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Knowledge, Attitude and Practices (KAP) on Tuberculosis and health care seeking practices among people living in an urban slum of Surat city: A cross sectional study

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Abstract
Background: *India has the highest burden of Tuberculosis worldwide. Poverty and stigma attached to this has added to the burden of this disease.* ***Materials and Methods:*** *A cross sectional survey was done among 300 participants selected conveniently from a slum in the urban field practice area to assess TB related knowledge, attitudes, infection control practices and health care seeking behavior among this population. Ten known cases of tuberculosis were chosen conveniently from the attached Urban Health Centre. A semi-structured questionnaire was used for data collection and scoring.* ***Results:*** *Out of a total score of 8, higher score was seen among the TB patients (7.5 + 0.5) as compared to the general population (5.1 + 1.1). TB was perceived as a social stigma by 80% of both healthy and diseased participants. Cumulative infection control practices were followed by 39% of the general population and 100% of the TB patients. Clinical appointments were considered as more trouble by 70% of the participants as compared to the benefits. Financial situation was the main deciding factor among 76.7% for choosing health care and 8% participants had never heard of TB. Significantly higher KAP and treatment seeking was seen among TB patients (p< 0.001).* ***Conclusion:*** *Even though Tuberculosis has been such a nuisance especially in India, we are still behind the desired knowledge, attitude and practice to reduce its growth.*

Key words: *Attitude, Knowledge, Tuberculosis*

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I. Introduction

Tuberculosis (TB) is a major problem which affects both health and financial sectors in India. According to WHO reports, India has the highest caseload of TB[1]. Rate of TB Incidence in India was reported to be 199 (136-273) per 100000 population; 58,347 people were found to be MDR-TB and 3,400 were found to be XDR-TB[2]. In the year 2016, in India, 423,000 TB patients died which was the highest number worldwide[3]. Kolappan et al. conducted a study in South India and found that TB was the 6th highest cause of death overall and among male population it was the 2nd highest cause of death[4].

Dzeyie et al. conducted a study in Delhi and found that 35% of Drug resistant TB patients had irregularity of treatment[5]. Paunikar et al. conducted a study and noticed that treatment defaulters have an association with gender.[6].

Kigozi et al. conducted a study in South Africa which showed patients who had received information on TB infection control at PHC facilities were more likely to report good infection control practices[7]. In India, public health centers are tasked with health education among masses.(8)

The study setting was selected because of high number of reported TB cases and the presence of over-crowding, poverty, migration and improper sanitation in this area.

II. Aims and Objectives:

1. To document Knowledge, Attitude and Practises about Tuberculosis in an urban slum.
2. To identify health care seeking practises in relation to Tuberculosis.
3. To analyze factors related with good infection control practices.

III. Methodology

This study was done as part of a door to door survey of presumptive Tuberculosis cases in 2 slums under one Urban health Center in the urban field practice area of the department of Community Medicine. This is a cross-sectional survey among 300 non Tuberculous, healthy participants who lived in this area. This study

was conducted between July and September 2019. Ten known TB patients were recruited from the nearby Urban Health Training Centre which is also a Designated Microscopy centre.

A predesigned and pretested questionnaire was used. The questionnaire consisted of 5 parts: Socio demographic factors, Knowledge, Attitude about TB, Infection control practices and Health care seeking practices.

Verbal consent was taken from the participants after they were explained about the study in a language they could understand.

Data analysis

Data were processed and analyzed using SPSS (version 23). Significance was considered at alpha <0.05 and 95% CI (Confidence Interval).

Z test was applied to compare population mean between two groups. Chi square test was used to explore relationships between categorical variables.

IV. Results

Socio-demographic characteristics

A total of 310 participants were studied in the research. Ten among them were known cases of TB. (Table 3)

Knowledge about TB

1 mark has been given for each correct answer. 8 questions have been asked, which are written in Table 1 along with the correct answer and number of people who answered it correctly.

Out of a total score of 8, higher score was seen among the TB patients (7.5 + 0.5) as compared to the general population (5.1 + 1.1). This difference was statistically significant (p= 0.00005). Score of male participants (5.25 + 1.17) was higher than females (4.44 + 1.97) and this was statistically significant (p = 0.00001)

Table 1: Knowledge about TB (N=310)

Item		Correct response N (%)
Etiology	TB is infective in origin (yes)	269 (86.8)
Transmission	Higher chance of transmission in crowded places (yes)	258 (83.2)
	TB is transmitted through air (yes)	272 (87.7)
	TB is transmitted by touch (no)	99 (31.9)
Prevention	TB can be prevented (yes)	182 (58.7)
	Presence of vaccine for TB (yes)	61 (19.7)
Cure	TB can be completely cured (yes)	168 (54.2)
	TB medication is available free of cost (yes)	165 (53.2)

Attitude towards TB

Table 2, shows participants, response for attitude towards Tuberculosis. People who have heard about Tuberculosis (25) were not asked about attitude towards the disease.

Reliability of the attitude section was measured and calculated by Cronbach's alpha. (0.77)

Out of the 310 participants, 275 (88.7%) had heard about TB. Out of the maximum possible score of 25, mean attitude score was 11.08 + 3.51 among general population and 20 + 1.18 among the TB patients. The difference was statistically significant (p<0.000001)

Patient's Infection Control Practices:

Table 3, shows factors related to good infection control measures.

Participants were asked if they followed the various infection control practices like covering the mouth and nose while sneezing; disposing the used material in waste bins or washing hands after contact with respiratory secretions both at home or at work. When all three were followed it was considered as good cumulative infection control practice. A total of 127 (41%) participants had good cumulative infection control practices. Infection control practices had a statistically significant association with Knowledge score.(p=0.043).

However association with attitude score was not significant. (p=0.22).

Male gender and being a TB patient was significantly associated in following good infection control practices.

Health care seeking behavior

Money (96.8%) or leave from work (90.6%) was reported as the deciding factor for their choice of treatment. Government Hospital was preferred by 52.2% of husbands. For the treatment seeking behavior of children, 43.5% of male children and 40.1% of female children were taken to private hospital but only 11.3% husbands and 9.4% wives go to private hospital. Delay in seeking treatment (1-2 weeks) was seen in 33.7% wives, only 5.6% in husbands and 0 in children.

In a family, follow up was done among 60.5% of male children and 61.5% of female children within 1-3 days after the first clinical visit. On the other hand, 47.2% husbands and 50.2% wives preferred to go for follow-up after 8 days.

Table 2: Attitude towards TB (N= 285)

ITEM	Strongly Agree N (%)	Agree N (%)	Uncertain N (%)	Disagree N (%)	Strongly Disagree N (%)
Risk perception					
TB is still an uncontrollable disease	93 (32.6)	138 (48.4)	27 (9.5)	27 (9.5)	0
Intention					
When/if on treatment, I am likely to miss some medication	0	108 (37.9)	55 (19.3)	60 (21.1)	62 (21.8)
Care and treatment					
Clinical appointments are more trouble than worth	56 (19.6)	139 (48.8)	28 (9.8)	60 (21.1)	2 (0.7)
Disclosure of TB					
I will be embarrassed to have my TB status known by other people/ patients	111 (38.9)	118 (41.4)	28 (9.8.)	28 (9.8)	0
Acceptability					
Would you like to keep yourself away from TB patients	134 (48.7)	103 (37.5)	26 (9.5)	12 (4.4)	0

Table 3: Factors associated with good infection control practices

Item	N (%)	Good Infection Control Practices (%)	p-value
AGE GROUP			
18-30 years	105 (33.9)	47 (44.7)	0.174
31-40 years	91 (29.4)	42 (46.1)	
41-50 years	54 (17.4)	16 (29.6)	
>50 years	60 (19.4)	22 (36.6)	
GENDER			
Male	125 (40.3)	61 (48.8)	0.021
Female	185 (59.7)	66 (35.6)	
EDUCATION			
Illiterate	80 (25.8)	32 (40.0)	0.207
Class 10 or below	132 (42.6)	47 (35.6)	
Class 11-12	76 (24.5)	36 (47.3)	
Higher than Class 12	22 (7.1)	12 (54.5)	
OCCUPATION			
Housewife	126 (40.6)	48 (38.0)	0.150
Employed	144 (46.5)	57 (39.5)	
Unemployed	40 (12.9)	22 (55.0)	
Status of TB			
General population	300 (96.8)	117 (39.0)	0.000114
Known case of TB	10 (3.2)	10 (100)	
Total family members			
4 or below	47 (15.2)	23 (48.9)	0.36
5-7 members	103 (33.2)	45 (43.6)	
8-10 members	108 (34.8)	42 (38.8)	
More than 10 members	52 (16.8)	17 (32.6)	

V. Discussion

This study was conducted among people living in urban slums. Studies around the globe has documented that a number of participants (27.6%;) have heard about Tuberculosis for the first time[9] which was higher than our finding in this study (8%). Most of the knowledge about TB was gained from local people (80.4%) and television (66.9%), whereas knowledge gained from medical personnel (40.7%) was less which was not comparable to findings of Esmael et.al where around 67% participants obtained information of health professionals.[10]

A majority (87.7%) of the respondents mentioned that TB is transmitted by air and can be prevented which is similar to the study findings done by Esmael et.al[10], Mushtaq et.al[11], Jurcev Savicevic et.al [12]. However misconceptions like spread of TB by touch and that TB is not completely curable were also observed in the population as was also observed in similar studies by Esmael et.al[10], Jurcev Savicevic et.al[12], Babu et.al[13]. These misconceptions provide a base for social stigma towards the disease still rampant in the population.

This study revealed that the majority of the respondents were anxious about contracting TB and harboured discriminatory thoughts towards people who had Tuberculosis. This finding was similar to the study conducted by Storla et.al [14]. Compliance for clinical appointments was found quite an issue as almost two-third of participants perceived that clinical appointments are more trouble than worth. When these items are

combined they would result in delayed diagnosis and mal-adherence to drugs resulting in progress and higher transmission of diseases.

In this study, we find low compliance and it can be attributed to the attitude of the participants where four out of five people agreed that TB was still an uncontrollable disease. Similarly a casual approach to adherence was reflected as nearly 58% participants felt that they were likely to miss some medication. Regularity of treatment is one of the cornerstones of TB management. This is further compounded by the fact that 68% participants feel that clinical appointments are more trouble than worth. They would also feel embarrassed to disclose their TB status and 86% would keep themselves away from TB patients. So the stigma and resigned attitude would seriously affect TB management and adherence to treatment among these participants.

Although participant's knowledge is satisfactory their infection control practices are not up to the desired level and similar findings were reported a study conducted by Kigozi et.al [7].

VI. Conclusion

In terms of knowledge, participants in the study demonstrated a good understanding of the contagious nature and risk factors of TB. Most of the information is acquired through hearsay and hence misconceptions exist. Compliance towards clinical appointments is low and so is adherence towards medication. Social stigma towards TB patients is high. Cumulative infection control practices are not adequate. Spitting on the road is a very common practice. Government hospitals were the major site to avail health care facilities but private hospitals were preferred for children reflecting an internal belief that the private facilities were better. Money and leave from work were the two major deciding factors in choosing treatment. These results highlight the need for awareness generation and removing misconceptions and related stigma related to TB among the general population. More advocacy for the available government services is needed. Clinical appointments need to be made easier and paid leave should be encouraged in case of seeking treatment. The results provide useful information for planning and improving health education interventions in the concerned area and similar settings

Limitations of the study

Results are based on self-reporting by participants. The convenient sampling of patients, limits the generalizability of results.

Conflict of interest: None

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References

[1]. Tuberculosis in India - Wikipedia [Internet]. [cited 2019 Nov 8]. Available from: https://en.wikipedia.org/wiki/Tuberculosis_in_India#cite_note-WHO2009-Epidemiology-1

[2]. Tuberculosis Country Profile (WHO) [Internet]. [cited 2019 Nov 8]. Available from: https://extranet.who.int/sree/Reports?op=Replet&name=%2FWHO_HQ_Reports%2FG2%2FPROD%2FEXT%2FTBCountryProfile&ISO2=IN&LAN=EN&outtype=html

[3]. India Leads The World In Deaths From Tuberculosis : Goats and Soda : NPR [Internet]. [cited 2019 Nov 8]. Available from: https://www.npr.org/sections/goatsandsoda/2017/11/09/561834263/why-does-india-lead-the-world-in-deaths-from-tb

[4]. Kolappan C, Subramani R, Swaminathan S. Tuberculosis mortality in a rural population from South India. Indian J Tuberc [Internet]. 2016;63(2):100–5. Available from: http://dx.doi.org/10.1016/j.ijtb.2015.07.005

[5]. Dzeyie KA, Basu S, Dikid T, Bhatnagar AK, Chauhan LS, Narain JP. Epidemiological and behavioural correlates of drug-resistant tuberculosis in a Tertiary Care Centre, Delhi, India. Indian J Tuberc [Internet]. 2018;6–11. Available from: https://doi.org/10.1016/j.ijtb.2018.06.003

[6]. Paunikar A, Khadilkar H, Doibale M, Lamb A. Survival analysis of treatment defaulters among tuberculosis patients in government medical college and hospital, Aurangabad. Indian J Community Med. 2019 Jan 1;44(1):44–7.

[7]. Kigozi NG, Heunis JC, Engelbrecht MC, Janse Van Rensburg AP, Van Rensburg HCJD. Tuberculosis knowledge, attitudes and practices of patients at primary health care facilities in a South African metropolitan: Research towards improved health education. BMC Public Health. 2017;17(1):1–8.

[8]. Hoa NP, Chuc NTK, Thorson A. Knowledge, attitudes, and practices about tuberculosis and choice of communication channels in a rural community in Vietnam. Health Policy (New York). 2009;90(1):8–12.

[9]. Khan JA, Irfan M, Zaki A, Beg M, Hussain SF, Rizvi N. Knowledge, attitude and misconceptions regarding tuberculosis in Pakistani patients. J Pak Med Assoc. 2006;56(5):211–4.

[10]. Esmael A, Ali I, Agonafir M, Desale A, Yaregal Z, Desta K. Assessment of patients' knowledge, attitude, and practice regarding pulmonary tuberculosis in Eastern Amhara Regional State, Ethiopia: Cross-sectional study. Am J Trop Med Hyg. 2013;88(4):785–8.

[11]. Mushtaq MU, Majrooh MA, Ahmad W, Rizwan M, Luqman MQ, Aslam MJ, et al. Knowledge, attitudes and practices regarding tuberculosis in two districts of Punjab, Pakistan. Int J Tuberc Lung Dis. 2010;14(3):303–10.

[12]. Jurcev Savicevic A, Popovic-Grle S, Milovac S, Ivcevic I, Vukasovic M, Viali V, et al. Tuberculosis knowledge among patients in out-patient settings in Split, Croatia. Int J Tuberc Lung Dis. 2008;12(7):780–5.

[13]. Babu T, Ramasamy R, Nazeem T, Chandramouli R, Ashwin Krishna M, Baby C, et al. Assessment of Knowledge Attitude and Practice on DOTs Therapy by Tubercular Patients. J Pharm Res. 2016;15(2):49.

[14]. Storla DG, Yimer S, Bjune GA. A systematic review of delay in the diagnosis and treatment of tuberculosis. BMC Public Health. 2008;8:1–9.