Volume-1, Issue-2, June 2025

ISSN: 3107-4243 (Online)
ISSN: (Print)
World View Research Bulletin
An International Multidisciplinary Research Journal

Tuberculosis and Dietary Myths in Rural and Urban Areas of Damoh, Madhya Pradesh A Comparative Study

Dr. Vandana Shrivastava[1], Professor, Department of Home Science, M.L.B Girls AutonomusGovt. Collage Bhopal Bhopal M.P.

Priyanka Nema[2], Research Scholar, Barkatullah UniversityM.P

Abstract:

Tuberculosis (TB) remains a significant public health challenge in Damoh, Madhya Pradesh. Despite advancements in medical treatment, dietary myths continue to influence the nutritional practices of TB patients, particularly in rural settings. This study aims to assess the prevalence of food-related beliefs among TB patients and their impact on recovery and treatment adherence. A total of 100 TB patients; 50 each from rural and urban areaswere surveyed using a structured questionnaire. The findings revealed notable disparities in dietary attitudes and practices between the two groups, highlighting the urgent need for culturally sensitive and targeted nutritional education to support effective TB management.

Keywords: Tuberculosis, Dietary myths, Nutritional beliefs, Rural and urban health, Madhya Pradesh, Nutritional education

I. Introduction

In India, which has one of the highest rates of TB cases worldwide, the disease is still a majorhealth concern. The World Health Organisation (WHO) estimates that India is home toroughly 27% of all TB patients worldwide. Mycobacterium tuberculosis is the bacterium thatcauses tuberculosis. Although it can spread to other organs of the body, it primarily affectsthe lungs.

The Revised National Tuberculosis Control Programme1997 (RNTCP) and the Nikshay PoshanYojana, which offers patients nutritional support, are two initiatives the Indian governmenthas made to combat TB. Nevertheless, despite these initiatives, a lot of people particularly inrural and small towns continue to hold false beliefs about tuberculosis, particularly around thefoods that patients should or shouldn't consume.The district of Damoh in Madhya Pradesh is a blend of rural and urban areas with a wide range of customs and cultures. People frequently adhere to traditional health ideas in Damoh's rural areas. One of

ISSN: 3107-4243 (Online)
ISSN: (Print)
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the most prevalent problems is the belief in TB-related food myths. By influencing their rehabilitation and diet, these beliefs may actually be detrimental to patients.

For TB patients, a healthy diet is crucial since it strengthens the body's defences against the illness. Patients with tuberculosis must eat a well-balanced, high-protein diet. However many patients steer clear of nutritious items like meat, eggs, and milk because of regional beliefs. Some people think that meat and eggs exacerbate the disease or that milk makes phlegm worse. In villages, where people have less access to appropriate health information and dietary guidance, these attitudes are frequently more prevalent. It's critical to comprehend these local beliefs in order to enhance the health and recovery of TB patients. Finding and contrasting dietary beliefs about tuberculosis in Damoh's rural and urban communities is the main goal of this study. It also examines how patients' diets and recovery outcomes are impacted by these beliefs.

Nutrition Requirement - Caloric requirement for a tuberculosis (TB) patient depends on factors like age, gender, weight, physical activity, and the severity of the disease. However, due to the catabolic (body tissue–breaking) nature of TB and increased metabolic demands, TB patients generally need 20–30% more calories than healthy individuals.

According to Indian Council of Medical Research (ICMR) 2020 Guidelines (approximate):

S.No.	Demographic Variable	Calories
1.	Men (sedentary, TB patient)	2500–2700 kcal/day
2.	Women (sedentary, TB patient)	2100–2300 kcal/day
3.	If undernourished or losing weight	Add 500–700 kcal/day additionally

General Caloric Guidelines for TB Patients:

S.No.	Patient Type	Calories per kg body weight/day
1.	Mild to moderate TB	30–35 kcal/kg/day
2.	Active pulmonary TB	35–40 kcal/kg/day
3.	Severe TB with weight loss	40–45 kcal/kg/day

Nutritional Advice:

- **High-protein foods:** Eggs, Milk, Pulses, Meat, Soya
- **Energy-dense:** Ghee, Oil, Jaggery, Nuts
- **Frequent meals:** 5–6 small meals/day
- **Avoid myths:** Don't avoid Milk, Fruits, Eggs unless medically advised.

II. Review of Literature

- According to **Dr. Arup Halder (2021)** from CK Birla Hospital, there are various myths and social stigmas in society regarding the symptoms and nature of tuberculosis, which can lead to delays in patients seeking medical help. These misconceptions can hinder effective treatment and contribute to the continued spread of TB in the community. ***(Halder, A. 2021)***

- According to **Manipal Hospitals Salem** in their article Tuberculosis in India: Myths vs. Facts of TB, tuberculosis remains one of India's most pressing public health challenges. To increase awareness, March 24th is observed as World TB Day each year. In 2023, India registered approximately 2.8 million new TB cases, accounting for nearly one-quarter of the global burden. However, the article highlights that persistent myths and superstitions continue to pose significant barriers, often undermining effective strategies for the prevention, diagnosis, and treatment of the disease. ***(Elakya, D. 2025)***

III. Aim and Objectives:

This study aims to identify and compare dietary myths among TB patients in rural and urban areas of Damoh and to assess how these beliefs affect their nutritional practices and recovery.

1. To identify dietary myths associated with tuberculosis among patients in rural and urban areas of Damoh.

2. To assess the impact of these beliefs on treatment adherence and health outcomes.

IV. Methodology

1. Study Design:A descriptive cross-sectional design was used to study dietary beliefs among TB patients in rural and urban areas of Damoh district, Madhya Pradesh.

2. Study Area: The study was conducted at selected areas in Raneh, Hinota and Hindoriya (Rural). Hatta and Damoh town (Urban) areas of Damoh district, Madhya Pradesh.

3. Sample Size: Using stratified random sampling, 100 pulmonary TB patients were selectedwith 50 respondents from rural areas and 50 from urban areas

Inclusion Criteria: Inclusion criteria included patients aged 18–70 years, diagnosed within the past six months, and willing to participate.

Exclusion Criteria: Patients who were critically ill or had multidrug-resistant (MDR) TB were excluded.

4. Tools of Data Collection: Data were collected through structured questionnaire and face-to-face interviews covering dietary practices, TB-related beliefs, and demographics. Data were collected in the local language (Hindi/Bundkhandi) for clarity and comfort of respondents.

V. Data Analysis and Interpretation:

Data analysis was conducted using Microsoft Excel, with findings presented as frequencies and percentages. Chi-square tests were applied to compare rural and urban responses.

Table 1: Demographic Profile of Respondents (Gender)

Demographic Variable	Rural (n= 50)	Urban (n = 50)	Total %
Male	30	28	58%
Female	20	22	42%

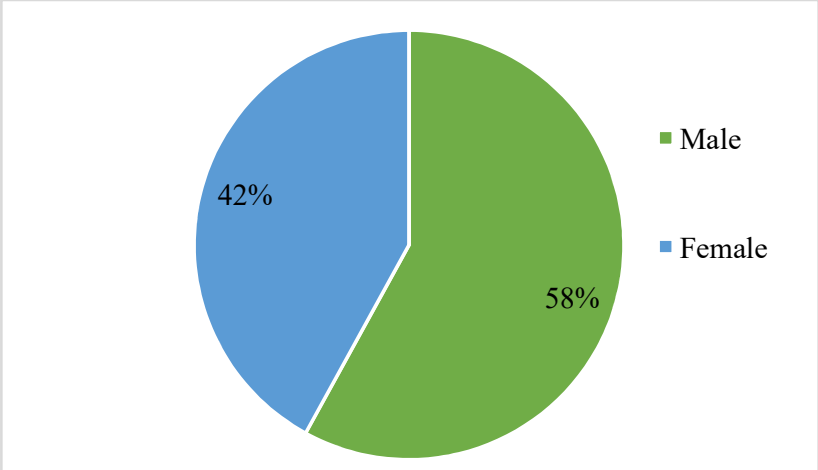

Chart 1- Demographic Profile of Respondents (Gender in percent %)

Volume-1, Issue-2, June 2025
ISSN: 3107-4243 (Online)
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Table 2: Demographic Profile of Respondents in Age Group (years)

Demographic Variable	Rural (n = 50)	Urban (n = 50)	Total %
15-30	10	12	22
31-45	18	20	38
46-60	15	14	29
Above 60	7	4	11

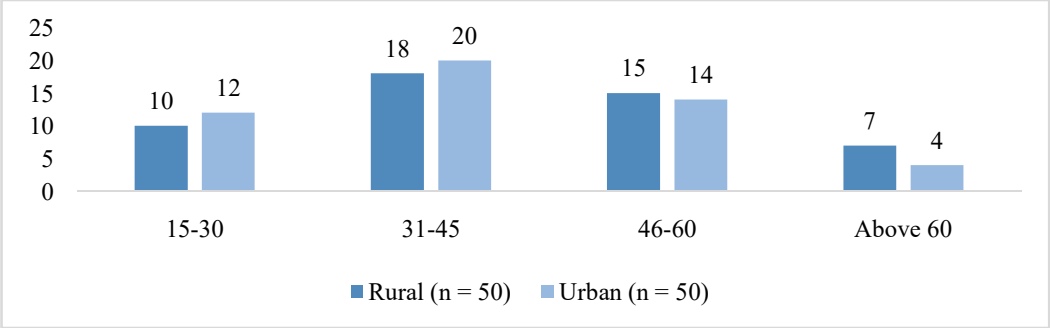

Chart 2- Demographic Profile of Respondents (Age Group)

Table 3: Common Dietary Myths Among TB Patients

Dietary Myth	Rural (n=50)	Urban (n= 50)	Total (%)
TB patients should avoid milk	36	20	56
Eating oily/spicy food worsens TB	30	28	58
Fruits should not be consumed during TB	22	18	40
TB is caused by eating stale food	12	9	21
Non- vegetarian food should be strictly avoided	28	22	50

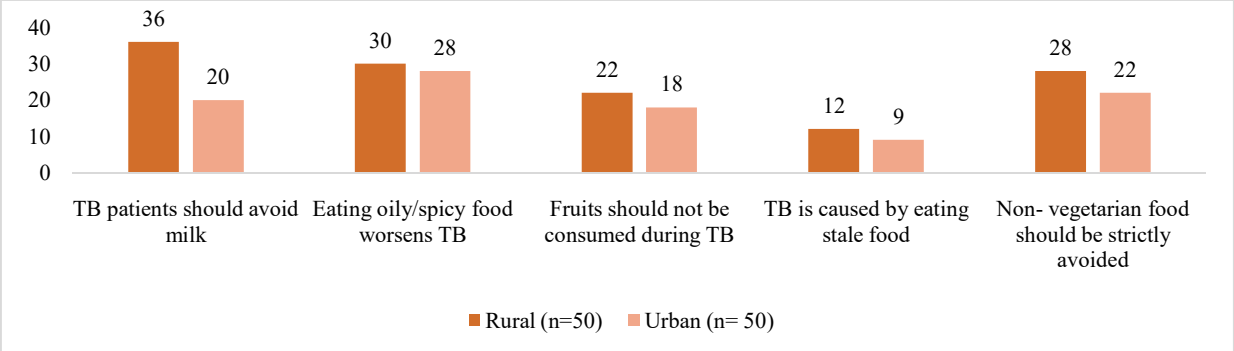

Chart 3- Common Dietary Myths Among TB Patients

Table 4: Prevalence of Specific Dietary Myths

Myth	Rural (%)	Urban (%)

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Avoid milk and curd (increase phlegm)	**72**	**44**
Eggs/meat worsen TB	**61**	**32**
Spicy food delays recovery	**54**	**36**
Dry foods (roti, rice) should be avoided	**39**	**21**

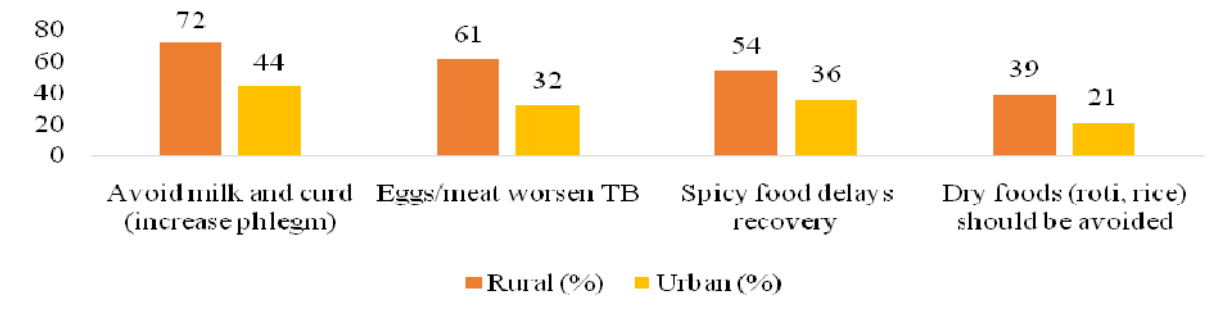

Chart 4- Prevalence of Specific Dietary Myths (in %)

Table 5: Nutritional Awareness and Diet Plan Adherence

Variable	Rural (n=50)	Urban (n=50)	Total (%)
Aware of need for high-protein diet	18	32	50
Receiving dietary counselling	12	28	40
Follow prescribed diet regularly	14	30	44
Aware of Nikshay Poshan Yojana benefits	20	34	54
Received monetary support (₹500/month)	16	30	46

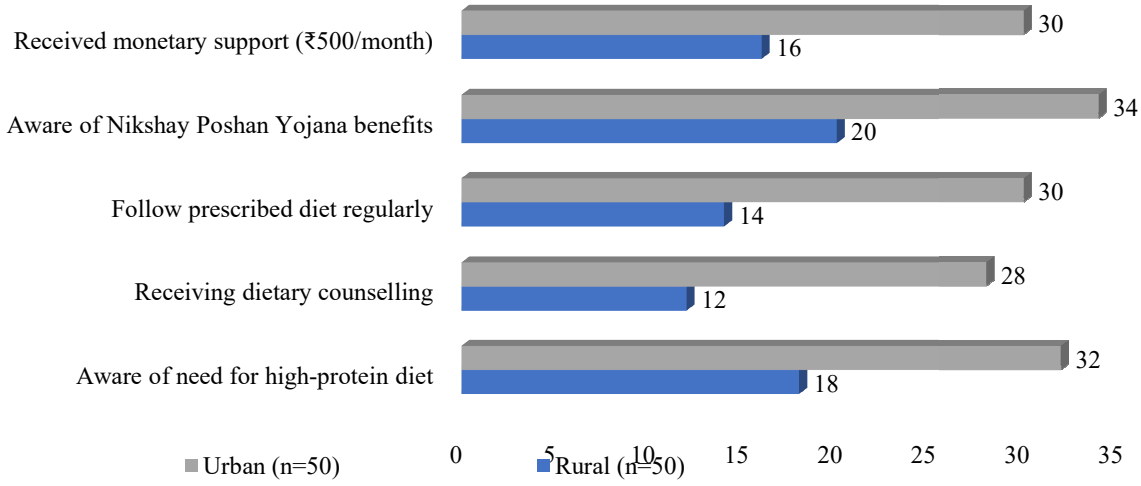

Chart 5- Nutritional Awareness and Diet Plan Adherence

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According to the investigation, TB patients in rural and urban areas differ significantly in their knowledge of and adherence to dietary misconceptions.
Dietary beliefs, such as avoiding meat, milk, curd, and eggs because they are thought to exacerbate TB symptoms were significantly more common among rural patients. These misconceptions have caused people to consume less foods high in protein and calcium, which are crucial for healing.
Urban patients, on the other hand, were more informed, probably as a result of having easier access to medical facilities and learning materials. One of the main reasons these beliefs continue to exist in rural regions seems to be the absence of appropriate nutritional counselling.
A further indication of a scientific knowledge gap is the statistics, which also reveals that a higher proportion of patients in rural areas use herbal or traditional therapies.
Overall, the results indicate that in order to better combat TB and enhance patient outcomes, education, awareness campaigns, and dietary advice should be reinforced, particularly in rural areas.

V. FINDINGS AND DISCUSSION

Key Findings:

1. Rural patients showed higher belief in myths, such as avoiding milk, eggs, and meat, with 72% avoiding milk/curd and 61% avoiding non-vegetarian foods.
2. Urban patients were more aware of nutrition's role in TB recovery, with 85% recognizing its importance compared to 58% in rural areas.
3. Dietary counselling was lacking in rural areas, where only 39% received guidance, compared to 72% in urban settings.
4. Education level influenced beliefs; patients with higher education were less likely to believe in food myths.
5. Use of traditional remedies was more common in rural areas, with 46% relying on herbal treatments.

VI. Result

The study highlights a clear link between dietary misconceptions among TB patients especially in rural area Damoh and low levels of awareness and education. These myths often lead to the avoidance of essential nutrients, hindering recovery.
Urban patients showed better dietary practices, likely due to improved access to health services and information. This rural-urban gap calls for targeted, culturally relevant interventions.
Public health strategies must go beyond treatment and include nutrition education and myth-busting, using local languages and community-based platforms. ASHAs and local influencers can play a key role in correcting food related misconceptions.
While initiatives like the Nikshay Poshan Yojana provide financial support, their impact depends on addressing these underlying beliefs. Integrating nutrition counselling into TB care is essential for better health outcomes.

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VII. Limitations:

1. The study is limited to a specific urban area in Damoh, Madhya Pradesh, and the results may not be generalizable to other regions.

2. Dietary adherence might be challenging to monitor accurately.

3. The study's duration may not capture long-term effects.

VIII. Conclusion and Suggestions

Addressing dietary myths is crucial for improving TB recovery, especially in rural areas of Damoh. Nutrition counselling must be integrated into TB care, with health workers trained to provide clear, evidence-based guidance.

Culturally sensitive awareness campaigns using local dialects, folk media, and community influencers like ASHAs and Anganwadi workers can help debunk harmful beliefs.

Programs like Nikshay Poshan Yojana should be paired with practical education on healthy food choices. Long-term awareness through schools, radio, and mobile-based content will further reinforce positive practices.

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