

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

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### 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.

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### 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
<b>Sex</b>		
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
<b>Presenting symptoms and signs of TB*</b>		
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
<b>Causes of TB*</b>		
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
<b>Communicability</b>		
Communicable	68	85
Non-communicable	12	15
<b>Mode of transmission*</b>		
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
<b>Preventive measures of TB*</b>		
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
<b>Perceived organ affected by TB</b>		
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.

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