Original Article

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TB Entropy among Urban Inhabitants: A Study of Community Perceived Opinion about Tuberculosis

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ABSTRACT

Objective: Specific objective of the study was to determine the level of information and awareness regarding TB among the urban dwellers of Malikwal.

Study Design: Descriptive study

Place and Duration of Study: This study was conducted in UC-Tehsil Malikwal District Mandi Bahauddin. Duration of study lasts from Jan-2013 to March-2013.

Materials and Methods: With the help of structured questionnaire the data of 70 respondents were collected. Quality of questionnaire was improved with the help of recommendations of pretesting activity. After taking verbal consent data was gathered by enumerators. Data was entered in EpiData software and analyzed in SPSS.

Results: Data shows the 58.6% participation of age group 20-30 years, 70:30% ratio of male and female representation, 42.9% respondents passed their college level of education, among 70 participants 39 reported cough lasts longer than three weeks as sign & symptom of TB, 61 (n=70) were those who said that through polluted air TB virus effects general population, 59 (n=70) reported that through covering mouth and nose during cough and sneezing is necessary to prevent TB, 66 (n=70) respondents said that anybody will be infected by TB, 77.1% were of the view that by using specific medication TB can be cured by getting the services from government clinic as reported 91.4%, 80% of sample said that TB treatment and diagnosis is free of cost in Pakistan as spread information by TV as reported 64.3%.

Conclusion: Government departments along with line departments and private stack holders are required to ensure wider level of implementation of projects about the social awareness on TB containing quality of information while using various means of IC&T tools including media to cover the masses.

Key Words: TB, Urban inhabitants, diagnosis and treatment, awareness on TB

INTRODUCTION

World widely, Tuberculosis (TB) remains a health dilemma. Due to TB ill-health status is reported. TB is second major leading cause of death after HIV and spread among million of peoples every year globally. Most recent statistics depicting that there were around 9 million new cases in 2011 was reported and 1.4 million deaths were occurred due to TB[1].

South-East Asia carrying one third of the world TB burden as earlier data show that an estimated 4.88 million prevalent cases with annual rate of 3.17 million cases of TB[2]. Globally, every year about 9 million people become infected by TB virus and among them 1.6 million die. Internationally, Pakistan ranks eighth for the high TB incidence. In Pakistan, the prevalence of TB is 297 cases per 100,000 population and nearly 0.3 million new cases arise each year[3].

Lack of knowledge about the disease and stigmatization causes underutilization of the services, delay in seeking diagnosis, and poor treatment compliance[4,5]. Better knowledge of TB is related with better health-seeking behaviour[6]. In Pakistan where 26% of TB patients have not heard about the disease before diagnosis, it is not surprising to note that 10% of general population has not heard of TB[7]. In studies from neighboring country India, 56-99% of population was aware of the disease TB[8]. Our results in this regard are alarming as poor knowledge is considered to be one of the reasons for high burden of TB in Pakistan[9].

Globally, TB is among the most debatable disease from couple of decades. Especially when we discussed the situation of world developing countries, TB is more well-known disease in urban areas as well as in rural areas. In Pakistan, number of NGO's working to spread education on TB along with treatment of TB in both urban and areas. Still the situation of TB is a highlighted and debatable issue in all provinces of Pakistan. This research focused to explore the prevalence of knowledge about TB, stigma and treatment concerns to get treated among urban dwellers of Tehsil Malikwal of District Mandi Bahauddin.

MATERIALS AND METHODS

This study was conducted in UC-45 Tehsil Malikwal, District Mandi Bahauddin to gather the existing knowledge of urban residents about TB and to get information on issues related to the treatment of TB. To

collect the opinion from study respondents a structured questionnaire was developed with the help of existing literature available on TB issues. Questionnaire covered the areas of information from basic demographic information to TB symptoms, TB treatment, treatment duration, how TB is contracted by patients and how it is prevented. Tool was piloted under similar circumstances and improved with the findings received from piloting activity. A sample of 70 respondents was randomly interviewed for data collection with their verbal consent to be a part of study. After data collection codes were entered in EpiData. Then EpiData file was exported in SPSS for further analysis.

RESULTS

Table 1 shows the distribution of respondents with respect to their age. Data show that 58.6% of the respondents belong to the age 20-30 years, 17.1% were those having an age limit between 31-40 years, 14.3% belonged to 41-50 years and 10% were those respondents with age 51 and above.

Table No. 1: Age of respondents

Age	Frequency	Percent
20-30	41	58.6
31-40	12	17.1
41-50	10	14.3
51+	7	10
Total	70	100

Table No. 2: Gender of respondents

Type	Frequency	Percent
Male	49	70
Female	21	30
Total	70	100

Above table shows the distribution of respondents as per their gender to explore the opinion of both partners of society. Figure shows 70% respondents were male and remaining 30% were females.

Table No. 3 Highest Level of Education

Category	Frequency	Percent
No School	3	4.3
Primary	6	8.6
High School	11	15.7
College	30	42.9
Higher education	17	24.3
Religious schooling only	2	2.9
Other Informal Education	1	1.4
Total	70	100

Table 3 shows the educational status of the study respondents. Among 70 respondents, 4.3% were having no education, 8.6% passed primary, 15.7% respondents passed their high school examination, 42.9% of the sample were bachelors, 24.3% were received their masters' degree.

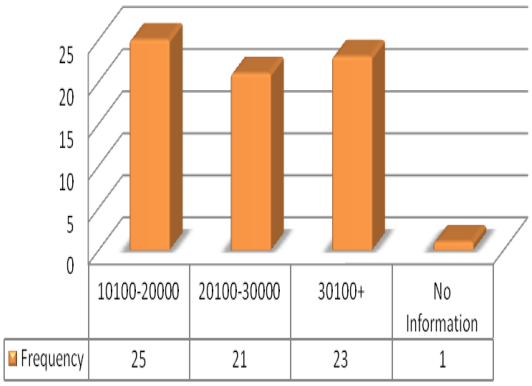


Figure No.1: Monthly income of family

Above figure shows that 25 (n=70) respondents reported their family income was in between Rs. 101000 – 20000/-. 21 had their family income in the range of Rs. 20100 – 30000/-. 23 respondents earned Rs. 30100/or more per month.

Table No. 4: Signs and Symptoms of TB

Category	Frequency
Cough	15 (n=70)
Cough lasts longer than 3 weeks	39 (n=70)
Blood with Coughing	20 (n=70)
Weight loss	25 (n=70)
Chest pain	5 (n=70)
Shortage of breath	20 (n=70)
Fever	1(n=70)

Table 4 is depicting the existing knowledge of the respondents of study about signs and symptoms of TB. Results show the responses against total sample of 70 respondents, among them 15 respondents said that cough as TB sign, cough cases lasting for more than 3 weeks were reported by 39 (n=70) respondents as sign and symptom of TB. The case of blood during coughing was reported among 20 respondents. In 25 cases, participants reported weight loss as a sign and symptom of TB. Chest pain was reported by 5 respondents, shortage of breath was reported by 20 study participants fever was only reported by one respondent.

Table No. 5: How Can a Person Get TB

Category	Frequency
Through the air when a person with TB coughs or sneezes	61 (n=70)
Through sharing dishes/pots	4 (n=70)
Through touching objects in public place	**17 (n=70)**

Very importantly in this research the efforts were made to collect the opinion of general public of Malikwal city. When respondents were asked about how one person can contract TB. In 61 cases (n=70) participants said that sitting near the patients can be a source of getting infected. Only 4 people were of the view that one may get TB by using the used utensils of TB patients. 17 respondents said that a person can get TB by touching infected items in public place.

Table No. 6: How Can a Person Prevent Getting TB

Category	Frequency
Covering mouth and nose when coughing or sneezing	59 (n=70)
Washing hands after touching objects in public places	17 (n=70)
Through good nutrition	2 (n=70)
Avoid sharing dishes/pots	2 (n=70)
By vaccination (BCG)	1 (n=70)

Table 6 explains the perceived knowledge of the study respondents about prevention of the disease. Among study sample 59 (n=70) replied that through covering mouth and nose during coughing or sneezing especially at public places. In 17 cases, respondents told that via washing hands after touching different objects will be helpful to prevent. Only 2 (n=70) were in favor of good nutrition, the other 2 added that effective prevention practices can help reduce the chances of contracting TB. 1 respondent encircled that the vaccination is a best source to prevent TB.

Table No. 7: Who can be infected with TB

Category	Frequency
Any body	66 (n=70)
Only poor people	3 (n=70)
Only people living with HIV/AIDS	2 (n=70)

Table 7 depicts that the existing level of education of people of Malikwal about the possibility that who can be infected more easily by TB. More interestingly 66 respondents were of the view that anybody will be infected through the virus of TB during his routine life. Only 3 participants said that TB is common among poor people and 2 among 70 said that HIV/AIDS patient could be infected by TB virus.

Table No. 8: How TB get Cured?

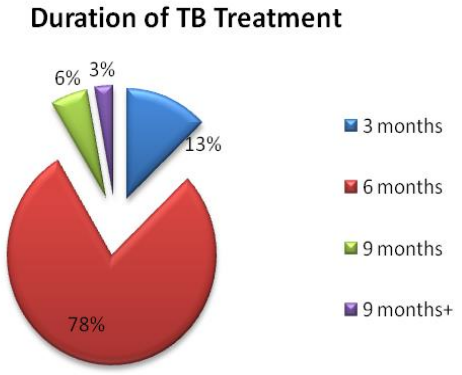
Category	Frequency	Percent
Herbal remedies	5	7.1
Home rest without medicine	2	4.3
Specific drugs given by health center	54	77.1
DOTS	8	11.4
Total	70	100

Table 8 focused on the area that how TB get cured. Among 70 respondents, 7.1% favored herbal remedies for treatment. 4.3% reported that home rest is a best solution to cure TB. 77.1% of respondents told the only medicines can cure the problem.

Table No. 9: TB Can be treated from?

Category	Frequency	Percent
Private clinic	4	5.7
Government clinics or hospital	64	91.4
Traditional or homeopathic care providers	2	2.9
Total	70	100

Table 9 shows the responses of participants about the place from where TB patients get treatment. In 5.7% cases respondents favored private clinic as place of treatment, 91.4% said government clinic or hospital and only 2.9% of the sample referred to homeopaths or traditional curing methods.



Pie-Chart: Duration of TB Treatment

Above pie-chart explains the knowledge of respondents about duration of TB treatment.

Table No. 10: TB Diagnosis **and Treatment in Pakistan**

Category	Frequency	Percent
Free of charge	56	80
It is reason able priced	7	10
It is somehow/moderately expensive	7	10
Total	70	100

Table 10 shows 80% of the respondents said that TB diagnosis and treatment in Pakistan is totally free of cost, 10% said that it is reasonably priced and further 10% were of the view that it is somehow expensive in Pakistan.

Table No. 11: TB is a Serious Disease

Category	Frequency	Percent
Very serious	64	91.4
Somehow serious	4	5.7
Not very serious	2	2.9
Total	70	100

Table 11 explains that 91.4% of the study participants were of the view that TB is very serious disease, 5.7% said that it is serious and remaining 2.9% told that it is not a serious disease at all.

Table No. 12: Source of Information

Category	Frequency	Percent
TV	45	64.3
Radio	3	4.3
News papers and magazines	4	5.7
Health workers	3	4.3
Family, friends, neighbors and colleague	15	21.4
Total	70	100

Above table shows the responses of respondents about their knowledge of TB as a medical problem. 64.3% respondents indicated TV to be a source of information. 4.3% said 'radio', 5.7% revealed via newspapers or magazines. 4.3% said that through LHWs they sought information about TB. 21.4% of the participants opined that family, friends, neighbors and colleagues informed them about TB and related issues.

DISCUSSION

This study was designed to view the level of awareness and perception among urban residents of Malikwal regarding tuberculosis. Most commonly reported TB signs and symptoms were cough prolonging 3 weeks, blood with coughing and weight loss. This shows quite similar results as existing studies conducting in Nigeria, Malaysia and other Asian countries[10].

According to the protocol of Pakistan's TB control program TB diagnosis, counseling and treatment is fully free for every citizen of nation and basic theme of the program is based on referral mechanism. Earlier studies show that if people are not properly aware about free process of diagnosis and treatment then they will be less interested for diagnosis and treatment. Secondly, poor quality of information, less sensitization or low awareness about symptoms and treatment results in delays in case finding and poor treatment behavior. Pakistan is facing these two big issue generically[11-13].

Less awareness level regarding free diagnosis and treatment has been reported previously in Pakistan and China but now the scenario is different as explained in table 10 that 80% of the study respondents were of the view that in Pakistan TB diagnosis and treatment is free of charge[14,15].

In 64.3% cases, Television was reported as a main source of information for masses, showing consistency with the previous studies conducted in Pakistan[16]. In Punjab, television coverage per household is 59.5%[17] and TV is important for both rural and urban areas without geographical distinction. Electronic and print media could play an important role in a program based intervention for disease diagnosis and treatment[18]. Engaging the LHWs of NPFP and PHC in DOTS implementation program and creating awareness among communities that TB is curable through treatment and its cost free treatment can significantly improve the community level of awareness, diagnosis process and treatment adherence[19].

This study was focused to determine the existing knowledge of the respondents along with the source of information about signs and symptoms of TB, diagnosis and treatment, contracting and prevention of TB, its treatment duration and expenses of treatment and other relevant indicators. Study excluded others socio-economic and cultural beliefs held by study respondents. This might be an important area of discussion for further studies to explore socio-cultural beliefs and miss-conceptions of communities about TB.

CONCLUSION

The study explored that quality of information regarding tuberculosis among the urban population of Tehsil Malikwal of District Mandi Bahauddin. It is generally perceived that the urbanites usually are more informative and health conscious due to the industrial ecology and easy access to the print and electronic media. In addition, their spatial intimacy with the health facilities, health care staff and personnel is easy comparative to the population of country side. It is also felt that the rural people due to the low in literacy, education and day to day information lack general awareness on health issues. The study findings confirm that urban inhabitants do have more organized information on good practices of health. But the main reason for conducting this research was the alarming status of Pakistan being among the largest TB producing countries in the world. The data advocate that still there is room for more improvements and focused endeavors to expand the TB related information among the people especially Pakistanis. Poverty is the main reason considered responsible for TB in Pakistan and urban poverty is taken as more clutching for the urban poor as compared to the rural poverty. Therefore the TB among urbanites is mounting which can only be reduced with creating awareness and health sensitization regarding TB.

REFERENCES

1. WHO. 2012. Global tuberculosis report. p3
2. http://www.searo.who.int/en/Section10/Section2097/Section2100_10639.htm
3. World Health Organization: Global tuberculosis control: surveillance, planning, financing. WHO report 2009. Geneva; 2009. Stop TB Partnership and World Health Organization: Global Plan to

Stop TB 2006-2015. Geneva; 2006. (WHO/HTM/ STB/2006.35)
4. Stop TB Partnership and World Health Organization: The Stop TB Strategy: building on and enhancing DOTS to meet the TB-related Millennium Development Goals. Geneva; 2006. (WHO/HTM/TB/2006.368)
5. Hoa NP, Thorson AE, Long NH, Diwan VK. Knowledge of tuberculosis and associated health-seeking behaviour among rural Vietnamese adults with a cough for at least three weeks. Scand J Public Health Suppl 2003;62:59-65.
6. 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;56:211-4.
7. Sharma N, Malhotra R, Taneja DK, Saha R, Ingle GK. Awareness and perception about tuberculosis in the general population of Delhi. Asia Pac J Public Health 2007;19:10-5.
8. Ali SS, Rabbani F, Siddiqui UN, Zaidi AH, Sophie A, Virani SJ, et al. Tuberculosis: do we know enough? A study of patients and their families in an outpatient hospital setting in Karachi, Pakistan. Int J Tuberc Lung Dis 2003;7:1052-8.
9. Olufemi OD, Adekunle OA, Abayomi F, Alakija KS, Ademola EF, Olanrewaju OO. Awareness of the Warning Signs, Risk Factors, and Treatment for Tuberculosis among Urban Nigerians. Hindawi Publishing Corporation. Tuberculosis Research and Treatment 2013;1-5.
10. Auer C, Sarol JJ, Tanner M, Weiss M. Health seeking and perceived causes of tuberculosis among patients in Manila. J Trop Med Int Health 2000;5:648-56.
11. Demissie M, Lindtjorn B, Berhane Y. Patient and health service delay in the diagnosis of pulmonary tuberculosis in Ethiopia**.** BMC Public Health 2002; 2(1):23.
12. World Health Organization: Global tuberculosis control: surveillance, planning, financing. WHO report. Geneva; 2009.
13. Wang J, Fei Y, Shen H, Xu B**.** Gender difference in knowledge of tuberculosis and associated health-care seeking behaviors: a cross-sectional study in a rural area of China. BMC Public Health 2008; 8: 354.
14. Liefooghe R, Michiels N, Habib S, Moran MB, De Muynck A**.** Perception and social consequences of tuberculosis: a focus group study of tuberculosis patients in Sialkot, Pakistan. Soc Sci Med 1995; 41:1685-1692.
15. 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.
16. National Institute of Population Studies (NIPS), Pakistan and Macro International Inc: Pakistan Demographic and Health Survey 2006-07. Islamabad, Pakistan; 2008.
17. Jaramillo E. The impact of media-based health education on tuberculosis diagnosis in Cali, Colombia**.** Health Policy Plan 2001;16:68-73
18. Liefooghe R, Michiels N, Habib S, Moran MB, De Muynck A**.** Perception and social consequences of tuberculosis: a focus group study of tuberculosis patients in Sialkot, Pakistan. Soc Sci Med 1995; 41:1685-1692.

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