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LEVEL OF AWARENESS ABOUT TUBERCULOSIS IN AN URBAN SLUM IN JAMMU DISTRICT, JAMMU AND KASHMIR

Pulmonary Medicine

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KEYWORDS

INTRODUCTION:

With a staggering global impact, tuberculosis remains one of the major public health problem with approximately one-third of the world's population affected. Although research in the past years has provided valuable insight into TB transmission, diagnosis, and treatment; much remains to be discovered to effectively decrease the incidence of and eventually eradicate to combat this disease that knows no boundaries. In 2014, tuberculosis was responsible for the death of nearly 1.5 million people, representing a global mortality impact larger than any other infectious disease. The emergence of multi-drug resistant (MDR) strains has reduced viable treatment options and threatens to make tuberculosis both an untreatable and highly fatal disease. MDR tuberculosis elicits great economic and quality of life burdens due to costly and time-consuming therapeutic interventions.

Tuberculosis (TB) remains as an important public health problem in developing countries. India still finds it difficult to combat this infection due to lack of knowledge and awareness among general population. Awareness about the disease, its diagnosis, and treatment among public will help in controlling the killer disease. In this race to combat a disease that knows no boundaries, it is necessary to have a conceptual and clear understanding of TB in general population so that timely treatment can be provided through novel and collaborative research and public health efforts. So, this study aims at assessing knowledge and attitude towards TB in an urban slum community.

MATERIALS AND METHODS

Study design

A community-based cross sectional study was designed.

Study setting

The study was conducted in an urban slum in Jammu district of Jammu and Kashmir. The study area,is an urban slum in Jammu. Most of the people worked as daily wagers.

Study instrument

A pretested, structured interview schedule was used to assess the KAP related to symptoms, causes, spread, and treatment of TB. Domains identified were knowledge about TB, symptoms, spread, diagnosis, treatment, and prevention of TB.

Study population and selection of households

House to house visit was done in the study area, and there were about 380 households in the slum part of study area. Seventy-five houses were locked during visit and 305 households were approached for an interview. An adult member in the house present at the time of visit and who was willing to participate in the study were interviewed.

Data entry and analysis

Data were entered into a Microsoft Excel spreadsheet and analyzed with Microsoft excel and SPSS version 13.0. Descriptive statistics were calculated.

OBSERVATIONS AND RESULTS

A total of 305 households were approached for an interview. Four households (1%) refused to participate citing household work at the time of visit. A total of 301 people were interviewed, of whom 137 (45%) were females and 168 (55%) were males [Table 1]. About more than half of them were living in overcrowded houses. Median family income per month was 5000 rupees, and about one-fourth of the study subjects had their monthly income less than 3000 rupees.

Awareness about TB and its symptoms

A total of 290 (95%) respondents had heard about TB. Out of them, 71% (216) considered TB as a serious disease. Regarding the symptoms of TB, 89% (271) were aware that cough is a symptom of TB, followed by weight loss (73%), blood in sputum (18%), and fever (14%). Also, 4% reported that vomiting as a symptom of TB and diarrhea by 2% of respondents. However, 10% of respondents were not aware of any symptom. There is no difference in the knowledge about "cough" as a symptom of TB between males and females. Although majority of participants were aware of "cough" as a symptom, participants who were educated secondary school and above had better knowledge. Of the respondents, 75% were aware that TB can affect children and 14% denied it.

Awareness about modes of spread and diagnosis

When asked about the spread of TB, 91% stated that TB can spread from one person to another and 9% were of opinion that TB will not spread. Regarding the modes of spread, 65% knew that TB spreads through cough and 18% stated that talking with a TB patient can spread TB. Also, 13% reported that TB can spread by touching and 5% perceived contaminated water as a mode of spread of TB. Only 1% of respondents were aware that overcrowding can spread TB. Out of 290 study subjects, 49% stated that there were tests to diagnose TB. Among the 49% of study subjects who reported any test, sputum examination as a method of diagnosis was known to only 10% and X-ray was stated by 3%. Among the respondents, 32% of subjects reported blood tests as a method of diagnosis and 9% were not aware of any diagnostic method. Only 51% of participants reported that they would share the status of TB of family members with their relatives or neighbors.

Awareness about treatment

When asked whether TB is curable, 47% said that TB is curable. Regarding duration of treatment, 32% were aware of the treatment duration of 6 months and/or above. Of them, 20% reported that treatment should be taken as long as symptoms disappear, and 26% did not know the duration of treatment. Moreover, 18% of subjects were of the opinion that visiting religious places will cure TB. Among the respondents, 84% were aware of the free treatment available for TB and 11% were not aware of the free treatment and 5% denied the availability of free treatment. Men were more aware about free treatment for TB compared to women, and this difference is statistically significant [Table 2].

Awareness and practices regarding cough and disposal of sputum

Of the respondents, 85% said that TB can be prevented from spreading to other family members by some precaution and 45% said that isolation of TB patients from other family members will prevent spread. In addition, 51% were aware that using a hand kerchief or a towel while coughing will prevent the spread, and 18% were aware of chemoprophylaxis to children as a measure to prevent spread of TB to children. When asked about their usual method of disposal of sputum, 43% of study subjects stated that they disposed it in a dustbin/sewage. Knowledge of women was better compared to men regarding safe disposal of sputum [Table 2]. Knowledge regarding using a hand kerchief or a towel during cough and safe disposal of sputum were more in participants, who had education secondary school and above . Of the respondents, 43% reported the disposal of sputum in front or back of the house in open space and 61% were aware of a vaccine (BCG) that can prevent TB and it is given for children. Of the participants, 26% were not aware of the vaccine and even 13% denied the presence of vaccine against TB.

Table 1: Sociodemographic characteristics of study population

Sociodemographic variables	Values (*n*=290) (%)
Age (in years)	
Mean±SD	39.6±14.8
Median	37

Gender	
Males	168 (55%)
Females	137 (45%)
Education	
Illiterate	50 (12.7)
Primary	54 (13.7)
Middle school	84 (21.3)
High school and above	207 (52.4)
Housing-type	
Kutcha	76 (20.2)
Pucca	301 (79.8)
Overcrowding*	
Yes	224 (57.1)
No	168 (42.8)
Cross-ventilation	
Yes	138 (35.5)
No	250 (64.4)

*Overcrowding was calculated based on number of persons per room, The accepted standards are 1 room for 2 persons, 2 rooms for 3 persons, 3 rooms for 5 persons, and 4 rooms for 7 persons.

DISCUSSION:

TB still remains a major public issue in India inspite of the effective implementation of RNTCP (Revised national tuberculosis control program) in 1998. Inadequate awareness and social stigma pertaining to this particular disease is a major hinderance factor in effectively controlling this infection. A mass survey carried out by central TB division in 2007 reported poor level of awareness among general population[1]. Through this study we had analysed the knowledge and awareness of general patients attending Outpatient department about TB in a tertiary care centre.

A few population based studies conducted in various parts of India has also been highlighted for reference. In our study 86.19% of the participants knew about the high burden of TB in India and 72.86% attributed infection as the cause of disease. One such study from Jaipur, Rajasthan showed that 90% of illiterates were unaware about etiology of TB.[2] A similar study done by Sharma et al in Delhi showed 89% of study subjects also perceived it to be an infectious disease. However, Devey in Bihar showed that only 14% knew about TB as an infectious disease.[3] A study conducted in rural Delhi in 2006 showed very promising results where >95% of participants were aware of cause of TB.[4]

Regarding the vulnerable age group 51.19% believed that all age groups were affected, a finding similar to a study done by Sherkhane et al.[5] About 2/3rd of participants exhibited their source of knowledge of TB from family, friends and neighbours and only a minority 1/3rd from health personal/ mass media. This finding was quite similar in studies done in Ethiopia, Bihar and slums of Delhi.[3, 6, 7]

In our study, regarding the knowledge on common symptoms 89% answered cough as the most common symptom followed by hemoptysis and fever. A similar study done in Split, Croatia reported that 92% of participants were able to identify cough as principal symptom.[8] This great awareness on symptomatology could serve to help us in improving passive case finding.

About 44.52% patients still believed that diagnosing TB was really difficult. In a large survey done in Orissa among patients of various clinics showed that they were aware of various aspects of diagnosis, prevention and control of TB. Majority of them also knew about DOTS centres,[9] A study done in Bengal revealed only 2% of general population in hospital knew about DOTS.[10] Considering the curability of the disease only 53.10% thought that TB is curable. A similar study done in Serbia reported that 86% thought TB is curable and another study at Rajasthan said 90% were in view of TB being a curable disease.

CONCLUSION

Though the awareness of symptoms, causative agent, mode of spread were reasonably good, knowledge on availability of DOTS centers, free treatment, curability and TB possibility leading to death is still poor among rural population. The need for imparting health education and awareness especially in rural communities through mass media/ health care personal is needed to progress towards TB free India.

Recommendations

Regular health educational activities through mass media/ campai gning should be organized particularly in rural areas. Television shows and awareness programmes can be run at various places in hospitals so that basic information of TB could reach general patients. ACSM should be strengthened and given an equal role in RNTCP programme along with other objectives.

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