



**KNOWLEDGE AND PERCEVED STIGMA TOWARDS TUBERCULOSIS IN A RURAL  
COMMUNITY LAHORE, PAKISTAN**

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**Abstract**

**Background:** Tuberculosis is infectious disease that spread from person to person by coughing, sneezing and droplet infection. TB affected individual often face societal stigma. TB victim often suffers from discrimination, stigma, rejection and social isolation. Awareness of community people regarding tuberculosis is very significance to minimize the prevalence of tuberculosis in future

**Objective:** The purpose to assess the knowledge and perceived stigma towards tuberculosis in a rural community.

**Setting:** The study setting was in community Ali Raza Abad, district Lahore Pakistan.

**Study Design:** A quantitative cross sectional study

**Methodology:** The target population of the study was residents of community Ali Raza Abad, Lahore. All male and female age 18-57 years .Sample size was 150 of community Ali Raza Abad, Lahore. Data was collected through questionnaire to collect relevant information about knowledge and perceived stigma towards tuberculosis.

**Results:** As study shows, stigma towards tuberculosis in rural community mean score is 16.54 and overall mean

score is 0.101. Knowledge means score is 2.327 and over all means score of knowledge is 0.1068.

**Conclusion:** There is need for more studies on this topic about knowledge and stigma towards tuberculosis in educational environment. At the same time, other research on stigma measurement should be conducted to evaluate the health education. People should motivate to adopt healthy life by maintain good hygiene.

**Keywords:** *Knowledge, stigma, Tuberculosis*

**I- INTRODUCTION**

Health is gift of Almighty Allah. Better health is a central to human happiness and wellbeing. It also makes an important role in economic progress, as healthy population live longer, are more productive, and more secure (WHO, 2016).

Tuberculosis is infectious disease that spread from person to person by coughing, sneezing and droplet infection. Mycobacterium tuberculosis is cause of millions death in world. Primarily tuberculosis affects the lungs but it can affect other parts of the body. It is major problem in the

developing country among the susceptible people (Ofori-Asenso & Agyeman, 2017).

Worldwide in 2017, 10 million TB patients reported and 1.57 million TB mortality rate were estimated. The total estimated cases, 518,000 TB cases are reported in Pakistan, out of which 51,000 children are 14 years old. And 9% of cases of HIV infection occur (WHO, 2017). Pakistan is one of the eleven countries with the highest burden of TB and is one of the six countries with the highest number of cases (Farley et al., 2019).

TB affected individual often face societal stigma. TB victim often suffers from discrimination, stigma, rejection and social isolation. Diagnosis of tuberculosis is associated with social stigma in many countries. The people suffering from tuberculosis are considered as to a great deal of exclusion from the community. They are not suitable to live among community residents. They are always taken as unfit among healthy people. Such stigmatization of TB patients in the society can lead to reluctance in seeking treatment (Vanaja et al., 2016).

Low socio economic communities are at greater risk of TB due to lack of knowledge about TB transmission, overcrowding and poor living conditions. TB victim face poor access to TB services due to economic, geographical, social and cultural barriers (vanish, 2016).

Due to lack of knowledge about tuberculosis, people face difficulties in seeking health facilities. They don't move toward health centers because of social stigma. They have inadequate knowledge about cause, risk and mode of transmission of disease. All of these causes lead to reduced feeling in TB patients. As a result, they ignore their health and wellness concerns (Faheem et al., 2018).

People believe that contact with a TB patient easily affects them. People tend to separate their children from TB patient because they think close contact causes TB. It is also important to publicize information, communicate with people to remove the fear and stigma associated with TB so that people can come forward to seek care (Ngamvithayapong-Yanai, Luangjina, Thawthong, Bupachat, & Imsangaun, 2019).

TB victim do not reveal disease to relatives and friends. The reason is that majority of people and their relatives feel that the utilities of TB patients should be kept separate from rest of the family members thus isolating them further from their families. All these facts relate to people low knowledge about TB (Khan et al., 2016).

People have misconception that TB spread by eating or touching, sexual contact blood transfusions. There is need to address all these misconceptions. Accepting the stigma associated with Human immune deficiency virus and TB is essential to address community. Fear of infection through casual contact, such as eating or drinking with relatives, touching others are the most significant determinants of stigma in TB and Human immune deficiency virus (Van Rie et al., 2018).

Both gender male and female face stigma related with TB. Women hesitate to disclose their TB status to their husbands. Males with TB face more problems in marriage. Women often experienced due to being diagnosed with TB, including rejection by partner's lack of sexual activity. TB-related stigma could cause in personal relationships, in particular maintaining current and forming new partner relationships (Miller et al., 2017).

#### *AIMS OF THE STUDY*

Purpose of the study is to determine the knowledge and stigma towards tuberculosis in a rural community Ali Raza Abad, Lahore Pakistan.

#### *SIGNIFICANCE OF THE STUDY*

This study will be helpful to assess the knowledge of community people and perception about stigma associated tuberculosis. Awareness of community people regarding tuberculosis is very significance to minimize the prevalence of tuberculosis in future. The study will help to guide the community about tuberculosis and its misconceptions that lead to stigmatization. This study will reveal what people know about tuberculosis, mode of transmission, treatment prevention and thought of community about the patient of tuberculosis. Social discrimination may discourage the victim and diminish the social activities. The study will help to understand the people that tuberculosis is curable diseases it does not spread by touching and patient suffering with tuberculosis has equal rights as well as a healthy person in the community.

## **II- LITERATURE SEARCH**

Prevalence of tuberculosis-related perceived stigma by using observed tuberculosis stigma scale was 42.4%. Few studies showed that the prevalence of perceived stigma was 41.5 % and 63.3%, respectively (Duko, Bedaso, Ayano, & Yohannis, 2019).

Syed M (2018) conducted a study on knowledge and stigma towards tuberculosis that showed 87% percent was aware that TB is curable disease 91% thought that it could be transmitted by coughing. However, respondents also thought that TB was spread through contaminated food 73%, sharing meals 55%, sharing utensils 53% and by having sexual intercourse with a TB patient 51%. Fifty-seven percent associated TB with high levels of stigma. Persons who had less than six years of education 95% and lacked knowledge that TB is curable 95% were more likely to associate TB with stigma.

The study showed that poor knowledge about bad routines in terms of infection and control. Common medical problem that requires multidisciplinary approach. This is a case in which the biomedical model of TB control looks back. In this view, an investigation revealed that a significant risk factor for depression disappointment is treatment failure due to inability to direct assistance (Scollard, Dacso, & Abad-Venida, 2015).

Common symptoms associated by respondents were cough (59%). More than 33% respondents considered that TB

affects education, occupation, getting married, and having children. Pakistani population has deficient knowledge and misconceptions regarding symptoms, diagnosis, treatment, and impact of TB (Gilani & Khurram, 2019).

Another study showed that the level of knowledge of TB among people is satisfactory however perception of illness is poor. Tuberculosis diagnosis can create self-stigma because of the fear of being isolated and discriminated which may determine the success of treatment. About 70% had a good knowledge of TB. Patients' perception of stigma was high (37.5%). A high proportion of the patients had a poor perception of their illness (88%). Healthcare workers attitude was rated as satisfactory by 97.2% of respondents. Patients who had good knowledge about TB 42% compared to those who had poor knowledge 27.2% (Oladimeji et al., 2018).

A study of (Kipp et al., 2015) Only low level of education, belief that TB increases the chance of getting AIDS, and AIDS stigma were associated with higher TB stigma scores in all three analyses. Co-infection with HIV was associated with higher TB stigma among patients. All differences in mean stigma scores between index and referent levels of each factor were less than two points, except for incorrectly believing that TB increases the chance of getting AIDS 95% knowledge of the participants.

According to (Huddart et al., 2018) verified modest knowledge of TB; 52.5% (50.8%, 54.2%) knew that cough was a symptom of TB and 67.2% (65.6%, 68.7%) knew that TB was communicable. The patients experienced isolation within their family and community, separation, and financial crisis. The stigma attached to tuberculosis may contribute to delayed healthcare seeking, poor treatment adherence, and poor prognosis.

The small proportion who knew TB was caused by a germ. It mentions common symptoms of TB such as cough, cough, fever, night sweats, chest pain and shortness of breath and suspected cough for TB. Similarly, the rural community had a poor understanding of the cause and symptoms of TB therefore this poor knowledge lead to stigmatization in community (Anochie et al., 2017).

### III- METHODOLOGY

**STUDY DESIGN:** A quantitative cross sectional study was conducted

**STUDY SITE:** The study setting was in community Ali Raza Abad, district Lahore Pakistan.

**DURATION:** The study duration was 4month from September 2019 January 2020.

#### POPULATION

The target population of the study was residents of community Ali Raza Abad, Lahore.

#### SAMPLING

A convenient sampling technique was used in this research study. A simple size of 150 was obtained .Sample size for this study is calculated according to formula

$$N = z^2pq/e^2$$

### RESEARCH INSTRUMENT

Questionnaire adopted from (S. M. Ali et al., 2019) containing 27 items was distributed to people of community Ali Raza Abad. Questionnaire contained close ended questions.

### DATA GATHERING PROCEDURE

Questionnaires consist of 3 section containing 27items, (Section A) Demographic data (Section B) Perceived stigma towards tuberculosis (Section C) composed on Knowledge about tuberculosis The participants answered the items using 4-point Likert scale with (1 = Strongly agree; 2 = agree; 3 = strongly disagree 4=disagree). After moving Questionnaire among the participants the data was analyzed through SPSS version 21 for Descriptive statistics and finding mean, frequencies, percentage and standard deviations. Consent was taken from all the participants and free hand were given to the participants to take part in the study or refused to participate. In case of illiteracy, the research assistant's translate the questions in (Urdu).

**ETHICAL CONSIDERATION** Give complete information to the participant related to research. It makes sure that no harm was being given to the participant. Study was being beneficial. All patients were having open opportunity to participate in research. No one was being forced to participate in research. Informed consent form was sign by the participant in Urdu and English language. The information or data was being remained to the first researcher.

## IV- RESULTS

This chapter consists of two sections. Section 1 represents the demographic characteristics of the participants whereas section 2 consist of 2 types of questions one is perceived stigma towards tuberculosis and the other one is people knowledge towards tuberculosis.

Table 1: Description of Demographic Characteristics

Variables	Number (n)	Percent
<b>Gender</b>		
Male	59	39.3%
Female	61	60.7%
<b>Age (years)</b>		
18-30	56	1.3%
31-42	65	18.0%
43-54	27	43.3%
55 -66	2	37.3%
<b>Education</b>		

<b>literate</b>	92	39%
<b>Illiterate</b>	58	60.7%
<b>Occupation</b>		
<b>Unemployed</b>	2	10 %
<b>House wife</b>	60	7.3%
<b>Student</b>	42	13.3%
<b>Laborer</b>	20	28%
<b>Government employee</b>	11	40%
<b>Private sector employee</b>	15	1.3%

Table 1 elaborates the percentage and frequencies of demographic characteristics of the participants that 39.3% (n=59) were taken from male respondents and 60.7% (n=91) of respondents were female. The frequency of male is higher than female in this study. Out of 138 participants, 37.3% (n=56) of respondents belonging to 18-30years of age group, 43.3% (n=65) of respondents belonging to 30-42 years of age group, 18 % (n=27) of respondents belonging

to 42 -54years of age and 1.3 % (n=2) of respondents belonging to 54-66years of age. Elaborating education of the participants 39.0 % ( n=58) of the participants were illiterate and 60.7% (n=92) were literate. Occupation of the participant 1.3% (n=2) of the participants were unemployed, 40.0% (n=60) of the participants were housewife, 28% (n=42) of the participants were students, 13.3% (n= 20) of the respondents were laborer, 7.3% (n=11) of the participants were government employee and 10.0% (n=15) of the participants were private sector employee.

**SECTION 2**

This section consists of two categories of description of questions. Responses to Perceived stigma towards TB questions were presented in table no 2 and responses to knowledge about tuberculosis were presented in table 3 with frequencies and percentage.

**Perceived stigma towards TB:**

Table no 02: Tuberculosis-Associated Stigma among community people

S	Questions	Strongly Agree		Disagree		Strongly Disagree		Agree	
		n	%	n	%	n	%	n	%
<b>1</b>	Some people may not like to eat and drink with relatives who have TB.	94	62.7	22	14.7			34	22.7
<b>2</b>	Some people feel uncomfortable about being near those with TB.	83	55.3	27	18.0	4	2.7	36	24.0
<b>3</b>	If a person has TB, some community members will behave differently towards that person for the rest of his/her life, even if s/he is treated and cured.	77	51.3	36	24.0	12	8.0	25	16.7
<b>4</b>	Some people do not want those with TB playing with their children	61	40.7	33	22.0	8	5.3	48	32.0
<b>5</b>	Some people think that female TB patient should be sent off to her parent's house	49	32.7	75	50.0	6	4.0	20	13.3
<b>6</b>	Some people keep their distance from people with TB	67	44.7	33	22.0	11	7.3	39	26.0
<b>7</b>	Some people think that those with TB are disgusting	48	32.0	36	24.0	18	12.0	48	32.0
<b>8</b>	Some people do not want to talk to others with TB.	44	29.3	36	24.0	31	20.7	39	26.0
<b>9</b>	Some people are afraid of those with TB.	40	26.7	26	17.3	22	14.7	62	41.3
<b>10</b>	Some people try not to touch others with TB.	50	33.3	34	22.7	9	6.0	57	38.0
<b>11</b>	Some people prefer not to have those with TB living in their community	43	28.7	37	24.7	12	8.0	58	38.7
<b>12</b>	Some people think that those with TB, both male and female face same social problems (marriage, job, continuing education, attending social gatherings etc.	39	26.0	41	27.3	6	4.0	64	42.7
<b>13</b>	Some people think that those males with TB face more problems in marriage.	60	40.0	27	18.0	9	6.0	54	36.0
<b>14</b>	Some people think that those females with TB face more problems in marriage.	60	40.0	21	14.0	9	6.0	60	40.0

15	Some people think that those females with TB depend economically on their husbands and in-laws.	52	34.7	15	10.0	11	7.3	72	48.0
16	Some People think that female need their cooperation to obtain treatment	54	36.0	19	12.7	3	2.0	74	49.3
17	people think that family with TB patient should not allowed to participate in function	53	35.3	48	32.0	18	12.0	31	20.7

Table no 2 shows findings of perceived stigma towards TB (Table02) was that majority of people (62.7%) responded that some people may not like to eat and drink with relatives who have TB. This is closely related that some people feel uncomfortable that is (55.3%) about being near those with TB. Stigma about TB (51.3%) people responded that if a person has TB, some community members will behave differently towards that person for the rest of his/her life, even if s/he is treated and cured. Similarly, (40.7%) of responded that some people do not want those with TB playing with their children. fifty percent of the respondents not agreed that people think as female TB patient should be sent off to her parent's house. People keep their distance from people with TB (44.7%) of the respondents strongly agreed to those misconceptions. TB people are disgusting (64.0%), people do not want to talk to others with TB (29.3%), people are afraid of those with TB (41.3) and (71.3%) of the respondents agreed that people try not to touch others with TB. Sixty seven percent people agreed that people prefer not to have those with TB living in their community. Community people (67%) stated people think that those with TB, both male and female face same social problems (marriage, job, continuing education, attending social gatherings etc. Males with TB face more problems in marriage (76.2%) and (80.0%) respondents agreed to this misconceptions as those females with TB face more problems in marriage.(87%) of the respondents agreed people thought that those females with TB depend economically on their husbands and in-laws. Also, people thought that female need their cooperation to obtain treatment (85.7%) of the respondents agreed. people think that family with TB patient should not allowed to participate in function (66%) people agreed.

**Knowledge about Tuberculosis:**

Table no 3 shows that majority of the community members were aware that TB is curable disease (57.3% n=86) and spreads by coughing (73.4% n=110).However, community people also acknowledged that it was transmitted through contaminated food (62% n=93), lead to infertility (52% n=78), caused emotional stress (54.7% n=82), and TB patient also have AIDS/HIV. More than half of the respondents (72% n= 108) indicated that TB spread by having sex with TB victim, sharing utensils with TB person (65% n=98) and 64% of the people (n=96) thought that TB spread through touching a person with Tuberculosis.

Table no 03: Knowledge about tuberculosis among community people

S	Questions	Strongly Agree		Disagree		Strongly Disagree		Agree	
		n	%	n	%	n	%	n	%
		1	Is tuberculosis is curable disease?	57	38.0	47	31.3	17	11.3
2	Does TB patient also have AIDS/HIV?	36	24.0	46	30.7	24	16.0	44	29.3
3	Does TB lead to infertility?	52	34.7	51	34.0	21	14.0	26	17.3
4	Is emotional stress is caused by TB?	42	28.0	60	40.0	8	5.3	40	26.7

5	TB is spread by contaminated food?	57	38.0	47	31.3	10	6.7	36	24.0
6	Is TB is spread by cough?	61	40.7	23	15.3	17	11.3	49	32.7
7	Is TB spread by sharing meal with patient?	56	37.3	48	32.0	10	6.7	36	24.0
8	Is TB spread through sharing utensils with a person with TB?	42	28.0	27	18.0	25	16.7	56	37.3
9	Is TB spread through touching a person with TB	47	31.3	40	26.7	14	9.3	49	32.7
10	Is TB spread through Sex with a person with TB?	52	34.7	37	24.7	5	3.3	56	37.3

## V. DISCUSSION

The purpose of the study was to determine the knowledge and perceived stigma towards tuberculosis in rural community Ali Raza Abad, Lahore. This was a cross section. It is increasingly acknowledged that there is limited awareness of TB and health behaviors in communities (Sima, Belachew, & Abebe, 2017). In my study, TB was considered shameful health condition.

In my study majority (85.4%) people may not like to eat and drink with relatives who have TB and (79.3%) people feel uncomfortable about being near those with TB. In a study it was reported that (78.4%) people may not like to eat and drink with relatives who have TB and (74.0%) people feel uncomfortable about being near those with TB (Freitas et al., 2015). Stigma towards TB (68%) perceived that community people behave differently with Tb victims. Another study reported that (81%) of the people don not behave well to the TB patient even he/she had cured (Mason, Degeling, & Denholm, 2015). People believe that contact with a TB patient easily affects them (62%) People tend to separate their children from TB patient because they think close contact causes disease. Similar study reported that in urban Zambia (68%) respondents separate their child from TB patients and that's the reason people keep distance from TB victims. To the question about people thoughts regarding female TB patient should be sent off to her parent's house, 32.7% strongly agreed while 50% disagreed that female should not sent off their parents' house. These results match with findings reported in journal of multidisciplinary that 40% respondents agreed that female should sent off their parent's house .Children and supported husband women maintain a strong position in their in-laws and are less likely to be isolated or rejected from family (Nyasulu et al., 2018). In response to people think that those with TB are disgusting was 32% it is compared with other study reported that 31.82% as similar result shown (Afzal, 2019).In response to touch others with TB causes disease, 68.3% while other study reported that 70% of the people thought that touching the Tb patients cause disease (DeLuca et al., 2018).in response to question people think that those females with TB depend economically on their husbands and in-laws (82%) Studies in India, Nepal, Pakistan and the Republic of Gambia show due to local

gender governments, women with TB depend on their husbands and seek money from the elders and seek permission to seek treatment (Barua, Van Driel, & Jansen, 2018).Community people were aware about tuberculosis mode of transmission and prevention.in response to knowledge 57% respondents said that tuberculosis is curable disease while a similar study showed 38% respondent aware that tuberculosis is curable disease (Pramanik, & Ghosh, 2015). In response to TB spread through sharing utensils 34% respondents disagreed people are aware but these misconceptions leading in communities, while a study reported that 35.6% agreed that sharing utensils with TB patients cause disease (Mbutia, Olungah, & Ondicho, 2018).In response to emotional stress is caused by TB 54% of the respondents agreed it is similar to study reported that 60.5% responded agreed that emotional stress is caused by tuberculosis, mentally torture and stigmatization cause social isolation in TB victims (Yilmaz., & Dedeli, 2016).

TB is spread by contaminated food 38% strongly agreed all these were misconceptions and poor knowledge about Tuberculosis, 34.7% strongly agreed that TB lead to infertility, 42.7% face difficulties in getting marriage but it is compared with other study that reported 47% agreed that TB spread through contaminated food, 23% respondents thought that tuberculosis lead to infertility and38.8% thought that reduced chances of getting marriage (Khan et al., 2016).in response to question that TB patients also have HIV/AIDS 49.4% while compared study reported that 90% of the respondent thought that TB patient also have HIV/AIDS (Kigozi, Heunis, Engelbrecht, van Rensburg, & van Rensburg, 2017).fifty one percent responded that Tb spread by having sex with affected ones it is compared with other study reported 51% responded to TB spread through Sex with affected person (Ali et al.,2019).

## LIMITATIONS

This study has following limitation.

- Time was too short too short for this study.
- The study focus was only rural community
- Close ended questionnaire was used in this study

- Participants have no idea about filling the questionnaire by reading it carefully and sincerely

### CONCLUSION

The purpose of the study was to determine the knowledge and stigma towards tuberculosis in rural community Ali Raza Abad, Lahore. A questionnaire was distributed to community people to assess knowledge and perceive stigma towards tuberculosis. Statistical tools were used to analyze results. However, community people had sufficient knowledge about Tuberculosis mode of transmission, cause of disease and people perception about stigma. The stigma was noticeable associated with a lack of information about TB. However, it is often acknowledged that it is difficult the design, implementation and assessment of interferences that aim to rule out TB.

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### RECOMMENDATION

Health education should be planned to provide awareness about tuberculosis to community Ali Raza Abad people. At the same time, other research on stigma measurement should be conducted to evaluate the health education. People should motivate to adopt healthy life by maintain good hygiene.

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