



**ORIGINAL RESEARCH PAPER**

**Nursing**

**Assess the factors contributing to non-compliance with the treatment regimen among pulmonary tuberculosis patients**

**KEY WORDS:** Non-compliance, Pulmonary Tuberculosis, Treatment Regimen, Factors Contributing

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**ABSTRACT**

**Background:**

Tuberculosis (tb) Is A Chronic Infectious Disease Caused By Bacteria Generally Referred To As Mycobacterium Tuberculosis; Almost Every Organ In The Body Can Be Affected, But Involvement Of The Lungs Account For More Than 80% Of Tb Cases. Tuberculosis Affecting The Lungs Is Called Pulmonary Tuberculosis (ptb), While Those Affecting Other Organs Are Called Extra Pulmonary Tuberculosis (eptb) (federal Ministry Of Health, 2010) The Most Important Source Of Infection Is An Untreated Pulmonary Tuberculosis (ptb) Patient.. It Is Estimated That There Are 1 Billion Infected Patients Worldwide, With 10 Million New Cases And Over 3 Million Deaths Per Year. Tuberculosis Is Responsible For More Deaths Than Any Other Infectious Disease (who, 2008).

**Objectives:**

To Identify The Factors Related To Pulmonary Tb Patient's Non-compliance Factors With Treatment Regimen. To Find Out The Association Between Factors Related To Pulmonary Tb Patients Non-compliance And With Their Selected Demographic Variables.

**Material And Methods:**

Present Study Is Explorative Descriptive Conducted Among 40 Non-compliance Patients With Pulmonary Tb Treatment Regimen By Using Non-probability Purposive Sampling.

**Result:**

An Explorative Descriptive Study Was Conducted By Taking Semi Structured Interviews Of Total 40 Patients The Information Was Obtained From Treatment Cards Of Patients And Those Who Defaulters Were Further Interviewed In Community. It Was Found That Reason Of Noncompliance Was The 87.5% Patient Had Side Effects Of Drugs, 72.5% Patients Had Social Stigma And Discrimination 25% Patient Told That ,most Of The Time Food Was Not Available ,50%patients After 2 Month Taking Treatment Felt Better 75 %patients Non-compliance Because Of Long Duration

**INTRODUCTION:**

Tuberculosis is an ancient human disease that has been a major health challenge in the world and remains as a major health problems in most developing countries.<sup>1</sup>TB is common and deadly infectious disease caused by mycobacterium TB; usually attacks the lungs and can also affect the other parts of the body. And it is a contagious disease it spreads through droplet infection. If infected person coughs, sneezes or spits the Mycobacteria may spread into environment.<sup>2</sup> It is a communicable disease requiring prolonged treatment, and poor adherence to a prescribed treatment increases the risk of morbidity, mortality and spread of disease in world.<sup>3</sup>World-wide, TB is the second most common cause of death in adults attributes to a single infectious agent. It remains the leading cause of death in India, which bears nearly 30% of the global TB burden.<sup>4</sup>TB remains a major health problem in India. India has more new TB cases annually than any other country in 2008, out of the estimated global annual incidence of 9.4million TB cases, 1.98million were reported in India, of which 0.87million were infectious cases.<sup>2</sup> To control TB and give quality care to the patient, the Government of India has launched many programmes, one is, Revised National Tuberculosis Control Programme (RNTCP). It is the second largest programme in the world. India's Revised National Tuberculosis Control Programme (RNTCP), has adopted the internationally recommended Directly Observed Treatment Short course (DOTS) strategy, focuses on providing free quality sputum smear microscopy for diagnosis as well as quality drugs for treatment free of cost. This strategy also provides decentralized treatment services close to patients' residence under direct observation with the help of government health workers and community volunteers.<sup>5</sup>

**HYPOTHESIS OF THE STUDY:**

H1 - The non-compliance factors of TB patient towards treatment regimen will be strongly associated with their selected demographic variables.

**Materials and Methods:**

Present study explorative descriptive design was used for this study 40 samples were participated the sample consists of

pulmonary tuberculosis patients purposive sampling technique was used-setting of study- was TB centre of wardha district. Dependent Variables Non-compliance factors Independent Variables TB disease, treatment inclusion criteria Suffering from pulmonary TB not adherent to the treatment can communicate in Marathi and Hindi willing to participate in the study present during data collection period exclusion criteria Suffering from other than pulmonary TB. Patients with major complications. Seriously ill Structured Interview schedule was used to assess the factors contributing to non-compliance with the treatment regimen among pulmonary tuberculosis patients It was consists of three sections that was Distribution of pulmonary tuberculosis patients with regards to demographic variables. To identify the factors related to pulmonary TB patient's non-compliance factors with treatment regimen. Association between factors related to pulmonary tuberculosis patient's non-compliance and with their selected demographic variables

**Results:**

Identify the factors related to pulmonary TB patient's non-compliance factors with treatment given

**Table 3: identification of factors related to disease and medicine related**

Factors	Response	No of PTB patients	%
<b>Disease and medicine related</b>			
Do you experience any side effects when you were taking TB treatment	Yes	35	87.5
	No	5	12.5
From the day you started taking your TB medicines, how long did it take you before you felt better	<2 mths	0	0
	2-4 mths	20	50.0
	5-6 mths	18	45.0
	Did not feel better	2	5.0

When you went to pick medicine at the TB clinic, what would you say about the availability of medicines there	Always Available	29	72.5
	Sometimes	8	20.0
	Not Available	3	7.5
Which side effects did you experience	Diarrhea and vomiting	20	50
	Skin rashes	10	25
	Headaches and dizziness	10	25
	Numb feet or hands	0	0
From the day you started taking your TB medicines, how long did it take you before you felt better	1-2 mths	22	55.0
	2-4 mths	18	45.0
	5-6 mths	0	0
	Did not feel better	0	0
Duration of treatment	Long	30	75
	minimum duration	10	25

**Table 4: identification of factors related to health care system**

Factors	Response	No of PTB patients	Percentage
<b>Health Care System</b>			
What would be the most convenient TB clinic opening times for you	8 am-4 pm	6	15.0
	11 am-5 pm	34	85.0
How much time do you usually wait at the TB clinic	1 hr	5	12.5
	2 hr	24	60.0
	3 hr	11	27.5
	4 hr	0	0
How much distance do you travel to collect your TB medicines	5 km	11	27.5
	10 km	29	72.5
	15 km	0	0
	20 km	0	0
Who supervised you when you were taking your TB medicine(DOT status)	None	11	27.5
	Health Worker	29	72.5
	Family Member	0	0
	Community Member	0	0
How would you rate the attitude of staff who attended you at the health facility	Very Friendly	11	27.5
	Friendly	29	72.5
	Unfriendly	0	0
	Very Unfriendly	0	0

**Table 5: Identification of factors related to social stigma and discrimination**

Factors	Response	No of PTB patients	Percentage
<b>Social stigms and discrimination</b>			
Did you inform your family of friends that you were on TB treatment?	Yes	11	27.5
	No	29	72.5

**Table 6: Identification of factors related to default factors**

Factors	Response	No of PTB patients	%
<b>Default Factors</b>			
During the time you were taking TB medicines, what would Say was your situation in terms of food availability?	Always Available	30	75
	Not Always	10	25
	Always most of the times	0	0
	Never	0	0
Who do you live with	Family	24	60.0
	Friends	16	40.0
	Alone	0	0
	Other	0	0
How many other people live with you	None	18	45.0
	1-2	22	55.0
	2-3	0	0
	4-6	0	0
How big is you dwelling house	1-2	11	27.5
	3-4	29	72.5
	4-5	0	0

**DISCUSSION:**

The findings of the study derived from the statistical analysis and its pertinence to the objectives set for the study and related literature of the study.

The present study was conducted to Assess the factors contributing to non-compliance with the treatment regimen among pulmonary tuberculosis patients. In order to achieve the objectives of the study, 40 samples were selected by using purposive sampling technique. Data was collected and analysis was done. The findings of the study have been discussed with the reference to the objectives and hypothesis and with the findings of the other studies. There are some factors are responsible side effects of TB treatment. 87.5 % patient had side effects of drugs, 72.5% patients had Social stigma and discrimination. 25% patient told that, most of the time food was not available, 50% patients after 2 month taking treatment felt better. 75 % patients non-compliance because of long duration. The following study has supported to the main study. A case- control study was conducted to analyze the contribution of socio-economic status to non-adherence to DOTS. In a western hill district in Nepal. Where TB treatment under DOTS was offered by the regional TB centre, eight health posts, three sub health posts and one ward of sub metropolitan pokhara. The study sample consists of 50 cases and 100 controls. The participation rate was 80% for cases (non-adherents) and 95% for controls. The data were collected by questionnaire based face to face interviews. The study analysis showed that, the risk of non-adherence to TB treatment was significantly associated with unemployment (odd ratio i.e. 9.2), low status occupation (or 4.4), low annual income (or 5.4) and cost of travel to the TB treatment facility (or 3.0). Low socio-economic status and particularly lack of money are important risk factor for non-adherence to TB treatment in a poor country such as Nepal.<sup>13</sup>

**Conclusion:**

Main factors responsible for non compliance such as side effects of drugs, Social stigma and discrimination long duration treatment. There is a need to educate patients about adequate duration of anti-tuberculosis treatment and the hazards of its premature discontinuation.

**BIBLIOGRAPHY:**

1. P.Jayarani. V Sophia et al. Management of patients with multidrug resistance TB.. Indian journal of continuing nursing education. Vol. II. No (1). Jan-june 2010
2. N.kavitha, Hemlatha et al. A study on implementation of RNTCP for the community of dadu majra colony UT. Chandigarh, 2010. Nursing and midwifery research journal. Vol-7, no 1 january 2011
3. K.jaggarajamma, G sudha, et al. Indian journal of TB, reasons for non-compliance among patients treated under RNTCP Tiruvullar district, south India.

4. T.santha, R.garg. et al. Risk factors associated with default, failure and death among TB patients treated in a DOTS programme in Tiruvullar district, south India, 2000. the international journal of TB and lung disease 6(9): page no 780-788.
5. Suhadev M, Thomas BE, M RS, P M, V C, et al. (2011) Alcohol Use Disorders (AUD) among Tuberculosis Patients: A Study from Chennai, South India. PLoS ONE 6(5): e19485. doi:10.1371/journal.pone.0019485
6. levis, Heitkemper, Dirksen. Medical Surgical Nursing, introduction of TB. 6th edition Mosby publication, USA. Page no:569
7. www. The global fund.org/tuberculosis.
8. D.F. wares, S.singh et al. Non-adherence to TB treatment in the eastern tarai of Nepal.
9. The international journal of TB and lung disease 7(4): page no 327-335
10. William J. Burman, David L cohn et al. Non-compliance with directly observed therapy for TB, epidemiology and effect on the outcome of treatment. Chest journal, chest pubs by American college of chest physicians
11. <http://chestjournal.chestpubs.org/content/111/5/1168>
12. P R Sharma, Sanjay Jain et al. Increased prevalence of pulmonary TB in male adults of Sahariya tribe of India, Indian journal of community medicine, Original article. Year 2010, volume 35, issue:2, page:- 267-271
13. <http://www.ijcm.org.in/text.asp?2010/35/2/267/66887>