

SHORT COMMUNICATION

Knowledge and Awareness of Tuberculosis among High School Students of Mysore City

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Abstract: *Background:* Community awareness in general and young generation in particular is of vital importance in combating tuberculosis - a public health problem in our country has been highlighted from various studies across the country. *Objectives:* To assess the knowledge about tuberculosis among high school students of Mysore city. *Methods:* A cross sectional study was carried out to assess the knowledge about tuberculosis among 129 students studying in 9th- 10th standard of two high Schools in Mysore city selected by cluster sampling. *Results:* 81% knew TB was caused by bacteria, 85% mentioned it spreads from person to person, 78%, 72% and 54% knew cough as the main symptom, sputum test is the diagnostic test and treatment was for 6-9 months respectively. 54% students mentioned television as main source of information. *Conclusion:* knowledge about disease causation, manifestation and cough hygiene was good, but limited knowledge with respect to management domain and TB risk in HIV patients and patient care and discrimination towards TB patients. Only 65% of students knew the increased lifetime risk of acquiring TB in HIV positive patients calls for a need to emphasis this risk factor in educational interventional programme.

Keywords: Knowledge, Tuberculosis, High school students

Introduction

Tuberculosis caused by Mycobacterium tuberculosis which is an age old disease is a public health problem with socio-economic implications especially in India. With the advent of the HIV/AIDS epidemic the problem has compounded. One of the components of new WHO Stop-TB strategy released in 2006 is to empower people with TB and communities through education and communication. RNTCP relies on passive case finding of chest symptomatic in the community which requires adequate knowledge and awareness among general public and younger generation in particular. With this in mind, the present study was undertaken to assess the level of knowledge of high school children about various aspects of TB.

Material and Method

Sample size was obtained to be 120 taking 77% of students knew TB is caused by bacteria from Vellore study [1]. Study period-August-September 2010. 129 students studying in 9th and 10th standard of two high Schools in Mysore city was selected by cluster sampling. After informed consent was obtained from the head of the institution, only children who said that they heard about TB were given a self

administered questionnaire in local language having total of 20 questions with one score for each correct answer (maximum was 20) on various domains of TB. Data obtained was tabulated and analysed using Epi Info 2005 software.

Result

In the present study, boys constituted 67% and girls 33%. Minimum, maximum score and mean was eight, nineteen and 13.3 ± 2.41 . 81% of the subjects knew that TB was caused by bacteria, 85% attributed TB spreads from person to person, 83% knew lung is the commonly affected organ, 78% knew cough as a common symptom and 72% stated sputum testing as diagnostic, 54% agreed treatment is for 6-9 months (Table-1). However, food, water, smoking and overcrowding as a factor for disease causation was attributed in 66%, 84%, 71% and 51% respectively. Television was the main source of information (54%). It is good to note that all children knew the importance of cough hygiene.

Table-1: Knowledge and awareness of TB among study population	
TB Knowledge parameters (N=129)	Awareness Number (%)
<i>Knowledge with respect to disease causation and detection</i>	
TB is caused by bacteria	104 (80.6)
TB spreads from person to person	110 (85.3)
lung is the most commonly affected organ	108 (83.7)
Cough for two weeks or more	101 (78.3)
Sputum test is diagnostic test of choice	93 (72.1)
Mantoux test is used in children for diagnosis	57 (44.2)
<i>Knowledge with respect to management</i>	
TB is preventable	122 (94.6)
BCG vaccine in children prevents TB	91 (70.5)
TB is curable	111 (86.0)
TB treatment is free of cost	105 (81.4)
Hospitalization is a must*	97 (75.2)
DOTS refers to a method of treatment in TB	43 (33.3)
TB treatment is for six to nine months	69 (53.5)
<i>Knowledge with respect to TB risk in HIV patients, patient care and cough hygiene</i>	
Increase risk in lifetime of acquiring TB in HIV positive patients	83 (64.3)
Patients should be isolated	47 (36.4)
Should not share/have food with them	94 (72.9)
Should quit the job	57 (44.2)
Should not marry	45 (34.9)
Should not attend social functions	42 (32.6)
Should cover with handkerchief while sneezing / coughing	128 (99.2)

Discussion

Knowledge with respect to disease causation and detection: Our study almost agrees (except for smoking as a factor) with the findings of study done in Vellore, where 77% students knew TB was caused by bacteria, 85% were aware that it could spread from person to person, 76% were aware that lungs is the most commonly affected organ, cough and weight loss as main symptom in 80%, smoking as a factor in 39% and significance of BCG in 75% of study population [1]. A study among urban and rural higher secondary school students of Punjab [2], revealed urban students and male students were better informed. Nearly 70% were aware that TB is caused by germs, almost equal numbers also held unhygienic food, unclean water, smoking and overcrowding directly responsible for causing TB similar to our study. However, 15% children held evil spirits and demons responsible for causing tuberculosis which was 16.2% in Zambian study [3] and 11% in our study. Cough, fever and weight loss as main symptoms was mentioned in 43.6%, 65% and 80% respectively. Chest pain and haemoptysis were described by less than half of all students [2]. Zambian study among senior secondary school children revealed 81.4% had heard about tuberculosis. It also reported that knowledge of major symptoms (persistent fever, cough and loss of weight) was also present in over three fourths of students [3]. Delhi study among urban slum community showed that only 2.3% attributed the disease to germs [4]. Haryana study in school children showed 78.5% were aware about modes of transmission, 61% knew signs and symptoms [5].

Knowledge with respect to management: Our study subjects were relatively better aware than the Vellore study subjects which showed that 74%, 72%, 27% and 29% students knew tuberculosis was preventable, treatment was free, about DOTS, treatment was for 6-9 months. The mean test score was 7.05 (64%) [1]. Importance of x ray, sputum testing, BCG and Mantoux testing was mentioned by 42-48%, 31-35%, 57-60% and 5% respectively in Punjab study [2] and 14% had awareness about BCG in rural population of Tamil Nadu [6]. Study done among boys of senior secondary school students of Haryana revealed that 46.4% knew correct treatment for TB. %) [7]. Poor knowledge about disposal of sputum was seen in Punjab study around 30% viewing sputum to be thrown into drains, burning as a method in 8%, 18.3% -26.7% stating that sputum be boiled before disposal, around 35% stating sputum be buried in ground after digging a hole [2]. Relatively better response was seen in the present study-collect in paper cup (55%), add disinfectant before disposal (47%), sputum into drain (45%) and burning and boiling before disposal in 25% each.

Knowledge with respect to TB risk in HIV patients, patient care and cough hygiene: Present study revealing that only 65% of students knew the increased lifetime risk of acquiring TB in HIV positive patients calls for a need to emphasis this risk factor in educational interventional programme. A Delhi study in slum community revealed tendency to discriminate TB patients- 71% respondents stating isolation of TB patients from the family, 74.1% - avoiding the patient in food sharing, 33%- quitting job by the patients, 27.6%- prohibiting marriage of the patient, 18%- shunning him from attending social functions [4].

Our study too showed similar findings for all factors except that isolation and not to attend social functions were stated by one third of the study population. To conclude present study has revealed by and large knowledge about disease causation, manifestation and cough hygiene was good, but limited knowledge with respect to management domain and TB risk in HIV patients and patient care and discrimination towards TB patients. Extensive health education as part of curriculum or otherwise from external sources like us directed towards attitudinal change among school children will definitely pay large dividends in creating awareness and remove myths about TB among children and in turn community at large.

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