

**Original article:**

**Tuberculosis related knowledge among the high school students in a selected area of Bangladesh**

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**Abstract**

Tuberculosis (TB) is one of the major global public health challenge. In some countries, it is a re-emerging infectious disease. This descriptive type of cross sectional study was carried out among the 200 high school students in a selected semi urban area under Dhaka division of Bangladesh to evaluate their tuberculosis related knowledge. Data were collected by face to face interview of the respondents and analyzed by using SPSS version 16. In this study 53% respondents were male and others were female. Mean age of the respondents was 13.5 years. Among the respondents all of them heard the term tuberculosis. About 36% respondents told that they obtained some information about tuberculosis from television, 29% told book, 17.5 % told radio, 12.5% told newspaper. Majority of the respondents told that tuberculosis is a serious disease whereas 7% told that it is not very serious disease. Majority of the respondents told that cough lasts more than three weeks is the symptom of tuberculosis. More than half of the respondents told that tuberculosis can be transmitted by infected person to person. Among the respondents only 42% told that tuberculosis must be treated by medicine prescribed by doctor. Others (40.5%) said that it is cured by herbal or homeopathy treatment. About 12.5% respondents told that tuberculosis is non curable and 05% told that no treatment is required for this type of disease. About 40% respondents told that they do not know how to prevent tuberculosis disease, 22.5% told that avoidance of TB patients can prevent TB infection. From this study findings it may be concluded that tuberculosis related knowledge among the respondents was not adequate.

**Keywords:** tuberculosis, knowledge, high school children

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**Introduction**

Tuberculosis (TB) is a wide-reaching public health issue. It is one of the uppermost 10 reasons of death worldwide.1

It is a specific disease caused by infection with *Mycobacterium tuberculosis*, the tubercle bacillus, which can affect almost any tissue or organ of the body, the most common location of the disease being the lungs. 2

According to the World Health Organization, more than 8.8 million people worldwide are infected with tuberculosis, and almost 1.6 million people per year die from tuberculosis. 3

TB is completely curable if it is diagnosed and treated properly at early stage. Common symptoms of tuberculosis are cough (2-3 weeks or more), coughing up blood, chest pains, fever, night sweats, feeling weak and tired, losing weight without trying, decreased or no appetite etc. Symptoms may vary depends on what kind

of TB occur. In some cases people do not face any kind of sign and symptoms of TB and this is called inactive stage of TB. These people get affected by the disease when their immune system become deteriorated by diabetes, kidney disease, HIV infection etc. 4-7

Students are the future of the nation. Many of them become the upcoming leaders of the country. Disease related knowledge is one of the powerful part of life. These knowledge encourage people to contribute to build up a healthy, disease free nation. The aim of this study was to investigate the tuberculosis related knowledge among the high school children in a selected area of Bangladesh.

**Methodology**

This was a descriptive type of cross sectional study. The study was carried out from August to November 2016. The study population were the high school students in a selected semi urban area under Dhaka Division, Bangladesh. Inclusion

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criteria were high school students who had agreed to participate and given verbal consent to the study. The students who were not willing to participate were excluded. The sample size was 200. The sample was collected by non-probability purposive sampling.

A structured questionnaire was developed based on the objectives and variables of the study. It was finalized after modification and correction based on the findings of questionnaire pretesting. Before collection of data permission was taken from the respondents. The purpose of the study was explained to the respondents prior to administering the interview. With the consent of the respondents data were collected by face to face interview by using Bengali version questionnaire. The privacy of the respondents was maintained strictly. This study was not involved any physical, mental and social risk of the respondents. After collection of information through questionnaire, the data were coded, entered and analyzed in a computer. Data analysis was done using statistical package for social sciences or SPSS version 16.

### Result

In this study among 200 respondents 53% were male and rest were female. The age of the respondents ranged from 12 to 15 years (Mean 13.5). Most of them belongs to middle class socio economic condition. Among 200 respondents all of them are heard the term tuberculosis.

Figure 1 shows the distribution of the respondents according to their sex

Table 1: Distribution of the respondents according to get the source of TB information

Source of TB information	Frequency	Percentage
Television	72	36
Radio	35	17.5
Book	58	29
Newspaper	25	12.5
Family members	10	05
Total	200	100

Table 1 shows that among the respondents 36% respondents told that they acquire knowledge about tuberculosis from television, 29% told book, 17.5% told radio, 12.5% told newspaper and only 5% told from family members.

Table 2: Distribution of the respondents according to their opinion about seriousness of TB

Knowledge about seriousness of TB	Frequency	Percentage
Very serious	116	58
Not very serious	14	07
Somewhat serious	70	35

Total 200 100

Table 2 shows that 58% respondents told that tuberculosis is a very serious disease whereas 7% told that it is not very serious disease.

Figure 2 shows the distribution of the respondents according to their knowledge about sign and symptoms of TB

\*multiple answer

Table 3: Distribution of the respondents according to knowledge about mode of transmission of TB

Mode of transmission of TB	Frequency	Percentage
Bacteria	26	13
Virus	13	6.5
Infected person to person	112	56
Infected blood transfusion	44	22
Un boiled milk	05	2.5
Total	200	100

Table 3 shows that among the respondents 56% told that Tuberculosis can be transmitted by infected person to person, 22% told by infected blood transfusion, 13% told by bacteria, 6.5% told by virus and 2.5% told by un boiled milk.

Table 4: Distribution of the respondents according to knowledge about treatment of TB

Treatment of TB	Frequency	Percentage
No treatment is required	10	05
Medicine prescribed by doctor	84	42
It is non curable	25	12.5
Homeopathy treatment	50	25
Herbal treatment	31	15.5
Total	200	100

Table 4 shows that among the respondents 42% told that tuberculosis must be treated by medicine prescribed by doctor, 25% told homeopathy treatment, 15.5% told by herbal treatment. About 12.5% respondents told that tuberculosis is non curable and 05% told that no treatment is required for this type of disease.

Table 5: Distribution of the respondents according to knowledge about prevention of TB

Prevention of TB	Frequency	Percentage
Avoidance of TB patients	45	22.5
By taking a healthy diet	12	06
By using a mask while handling an infected person	38	19
By living in ventilated houses	25	12.5
Do not know	80	40
Total	200	100

Table 5 shows that 22.5% respondents told that avoidance of TB patients can prevent TB infection, 06% told by taking a healthy diet, 19% told by using a mask while handling an infected person, 12.5% told by living in ventilated houses and

40% told that they do not know how to prevent tuberculosis disease.

#### DISCUSSION

According to WHO Global TB Report 2016, Bangladesh is one of the world's 30 high TB burden countries with annual occurrence of 362,000 new Tuberculosis cases. About 73,000 people die annually due to Tuberculosis. 2

Many people of our country are not properly knowledgeable about the seriousness of TB disease. They have some wrong conception about this. This study was conducted with a view to assess the tuberculosis related knowledge among the high school students.

In this study among 200 respondents 53% were male and rest were female. The age of the respondents ranged from 12 to 15 years. Most of them belongs to middle class socio economic condition. Among 200 respondents all of them are heard the term tuberculosis. Near about similar findings were found from Yousif et al and abebe et al.8,9

Respondents of this study acquired tuberculosis related information from television more commonly, similar findings were reported in a study done by Mushfiq et al.10 This result seems that mass media plays an important role to spread any kind of information among general population. Others gained TB information from book, newspapers and family members.

Most of the respondents told that tuberculosis is a serious disease which was similar to a study done by Agboatwalla 11 whereas only few numbers told that it is not very serious disease.

Majority of the respondents told that main symptom of TB is cough more than 3 weeks which

was similar to a study done by Mushfiq et al.10

There was a misconception about the transmission of TB infection among the respondents. Only 13.5% knew that it is a bacterial disease and 6.5% told that it is a viral disease.

More than half of the respondents told that tuberculosis can be transmitted by infected person to person which was near about similar to a study done by Yadav. 12

Less than half of the respondents believed that TB is cured by medicine prescribed by doctor; rest of them believed homeopathy, herbal remedy are enough for TB cure. Some respondents told that it is a non-curable disease so no treatment is necessary for this. This type of conception may be due to their traditional belief.

About 40% respondents told that they do not know how to prevent TB. It is a worrying news for us. Some of them told that avoidance of TB patient can save people to get the disease. Similar report have been found in a study done by Mushfiq et al. 10

#### Conclusion

From this study findings, it reveals that tuberculosis related knowledge among the respondents was not sufficient.

#### Recommendation

Public health workers must educate the general people about TB.

Health education program should be arranged regularly.

Mass media play an important role to convey the effective message of TB infection through general population

Concerned authority should take more steps to eradicate the miss conception of people about TB.

**References:**

1. <http://www.searo.who.int/bangladesh/enbanworldtb2017/en/> (last accessed on March 2018)
2. [www.medilexicon.com/dictionary/94586](http://www.medilexicon.com/dictionary/94586) (last accessed on March 2018)
3. <https://www.webmd.com/lung/news/20070601/tuberculosis-17-questions-and-answers#1> (last accessed on February 2018)
4. WHO (2009). WHO Policy on TB Infection Control in Health-Care Facilities, Congregate Settings and Households. WHO/HTM/TB/2009.419, World Health Organization, Geneva, Switzerland.
5. Lawn SD, Wilkinson R (2006). Extensively drug resistant tuberculosis. *British Medical Journal* 33: 559-560.
6. Revised National Tuberculosis Control Programme Training Manual for Mycobacterium tuberculosis Culture and Drug Susceptibility Testing. Central Tuberculosis Division, New Delhi, India, 2009.
7. Sethi S, Mewara A, Dhatwalia SK, Singh H, Yadav R, et al. (2013) Prevalence of multidrug resistance in Mycobacterium tuberculosis isolates from HIV seropositive and seronegative patients with pulmonary tuberculosis in north India. *BMC Infect Dis* 13: 137.
8. Yousif T. K., Donaldson R. I., & Husseyanova S. Tuberculosis in Iraq: a Post-Invasion Survey of Knowledge, Attitude and Practice in the Anbar Governorate. *Middle East Journal of Family Medicine* 2011; 2(1).
9. Abebe G., Deribew A., Apers L., Woldemichael K., Shiffa J., Tesfaye M., Abdissa A., Deribie F., Jira C., Bezabih M. Knowledge, Health Seeking Behavior and Perceived Stigma towards Tuberculosis among Tuberculosis Suspects in a Rural Community in Southwest Ethiopia. *PloS One* 2010; 5(10): 1042-1045.
10. Mushtaq M. U., Shahid U., Abdullah H. M., Saeed A., Omer F., Shad M. A., Siddiqui A. M., Akram J. Urban-rural inequities in knowledge, attitudes and practices regarding tuberculosis in two districts of Pakistan's Punjab province. *International Journal for Equity in Health* 2011; 10(1): 8.
11. Agboatwalla M., Kazi G. N., Shah S. K., Tariq M. Gender perspectives on knowledge and practices regarding tuberculosis in urban and rural areas in Pakistan. *Eastern Mediterranean Health Journal* 2003; 9(4): 732-740.
12. Yadav, S. P., Mathur, M. L., & Dixit, A. K. Knowledge and attitude towards tuberculosis among sandstone quarry workers in desert parts of Rajasthan. *Indian Journal of Tuberculosis* 2006; 53(4): 187-195.