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AWARENESS OF TUBERCULOSIS AMONG PATIENTS ATTENDING SAVEETHA MEDICAL COLLEGE

Pulmonology

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ABSTRACT

INTRODUCTION- Tuberculosis is the most dreaded and common global health issue. India accounts for 27% of the 10.4 million new TB cases detected globally. The awareness, knowledge and practices about TB remain a conflict and stumbling block for ending TB. Hence we conducted the study to assess it among TB patients attending tertiary care centre in Chennai, India.

AIM To assess the Knowledge, Attitude and Practice of Tuberculosis among patients attending outpatient department of a tertiary care hospital.

METHOD It was a Questionnaire based study among patients attending ''Saveetha medical college and hospital'' Chennai. The sample size was 404. Informed written consent was taken. After the questionnaire was filled, an information sheet was provided to educate the public.

RESULT 65.3% knew TB is a curable disease but only 42.8% knew about free treatment available in India. 60% of people were aware about correct duration of treatment. 41% knew about BCG vaccination. 49.3% of people favoured isolation of TB patients. 54.4% knew about sputum disposal. Only 33% and 22% had adequate level of knowledge and practice respectively. In our study knowledge and attitude had significant correlation.

CONCLUSION Though people are aware of Tuberculosis their knowledge about symptoms, treatment facilities available and practices among the study population is not up to the slogan UNITE TO END TB by 2030.

KEYWORDS

Tuberculosis , Knowledge , Attitude , Practice

INTRODUCTION

Tuberculosis is the most dreaded and common global health issue. It is the ninth leading cause of death globally. India accounts for 27% of the 10.4 million new TB cases detected and 29% of the 1.8 million TB deaths globally [(1)]. The awareness, knowledge and practices about TB remain a conflict and stumbling block for ending TB. Hence we conducted the study to assess it among patients attending tertiary care centre in Chennai, Tamilnadu. Such studies from different places would help the program members to know more about the present standards on tuberculosis in the community and to step forward any measures on social, cultural or political aspects to reach the targets set by RNTCP.

The DOTS strategy relies greatly on passive case finding for TB, treatment and its success depends on the patient's health awareness, ability to recognize early signs, symptoms, and accessibility to health services for immediate self-reporting [(2)]. RNTCP has conducted various awareness programs on TB about its cause, symptoms and treatment part. Including different misbelief and stigmas related to tuberculosis. Many studies on tuberculosis on different basis as treatment seeking behaviour, knowledge, misconceptions has been carried out in various parts of India[(2,3)] .Under knowledge and unfavoured misconception lead to under usage and improper usage of resources provided by the government of India. Hence this study was conducted on the basic awareness of tuberculosis about its myth, attitude and knowledge, diagnosis, treatment facilities that are available in the community which would help TB programs to be implemented in a friendly manner to achieve the goal of TB free India.

MATERIALS AND METHOD

A Questionnaire based cross sectional study among patients attending "Saveetha Medical College and Hospital" Chennai. The study tool is a predesigned and pretested schedule, containing close-ended questions. The sample size was calculated as 404 . Informed written consent was taken. After the questionnaire was filled, an information sheet about tuberculosis was provided in order to educate the public.

RESULT

Table 1: DISTRIBUTION OF PATIENTS ACCORDING TO DEMOGRAPHIC VARIABLE

Demographic variable	Division	Frequency (n=404)	Percentage (%)
Sex	Male	161	39.9
	Female	243	60.1
Age	< = 20 Years	58	14.4
	21 - 30 Years	160	39.6
	31 - 40 Years	87	21.5
	41 - 50 Years	69	17.1
	> 50 Years	30	7.4
Residence	Kutcha	90	22.3
	Pucca	314	77.7
Education	Professional/honors	63	15.6
	Graduate /PG	114	28.2
	Inter/high school diploma certificate	38	9.4
	High school certificate	103	25.5
	Middle school certificate	36	8.9
	Primary school certificate	18	4.5
	Non formal education	32	7.9
Per capita income (Rupee)	> Rs 31,507	30	7.4
	Rs 15754 - 31506	57	14.1
	Rs 11817 -15753	82	20.3
	Rs 7878 -11816	104	25.7
	Rs 4727 - 7877	71	17.6
	Rs 1590 - 4726	52	12.9
	< Rs 1589	8	2.0
Occupation	Professional	103	25.5
	Semiprofessional	33	8.2
	Clerical/shop owner/farmer	29	7.2
	Skilled worker	75	18.6
	Semiskilled worker	29	7.2
	Unskilled worker	42	10.4
	Unemployed	93	23.0
Socioeconomic status	Upper class	15	3.7
	Upper Middle class	177	43.8
	Lower middle class	123	30.4

	Upper lower class	57	14.1
	Lower class	32	7.9

Table 2: LEVELS OF KNOWLEDGE, ATTITUDE AND PRACTICE

LEVELS	FREQUENCY	VALID PERCENT	CUMULATIVE PERCENT
KNOWLEDGE			
ADEQUATE	32	7.9	7.9
MODERATE	236	58.4	66.3
INADEQUATE	136	33.7	100.0
TOTAL	404	100.0	
ATTITUDE			
ADEQUATE	283	70.0	70.0
INADEQUATE	121	30.0	100.0
TOTAL	404	100.0	
PRACTICE			
ADEQUATE	315	78.0	78.0
INADEQUATE	89	22.0	100.0
TOTAL	404	100.0	

Table 3 :CORRELATION COEFFICIENT

PARAMETERS	MEAN	STANDARD DEVIATION	ϒ	P- VALUE
KNOWLEDGE ATTITUDE	15.92 1.29	3.128 0.471	0.128	0.010**
KNOWLEDGE PRACTICE	15.92 0.23	3.128 0.437	-0.111	0.026*

**p value< 0.01 *p value< 0.05

Table 4: LEVEL OF KNOWLEDGE ACCORDING TO DEMOGRAPHIC VALUE

Demographic variable	Division	Inadequate (%)	Moderate(%)	Adequate(%)	Total	P value
Sex	Male	3.2%	21.8%	14.9%	39.9%	0.430
	Female	3.2%	21.8%	14.9%	39.9%	
Age	< = 20 Years	.0%	9.2%	5.2%	14.4%	0.000
	21 - 30 Years	3.0%	20.0%	16.6%	39.6%	
	31 - 40 Years	1.7%	12.1%	7.7%	21.5%	
	41 - 50 Years	3.2%	11.1%	2.7%	17.1%	
	> 50 Years	.0%	5.9%	1.5%	7.4%	
Residence	Kutcha	1.7%	13.9%	6.7%	22.3%	0.687
	Pucca	6.2%	44.6%	27.0%	77.7%	
Education	Professional/hons	1.2%	8.2%	6.2%	15.6%	0.000
	Graduate /PG	.7%	10.6%	16.8%	28.2%	
	Inter/high school diploma certificate	1.2%	6.7%	1.5%	9.4%	
	High school certificate	2.7%	16.6%	6.2%	25.5%	
	Middle school certificate	.0%	8.2%	.7%	8.9%	
	Primary school certificate	.7%	2.2%	1.5%	4.5%	
	Non formal education	1.2%	5.9%	.7%	7.9%	
Per capita income (Rupee)	>Rs 31,507	.5%	4.0%	3.0%	7.4%	0.013
	Rs 15754 - 31506	.5%	5.9%	7.7%	14.1%	
	Rs 11817 - 15753	.7%	13.9%	5.7%	20.3%	
	Rs 7878 -11816	2.2%	14.9%	8.7%	25.7%	
	Rs 4727 - 7877	2.7%	9.7%	5.2%	17.6%	
	Rs 1590 - 4726	1.2%	8.7%	3.0%	12.9%	
	<Rs 1589	.0%	1.5%	.5%	2.0%	
Occupation	Professional	3.2%	10.4%	11.9%	25.5%	0.000
	Semiprofessional	.7%	2.2%	5.2%	8.2%	
	Clerical/shop owner/farmer	.7%	5.9%	.5%	7.2%	
	Skilled worker	1.2%	9.2%	8.2%	18.6%	
	Semiskilled worker	.0%	5.7%	1.5%	7.2%	
	Unskilled worker	.5%	8.4%	1.5%	10.4%	
	Unemployed	1.5%	16.6%	5.0%	23.0%	
Socio economic status	Upper class	.0%	2.2%	1.5%	3.7%	0.191
	Upper Middle class	2.0%	27.5%	14.4%	43.8%	
	Lower middle class	3.0%	16.3%	11.1%	30.4%	
	Upper lower class	2.2%	7.4%	4.5%	14.1%	
	Lower class	.7%	5.0%	2.2%	7.9%	

P value

*95% p <0.005 0.02-0.05
**99% p<0.01 0.002-0.01
***99.9% p<0.001 0.000-0.001

A total of 404 patients participated in the study 60% females mainly homemakers and 40% males. The participants aged 20- >50 yrs and among them 39.6% were within 21-30yrs with a mean age of 33.03yrs.

Graduates and high school education constituted 28.2% and 25.5% respectively. 77.7% lived in pucca houses. Among the respondents 23% were unemployed since mainly the females were home makers. Only 14% of the participants had earnings less than Rs 5000 per month. (Table 1)

According to our study 90% of the participants had heard about tuberculosis. The main source of information for them was through health care professional.

31% of respondents were not aware that tuberculosis was caused by germs. 23% of the participants had no knowledge on communicability of tuberculosis Regarding symptoms of tuberculosis 51.7% had knowledge. Fever 45%, cough 26.7%, haemoptysis 16.1%, and weight loss 15.6% being the main symptoms according to the respondents. 69.6% and 81% were aware that tuberculosis can affect neck glands and cause infertility. 50% and 28% had knowledge that sputum examination and other modalities like x-ray were used for diagnosing tuberculosis respectively.

23% opined that tuberculosis was not curable. About 57.1 and 29.4 were not aware of free treatment and duration of treatment for tuberculosis respectively. 40% of respondents did not know that improper treatment can lead to complications.

Only 29.7% knew about risk factors for tuberculosis. 40% of the participants had knowledge about BCG vaccination.

54.4% had knowledge on prevention of tuberculosis by avoiding contact, using handkerchief while coughing and living in clean environment. 50% of the respondents opined that isolation of tuberculous patients prevents spread of infection .70%of the respondents were against breast feeding the child by tuberculous mother. 50% of the participants were not aware that tuberculous patients can continue to work during treatment In our study 33.7%, 58.4% and 7.9% had adequate, moderate and inadequate level of knowledge of sputum disposal . 70% and 78% of the respondents had adequate level of attitude and practices on tuberculosis. (Table 2)

According to our study the knowledge and attitude has a positive correlation while that between knowledge and practice has a negative correlation. (Table 3)

Comparing the level of knowledge with demographic variables - age, education, income and occupation were found to be statistically significant while income was not found to be significant compared with level of attitude. Education, income and socioeconomic status was statically significant with the level of practice. (Table 4)

DISCUSSION

India has a high burden of Tuberculosis. Tuberculosis is an infectious

disease affecting mainly the lungs, followed by other organs of the body. Aerosol being the cause of spread of tuberculosis. Hence thorough knowledge of symptoms of tuberculosis, availability of free drugs for prescribed duration, and simple preventive measures and practices would enable the people in India to achieve the goal of TB free India in 2030.

Study by Jeremy Devey[5] 93.2% had heard of tuberculosis and 72.18% by Rami K et al[6] . In our study it was 90% mainly due to the literacy as only less than 8% had no formal education.

Studies by ER Wandwalo et al [7] showed 45.3% of the respondents knowledge of tuberculosis was through health care professionals which was in agreement with our present study. T.K.Koay[8,9] reported 50.8% respondents knew that tuberculosis was caused by germs. In our study it was 69%. The increased knowledge among people is mainly explained by dedicated work by health care professionals. Other methods also has to be stepped up in propagating and prevention of tuberculosis.

Spread of Tuberculosis due to contact was reported as 63.8% by Sharad Mahadeo et al[10,11] study. Devey J[12] reported that primary symptom of tuberculosis was cough 73.7% followed by fever 34.3% and hemoptysis 30% . Similarly Subramanian T et al [13] reported cough 60%, haemoptysis 15% and fever 3%. In our study contrary to cough , fever 45% , cough 26.7% and hemoptysis 16.1%. Though cough is the predominant symptom in pulmonary tuberculosis, extrapulmonary tuberculosis is often associated with fever and loss of weight. In our study it revealed their awareness.

Diagnosis of tuberculosis by sputum examination 45.20% and by X-ray 9.90% was reposted by Maria Christina et al [14] , Vinod Kumar Jangid et al [15] reported 64.7% and 59.8% respectively. In our study 50% opined for sputum examination and 28% by other modalities. Sputum examination being more diagnostic and free had been stressed by media and health care personals may be the reason. As per newer guidelines X-rays also has to be incorporated as a diagnostic tool.

Study by DOTS centre Sardarjung Hospital New Delhi for duration of 6-9 months treatment for tuberculosis was 53.3%. Madhu Vidhan et al [16] 2012 reported 32.9%. But in our study it was 70%. This again reflects the propaganda by media , ads and health workers these years following the introduction of DOTS

Baseline KAP study done by Central TB Division [17] revealed 50% where aware of free tuberculosis drugs supplied in hospitals. In our study only 43% were aware. This awareness has to be improved in order to prevent default due to poverty in purchasing the drugs.

In our study only 77% of respondents said to tuberculosis were curable as in contrast to studies by Hashim DS et al [18] reported 90% and Rami K et al [6] 59.6% curable.

Studies by Madhu Vidhani et al [16] reported 22.7% for isolation of tuberculosis patient to spread of infection. In our study it was 50%. This social stigma has to be tackled by educating to take simple preventive measures and taking drugs regularly.

Studies by IEC Baseline survey [19] revealed 15.6% awareness to BCG vaccination and by Amgain K et al [20] revealed 81.5% while in our study it was only 40%.

CONCLUSION

Though people are aware of Tuberculosis their knowledge about symptoms, treatment facilities available and practices among the study population is not up to the slogan UNITE TO END TB by 2030.Knowledge about free treatment, regular intake duration of treatment has to be stressed during health education and promotional activities carried out by social organisation, health care providers, policy making and others to advocate in order to achieve the goal of ENDING TB by 2030.

QUESTIONAIRE

SAVEETHA MEDICAL COLLEGE AND HOSPITAL, DEPARTMENT OF TB & RESPIRATORY MEDICINE AWARENESS OF TB AMONG PATIENTS ATTENDING SAVEETHA MEDICAL COLLEGE

– A QUESTIONNAIRE BASED STUDY

Name:
Age:
Sex:
Education:
Occupation:
Mobile No / Landline:
Income of family
Socio economic status:
Housing type:
Overcrowding:
Cross ventilation:

1. Have you heard about TB?
2. What is your source of information regarding
3. Which organism causes TB?
4. Whom does TB affect?
5. Is TB a communicable disease?
6. What is the commonest mode of transmission of TB?
7. Which organ is most commonly affected by TB?
8. When will you suspect a patient with TB? Cough with expectoration for
9. What are the Symptoms of TB?
10. Can TB cause enlargement of neck glands?
11. Can TB cause infertility
12. How is TB diagnosed?
13. Is TB a curable disease?
14. Are effective drugs and free treatment for TB available?
15. Where do you get free treatment for TB?
16. What is the duration of treatment for TB?
17. Can anti TB drugs be skipped for a day or two?
18. When should the patient stop the TB treatment ?
19. Can a TB affected mother breast feed the baby
20. If TB patient is untreated will he suffer from complications?
21. What conditions favour the development of TB?
22. Does inadequate diet cause TB
23. Which vaccine protects against TB
24. How can TB be prevented
25. Should TB patient be isolated from family
26. Can TB patient continue to work?
27. Which is the safest method of sputum disposal in TB patients

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