

# A Study to Explore the Stigma Among the Patients with Tuberculosis in Selected TB Treatment Center in Thiruvallur

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## Abstract

*Tuberculosis (TB) remains one of the most stigmatized diseases worldwide, with significant social, emotional, and psychological consequences for those affected. This study aimed to identify the various forms of stigma experienced by TB patients and assess the association of stigma levels with demographic variables. Data were collected from 139 TB patients at ACS Medical College and Hospital using the TB Stigma Assessment Tool. The study explored multiple dimensions of stigma, including internalized stigma, perceived stigma, enacted stigma, structural stigma, supportive experiences, and community engagement. The findings indicated that emotional distress, social isolation, and fear of disclosure were prevalent among the patients, with many reporting significant feelings of guilt and self-blame. Statistical analysis showed significant associations between stigma levels and age, gender, marital status, educational qualification, and type of TB. The multiple linear regression analysis revealed that completed TB treatment and type of TB were significant predictors of stigma, with those completing treatment and those diagnosed with more severe forms of TB experiencing higher levels of stigma. Based on these findings, the study recommends regular psychological counseling, promoting disclosure safety, conducting workplace and family awareness sessions, extending structural support to vulnerable patients, and celebrating supportive practices to reduce TB stigma. The results underscore the need for a multifaceted approach to address the psychological, social, and institutional aspects of TB stigma, ultimately improving patient outcomes.*

**Keywords:** Tuberculosis, Stigma, Emotional Impact, Social Isolation, Internalized Stigma, Perceived Stigma.

## INTRODUCTION

According to the World Health Organization (WHO), stigma is a social process marked by exclusion, rejection, blame, or devaluation due to the anticipated negative social judgment about a person or group. In the context of tuberculosis (TB), stigma refers to negative attitudes and beliefs towards individuals with TB, leading to discrimination, social isolation, and delays in seeking healthcare. This stigma is deeply ingrained in societal norms and misconceptions about the disease [(Liamputtong P (2021))][1].

TB stigma often arises due to the disease's association with poverty, poor living conditions, and social marginalization, and it is often linked to fears of contagion. As a result, individuals with TB may feel ashamed, leading to reluctance in seeking treatment or disclosing their condition. This delay

in seeking healthcare can worsen the spread of TB and hinder effective disease control [Alsarvi KA (2024)] [2].

The psychological and social consequences of TB stigma can significantly impact patients' mental health, increasing feelings of isolation and depression. It also creates barriers to healthcare access, especially for vulnerable populations, further perpetuating health inequities. To combat this, the WHO advocates for education, public awareness, and stigma-reduction strategies that ensure compassionate care and encourage timely treatment to improve health outcomes and prevent transmission.

## OBJECTIVES

- To identify the various forms of stigma experienced by the patients with Tuberculosis
- To find out the association between the stigma experienced by the patients with Tuberculosis with selected demographic variables

## MATERIALS AND METHODS

### Study Design

This study employed a descriptive design aimed at evaluating the various forms of stigma experienced by the patients with Tuberculosis. The descriptive study approach was chosen for its ability to provide comprehensive data on the population and phenomenon under study [3].

### Setting

The study was conducted at ACS Medical College and Hospital, located in Chennai, India. This multispecialty hospital offers a wide array of healthcare services, making it an ideal setting for a study of this nature.

### Study Duration

The study was carried out over a period of two months, from March 2025 to April 2025. This duration was chosen to allow sufficient time for participant recruitment, data collection, and analysis.

### Sample Size Calculation

The sample size was determined using the formula for descriptive or prevalence studies:

$$n = \frac{Z\alpha^2 pq}{d^2}$$

Where:

- n is the required sample size
- $Z\alpha=1.96$ (normal distribution value corresponding to a 95% confidence interval)
- $p=0.909$ (previous study finding of the prevalence, 90.9%)
- $q=1-p=0.091$ (the complement of ppp)
- $d=0.05$ (margin of error, 5%)

## Substituting the values:

$$n = \frac{(1.96)^2 \cdot 0.909 \cdot 0.091}{(0.05)^2}$$

$$n \approx 127$$

Based on sample size calculation, it is estimated to have 127 samples, among which 10% of dropouts was expected in this study. Therefore, the final sample size will be 139.

## Study Plan

### Ethical Approval and Clearance

The study received clearance from the Institutional Ethical Committee of ACS Medical College and Hospital (No. 26/2025/IEC/ACSMCH, dated 26.02.2025). Following the ethical clearance, permission was obtained from the hospital management to conduct the study at ACS Medical College and Hospital, located in Thiruvallur District. The study aimed to evaluate the impact of Tuberculosis (TB)-related stigma on patients diagnosed with TB [4].

### Sampling and Data Collection

A total of 139 participants were selected for the study using a purposive random sampling technique. The participants were patients diagnosed with TB who met the inclusion criteria. Data were collected using the TB Stigma Assessment Tool developed by the Stop TB Partnership (hosted by UNOPS). The tool was translated into the local language to ensure clarity and to retain the original meaning, making it easier for participants to comprehend the questions.

Participants responded to a series of questions using a 5-point Likert scale, indicating how strongly they agreed or disagreed with each statement. The data collection was conducted over the course of 2 months from March and April 2025, and participants were asked about their personal experiences with TB-related stigma, their observations of others facing stigma, and their perspectives on how stigma affects access to TB services. [5].

### Study Tool

The study tool utilized a pre-designed questionnaire, which was reviewed and validated by a team of pulmonologists and nursing professionals. The questionnaire was based on the TB Stigma Assessment Tool, which was referenced from the Stop TB Partnership, hosted by UNOPS. The questionnaire covered several dimensions of TB stigma, and participants were asked to reflect on their experiences and perceptions. The questionnaire included the following key areas:

- **Stigma Dimension:** Questions related to how stigma manifests in the community and the healthcare setting.
- **Stigma Observed:** Exploration of whether participants had observed stigma being directed toward others with TB.
- **Stigma Experienced:** Assessment of participants' personal experiences with stigma due to their TB diagnosis.
- **Barriers:** Identification of any barriers participants faced in accessing TB care due to stigma.
- **Suggestions for Change:** Open-ended questions where participants could propose solutions for reducing stigma in the community and healthcare system.

## Inclusion Criteria

Patients diagnosed with TB who met the following criteria were included in the study:

- A confirmed diagnosis of Pulmonary or Extrapulmonary tuberculosis.
- Willingness to participate in the study and provide informed consent.
- Age between 18 to 65 years.

## Exclusion Criteria

Patients were excluded from the study if they met any of the following criteria:

- A history of comorbid illnesses such as AIDS.
- Being critically ill and unable to participate in the study.
- Inability to follow instructions or complete the questionnaire due to neurological or psychiatric problems.
- Non-willingness to participate in the study.

## Data Analysis

The data collected through the TB Stigma Assessment Tool were analysed using appropriate statistical methods to assess the prevalence and impact of stigma on TB patients. The analysis aimed to uncover patterns related to stigma dimensions, barriers to care, and potential areas for improvement in TB-related services. Descriptive statistics, including frequencies and percentages, were used to summarize the data, while inferential statistics were applied to explore the relationships between stigma and other variables such as age, gender, and type of TB [6].

## RESULT

**Table 1: Frequency and percentage distribution of demographic variables of Tuberculosis Patients**

**N = 139**

Demographic Variables	Frequency	Percentage
<b>Age</b>		
18 – 24 years	15	10.7
25 – 44 years	56	40.3
45 – 64 years	55	39.6
65 or older	13	9.4
<b>Gender</b>		
Male	84	60.4
Female	55	39.6
Transgender	-	-
<b>Marital status</b>		
Married	96	69.1
Unmarried	22	15.8
Divorced	5	3.6
Widowed	16	11.5
<b>Qualification</b>		
Professional degree	4	2.9
Graduate	22	15.8
Intermediate / Diploma	5	3.6
High school	25	18.0

Demographic Variables	Frequency	Percentage
Middle school	48	34.5
Primary school	13	9.4
Illiterate	22	15.8
<b>Occupation</b>		
Legislators, Senior officials, and Managers	1	0.7
Professional	2	1.4
Technicians and Associate Professional	4	2.9
Clerks	-	-
Skilled workers, Shop and Market sales workers	48	34.5
Skilled Agricultural and fishery workers	1	0.7
Craft and related trade workers	4	2.9
Plant and machine operators and assemblers	7	5.0
Elementary occupation	14	10.1
Unemployed	58	41.7
<b>Monthly family Income (INR)</b>		
≤ 1033	1	0.7
1034 – 3071	6	4.3
3072 – 5119	8	5.8
5120 – 7680	8	5.8
7681 – 10240	35	25.2
10241 – 20481	49	35.3
≥ 20482	32	23.0
<b>Residential Area</b>		
Urban	107	94.2
Rural	32	23.0
<b>Family type</b>		
Nuclear family	131	94.2
Joint family	8	5.8
Extended family	-	-
<b>Which of the following statements is accurate about you?</b>		
Completed TB treatment over one year ago	-	-
Completed TB treatment within the last year	2	1.4
Currently on TB treatment	137	98.6
Never had TB treatment	-	-
<b>What type of TB were you last diagnosed with?</b>		
Pulmonary TB	85	61.2
Multidrug – Resistant TB	6	4.3
Extensively Drug – Resistant TB	-	-
Extra Pulmonary TB	48	34.5
Don't Know	-	-

The **table 1** illustrated that most of the Tuberculosis patients, 56(40.3%) were aged between 25 – 44 years, 84(60.4%) were male, 96(69.1%) were married, 48(34.5%) had middle school education, 58(41.7%) were unemployed, 49(35.3%) had monthly family income of between 10241 – 20481, 107(94.2%) were residing in urban area, 131(94.25) belonged to nuclear family, 137(98.6%) were currently on TB treatment, 85(61.2%) were last diagnosed with pulmonary TB.

**Table 2: Frequency and percentage distribution of level of stigma among Tuberculosis patients**

N = 139

Level of Stigma	Frequency	Percentage
Low level of Stigma (≤Mean – 23.52)	77	55.4
High level of stigma (>Mean – 23.52)	62	44.6

The table 2 denotes that 55.4% of the Tuberculosis patients reported a low stigma level (score  $\leq 23.52$ ), while 44.6% experienced a high stigma level (score  $> 23.52$ ). This distribution suggests that a significant portion of the study population experiences substantial stigma related to their tuberculosis diagnosis.

**Table 3: Assessment of mean and standard deviation of stigma score among Tuberculosis patients**

**N = 139**

Stigma	Score
Mean	23.52
S.D	7.03
Median	23.0

Table 3 presents the mean stigma score of  $23.52 \pm 7.03$ , with a median score of 23.0. This indicates that, on average, the stigma level among the Tuberculosis patients was moderate. The relatively small standard deviation suggests that the stigma scores were fairly consistent across participants, with most patients' stigma levels clustering around the mean. The median value supports this, indicating a central tendency near the mid-range of the stigma scale.

#### **Association of level of stigma among Tuberculosis Patients with their selected demographic variables.**

The findings of this study indicates that the demographic variables age ( $\chi^2=16.263$ ,  $p=0.001$ ), qualification ( $\chi^2=26.587$ ,  $p=0.0001$ ) and type of TB last diagnosed ( $\chi^2=15.893$ ,  $p=0.0001$ ) had statistically significant association with level of stigma among Tuberculosis Patients at  $p<0.001$  level. The demographic variables gender ( $\chi^2=5.196$ ,  $p=0.023$ ) and marital status ( $\chi^2=9.493$ ,  $p=0.023$ ) had statistically significant association with level of stigma among Tuberculosis Patients at  $p<0.05$  level. The other demographic variables did not show statistically significant association with level of stigma among Tuberculosis Patients at  $p<0.05$  level.

**Table 4: Multiple Linear Regression analysis of predictors of stigma among Tuberculosis Patients**

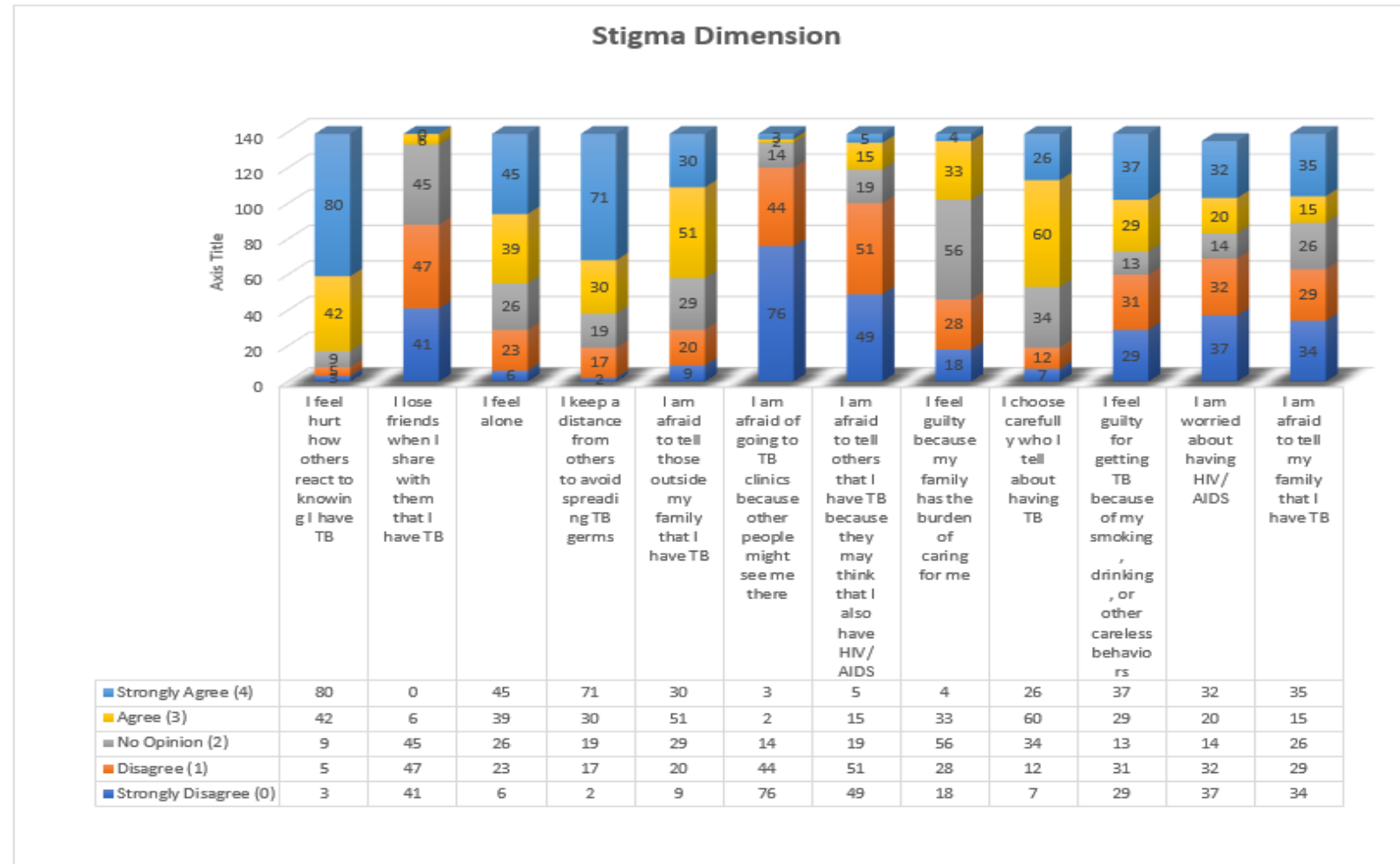
**N = 139**

Demographic Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
Age	.381	.818	.044	.466	.642	-1.237	2.000
Gender	-.347	1.364	-.024	-.254	.800	-3.045	2.351
Marital Status	-.504	.609	-.072	-.827	.410	-1.709	.702
Qualification	.663	.410	.157	1.617	.108	-.148	1.475
Occupation	.281	.221	.112	1.274	.205	-.155	.717
Income	-.237	.485	-.046	-.488	.626	-1.197	.723
Area	.460	1.439	.028	.320	.750	-2.387	3.307
Family Type	-2.308	2.507	-.077	-.921	.359	-7.268	2.652
Completed TB Treatment	10.625	4.991	.181	2.129	.035	.749	20.501
Type of TB treatment	-.984	.457	-.198	-2.153	.033	-1.888	-.080
<b>R<sup>2</sup> Change (%) = 15.9%</b>							

The above table 4 infers that there was a significant relationship between completed TB Treatment ( $p=0.035$ ) and type of TB treatment ( $p=0.033$ ) with stigma and with a  $R^2$  value of 15.9%. Table shows the multiple regression combination of the demographic variables as linear relationship to Stigma with  $R^2$  value is 15.9%.

## DISCUSSION

### Stigma Dimensions:





## STIGMA DIMENSIONS

This chart highlights the varying levels of stigma experienced by tuberculosis (TB) patients across different dimensions. The dimensions explored include emotional reactions, social isolation, fear of disclosure, and guilt.

Datiko DG., (2020), denoted that each dimension reflects how patients perceive and experience stigma, shedding light on the emotional and social toll TB has on individuals [7].

### **Emotional Impact (I feel hurt how others react to knowing I have TB)**

The highest number of patients strongly agree (80 responses) that they feel hurt by how others react to their TB diagnosis. This response highlights the profound emotional distress caused by societal reactions to TB. The 40 responses marked as “Agree” highlight the shared emotional struggles that many patients go through. The study findings are supported by Koontalay A., et.al., (2021) concluded with significant emotional pain felt by these individuals based on responses necessitates interventions focusing on psychological support for patients [8].

### **Social Isolation (I lose friends when I share with them that I have TB)**

The responses to this question indicate a clear social stigma, with 41 responses strongly disagreeing that sharing their TB status led to a loss of friends, while 47 patients disagree. Many patients are not disclosing their TB status with their friends; hence, the patients could maintain relationship with their close friends. It shows that, who feels rejected highlights the importance of social support systems in addressing TB-related stigma, offering counselling or support groups to help patients rebuild relationships and manage isolation.

### **Feelings of Loneliness (I feel alone)**

The data shows a high level of loneliness among TB patients, with 45 individuals strongly agreeing and 39 agreeing. This emotional isolation is particularly significant because it points to the challenges patients face in receiving emotional support. Given the negative impact of loneliness on mental health, further research into community-based interventions could be beneficial to help patients combat feelings of isolation.

### **Fear of Spreading TB (I keep a distance from others to avoid spreading TB germs)**

This dimension highlights the self-imposed isolation as a coping mechanism. 71 individuals strongly agree, reflecting a common practice among patients to physically distance themselves due to the perceived risk of transmitting TB. This is an important insight, as it shows patients may feel compelled to isolate themselves even when they are not in active contact with others. Public health initiatives must address these concerns by offering education on TB transmission and prevention to reduce unnecessary isolation.

### **Fear of Disclosure (I am afraid to tell those outside my family that I have TB)**

The majority of patients expressed fear of disclosure outside their immediate family, with 51 individuals agreeing. This highlights the social shame and stigma associated with TB, which patients may fear will lead to rejection or judgment.

The study findings are supported by Koontalay A., et.al., (2021) concluded that the high percentage of patients concealing their diagnosis suggests that confidentiality and privacy in medical care are critical to ensure that patients can seek help without fear of social consequences [8].



### **Guilt and Self-Blame (I feel guilty because my family has the burden of caring for me)**

A significant number of respondents, 33 patients, agree with feeling guilty because their family bears the burden of care. The sense of guilt linked to dependency on others reinforces the emotional toll of TB stigma. This dimension suggests that stigma is not only external but also self-directed, where patients feel burdened by their condition.

Psychological interventions, such as cognitive behavioral therapy (CBT), could help alleviate these feelings of guilt and assist patients in coping more effectively.

### **Selective Disclosure (I choose carefully who I tell about having TB)**

The data clearly shows that patients exercise caution when revealing their TB status, with 26 individuals strongly agreeing and 60 agreeing. This highlights a coping strategy to avoid potential rejection. It also suggests that TB education programs should promote open discussions and reduce fear around disclosure to help patients feel supported in their journey toward recovery.

### **Feelings of Guilt Due to Lifestyle (I feel guilty for getting TB because of my smoking, drinking, or other careless behaviors)**

The guilt related to lifestyle choices was expressed by 37 patients, with strongly agreeing. This further emphasizes the role of self-blame in the stigma associated with TB, particularly for those who may have engaged in such behaviors that are perceived as risky, whereas some patients even after being diagnosed, continue to smoke without much regret as a coping strategy to overcome the stress and emotions. This finding is supported by Mahto G (2023) that to provide non-judgmental support can reduce self-blame and foster better treatment adherence [9].

### **Concerns About Co-Infection (I am worried about having HIV/AIDS)**

A significant concern among patients is the fear of co-infection with HIV/AIDS, as reflected by 32 individuals strongly agreeing and 20 agreeing.

This emphasizes the intersection of TB and HIV stigma, with patients worried about how others may perceive them if they have both conditions. It suggests that TB care should integrate HIV screening and ensure that both diseases are managed without discrimination.

## **DOMAINS OF TB STIGMA**

This study explores the multifaceted nature of tuberculosis (TB) stigma, capturing patients' experiences across several domains that influence their emotional, social, and treatment-related outcomes. The findings highlight how deeply stigma affects individuals diagnosed with TB, impacting not only their health but also their social lives, mental well-being, and access to care.

The six domains of stigma explored in this study—Internalized Stigma, Perceived Stigma, Enacted Stigma, Structural Stigma, Supportive Experiences, and Community Engagement and Unique Reflections—highlight the complexity of TB stigma and the need for holistic interventions to reduce its harmful effects.

Various studies conducted on TB stigma, Nightingale R (2023) conducted a Post-TB health and wellbeing which is strengthen this study findings.[10].

### **Domain 1: Internalized Stigma**

Internalized stigma represents the emotional burden that patients carry, often leading to self-blame, guilt, and feelings of being a burden to others. Patients in this study reported significant

emotional distress, with some even expressing suicidal thoughts due to their perceived impact on their families.

- Sample No: 15 – The patient, in tears, felt overwhelmed with guilt and anxiety about the diagnosis, even leading to continued alcohol use as a coping mechanism.
- Sample No: 77 – The patient described being constantly depressed, unable to work or even attend church due to fear and hopelessness.
- Sample No: 78 – Felt like a burden to the family; secretly taking medications to avoid troubling them, despite being too weak to work.
- Sample No: 125 – The patient had suicidal thoughts because he believed he had become a burden to his family.

Sample No. 125 felt overwhelmed by the belief that he had become a burden to his family, resulting in suicidal ideation. This emotional toll suggests that TB stigma is not just an external experience but also an internalized source of suffering. Del Rosal E (2010) suggested that the integration of mental health services into TB care is essential to address these hidden emotional struggles and provide comprehensive care to patients [11].

## **Domain 2: Perceived Stigma**

The fear of judgment and societal rejection leads many patients to conceal their TB diagnosis, even from close family members.

- Sample No: 14 – Chose not to disclose TB status outside of immediate family due to anticipated shame.
- Sample No: 20 – Feared, owner might think differently if she knew, so hid her status while working as a cook.
- Sample No: 99 – Broke down crying upon diagnosis, concealed it even from extended family, fearing it might affect her children.
- Sample No: 78 – Despite being in need, refused to inform family and took responsibility alone, worried they would not support her.

Sample No. 14 chose not to disclose their status outside the immediate family due to the anticipated shame. This fear of discrimination often prevents patients from seeking the help they need, delaying treatment and exacerbating the emotional burden of living with TB. Troup LJ (2022) suggested that perceived stigma is particularly harmful because it isolates patients and deters them from seeking early diagnosis and care, which is critical for successful TB treatment and prevention [12].

## **Domain 3: Enacted Stigma**

Enacted stigma refers to direct experiences of discrimination or exclusion due to TB. This domain highlighted particularly painful experiences, where patients faced rejection from family, colleagues, and society at large.

- Sample No: 18 – After disclosing TB at work and forgetting to wear a mask once, colleagues treated him poorly. He quit and changed jobs.
- Sample No: 19 – Faced disrespect at work and home. Coworkers made him sit separately and used a different water jug. Grandchildren were not allowed near him.

- Sample No: 61 – The patient’s wife instructed their children to stay away from him.
- Sample No: 16 – The patient was abandoned by his wife and left alone during treatment, even for medicine collection

Sample No. 19 reported being mistreated at work, where colleagues distanced themselves and even imposed separate water jugs. Such exclusion not only intensifies the emotional isolation of patients but also disrupts their social and economic stability.

Kapadia D (2022) conducted study on mental illness & ethnicity: Time to centre racism and structural stigma which supports these direct experiences of stigma, whether at the workplace or within families, underline the need for anti-discrimination policies and education programs aimed at reducing stigma in both healthcare settings and communities. [13]

#### **Domain 4: Structural Stigma**

Structural stigma reflects societal or institutional systems that either perpetuate or fail to mitigate stigma, thereby hindering access to care.

- Sample No: 9 – Reported breach of confidentiality at an educational institute, which may have exposed their TB status without consent.
- Sample No: 100 – A homeless, unmarried patient living in a vehicle with no caregiver. Emotionally shut down and unresponsive.
- Sample No: 101 – Struggled to follow treatment consistently, potentially due to lack of support.
- Sample No: 86 – Living in a shop, depending on public canteens, and too afraid to disclose TB status even to his children

Sample No. 9, who experienced breaches in confidentiality, and Sample No. 100, who lived in a vehicle without a caregiver, reveal how social vulnerabilities, including poverty, homelessness, and lack of support, compound the challenges TB patients face.

These structural factors not only make it difficult for patients to access treatment but also reinforce feelings of shame and marginalization. Kapadia D (2022) conducted study on mental illness & ethnicity: Time to centre racism and structural stigma which supports and addressing structural vulnerability through social support services and improving confidentiality in healthcare settings are essential steps toward reducing stigma and improving patient care [13].

#### **Domain 5: Supportive Experiences**

Support from family, healthcare providers, and communities can significantly alter the patient experience and mitigate the impact of stigma.

- Sample No: 8 – Felt fully supported by hospital, family, and community; did not face discomfort or stigma.
- Sample No: 12 – Family encouraged treatment, believing TB could be cured with proper medicine.
- Sample No: 10 – Recognized and appreciated the government’s role in providing free medicine and follow-up.
- Sample No: 105 – Though abandoned by her husband, the patient received excellent support from her brother’s family, resulting in a stress-free recovery.

Sample No. 105 received excellent support from her brother's family, which greatly facilitated her recovery despite being abandoned by her husband. Similarly, patients who experienced positive interactions with hospitals and community members were more likely to follow treatment and experience improved mental health. These supportive experiences demonstrate that empathy and positive reinforcement from family, healthcare providers, and the community play a pivotal role in reducing stigma and promoting adherence to treatment.

### **Domain 6: Community Engagement and Unique Reflections**

This domain highlights instances of community solidarity and personal reflections that can serve as catalysts for stigma reduction.

- Sample No: 35 – A woman helped her neighbour with TB and diabetes, even when questioned by her husband and community, showing rare community solidarity.
- Sample No: 83 – A man unknowingly lived with symptoms for four months before diagnosis, highlighting gaps in early detection.
- Sample No: 132 – Acknowledged that his lifestyle (alcohol, smoking) led to TB; missed doses caused treatment to extend, but now taking medicines regularly.

Sample No. 35 demonstrated rare community engagement by helping a neighbour with TB despite community questioning. Additionally, Sample No. 132 acknowledged his own role in acquiring TB and his commitment to consistent treatment. These cases underscore the potential for community-based interventions and awareness campaigns that empower patients to be more open about their condition, encourage treatment adherence, and challenge the stigma surrounding TB. The study findings are supported by Ohmer ML et.al., (2022) and concluded as community leadership and patient advocacy can be harnessed to promote stigma reduction and foster a more supportive environment for TB patients [14].

## **CONCLUSION**

This study revealed that TB stigma is a layered and pervasive issue affecting patients on emotional, social, and institutional levels. The findings of this study suggest that mental health services, anti-discrimination policies, community engagement, and structural support are crucial in mitigating the harmful effects of stigma.

As evidenced by patients who had positive experiences with support, it is clear that comprehensive care that integrates social, emotional, and medical support can significantly enhance the quality of life for TB patients. Addressing TB stigma requires a multifaceted approach that not only focuses on medical treatment but also empowers patients to cope with the psychological and social impacts of the disease.

The voices of the patients in this study emphasize the importance of a holistic, compassionate approach to TB care, where stigma reduction is a key element in improving overall health outcomes.

### **Recommendations Based on Patients' Description of TB Stigma**

The findings of this study reveal the significant impact of tuberculosis (TB) stigma on patients' emotional and social well-being.

Based on these experiences, the following recommendations are proposed to reduce stigma and improve care:

1. **Introduce Regular Psychological Counselling:** Many patients reported emotional distress, including guilt and depression (Samples No. 77, 125). Regular counselling integrated into TB care can address these issues and improve patient adherence to treatment.
2. **Promote Disclosure Safety and Confidentiality:** Fear of judgment led many patients to conceal their diagnosis (Samples No. 14, 20, 99). Ensuring confidentiality and creating a safe environment for disclosure can help patients seek care earlier and reduce perceived stigma.
3. **Conduct Workplace and Family Awareness Sessions:** Patients experienced enacted stigma in workplaces and families (Samples No. 18, 19, 61). Educational programs targeting both employers and families can reduce discrimination and support patients' emotional well-being.
4. **Extend Structural Support to Vulnerable Patients:** Vulnerable patients, such as those facing homelessness (Samples No. 100, 101, 86), require socio-economic support. Providing resources such as housing, food, and transportation can help alleviate structural stigma and ensure better care.
5. **Celebrate and Scale Supportive Practices:** Highlighting positive support from families and communities (Samples No. 8, 12, 105) can encourage others to provide similar care and reduce stigma, fostering a supportive environment for TB patients.

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