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A study on awareness of Tuberculosis amongst patients attending a rural health center in Tamilnadu, India

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ABSTRACT

Background: Tuberculosis has turned out to be one of the complex health issues worldwide. In the year 2015, there were an estimated 10.4 million new (incident) TB cases worldwide, of which 5.9 million (56%) were among men, 3.5 million (34%) among women and 1.0 million (10%) among children. People living with HIV accounted for 1.2 million (11%) of all new TB cases.

Methods: A cross sectional study was conducted amongst patients attending the OPD of rural health center of a medical college hospital at Kancheepuram. Data were collected between March 11th to May 10th for a period of about 2 months. A total of 200 patients were included for this study. Two hundred patients who attended the OPD between March 11th to May 10th were selected as study subjects.

Results: Of the 200 participants who participated in this study 104 were males (52%) and 96 were females (48%). Knowledge regarding Tuberculosis was assessed based on analyzing the data regarding knowledge on various aspects of the disease like cause, perception, mode of spread, prevention and treatment. About 160 study subjects (80%) had heard about the disease tuberculosis before and only a minority (20%) reported that they had never heard tuberculosis before.

Conclusions: Though the population is aware of the disease Tuberculosis, their knowledge about its risk factors, mode of spread and treatment is not satisfactory. It is observed that several misconceptions about the disease still exist amongst the study population. There is need to provide essential knowledge about Tuberculosis to the general population.

Keywords: TB awareness, Rural health center patients

INTRODUCTION

Tuberculosis has turned out to be one of the complex health issues worldwide. In the year 2015, there were an estimated 10.4 million new (incident) TB cases worldwide, of which 5.9 million (56%) were among men, 3.5 million (34%) among women and 1.0 million (10%) among children. People living with HIV accounted for 1.2 million (11%) of all new TB cases. Six countries accounted for 60% of the new cases: India, Indonesia, China, Nigeria, Pakistan and South Africa. Global progress depends on major advances in TB prevention

and care in these countries. Worldwide, the rate of decline in TB incidence remained at only 1.5% from 2014 to 2015.

There were an estimated 1.4 million TB deaths in 2015, and an additional 0.4 million deaths resulting from TB disease among people living with HIV. Although the number of TB deaths fell by 22% between 2000 and 2015, TB remained one of the top 10 causes of death worldwide in 2015. According to Global Tuberculosis Report 2016, the incidence of tuberculosis is 2.8 million cases in 2015 (217 per 100000 population). The updated

estimate of the number of TB deaths in India (excluding those in HIV-positive people, which are classified as deaths due to HIV/AIDS in ICD-10) is 478 000 in 2015 (36 per 100 000 population), and 483 000 (37 per 100 000 population) in 2014. In the 2015 global TB report, the estimate for 2014 was 220 000 (17 per 100 000 population).²

Despite the efforts, funds, manpower and logistics invested and spent on Revised National Tuberculosis control program and other information dissemination strategies the problem of Tuberculosis has not been adequately brought under control and it cannot be done so unless the people across the country are aware of the cause, mode of spread, treatment and prevention of Tuberculosis, hence the study was aimed at assessing the awareness of patients attending the rural health center of a medical college hospital regarding Tuberculosis.

METHODS

A cross sectional study was conducted amongst patients attending the OPD of rural health center of a medical college hospital at Kancheepuram. Data were collected between March 11th to May 10th for a period of about 2 months.

A total of 200 patients were included for this study. Two hundred patients who attended the OPD between March 11th to May 10th were selected as study subjects. Each subject was approached individually and an informed consent was obtained and all study subjects were assured of confidentiality. Subjects who did not give consent for the study and subjects who already had the disease and on treatment were excluded from the study.

A pretested semi structured questionnaire comprising questions regarding knowledge about the disease, perception, mode of spread and treatment was used. Data were entered on and analyzed using Microsoft Excel spread sheet. Descriptive statistics were used and results were expressed as proportions.

RESULTS

Of the 200 participants who participated in this study 104 were males (52%) and 96 were females (48%) and the mean age of the study participants was 36.2 ± 0.92 . Majority of the study subjects (88.5%) were married and belonged to joint family (65%). Regarding the educational status 61 study subjects (30.5%) had completed their undergraduate degree and 7(3.5%) of them had completed their postgraduate degree, out of the 200 study subjects 18 were illiterates (9%) and 76 individuals (38%) had completed their primary school education and 38 study subjects (19%) had completed their secondary education.

Knowledge regarding Tuberculosis was assessed based on analyzing the data regarding knowledge on various aspects of the disease like cause, perception, mode of spread, prevention and treatment. About 160 study subjects (80%) had heard about the disease tuberculosis before and only a minority (20%) reported that they had never heard tuberculosis before as shown in Table 1. About 40% of the individuals happened to know about Tuberculosis through television and about 11.5% reported that they came to know about the disease by reading newspaper. About 16% of the individuals came to know about tuberculosis through radio and 40 individuals (20%) had no idea about the disease Tuberculosis.

Table 1: Knowledge regarding cause, risk factor and spread of tuberculosis.

| | NO | % |
|---|-----|------|
| Have you ever heard of tuberculosis? | | |
| Yes | 160 | 80 |
| No | 40 | 20 |
| How did you get to know about the disease tuberculosis? | | |
| Television | 80 | 40 |
| Newspaper | 23 | 11.5 |
| Radio | 25 | 12.5 |
| Word of mouth | 32 | 16 |
| Unaware | 40 | 20 |
| How does tuberculosis spread? | | |
| Cough and sputum | 120 | 60 |
| Hereditary | 20 | 10 |
| Mosquito bite | 23 | 11.5 |
| No idea | 37 | 18.5 |
| Risk factor for tuberculosis | | |
| Microbes | 71 | 35.5 |
| Smoking | 93 | 46.5 |
| Tobacco chewing | 23 | 11.5 |
| No idea | 13 | 6.5 |
| Does passive smoking cause tuberculosis? | | |
| Yes | 82 | 41 |
| No | 118 | 59 |

Regarding the prevention and treatment of Tuberculosis, 59% of the individuals knew that the disease can be prevented and 30% responded that they did not know if Tuberculosis can be prevented. About 11% of the individuals had no idea if the disease can be prevented as shown in Table 2. About 70% of the individuals felt that the disease can be treated and 19% that it cannot be treated, 40% of the individuals responded that the duration of Tuberculosis treatment is 6 months and about 19.5% responded that they had no idea about the duration of tuberculosis treatment.

DISCUSSION

The present study shows that 80% of the individuals had heard of tuberculosis before and only 20% had not heard of the disease before. A similar study conducted by Chinnakali et al amongst people residing in urban slums of south India demonstrated similar results. The source of information about tuberculosis for 40% of our study subjects was television and for rest of the others apart from people who had no idea about tuberculosis had heard of the disease through sources like newspaper, radio and word of mouth. A similar study conducted by Sherkhane et al amongst adolescents of urban slums reported that 48.31% of their study subjects happened to know about Tuberculosis through television.

Regarding the modes of spread of tuberculosis, majority of the study subjects were aware that cough and sputum is the most important mode of spread of Tuberculosis and about 10% of the individuals felt that tuberculosis is hereditary and about 11.5% of the individuals thought Tuberculosis can spread through mosquito bite and 20% were not aware of the modes of spread of tuberculosis. A similar study conducted by Amgain et al in Jutpani VDC of Chitwan district.

Nepal reported that 66% of their study subjects were aware that Tuberculosis can spread during coughing which is similar to the present study result.⁵

In the present study 46.5% of the individuals were aware that smoking is an important risk factor for the cause of tuberculosis. A similar study conducted by Alsalem et al amongst students of Saudi university reported a much less knowledge of about 27.7% in this regard. This could be due to the difference in awareness generation and information dissemination processes in both the countries. Majority of the study subjects were of the opinion that passive smoking is not a risk factor for tuberculosis.

Regarding the knowledge about tuberculosis prevention majority of the study subjects were aware that tuberculosis can be prevented when taken adequate preventive measures. A similar study done by Solliman et al among general population in east Libya reported a similar result as the present study. About 70% of the individuals were aware that Tuberculosis can be treated and cured and only a minority of the individuals was not aware that tuberculosis can be treated. A similar study done by Hossain et al in Bangladesh reported a higher knowledge of 90 in this regard.

About 40% of the individuals were aware that the duration of tuberculosis treatment is 6 months in the present study, a similar study done by Balamurugan s et al amongst medical students in Salem district, Tamilnadu reported a higher knowledge when compared to our study and this could be due to differences in level of education

as medical students tend to have a higher knowledge when compared to general population.⁹

CONCLUSION

Burden of tuberculosis is high in developing countries and India happens to be one of the significant contributors of the world's TB burden. Though the population is aware of the disease Tuberculosis their knowledge about its risk factors, mode of spread and treatment is not satisfactory. It is observed that several misconceptions about the disease still exist amongst the study population. There is need to provide essential knowledge about tuberculosis to the general population. Programs meant to improve the general awareness on tuberculosis, its cause, risk factors, treatment and prevention can be supplemented along with the RNTCP and other TB related programs in India. Information dissemination strategies specifically targeting the people living in rural areas should be devised and implemented for the betterment of knowledge and awareness regarding tuberculosis.

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Institutional Ethics Committee

REFERENCES

- Global Tuberculosis Report. 2015 Report. Geneva: WHO office; 2016 Global actions and investment fall far short of those needed to end global TB epidemic; 2016.
- 2. Updated and interim estimates of TB disease burden in India and plans for a national TB prevalence survey in 2017/2018: WHO office; Global actions and investment fall far short of those needed to end global TB epidemic, 2016.
- Chinnkali P, Ramakrishnn: J Level of awareness about tuberculosis in urban slums: Implications for advocacy and communication strategy planning in the National program. Lung India. 2013;30(2):139– 42.
- 4. Sherkhane R, Sherkhane M. Awareness regarding Tuberculosis among adolescents of urban slums. IJMSPH. 2014;3:1329-33.
- 5. Amagain K Maharajan M. Awareness and attitude of pulmonary tuberculosis Patients toward tuberculosis: A cross-sectional study from Chitwan district of Nepal. IJHAS. 2014;3(4):216-20.
- 6. Alsalem SB, ALEisa AM. Tuberculosis: Awareness among Students in Saudi University. Health. 2015;7:175-82.

- 7. Solliman AM, Hassali MA. Assessment of Knowledge towards Tuberculosis among general population in North East Libya. J Appl Pharmaceut Sci. 2012;2(4):24-30.
- 8. Hossain S, Zaman K, Quaiyum A, Banu S, Husain A, Islam A, et al. Factors associated with poor knowledge among adults on tuberculosis in Bangladesh: results from a nationwide survey: J Health Population Nutr. 2015;34:2.
- 9. Balamurugan SS, Swaminathan, Rao SS. The Awareness about Tuberculosis and DOTS among

the Aspiring Doctors in a Tertiary Medical College Hospital, Salem, Tamil Nadu. NJRCM. 2013;2(2):79-148.

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