58.9%(Bhoi et al 2015), Andhra Pradesh-78%(Karampudi etal, 2014) males and Bangladesh – 55.61%males(Tasnim etal, 2012), but studies at Brazil by Freitas etal(2012),South Sudan by Kenya etal(2014), reported predominantly female respondents 87.5% and 52.9% respectively.

Studies by Vidhani etal(2012) Karampudi etal(2014), Bhoi etal(2015) showed illiteracy status 32%,58% & 23% respectively. Our study recorded 22.9% illiterate participants. Illiteracy is associated with wide gap in knowledge about duration of treatment for PTB patients in this study(P= 0.035),but no such association was reported in similar study by Bhoi etal (2015)

The response for correct duration of treatment for PTB(6-8months)was observed in 96.3% respondents from this study. However, Tasnim etal(2012), Karampudi etal(2014) and Khalil etal(2011) recorded 90%, 70% and 32.9% respectively for same variable in their studies.

Mass media was an important source of information in our study (91%). Tasnim etal (2012) reported this source in her study by 60.3% respondents.

Conclusion

Knowledge about certain variables of treatment aspects of PTB patients was good, but prevailing misconception " Free of symptoms is free of disease" in the initial course of DOTS regime is major barrier in success of RNTCP; leading to default in complete course ,thus precipitating drug resistance cases. Hence improving awareness regarding regular, complete course of treatment is of utmost importance.

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