

## Stigma and discrimination among tuberculosis patients registered at Asarwa DOTs center, Ahmedabad

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### Abstract

**Introduction:** Tuberculosis (TB) remains one of the most important infectious diseases worldwide and India has highest burden comprising more than 5<sup>th</sup> of global disease burden. Stigma associated with tuberculosis (TB) is often regarded as a barrier to health seeking and a cause of social suffering

**Aims & objectives:** To know the impact of stigma and discrimination on tuberculosis care, treatment, and control and also to find the relation of stigma by gender, education, and occupation.

**Methods:** A cross-sectional study was conducted from August to September 2015 at Asarwa DOTs center, Ahmedabad. 58 out of 60 total registered patients participated for the interview. Data was analyzed using Microsoft excel 2007.  $p < 0.05$  was considered as statistically significant.

**Results:** Out of 58 patients, 36(62.0%) were male and 22(37.9%) were female. Among them 10(27.7%) male and 13(59.0%) female were having stigma. There were 13(30.9%) out of 42(72.4%) literate and 10(62.5%) out of 16(27.5%) illiterate were having stigma. 14(41.1%) working and 9(37.5%) non-working participants were having stigma.

**Conclusions:** There was significant association found between stigma and education and also with gender of the patients. While there was no significant association found between occupation of patients and stigma due to tuberculosis.

**Recommendations:** A positive attitude and moral support from family members can help to reduce social isolation.

**Keywords:** Stigma, Discrimination, Tuberculosis

### 1. Introduction

Tuberculosis (TB) remains one of the most important infectious diseases worldwide and India has highest burden comprising more than 5<sup>th</sup> of global disease burden.

1.98 million out of 9.4 million new cases annually. In India, more than 40% of population is infected with Mycobacterium tuberculosis. It is estimated that there are 3.3 million prevalent cases of all forms of Tuberculosis disease. It is also estimated that 2,76,000 people die due to Tuberculosis annually in India<sup>[1]</sup>. Approximately 75 new smear positive TB cases occur per lakh population per year nationally based on national survey on Annual Risk Tuberculosis Infection (ARTI) while in west zone which includes Gujarat state around 80 new smear positive TB cases expected per lakh population<sup>[2]</sup>.

Stigma associated with tuberculosis (TB) is often regarded as a barrier to health seeking and a cause of social suffering. Stigma studies are typically patient-centered, and less is known about the views of communities where patients reside<sup>[3]</sup>. Stigma contributes to a hidden burden of illness. Health related stigma is typically characterized by social disqualification of individuals and populations who are identified with particular health problems<sup>[4]</sup>.

Unlawful discrimination may be direct or indirect. *Direct Discrimination:* Occurs when somebody is treated unfavorably because of a protected attribute. *Indirect Discrimination:* occurs when a requirement (or rule) that appears to be neutral and the same for everyone in fact has the effect of

disadvantaging someone because they have an attribute covered by the Act. The effect has to be unreasonable<sup>[5]</sup>.

The principal effects in developing countries are social isolation of patients, both outside the family, where the person may be avoided by friends and acquaintances, and inside the family, where the patient may be forced to eat and sleep separately<sup>[6]</sup>.

Unmarried women with TB often find it difficult to get married due to discrimination by prospective husbands and in-laws, while married women may find that they are divorced because they have Tuberculosis or if a history of Tuberculosis is subsequently revealed<sup>[7]</sup>.

The purpose of this study was to find relation of stigma in patients with their gender, occupation, education. To know the impact of stigma and discrimination on Tuberculosis (TB) care, treatment and control.

### 2. Methods and Materials

Study design: Cross sectional, Study area: Asarwa UHTC, DOTs Center, Study period: 10<sup>th</sup> august- 5<sup>th</sup> September 2015. Sample size: 58 tuberculosis patients. Data analysis were done using Excel 7<sup>th</sup> version. Results were expressed in numbers and percentages. Chi-square test was applied.  $p < 0.05$  was considered as statistically significant.

### 3. Results

**Table 1(a):** General information of study participants (n=58)

	Frequency(n=58)	Percentage (%)
<b>Age (years)</b>		
≤20	12	20.6%
21-40	25	43.1%
41-60	17	29.5%
≥61	4	6.8%
<b>Gender</b>		
Male	22	38%
Female	36	62%
<b>Religion</b>		
Hindu	53	91.4%
Muslim	5	8.6%

**Table 1(b):** General information of study participants (n=58)

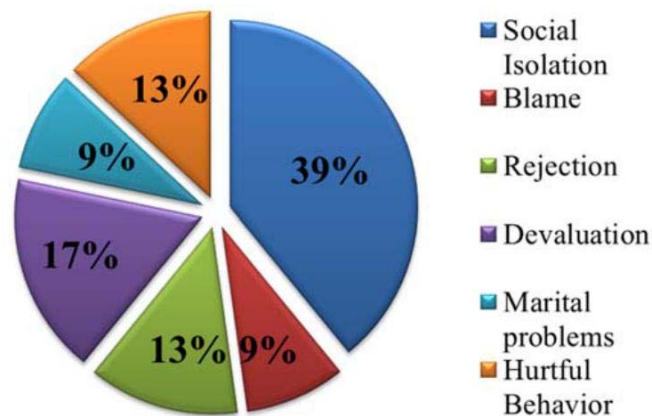
	Frequency ( n =58)	Percentage (%)
<b>Caste</b>		
Open	14	24.1 %
SC	28	48.3 %
ST	6	10.3 %
SEBC	10	17.2 %
<b>Education</b>		
Illiterate	16	27.6%
Literate	42	72.4%
<b>Marital status</b>		
Married	35	60.3 %
Unmarried	18	31.0 %
Widow and Widower	5	8.6 %

**Table 2:** Family history, type and outcome of TB patients (n=58)

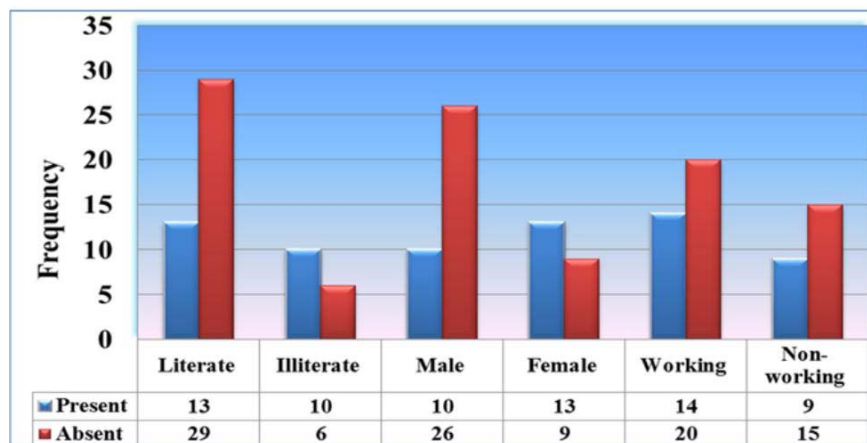
	Frequency (n=58)	Percentage (%)
<b>Family history</b>		
Yes	44	75.8%
No	13	22.4%
Not known	1	1.7%
<b>Type of Tuberculosis</b>		
Pulmonary	10	17.2%
Extra-pulmonary	48	82.7%
<b>Outcome of TB</b>		
Cured	32	55.2%
Defaulter	3	5.1%
Failure	2	3.4%
Treatment Completed	21	36.2%

**Table 3:** Relationship between education, gender, occupation and stigma (n=58)

Education	Stigma		Total
	Yes	No	
Literate	13(30.9%)	29(69.0%)	42
Illiterate	10(62.5%)	6(37.5%)	16
Total	23	35	58
Chi Square ( $\chi^2$ ) = 4.819 Degree of freedom = 1, p- value <0.05			
Gender	Stigma		Total
	Yes	No	
Male	10(27.7%)	26(72.2%)	36
Female	13(59%)	9(40.9%)	22
Chi Square ( $\chi^2$ ) = 6.918, Degree of freedom = 1, p-value < 0.05			
Occupation	Stigma		Total
	Yes	No	
Working	14(41.1%)	20(58.8%)	34
Not working	9(37.5%)	15(62.5%)	24
Chi square ( $\chi^2$ ) = 0.079, Degree of freedom = 1, p- value >0.05			



**Fig 1:** Stigma experienced among tuberculosis patients (n=58)



**Fig 2:** Frequency of patients by education, gender and occupation and stigma (n=58)

#### **4. Conclusions**

In present study out of total 58 patients 36 (62.0%) male and 22 (37.9%) female among them 23 (39.6%) were having stigma and 35 (60.3%) were not having stigma. Stigma was present more in female (13) compared to male (10) which was found statistically significant. Out of total sample 42 (72.4%) patients were Literate and 16 (27.5%) were Illiterate and among them 23 (39.6%) were having stigma and 35 (60.3%) were not having stigma. Stigma was present more in illiterate (62.5%) as compared to literate (30.9%), which was found statistically significant. Difference of stigma between working and non-working patients was not statistically significant. Fear of infection had been identified as the main reason for the stigma.

#### **5. Recommendations**

The study revealed participants were stigmatized towards tuberculosis that influences the effectiveness of Tuberculosis control. Thus intensive and effective educational programs are needed to enrich the knowledge about Tuberculosis and to eradicate the stigma associated Tuberculosis [8]. A positive attitude and moral support from family members can help to reduce social isolation. Concentrate our efforts on better understanding the causes of discrimination.

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