

Original Research Article

A cross sectional study to assess the knowledge, attitude and practice regarding tuberculosis among the patients at GMCH, Udaipur (Rajasthan)

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ABSTRACT

Background: The present study was conducted to assess the knowledge, attitude and practice regarding Tuberculosis among non TB patients in Udaipur.

Methods: A cross sectional study conducted at Geetanjali Medical College and Hospital, Udaipur among the non TB patients during the period of 1st June 2015 to 31st December 2016 after obtaining Ethical clearance from Human Research Ethical Committee. Study was conducted on 220 patients using a pre tested questionnaire after taking their verbal consent to participate in study.

Results: Insignificant difference in knowledge about TB was found between male and female respondents. More than 65% of respondents found to have correct knowledge regarding sign and symptom, mode of acquiring TB and mode of preventing TB.

Conclusions: Health education directed towards improve knowledge and bringing a change in attitude and practice among non TB patients is needed to create awareness and remove myths about tuberculosis in groups of people in the community.

Keywords: Knowledge, Attitude, Practice, Tuberculosis, DOTS, Sign and symptoms, Transmission, Prevention

INTRODUCTION

Tuberculosis (TB) is a public health problem in many developing countries including India. Even though tuberculosis (TB) is a treatable and preventable disease, it is the second most common cause of death attributable to infectious disease.¹

Globally 9.4 million incidents and 14 million prevalent cases occurred in 2010.²

The DOTS effectiveness might be determined by the patients' health-seeking behaviors, which is related to patients' demo- graphic characteristics, knowledge of TB,

health education, and traditional beliefs. These are believed to have a crucial impact on treatment compliance and treatment success rate.^{3,4}

Studies showed that a low knowledge score was more likely to be observed among the illiterate, females, rural residences, low income, and youngest age group. They also showed that less than half of the respondents were aware of the diagnosis and free treatment of TB, which could act as barriers to TB diagnosis and significantly affect the case notification rate.⁵⁻⁷ Furthermore, it has been proven that the disease had a significant impact on social relations. This occurs when there is stigma, discrimination, and several misconceptions that could

contribute to poor adherence and treatment compliance.⁸⁻¹⁰

Tuberculosis (TB) is a one major public health problem in our country and in Udaipur, Rajasthan and thus assessment of knowledge, attitude, and health-seeking practice in this region is essential to plan, implement, and evaluate advocacy, communication, and social mobilization work. This may improve the case detection rate. Therefore, the objective of this study is to assess patient's knowledge, attitude, and health-seeking practice and associated factors toward pulmonary tuberculosis.

Objective of the study

1. To assess the knowledge in patients regarding the tuberculosis.
2. To access the knowledge about mode of transmission of tuberculosis.
3. To access the knowledge about Preventive measures of tuberculosis.
4. To compare the knowledge, attitude and practice of male and female patients regarding tuberculosis.

METHODS

The cross sectional study has been conducted among 220 patients attending OPD at GMCH, Udaipur during the period of 1st June 2015 to 31st December 2016 after obtaining Ethical clearance from Human Research Ethical Committee.

Sample size has been calculated using statistical method and assuming that 50% of the patients had reasonable knowledge and they followed self-care practices associated with the disease and that we require a precision of 5%, with 95% confidence level and 7% to be the absolute error:

$$n = \frac{Z^2 \times P(1-P)}{E^2} = 196$$

10% addition of safety margin to allow non-response, finally, it has been decided to collect the information from 220 patients at GMCH.

The information has been collected on a pre-tested, pre-structured, well designed scheduled questionnaire prepared for further statistical analysis to fulfill the objectives of study. The subjects will be explained with purpose of the study, interview based and assure for secrecy and confidentiality of the information which they provided us, after obtaining the written consent, the demographic profile.

Inclusion criteria

Inclusion criteria were non tuberculosis patients attending GMCH; patients attending OPD at GMCH.

Exclusion criteria

Exclusion criteria were tuberculosis patients attending OPD at GMCH; patients attending IPD at GMCH; patients not willing to participate were excluded from study.

Statistical analysis was done using ratio and proportion. For finding significance of knowledge about TB among male and female patients chi square test was used.

RESULTS

Characteristics of study participants

The total number of respondents was 220, consisting of 53.64% male and 46.36% female. All participants were over 15 years old and more than half of them (58.18%) were within 30-44 years. One fourth of them were illiterate, about 70% studied in any institution. About 60% were residing in rural areas. 30% of the study subjects were suffering from TB.

Knowledge of patients regarding TB

Insignificant difference in knowledge about TB was found between male and female respondents (Table 1).

Table 1: Distribution according to socio demographic variables.

Variables	Male (%) N ₁ =118	Female (%) N ₂ =102	Total (%) N=220
Age (years)	15-29	33 (27.97)	60 (27.27)
	30-44	69 (58.47)	128 (58.18)
	45-59	13 (11.02)	25 (11.36)
	60-74	03 (02.54)	7 (3.18)
Area	Rural	72 (61.02)	132 (60.0)
	Urban	46 (38.98)	88 (40.0)
Education	Illiterate	31 (26.27)	56 (25.45)
	Institutional	82 (69.49)	153 (69.55)
	Informal	5 (04.24)	11 (5.00)
History of TB in family	Yes	46 (38.98)	66 (30.00)
	No	72 (61.02)	154 (70.00)

Table 2: Knowledge of patients regarding TB.

Knowledge about TB		Male (%) (N ₁ =118)	Female (%) (N ₂ =102)	Total (%) (N=220)	χ^2 value	P value
Sign and Symptoms	Know	81 (68.64)	67 (65.69)	148 (67.27)	0.104	0.747
	Don't know	37 (31.36)	35 (34.31)	72 (32.73)		
Mode of transmission	Know	79 (66.95)	65 (63.72)	144 (65.45)	0.129	0.719
	Don't know	39 (33.05)	37 (36.27)	76 (34.55)		
Mode of prevention	Know	81 (68.64)	78 (76.47)	159 (72.27)	0.283	0.595
	Don't know	37 (31.36)	24 (23.53)	61 (27.73)		
Duration of Treatment	Know	56 (47.46)	36 (35.29)	92 (41.82)	2.846	0.092
	Don't know	62 (52.54)	66 (64.71)	128 (58.18)		
Mode of treatment	Know	46 (38.98)	34 (33.33)	80 (36.36)	0.530	0.467
	Don't know	72 (61.02)	68 (66.67)	140 (63.64)		
TB treatment is free of cost	Know	78 (66.10)	69 (67.65)	147 (66.82)	0.010	0.921
	Don't know	40 (33.90)	33 (32.35)	73 (33.18)		
Seriousness of treatment	Know	56 (47.46)	61 (59.80)	117 (53.18)	2.872	0.090
	Don't know	62 (52.54)	41 (40.20)	103 (46.82)		
Proper place of treatment	Know	58 (49.15)	49 (48.04)	107 (48.64)	0.001	0.976
	Don't know	60 (50.85)	53 (51.96)	113 (51.36)		
Frequency of visit to clinic	Know	39 (33.05)	29 (28.43)	68 (30.91)	0.352	0.553
	Don't know	79 (66.95)	73 (71.57)	152 (69.09)		

Table 3: Distribution of patients according to knowledge towards common sign and symptoms of TB.

Signs and symptoms of TB	Total (%) N=148
Coughing	98 (66)
Weight loss	49 (33)
Cough for 2 weeks and above	46 (31)
Shortness of breath	40 (27)

Table 4: Distribution of patients according to knowledge towards mode of acquiring TB.

Mode of transmission of TB	Total (%) N=144
Sneezing and cough	100 (69)
Exposure to dust	91 (63)
Exposure to cold	88 (61)
Drinking raw milk	56 (39)
Alcohol and smoking	6 (4)
Heredity	2 (1)

Table 5: Distribution of patients according to knowledge towards modes of prevention of TB.

Prevention of TB	Total (%) N = 159
Covering mouth and nose	130 (82)
Closing windows	72 (45)
Avoiding sex	73 (46)
Separating dishes and utensils	43 (27)

More than 65 of respondents found to have correct knowledge regarding sign and symptom, mode of acquiring TB and mode of preventing TB (Table 2).

42 of the patients had mentioned the right duration of treatment whereas 58 were unknown of the duration of treatment which shows significant difference ($p=0.024$).

Only 37 respondents believed that TB disease is curable which found to be significant ($p < 0.001$).

67 respondents know that TB treatment is free of cost whereas 33 found to be unknown of this and found significant ($p < 0.0001$). Regarding the seriousness of disease 53 respondents thought TB as very serious and 47 don't know about its seriousness ($p = 0.420$). 49 respondents know about the proper choice of care of TB ($p = 0.791$) and only 31 of respondents know the correct frequent of visit to clinic ($p < 0.001$) (Table 2).

Common sign and symptoms

The four most commonly recognized symptoms of TB mentioned by respondents were coughing (66), weight loss (33), cough for 2 weeks and above (31), and shortness of breath (27) (Table 3).

Common modes of transmission

About mode of transmission of disease, 69 thought sneezing and cough, exposure to dust (63), exposure to cold (61), drinking raw milk (39), smoking (4) and 1 mentioned TB is a hereditary disease and 21 were found to be ignorant (Table 4)

Common modes of prevention

Of the respondents, 130 (82) respondents considered covering their mouth and nose as the most commonly used method for preventing the spread and transmission of TB. Also closing windows (45), avoiding sex (46), and separating dishes (27) (Table 5).

Regarding attitude of non TB towards TB patients 66 felt compassionate and desire to help, 28 were found to be indifferent, and 6 would prefer to stay away. In our study television was cited as the main sources of information (48) followed by other sources.

DISCUSSION

Knowledge about TB

In this study, fairly a good level of knowledge was found regarding sign and symptoms, modes of acquiring TB and also the modes of prevention of TB. Insignificant difference in knowledge was found between males and females. In this study most common mentioned symptoms were coughing (66), weight loss (33), cough for 2 weeks and more (31) and shortness of breath (27) which is close to the findings of other studies in Delhi, Pakistan and Bangladesh.¹¹⁻¹³

Studies found sneezing and cough, exposure to dust and cold, drinking raw milk and smoking were the most common mode of acquiring TB and covering of mouth and nose were commonly used measure for the

prevention of TB, which were consistent with this study also.^{14,15}

In this study a majority of respondents defined TB as a curable disease but less knew about the mode of treatment disease (37), whereas 67 of the respondents were aware of the free charge of TB diagnosis and treatment. This was in agreement with a study conducted by Mushtaq and others in Pakistan.⁷

Studies showed that a greater knowledge level was observed among males than females.^{16,17} However, knowledge difference between male and female was not observed in this study. As a result, correct knowledge and positive perception of the patient toward TB and its management is a pre requisite for them to seek early healthcare.

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