

Patients Knowledge and Attitude towards Tuberculosis in a Rural Setting in Aligarh

Uzma Eram¹, Tabassum Nawab², Najam Khalique³

^{1,2}Assistant professor in the Department of Community Medicine

³Professor and Chairman in the Department of Community Medicine

ABSTRACT

Introduction: Tuberculosis is a major cause of illness worldwide. The burden is rising globally due to poverty, increasing population and HIV/AIDS. In developing countries, poor knowledge and perception of tuberculosis is prevalent, which causes delay in diagnosis and treatment of tuberculosis..India has the highest number of TB cases in the world.

Material and Methods: The present study was conducted in Rural Health Training Centre, Jawan, of Jawahar Lal Nehru Medical College, AMU, Aligarh .A semi structured questionnaire was used to collect data from January- March, 2015. A total of 80 subjects ,more than 15 years age group, residents of Jawan, were selected who either had completed tuberculosis treatment or are still on treatment. An informed consent was taken, before starting the questionnaire.

Results: shows that out of 80 subjects under study, 50% were in age –group 35 to 55 years and 75 % were males. Radio/T.V. was the maximum source of information on tuberculosis (60%), followed by health workers or community workers(50%) .Few subjects got information about T.B. from family members and friends/neighbours. 87.5% of the subjects were aware of the evening rise of temperature in T.B., followed by blood in sputum(80%) and cough more than 3 weeks(42.5%). Regarding causes of T.B., 76.25% of the subjects said that T.B. was due to smoking, followed by alcohol consumption(42.5%). 85% of the subjects knew that T.B. was a communicable disease. 70% of the subjects knew that the mode of transmission of T.B. was during coughing, 50% of the subjects believed that tuberculosis could be transmitted by sharing of common materials with T.B. patients. 70% of the subjects reported that BCG immunization prevented tuberculosis. More than half(55%) of the participants reported that the transmission of T.B. could be prevented by avoiding personal contact with the T.B. patient.

Conclusion: The study showed that the knowledge of people relating to T.B. is insufficient in most of the aspects. TB awareness programs should focus on reduction of TB associated stigmas. We need to train our health workers and also educate our masses especially those living in rural areas.

I. INTRODUCTION

Tuberculosis is a major cause of illness worldwide. The burden is rising globally due to poverty, increasing population and HIV/AIDS.(1,2). It is estimated that one-third of the population in the World have tubercular infection(3), in spite of that the observed cases represent tip of iceberg(4). Tuberculosis is a major barrier to the social and economic developments of a country(5). Revised National Tuberculosis Control Program will expand to use innovative communication strategies to generate awareness for TB control(6). In developing countries, poor knowledge and perception of tuberculosis is prevalent, which causes delay in diagnosis and treatment of tuberculosis.(7,8,9). India has the highest number of TB cases in the world(10). Poor living conditions, debility and malnutrition predisposes population to disease. The disease is even more common among the poorest and marginalized section of the community(11).

II. MATERIAL AND METHODS

The present study was conducted in Rural Health Training Centre, Jawan, of Jawahar Lal Nehru Medical College, AMU, Aligarh .A semi structured questionnaire was used to collect data from January-March, 2015. A total of 80 subjects ,more than 15 years age group, residents of Jawan, were selected who either had completed tuberculosis treatment or are still on treatment. An informed consent was taken, before starting the questionnaire.

III. RESULTS

Table 1: Background characteristics:

AGE (in years)	Numbers	Percentage
>or = to 15 -35	15	18.7
>35-55	40	50
>55 or more	25	31.2
Sex		
Male	60	75
female	20	25

Table 2: Sources of information on TB:

SOURCES OF INFORMATION ON TUBERCULOSIS*	FREQUENCY	PERCENT
RADIO/T.V	54	60
HEALTH WORKERS/COMMUNITY MEMBERS	40	50
FAMILY MEMBERS	15	18.7
FRIENDS/NEIGHBOURS	8	10
NEWSPAPERS	4	5
POSTERS OR OTHER PRINTED MATERIALS	12	15
GOVERNMENT HOSPITALS	2	2.5

*Multiple Responses

TABLE -3: Knowledge about Clinical Features of Tuberculosis

KNOWLEDGE ITEMS	FREQUENCY	PERCENT
Presenting symptoms and signs of TB*		
Evening rise of temperature	70	87.5
Weight loss	24	30
Cough>3 weeks	34	42.5
Loss of appetite	18	22.5
Blood in sputum	64	80
Difficult breathing	8	10
Causes of TB*		
Infection(caused by bacteria,virus or fungi)	11	13.7
Smoking	61	76.25
Alcohol consumption	34	42.5
Chewing tobacco	8	10
Polluted water/food/environment	11	13.7
Evil eye/witchcraft	12	15
Communicability		
Communicable	68	85
Non-communicable	12	15
Mode of transmission*		
During coughing	56	70
Sharing cloth,utensils,room	40	50
Air borne/droplets	12	15
Sharing of smoking items	24	30
Alcohol consumption	12	15
Being in a crowd	20	25
Sex with a person with tuberculosis	5	6.2
Preventive measures of TB*		
Immunization with BCG	56	70
Avoiding smoking	24	30
Avoiding alcohol	7	8.75
Using protective measures-face masks	28	35
Avoiding personal contact with TB patient	44	55
Perceived organ affected by TB		
Lungs	66	82.5
Intestines	4	5
Bone	6	7.5
Others	4	5

*MULTIPLE RESPONSES

Table 1 shows that out of 80 subjects under study,50% were in age –group 35 to 55 years and 75 % were males.

Table 2 shows that radio/T.V. was the maximum source of information on tuberculosis (60%),followed by health workers or community workers(50%).Newspapers and government hospitals comprised the minimum percentage of source of information(5%) and (2.5%) respectively.Only 18.7% of the subjects got information about T.B. from family members and 10% from friends/neighbours.

Table 3 shows that about 87.5% of the subjects were aware of the evening rise of temperature inT.B.,followed by blood in sputum(80%) and cough more than 3 weeks(42.5%).About 30% of subjects were aware about

weight loss in T.B. and 22.5% were aware about loss of appetite. About 10% of subjects were aware about difficult breathing.

Regarding causes of T.B., 76.25% of the subjects said that T.B. was due to smoking, followed by alcohol consumption (42.5%). 15% of the subjects said that T.B. was due to an evil eye or witchcraft. 13.7% of the subjects believed T.B. to be an infectious process. 13.7% of the subjects believed the cause to be pollution. 10% of the subjects believed that T.B. was caused by chewing tobacco.

85% of the subjects knew that T.B. was a communicable disease. 70% of the subjects knew that the mode of transmission of T.B. was during coughing. 50% of the subjects believed that tuberculosis could be transmitted by sharing of common materials with T.B. patient. 15% of the subjects believed the mode of transmission was airborne. 25% of the subjects said the mode of transmission was being in a crowd. 6.2% of the subjects said T.B. was transmitted by having sex with an infected person.

70% of the subjects reported that BCG immunization prevented tuberculosis. More than half (55%) of the participants reported that the transmission of T.B. could be prevented by avoiding personal contact with the T.B. patient. 35% of the subjects reported that personal protection measures using mask could prevent TB transmission. 30% of the subjects reported that tuberculosis could be prevented by avoiding smoking. About 82.5% of the subjects said that the perceived organ affected in TB was lung.

IV. DISCUSSION

In our study, as shown in **table 1**, 75% of the subjects were males. A study of Nepal also showed that the male patients were higher than female patients (12, 13).

As shown in **table 3**, evening rise of temperature, blood in sputum and cough were the symptoms about which most of the subjects were aware in our study. Similar findings have been reported in studies from Pakistan, India and Bangladesh (13-17,26).

In this study, smoking and alcohol were reported as the principal causes of T.B. However, the true information regarding bacterial infection was reported by only 13.7% of subjects. These findings were similar to the findings of Tasnim et al (13). Other studies showed cold air, alcohol, smoking and lack of sanitation as common causes of T.B. (24). A Vietnam study showed that 22% of the subjects under study knew cause of T.B. to be a microorganism (25). In our study, 15% of subjects believed that T.B. was caused by evil eye/witchcraft. In Tanzania, a significant number of people also mentioned that witchcraft could be cause of T.B. (24).

In our study, 85% of subjects knew that the disease was communicable. Another study in Aligarh showed that 96.6% of subjects knew that it is communicable (27).

Regarding the mode of transmission, only 15% of the subjects under study gave the answer of airborne. Other studies also gave the similar results (18). There were some wrong perceptions about modes of transmission e.g. sharing food and utensils, having sex with an infected tuberculosis patient, in our study and in some previous other studies. (19-20). However, some studies show that more than 50% of the subjects knew about the droplet infection as mode of transmission (21,22).

Regarding preventive measures, most of the subjects in our study knew about vaccination (70%) and more than half knew about that personal contact should be avoided with a T.B. patient and about 35% knew about use of face masks. In previous studies, a good number of patients told about isolation of patients, avoidance of sharing of food, and few told others i.e. separate utensils, not to smoke, good diet as preventive measures. (15,19,20, 23,27).

In our study, as shown in **table-2**, radio and T.V. was the main source of information on T.B. While, very few got information from family members or friends. While, other studies showed that almost two-thirds of the respondents got information from family, friends and neighbours. (20,23). Tasnim et al (13) reported the main source of information was from television (46.8%), followed by physicians (18.2%) and family members (14.6%).

V. CONCLUSION

The study showed that the knowledge of people relating to T.B. is insufficient in most of the aspects. TB awareness programs should focus on reduction of TB associated stigmas. We need to train our health workers and also educate our masses especially those living in rural areas.

REFERENCES

- [1] Muniyandi M, Ramachandran R, Gopi PG, et al (2007). The prevalence of tuberculosis in different economic strata: a community survey from South India. *Int J Tuberc Lung Dis* 11:1042-45.
- [2] World Health Organization (2009): GLOBAL TUBERCULOSIS CONTROL. A short update to the 2009 report (World Health Organization, Geneva, 2009).
- [3] Miller B, Schieffelbein C. Tuberculosis. *Bull World Health Organ* 1998;76:141-3.
- [4] WHO. Global Tuberculosis Report. 2012. Geneva, Switzerland: World Health Organization; 2012b.
- [5] Available at: <http://www.tbcindia.nic.in/rmtcp.html> (last accessed on May 28, 2015).
- [6] Sachdeva KS, Kumar A, Dewan P, Kumar A, et al. New vision for Revised National Tuberculosis Control Program: universal access- "reaching the un-reached". *Ind J Med Res* 2012;135(5):690-4.

- [7] Busari O,Adeyemi A,Busari O(2008).Knowledge of tuberculosis and its management practices among medical interns in a resource –poor setting:implications for disease control in sub-Saharan Africa.The Internet J .Infect.Dis.6(2)DOI:10.5580/34d.
- [8] Mushtaq MU,Majrooh MA,Ahmad W,Rizwan M,et al.(2010). Knowledge,attitudes and practices regarding tuberculosis in two districts of Punjab,Pakistan.Int J Tuberc.Lung Dis.14(3):303-10.
- [9] Yousif TK,AI Khayat IM and Salman DH(2009).Survey of knowledge,attitudes and practices:Enhanced Response to TB ACSM,Iraq,Middle East J.Family Med.7:23-38.
- [10] Central TB Division ,DGHS,Ministry of Health and Family Welfare,Government of India.Official RNTCP website.New Delhi,India:TB INDIA 2010-RNTCP status report.www.tbcindia.org
- [11] Central TB Division ,DGHS,Ministry of Health and Family Welfare,Government of India.Official RNTCP website.New Delhi,India: A Health Communication Strategy for RNTCP.www.tbcindia.org
- [12] Bhatt CP,Bhatt AB,Shrestha B.Knowledge of tuberculosis treatment-A survey among Tuberculosis patients in DOTS program in Nepal.SAARC J Tuberc Lung Dis HIV/AIDS 2010;7:10-4.
- [13] Tasnim S,Rahman A,Hoque FM.Patients knowledge and attitude towards tuberculosis in an urban setting.Pul Med 2012;2012:352850.
- [14] Mushtaq MU,Shahid U,Abdullah HM ,et al.Urban-rural inequities in knowledge,attitudes and practices regarding tuberculosis in two districts of Pakistan Punjab province.Int J Equity Health 2011;10:8.
- [15] Malhotra R,Taneja DK,Dhingra VK,et al.Awareness regarding tuberculosis in a rural population of Delhi.Indian J OF Comm Med 2002;27:62-88.
- [16] Ali SS,Rabbani F,Siddiqui UN,et al.Tuberculosis do we know enough?A study of patients and their families in an outpatient hospital setting in Karachi ,Pakistan.Int J Tuber Lung Dis 2003;7:1052-8.
- [17] Croft RP,Croft RA.Knowledge,attitudes and practices regarding leprosy and tuberculosis in Bangladesh.Leprev 1999;70:34-42.
- [18] Corless JA,Stockton PA,Myers SB,Davies PD.A world wide internet survey of public knowledge about tuberculosis.Respir Med 2002;96:59-60.
- [19] Sharma N,Malhotra R,Taneja DK,Saha R,Ingle GK.Awareness and perception about tuberculosis in the general population of Delhi.Asia Pac J Pub Health 2007;19:21-7.
- [20] Singh MM,Bano T,Pagare D,et al.Knowledge and attitude towards tuberculosis in a slum community of Delhi .J Comm Dis 2002;34:203-14.
- [21] Mohamed AI,Yousif MA,Ottoa P,Bayoumi A.Knowledge of tuberculosis:A survey among tuberculosis patients in Omdurman,Sudan.Sudan J Public Health .2007;2:21-8.
- [22] Joshi RS,Maharjan M,Zimmerman MD.Tuberculosis awareness among TB patients visiting in DOTS clinic in Patna hospital.SAARC J Tuberc Lung Dis HIV/AIDS 2006;3:20-25.
- [23] Mesfin MM,Tasew TW,Tareke IG,et al.Community knowledge,attitudes and practices on pulmonary tuberculosis and their choice of treatment supervisor in Tigray,northern Ethiopia.Ethiop J Health Dev 2005;19:21-7.
- [24] Mangesho PE,Shayo E,Makunde WH,et al.(2007)Community knowledge,attitudes and practices toward tuberculosis and its treatment in Mpwapwa district,central Tanzania.Tanzan Health Res Bull 9:38-43.
- [25] Hoa NP,Thorson AE,Long NH,et al.(2003).Knowledge of tuberculosis and associated health –seeking behavior among rural Vietnamese adults with a cough for at least 3 weeks.Scand J Public Health Suppl 62:59-65.
- [26] Vidhani M,Vadgama P.Awareness regarding pulmonary tuberculosis-A study among patient taking treatment of tuberculosis in rural Surat ,Gujarat.Nat J Med Res 2012;2:452-5
- [27] Khalil S,Ahmad E,Khan ZP.A STUDY of knowledge and awareness regarding pulmonary tuberculosis in patients under treatment for tuberculosis in a rural area of Aligarh.-UP,India.Indian J Comm Health 2011;23:93-5.