Dr. Priti Kumari
Department of Home Science,
Ranchi University, Ranchi,
Jharkhand, India

Dr. Asha Kumari Parsad
Associate Professor,
Department of Home Science,
Ranchi University, Ranchi,
Jharkhand, India

Perceptions of rural women with tuberculosis: A study of Seraikela-Kharsawan district

Dr. Priti Kumari and Dr. Asha Kumari Parsad

Abstract

Health, disease and illness are universal facts of human life. Illness, on the other hand, is a much broader concept that refers to the subjective response of the patient to being unwell. All illnesses have a social course in that interpretation of symptoms, help-seeking, diagnosis, choice of treatment, and evaluation of outcome of treatments are all significantly influenced by economic, cultural and psychosocial factors. The aim of the research topic was to analyze the perception of rural women having tuberculosis. 120 samples of rural women having tuberculosis was taken purposively from rural areas of Saraikela-Kharsawan district. It was observed that most of tuberculosis female was found either mild thickness of normal by measuring BMI. It is also found that most of the female believe that the tuberculosis is caused by excessive consumption of alcohol.

Keywords: Tuberculosis, malnutrition, alcoholic

Introduction

Health is an important branch of Home Science. Health means a complete physical, mental and social wellbeing. Health is the prime necessity of human life because it is a key to happiness. Knowledge about good health, sanitation, personal hygiene, role of bacteria in health and disease, infection, looking after the sick, home nursing, hygienic use of food are included in this branch. Knowledge of health and its constant purposeful application of everyday life bring vigor, satisfaction and happiness. But human health is found to be adversely affected by various infectious diseases. Tuberculosis disease is one of them, which is affected by both the human and the environmental factors. Tuberculosis is a major threat to the mankind. It is an infectious disease that causes illness and death worldwide. It is generally called TB, and caused by Mycobacterium tuberculosis, which most commonly affects the lungs, but can also damage other parts of the body. It was declared a public health emergency by WHO in 2005. Tuberculosis disease is mainly categorized into two categories - Pulmonary and Extra-Pulmonary depending on the site of the infection. In Pulmonary TB the usual site of the tubercle bacteria is the lungs and this type of TB infection is very common among the infected population while in Extra- Pulmonary other parts of the body gets infected like lymph node, brain, bones, joints, kidney, genital tract etc and if not treated on time and properly it can be fatal. TB is spread by coughing, sneezing, talking or manipulation of infected person. If not treated properly, active TB can be fatal. There are horst of factors causing tuberculosis disease, among them poverty and unawareness are the most prominent one. The other risk factors are biological factors like age, sex, malnutrition and human immunodeficiency virus (HIV) infection, behavioural factors like tobacco smoking and alcoholism, socio-economic factors such as overcrowding, poor housing, inadequate health facility and limited access to health centers. Although the medical inventions has introduced a successful treatment for this evil, but still tuberculosis is a major challenge world-wide. It's contagious nature make it more devil for mankind and one of the top- ten causes of death at world level. Tuberculosis disease is considered as a menace for both the genders. It was found that though biologically TB infection affects male and female equally although its overall effects are comparatively worse on women than men who may be attributed to several factors like women specific roles and responsibilities like indoor cooking with biomass fuel and taking care of the family members especially when they are ill.

Corresponding Author:
Dr. Priti Kumari
Department of Home Science,
Ranchi University, Ranchi,
Jharkhand, India

Women who cook food with biomass fuel are more likely to develop active TB. These fuels not only damage the respiratory system of women but also weakens there immune system to fight with bacteria. The other factors like illiteracy and unawareness among women and their associated family members make the consequences of TB on women more hazardous. The foremost important factor which places the women in more vulnerable situation is the intense social stigma which not only affects the delay in the diagnosis of the disease but also poses hindrances in the ongoing treatment resulting in treatment failures or defaulter cases which increases the risk of the spread of the infection. Women, one of the deprived sections of the society faces discrimination in all the spheres of life which is commonly found in the developing and under- developed world. The tendency of gender discrimination is also found in the experiences of diagnosis and treatment of tuberculosis. It is also found that once infected with TB, women of reproductive age group are more susceptible to fall sick than men of the same age group, and also die from it. Further it was also observed that women experiences delay in the diagnosis and treatment of the disease. Women are less likely to be screened for TB than men. The other factor which fosters the delay in diagnosis and treatment of TB among women is the strong stigma and fear of rejection from the family and society. It was commonly found among the women of developing nations that women either due to low educational status or due to male dominated mindset of society, fear to open about their infection which worsens their own health condition at one hand and increases the risk of spread of the tubercle infection on the other. Also it was observed that women had the tendency of neglecting their own health and prioritizing others daily needs, which also affects the treatment seeking behaviour. Moreover, the other socially assigned role of women as a care taker of her family members also increases their risk of getting infection, if any of their family members is suffering from Tuberculosis disease.

Globally 8.4 million people are estimated to develop TB each year, new infections occur at about 1 per second and nearly 2 million deaths results from the disease (WHO, 2010). Overall one third of the world's population is currently infected with the tuberculosis bacillus, over 90per cent of them is in developing countries only. India is one of the TB burden countries in the world and accounts for nearly 20 per cent of global burden of tuberculosis. India has the largest burden of cases and deaths related to tuberculosis (TB). As per the Global TB Report 2021, the estimated incidence of all forms of TB in India for the year 2020 was 188 per 100,000 populations. The total number of incident TB patients (new & relapse) notified during 2021 was 19,33,381 which was 19% higher than that of 2020 (16,28,161). TB is one of the major public health problems in India, with the largest reported epidemics according to WHO. India is ranked at number 38 at a global level in terms of the TB incidence rate.

The Government has noted that majority of TB cases are from productive age group of 15 to 45 years. As per latest India TB report, in 2018 about 59% of TB notified cases were from the productive age group of 15 to 44 years.

Age group	Number and percentage
Less than 15 years	137570 (6%)
15-44 years	1268705 (59%)
Greater than 45 years	749620 (35%)

Tuberculosis (TB) cases reported in the state of Jharkhand during the 2015 to 2019

District	2015	2016	2017	2018	2019
Bokaro	2181	2989	3161	3118	3243
Chatra	841	983	987	938	1020
Deoghar	1133	1179	1211	2017	2065
Dhanbad	2355	2552	2768	2524	3490
Dumka	2245	2723	2627	2804	3181
Garhwa	1497	1419	1449	1459	1893
Giridih	1817	1733	2386	2241	3107
Godda	1211	1440	1557	1461	1800
Gumla	1015	900	938	1030	933
Hazaribagh	1480	1302	1617	1738	2316
Jamtara	895	891	1002	960	982
Khunti	459	560	566	554	585
Kodarma	313	317	313	630	859
Lathehar	731	825	761	675	724
Lohardaga	409	438	496	467	481
Pakur	1349	1636	1642	1569	1693
Palamu	2439	2611	2428	3075	3579
Pashchimi singhbhum	2793	3010	2968	3431	4218
Purbi singhbhum	2850	3406	3668	4146	5054
Ramgarh	829	761	868	954	1237
Ranchi	3162	3602	5597	6367	7471
Sahibganj	1633	1919	2313	3386	3148
Saraikela-kharsawan	1654	1711	2083	2130	2281
Simdega	696	608	722	776	810

Source: Nikshay portal. Lok sabha unstarred question no. 1023 to be answered on 7th February, 2020

Saraikella and Kharaswan district is one of the twenty-four districts of Jharkhand state in eastern India. Seraikela town is the district headquarters of Saraikela Kharsawan district. The district is well known for Seraikela Chhau, one of the three distinctive styles of the chhau dance. This district was carved out from West Singhbhum District in 2001. The district was formed from the Odia princely states of Seraikela and Kharaswan, after the independence of India. The population of Seraikela Kharsawan in 2020 is 1,188,911 (estimates as per aadhar uidai.gov.in Dec 2020 data). Out of which 374642 tribal people are living in the district. Hence it is tribal dominated district and having culture of tribal. As per the 2011 census the literacy rate of the district is 67.6% including 79.03% are male but only 55.88% are female.

Research Methodology
The aim of the study was to highlight subjective experiences of patients and a qualitative method was chosen for this study. The field work for this study was conducted during the year 2021 focused only on rural TB patients. A sample of 120 female (age range 30-50 were selected from rural areas of Saraikela who were willing to be interviewed and were capable of participating in the study.

Objectives
1. To study demographic profile of rural tuberculosis female patients
2. To study malnutrition status of female patients
3. To study the Patients' belief of the causes of their TB

Analysis
After data was collected the Data was analyzed using the general guidelines of Grounded Theory (GT).

Table 1: Socio-Demographic Characteristics of the Patients (n=120)

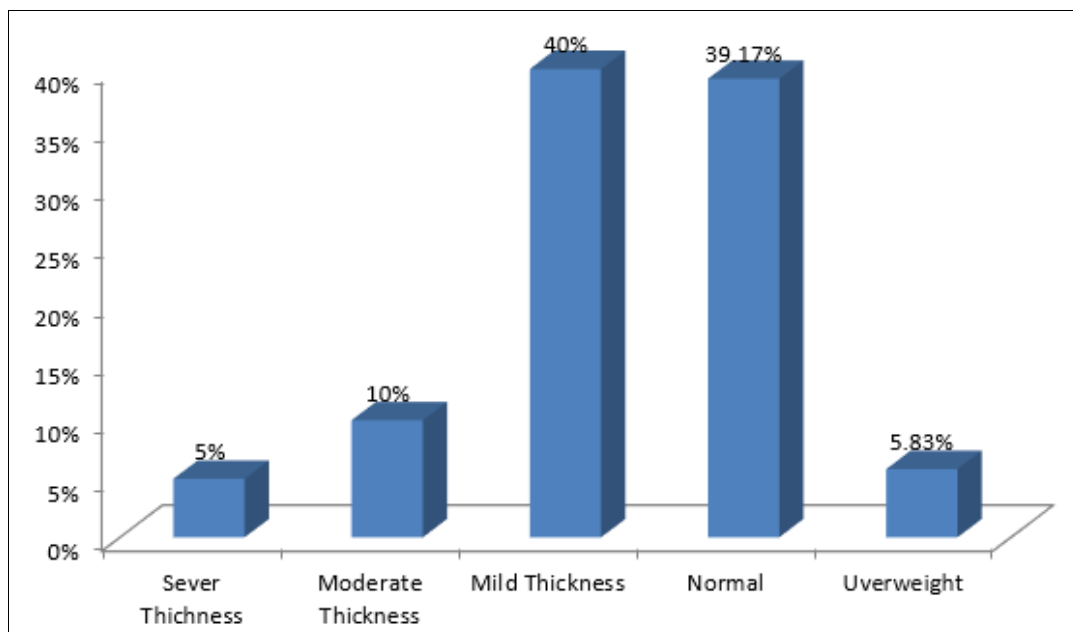|		No. of Patients	Percentage
Age Range	30 to 35	17	14.17
	36 to 40	65	54.17
	41 to 45	26	21.67
	46 to 50	12	10.00
Marital Status	Married	85	70.83
	Widow	27	22.50
	Single	8	6.67
Caste	OBC	17	14.17
	ST	66	55.00
	SC	12	10.00
	Others	25	20.83
Religion	Hindu	26	21.67
	Christian	78	65.00
	Others	16	13.33
Education	Illiterate	38	31.67
	Primary	56	46.67
	Secondary	14	11.67
	Graduation	12	10.00
Income per annum	50000 to 60000	21	17.50
	61000 to 75000	82	68.33
	76000 to 100000	12	10.00
	More than 100000	5	4.17
Type of TB	Pulmonary	98	81.67
	Extra-pulmonary	22	18.33

Table 1 reveals that

1. Maximum percentage of patients is found 54.17% in the age range between 36 to 40 years and minimum is found 10% in the age range 46 to 50 years.

2. Maximum percentage of patients is found 70.83% who are married but minimum is found 6.67% who are single.

3. Maximum percentage of patients is found 55.00% who are belonged to Schedule tribe but minimum is found 10.00% who are schedule cast.

4. Maximum percentage of patients is found 65.00% who are Christian but minimum is found 13.33% who are other caste.

5. Maximum percentage of patients is found 46.67% who are primary educated but minimum is found 10.00% who are graduate.

6. Maximum percentage of patients is found 68.33% who are earning annually in between Rs 61000 and Rs 75000 but minimum is found 4.17% who are earning Rs. 100000 or more than that.

7. Maximum percentage of patients is found 81.67% who are having Pulmonary Tuberculosis but minimum is found 18.33% who are having Extra-Pulmonary Tuberculosis.

Table 2: Percentage distribution of Malnutrition in Tuberculosis Patients (N=120)

| Classification	BDI-kg/m^2 Cut-up point	Number	Percentage
Sever thickness	Less than 16	6	5
Moderate thickness	16.00 to 16.99	12	10
Mild thickness	17.00 to 18.49	48	40
Normal	18.50 to 24.99	47	39.17
Overweight	Greater than or equality 25.00	7	5.83

Graph 1: Graphical representation of Percentage distribution of Malnutrition in Tuberculosis Patients (N=120)

Table 2 reveals that

1. 5% of Tuberculosis patients are found sever thickness due to malnutrition

2. 10% of Tuberculosis patients are found moderate thickness due to malnutrition

3. 40% of Tuberculosis patients are found mild thickness due to malnutrition

4. 39.17% of Tuberculosis patients are found normal

5. 5.83% of Tuberculosis patients are found overweight

Table 3: Patients' Belief of the Most Important Cause of their TB (n=120)

Causes	No.	Percentage
Excessive alcohol consumption	36	30.00
Infection	22	18.33
Mental stress/worry	7	5.83
Fate	12	10.00
Heredity	6	5.00
Evil eye	16	13.33
Don't Know	21	17.50
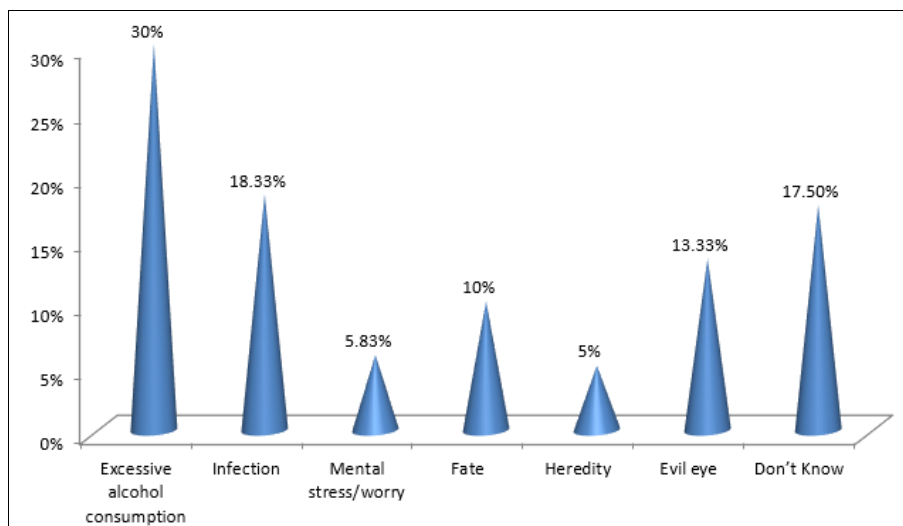
Graph 2: Graphical representation of Patients' Belief of the Most Important Cause of their TB (n=120)

1. 30% of the total patients attributed causation of TB to factors like excessive alcohol consumption
2. 30% of the total patients attributed causation of TB to factors like infection. The fear of contracting TB through contact with TB patient's clothes, bed sheets, utensils, food, saliva and sexual fluids, and through breathing the air expelled by the TB sufferers is widespread among all the groups, including among the literates or illiterate.
3. 5.83% respondents considered the cause of their disease is because of mental stress.
4. 10% of the patients attributed their TB to social factors like fate. Such respondents expressed fate (karma - which is typically used as a cultural metaphor for fate), as a cause of their TB. Individuals associated occurrence of TB as God's will or the way God meant for them to suffer. It was observed that mainly elder patients expressed that certain events in life are inevitable and if something is to happen, it is to be "God's will".
5. 5.00% of the patients attributed their TB because of heredity.
6. Of the 120 patients who attributed TB causation to social forces, 13.33% patients associated their illness state with witchcraft and evil eye respectively. Patients' illness narratives suggested that witchcraft and evil eye accusations and suspicions usually manifested among neighbors and close blood relatives. There is a belief within the community that an individual's upward social and economic mobility sometimes can result in feelings of envy and anger that can lead to witchcraft or evil eye.
7. 17.50% of the patients are unable to know the reason of TB

Conclusion
TB has always been associated with the idea of a deadly and dirty infectious disease and with a sense of uncertainty, confusion, anxiety and death, by patients and their family members. Despite the tremendous advancements made in the field of medical sciences over past few decades, it is disheartening to note that infectious diseases remain the leading cause of morbidity and mortality, and continue to be major public health problems across the globe. TB has been historically one of the greatest infectious killers of all time, and has brought untold miseries to communities and nations. The treatment for TB today is structured on the biomedical model of disease. But there is no effort made to address the social and psychological needs of the patients under this

programme. TB control programmes were implemented on a large scale both globally and in India with an aim to break the chain of infection in the community as well as to reduce TB related morbidity and mortality. In India, despite massive, multi-fold increase in the health infrastructure and manpower at all levels, there has not been much improvement in the epidemiological situation of TB in the country. The aim of the TB control programmes should not only be to treat the patient's body part, but to help the patient resolve the disruption in the patient's life, anxiety and fears associated with TB illness. This can only be achieved by taking into account the patient's lived experience of TB illness. It is clear from the findings of this study that besides the clinical burden, patients have to shoulder a high psychosocial burden associated with TB. The stigma of TB had a profound negative psychological burden in patients living with TB. Stigma associated with having TB not only affected the sufferers but also their family members. It was observed that non-tribal patients had high negative feelings toward TB patients than tribal patients as the latter mainly perceive TB as resulting mostly from natural and individual causes and hence the fear of TB is less.

References
1. Aggarawal OP, Bhasin SK, Sharma SK, Chhabra P, Aggarawal K, Rajoura OP. A new scale for measuring the socio-economic status of a family: Preliminary study. Indian Journal of Community Medicine. 2005;30:4. (2005-10- 2005-2012).
2. Ahmad I, Srivastava V, Prasad R, Yusuf M, Safia Saleem M, *et al*. Deficiency of Micronutrient Status in Pulmonary Tuberculosis Patients in North India. Biomedical Research. 2011;22:449-454.
3. Bhargava A, Pai Madhukar, HIMS, ICMR, Malnutrition JSS, RNTCP, *et al*. Study finds significant link between malnutrition and TB death in Rural India, 2013, Oct 25.
4. Chauhan LS, Agarwal SP. Revised National Tuberculosis Control Programme in Agarwal & Chauvan (eds.), Tuberculosis Control in India. Director General of Health Services, New Delhi: Ministry of Health and Family Welfare, 2005.
5. Govt of India TB India. Revised National TB Control Programme Annual Status Report, 2013, 124pp. http://www.tbindia.nic.in
6. Gupta KB, Gupta R, Atreja A, Verma M, Vishvkarma S. Tuberculosis and Nutrition. Lung India. Lung India.

2009;26(1):9-16.
7. Jain NK. Drug Resistance in India: A Tragedy in the making. Indian Journal of Tuberculosis. 1992;39(3):145-148.
8. Khan S, Parvez IP, Fouzia H, *et al*. Effect of dietary counseling on the nutritional status of tuberculosis patients. Sarhad Journal Agriculture. 2012;28(2).
9. Kumar P. Journey of tuberculosis control movement in India: National Tuberculosis Programme to Revised National Tuberculosis Control Programme. Indian Journal of Tuberculosis. 2005;52:63-71.
10. Mohan G, Kulshreshtha S, Dayal R, Singh M, Sharma P. Effect of Therapy on Serum Zinc and Copper in Primary Complex of Children. Biological Trace Elem Research. 2007;118:184-190.
11. Mohan A, Sharma SK. 'Epidemiology' in Sharma, SK & Mohan, A (eds.), Tuberculosis, New Delhi: Jaypee Brothers, Medical Publishers P (LTD), 2001.
12. New Delhi Tuberculosis Centre. Study of epidemiology of tuberculosis in an urban population of Delhi: Report on 30 year follow-up. Indian Journal Tuberculois, 46, 113-124.
13. Rao KN, Gopalan C. The role of nutritional factors in Tuberculosis. Indian Journal Tuberculosis, 1999;13:3.
14. World Health Organization. Global TB Control Report, 2010.