Assessment about Awareness of Tuberculosis in TB Patients as Well as General Population

Kallol Mallick[1], Rachna Prasad[2], Rajiv kumar Prasad[3], Anamika K Majumdar[4]

Author's Affiliation:
[1]Assistant Professor; [2]additional professor; [2]Additional professor, Dept. of PSM; [3]Additional professor, Dept. of Paediatric; [4]Assistant professor, Dept. of Obs & Gynec, SMIMER, Surat

Correspondence
Dr. Rachna Prasad
prrachana28@gmail

ABSTRACT

Introduction: India, the home of 1/5 global burden of Tb, needs its awareness in patients as well as general population for early diagnosis and adequate treatment. Reasons for delay in diagnosis may be clinical presentation, host response chemotherapeutic response; social implications etc. Implications of delay are associated with increased transmission, morbidity and mortality [1]. For this we have conducted an awareness campaign on the eve of World Tb day to generate as well as estimate the knowledge about Tb in urban areas slum / construction sites. Main emphasis was given on TB as disease, its prevention and control and availability of its treatment free of cost.

Results: totally 22 Tb patients were interviewed,4 (18.18%) were in MDR/XDR category, 16 (72.7%) were in Cat I and 2 (9%) were in Cat II. Nine (40.9%) patients were between 20-40 yrs, 9(40.9%) were between 40-60 yrs, 3 (1.36%) were below 20 yrs and 1 (4.5%) was above 60 yrs. Maximum of tuberculosis patients were either illiterate or primary school passed.

Discussion: Smear positivity was highest (40.9 %) in 20-60 years age group and least in below 20 years (1.36%). Male, female ratio was 6:4.

Conclusion: Health workers coverage, patient's care including compliance and their rapport in the society was found to be excellent.

Keywords: Tuberculosis, patients, general population.

INTRODUCTION

India, the home of 1/5 global burden of Tb, needs its awareness in patients as well as general population for early diagnosis and adequate treatment. Reasons for delay in diagnosis may be clinical presentation, host response chemotherapeutic response, social implications etc. Implications of delay is associated with increased transmission, morbidity and mortality. The requirements for moving towards Tb elimination have been integrated into the four strategic pillars of "Detect –Treat – Prevent– Build" (DTPB)[2]

Such delays may be related to patient or provider. Knowledge which is must for patient includes knowledge about Tb as disease, its prevention and control and availability of treatment free of cost, as this will decrease the initial delay among patients especially low family income as they fear for high expenditure associated with diagnosis as well as treatment. Provider should be aware about their responsibility of compulsory notification of every new Tb case diagnosed and / or treated, to local authorities)[3.]

National Strategic Plan 2012–17, for achieving a "TB free India", with an aims to achieve Universal Access to TB control services, program provides, various free of cost, quality tuberculosis diagnosis and treatment services across the country through the government health system[1] . The knowledge of free service including all diagnosis as well as cure is essential for the utilization of this facility otherwise inspite of proving free services it will not reach the needy.

AIMS AND OBJECTIVES

The study was conducted to assess the socio-demographic profile of the Tb patients attending DOTS Center and also to assess awareness about Tuberculosis among Tb patients as well as non- Tb individuals in Surat urban area.

METHODOLOGY

A cross section study was conducted in urban slum of Surat city on world Tb day i.e. 24-25 march 2018. The questionnaire which was used was provided by IAPSM and the survey was conducted nation-wide on Tb awareness in the community on world Tb day celebration. Sample consisted of 22 newly registered patients under DOTS therapy after applying inclusion and exclusion criteria and 34 non-tuberculosis individuals. For both the groups different questionnaires were used. Both the groups of individuals were from the same community. Few were patients already on DOTS and rest were non Tb individuals residing in the same community. But both questionnaires consisted of questions regarding tuberculosis, its cause, spread, treatment and prevention in the community. The community was selected after discussion with Medical Officer of Surat Municipal Corporation posted in Chest and Tb department of SMIMER (Surat Municipal Institute of Medical Education and Research). This was considered as the hot spot of Tb cases that comes to SMIMER for treatment. Sample size was not calculated because we had to conduct the survey in just one day, i.e. on World Tb day.

Inclusion criteria was all newly diagnosed and registered Tb patients who have never been treated for Tb or have taken anti-Tb drugs for less than 1 month. Non- Tb patients are those who have never taken ant-Tb drugs in the past or at present.

RESULTS

Totally 22 tuberculosis patients were interviewed. Response rate was 100%. Out of them, 4 (18.18%) were in MDR/XDR category, 16 (72.7%) were in Cat I and rest 2 (9%) were in Cat II. Nine patients (40.9%) each, were in the age group 20-40 yrs and 40-60 yrs, 3 patients (1.36%) were below 20 yrs and 1 patient (4.5%) was above 60 yrs. This shows that maximum Tb patients (82% approximately) were in the age group 20-60 yrs i.e. in the most productive age group. Sputum positivity was found more in males 13 (59%).

Most of the Tb patients were either illiterate 9 (40.9%) or primary school passed11 (50%). One (4.5%) was educated up to middle school and another 1(4.5%) was educated up to high school.

Among respondent 15 (68.18%) were married whereas 7(31.82%) were unmarried.

Tuberculosis was found slightly more among working 12(54.5%) than non- working, 10(45.5%) group.

Out of total Tb patients, 15(68.18%) didn't have past and family history of Tuberculosis, while 7 (31.81%) had history of Tuberculosis in past as well as had family history

Table 1: Socio- demographic profile of tuberculosis patients (n=22)

Variable	Total (%)
Age (yrs)	
0-20	3 (1.36)
20-40	9 (40.9)
40-60	9 (40.9)
>60	1 (4.5)
Sex	
Male	13 (59)
Female	9 (40.9)
Education	
Illiterate	9 (40.9)
Primary school	11 (50)
Middle school	1 (4.5)
High school	1 (4.5)
Marital status	
Married	15 (68.2)
Unmarried	7 (31.8)
Occupation	
Working	12 (54.5)
Non working	10 (45.5)
History of Tb in past / Family history	
Yes	7 (31.2)
No	15 (68.8)
Faced adverse reaction (n=5)	
Daily	2 (40)
Very often	2 (40)
Rarely	1 (20)
Get rid of adverse reaction (n=5)	
Continue treatment	4 (80)
Stopped treatment	0 (0)
Consulted physician & took medicine	1 (20)
Awareness about prevention of transmission of Tb	
Cover their face	18 981.81)
Proper disposal of sputum	9 (40.9)
Wearing mask	7 (31.81)
Avoiding close contacts	10 (45.45)

Table 2: Perception about mode of spread of tuberculosis by 34 non- tuberculosis respondents were found to be multiple response.

Perceived mode of spread	Frequency (%)
Air/ inhalation of droplet nuclei	24 (70.6)
Water	2 (5.8)
Food	3 (8.8)
Past sins/ karma	1 (2.9)
Others	8 (23.5)

Table 3: Heard and aware of symptoms suggestive of pulmonary tuberculosis (N=34)

Awareness	Respondent (%)
Heard about tuberculosis	
Friends/ family	19 (55.8)
TV	17 (50)
Hoarding/ wall paintings	9 (26.4)
Whatsapp message	7 (20.5)
News paper	3 (8.8)
Doctor	3 (8.8)
Aware of symptoms	
Cough > 2 weeks	22 (64.7)
Fever>2 weeks	10 (29.4)
Significant weight loss	5 (14.7)
Haemoptysis	5 (14.7)
Abnormality in chest radiography	7 (20.5)
None	1 (2.9)

Incidence of adverse drug reaction among tuberculosis patients were found in 5 (22.7%) individuals. Those who faced adverse reaction, 2(40%) had it daily, 2(40%) had it very often and only 1 (20%) had it rarely. Among these, 4 patients continued treatment and only one patient consulted physician and took treatment for the adverse reaction.

Awareness about prevention of transmission of Tuberculosis: 18 Tb patients (81.81%) answered they have to cover their face to prevent transmission, 9 (40.9%) thought proper disposal of sputum is important, 7 (31.81%) replied wearing mask is helpful in prevention of transmission of Tuberculosis while 10 (45.45%) believed avoiding close contacts with Tuberculosis patients helps in prevention of Tuberculosis .

Awareness about symptoms suggestive of Tuberculosis: Out of total 34 respondents, twenty two (64.7%) knew, cough >2wks as symptom of Tuberculosis, ten (29.4%) were knowing fever >2wks as the symptom of Tuberculosis and rest five (14.7%) knew it was haemoptysis and weight loss as the main symptom of Tuberculosis. Most of them knew this from friends/ family 19(55.8%) and from TV 17 (50%).

Though there is no data regarding the performance of health worker but it was found during houses to houses visits that health workers coverage was excellent. Every health worker was well aware about their patient's condition. They are working hard for maintaining compliance. Every patient was contacted by health worker when they missed the dose. We didn't have any scope in the questionnaire for asking about the performance of health worker, but while moving door to door, we got that opportunity and the finding was quite encouraging we thought it should be mentioned.

Also regarding the opinion about health workers, it was quite positive and hence need to be men-

tioned. Regularity of sputum examination and medication was 100 percent. Also social support and support from family to the patient observed by the interviewer was not good, though the score based upon patient's response was found to be good (average 9.2 out of 10 in both the cases.

Regarding prevention of Tb, not even a single patient was wearing mask, even MDR- patient has no cough etiquettes and not wearing mask. This finding was also gathered while going door to door. There was no scope of the in the questionnaire. But as it is quite important finding it need to be mentioned.

There was no concept of sanitation. Burkha, in very crowded places was found as blessing in disguise as it was acting as mask.

DISCUSSION

In this study maximum subjects (81.8%) were reported between the age group 20-60 years, while minimum were in age group below 20 years (1.36%). This reflects that maximum number of subjects belongs to the age group where due to advancing age the immunity decreasing. This finding is comparable to the study conducted by S Gupta et al "Underlying risk factors in TB patients "at a Tertiary Hospital setting at Manipal in which also it was observed that maximum cases (41.5%) were in age group 21-40 years followed by the age group 41-60 years and only 11.6% in above 60 years [4] . Contrary to these studies Q H Khan reported maximum prevalence rate (63.83/1000) in age group 60 years and more [5] . Raviglione et al had also reported maximum cases in >65 years of age [6].

Present study reveals that male, female ratio is approximately 6:4, which is similar to the studies conducted by Aarti Kaulagekar and Anjali Radkar[7] , Phalke Deepak Baburao et al, at DOTs centre Loni, from 2006-08, [8] and Q H Khan6 Susan E et al. [9] In all these studies including present study the results were insignificant.

In the present study among 64.7% individuals knew, cough lasting more than 2 weeks as a symptom of tuberculosis, 29.4% individuals knew fever >2wks as the symptom of Tuberculosis. Abnormality in chest radiography was known by 20% respondents as a symptom of Tuberculosis and 14.7% knew it was haemoptysis as the symptom of Tuberculosis and 14% individuals knew weight loss as the main symptom of Tuberculosis. This indicates a fairly good level of knowledge. Uplekar[10] and Subramanian[11] found that cough, haemoptysis and fever were known to 66%, 13%, 6% of individuals respectively. Croft reported

44% individuals were aware of cough as a symptom in Bangladesh[12] .

The greater awareness of these symptoms in the present study is encouraging and may help to improve the passive case finding. However the correct route of transmission i.e., via air by coughing, sneezing, spitting was cited by only 18% of respondents in the present study. Wrong perception, that TB is spread by eating or drinking with or touching a TB patient, sexual contact, blood transfusion needs to be addressed to remove misconceptions and stigma attached with the disease. The fallacies regarding TB, prevalent among patients and in the community are multi-dimensional. Popular myths about cause of TB are contribution of wet weather and poor housing [13] hard work, emotional trauma/stress [14] [15], eating contaminated food [14] [16], sharing food or utensils with those who have TB [17] [18] and smoking [15] [18][16]. People generally did not recognize the enormous role of crowded and poorly ventilated places in spreading TB [18].

CONCLUSION

Only 1out of 5 responded to consult doctor for adverse reaction, rest told they have to continue it. This need emphasis. Roughly 97% individuals were unaware about the consequence of irregular treatment. Many people still don't know about the spread and prevention of Tb. Maximum individuals did not know that the treatment of Tuberculosis is available in private set-ups also. Myth that the treatment of Tb is provided in Government hospitals only needs emphasis. In general (patients and relatives), the knowledge, attitude, behavior and practices regarding prevention of Tb was very poor. In spite of excellent knowledge of person to person transmission of Tb, very few patients were following proper cough etiquettes. This was absent also in surrounding where small children were there. Sizable number of individuals was unaware that Tuberculosis is a curable disease. Cardinal symptoms of Tb were also not known to many.

REFERENCES

1. J. kishore's National Health Programs of India, Century publications, 9th edition, 2011:207-208

2. National Strategic Plan For Tuberculosis Elimination2017–2025,March2017, central TB Division, Directorate General of Health Services, Ministry of Health and Family Welfare, Nirman Bhavan, New Delhi–110 108

3. Govt. of India (2012), Notification dated 7th May 2012 regarding Tb cases, , Ministry of Health and Family Welfare, Nirman Bhavan, New Delhi

4. Gupta S, Shenoy V, Mukhopadhyay C, Bairy I, Muralidharan S. Role of risk factors and socio-economic status in pulmonary tuberculosis: a search for the root cause in patients in a tertiary care hospital, South India. Tropical Medicine and International Health. 2011;16:74-8.

5. Khan QH. Epidemiology of Pulmonary tuberculosis in Rural Aligarh. Indian Journal of Community Medicine. 2006;31(1):39- 40.

6. Trends of tuberculosis in Western Europe:epidemiological situation in 14 countries. World Health Organization,Tuberculosis Program, Division of Communicable Diseases. 1992;92:170.

7. Kaulagekar A, Radkar A. Social Status Makes A Difference: Tuberculosis Scenario During National Family Health Survey - 2. Indian J Tuberc 2007.54(1):17-23.

8. Baburao P, Bhaskar P, Deepak P, Sharma YV. Study of Tuberculosis cases under RNTCP attending Designated Microscopy Centre at Pravara Rural Hospital, Loni. Pravara Med Rev. 2009;4(4):7-11.

9. Buskin S, Gale J, Weiss N, Nolan C. Tuberculosis Risk Factors in Adults in King County, Washington, 1988 through 1990. American Journal of Public Health. November 1994; 84(1 1):1750-6.

10. Uplekar MW, Rangan S. Tackling TB - the search for solutions. The Foundation for Research in CommunityHealth, Mumbai 1996

11. Subramanian T, Charles N, Balasubramanian R , BalambalR, Sundram V, Ganapathy S et al. Knowledge oftuberculosis in a south Indian rural Community initially and after health educatio n. Ind J Tub, 1999; 46:251-4

12. Croft RP, Croft RA. Knowledge, attitudes and practice The greater awareness of regarding leprosy and tuberculosis in BangladeshLepr Rev 1999; 70: 34-42

13. Tamba L, Sichinga K. Scale up tuberculosis control: development of information, education andcommunication materials for behaviour change. IntJTuberculosis Lung Dis 2005; 9(11 sup 1): S138

14. Hoa NP, DiwanVK,Thorson AEK. Knowledge about tuberculosis and its treatment among new pulmonary TB patients in the north and central regions ofVietnam. Int J Tuberc Lung Dis 2004; 8(5):603–608.

15. Khan JA, Irfan M, Zaki A, Beg M, Rizvi N. Knowledge, Attitude and Misconceptions regarding Tuberculosisin Pakistani Patients. JPMA 2006; 56:211.

16. P romtussananon S, Peltzer K. PerceptionsofTuberculosis: Attributions of Cause, Suggested Meansof Risk Reduction, and Preferred Treatment in theLimpopo Province, South Africa. J Health Popul Nutr2005; 23(1):74-81.

17. AgboatwallaM.Studying. Gender Perspectives in Knowledge, Attitudes and Practices Concerning Tuberculosis in Pakistan 's Sindh province. EMRO/TDR Final Report Series: Small Grants Scheme(SGS) 2001, No.47

18. Ernesto J, Tuberculosis and Stigma: Predictors ofPrejudice against People with Tuberculosis. Journal ofHealth Psychology 1999; 4(1): 71-79.