

## **Study of (Depression & Anxiety) In Patients Suffering From Pulmonary Tuberculosis at Index Medical College Hospital & Research Centre, Indore**

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### **Original Research Article**

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**Abstract:** Tuberculosis is a chronic infectious disease caused by Mycobacterium tuberculosis and is one of the leading causes of mortality worldwide. Almost a third of the world's population, approximately 2 billion people is infected with M. tuberculosis. There were 8.8 million new cases of TB in 2005, the highest rates per capita being in Africa (28% of TB cases) and half of all new cases in 6 Asian countries namely Bangladesh, China, India, Indonesia, Pakistan and the Philippines. The bacteria usually attack the lungs, but bacteria can attack any part of the body such as the kidney, spine and brain. If not treated properly, TB can be fatal. Moreover, psychiatric disorders are common in many tubercular patients, and require intervention not only to improve adherence to and outcomes of medical therapy, but also to relieve suffering due to the psychiatric illnesses themselves. The diagnosis will be confirmed by history, X-ray examination or sputum examination. An informed consent will be obtained from those who are willing to participate in study. Patient satisfying the inclusion and exclusion criteria are assessed for psychiatric disorder. The socio demographic data of the pulmonary tuberculosis patient are collected. After this hospital Anxiety and depression Scale applied. Depression & Anxiety are significantly associated with a major life threatening illness like pulmonary tuberculosis. These results will highlight the importance of holistic care in managing patients. The influence of psychiatric morbidity needs to be stressed to the other specialists to have a holistic approach. Recognition & early intervention of depression and anxiety will improve quality of life in patients.

**Keywords:** Depression & Anxiety, Tuberculosis.

### **INTRODUCTION**

Tuberculosis is a chronic infectious disease caused by Mycobacterium tuberculosis and is one of the leading causes of mortality worldwide [1,2]. Almost a third of the world's population, approximately 2 billion people is infected with M. tuberculosis. There were 8.8 million new cases of TB in 2005, the highest rates per capita being in Africa (28% of TB cases) and half of all new cases in 6 Asian countries namely Bangladesh, China, India, Indonesia, Pakistan and the Philippines [3]. The bacteria usually attack the lungs, but bacteria can attack any part of the body such as the kidney, spine and brain. If not treated properly, TB can be fatal. Moreover, psychiatric disorders are common in many tubercular patients, and require intervention not only to improve adherence to and outcomes of medical therapy, but also to relieve suffering due to the psychiatric illnesses themselves.

The factors determining compliance with TB treatment regimes are not well understood as yet, however over the years one of the main efforts in reducing TB prevalence has been directed towards

Direct Observed Therapy (D.O.T.) to enhance compliance to TB medication, disappointingly, the evidence suggests that D.O.T. Shows little advantage over self-treatment [4]. One of the main causes of treatment failure and rise in the prevalence of TB is due to poor treatment adherence [5]. Depression is common in TB patients; in hospitalized patients it occurs still more frequently [6]. According to findings from worldwide research, 20% of patients with somatic disease suffer from major depression [7]. Chronic disease increases co morbidity with mood and/or anxiety disorders. Usually, the more serious the somatic disease is the more probable severity.

Failure to manage such mental health problems increases the patient's probability of suffering from complication, even lethal. The life time prevalence of mood disorder in patient with chronic disease is 8.9% to 12.9%, with a 6 month prevalence of 5.8% to 9.4%. [7, 8]. All this evidence strongly suggests the need to screen PULMONARY TUBERCULAR patients for emergent psychiatric morbidity following the event. It

would also be of significance to follow them up over time in order to assess change in symptomatology.

Tuberculosis often leaves its impact physically, socially and mentally on patients. Patients tend to be worried, frustrated, or disappointed by their diagnosis but it is not known how emotional health changes with treatment, patients with TB may experience depression and anxiety, both of which can make the overall burden of disease more difficult to carry [9]. Hospitalized medically ill patients have major depression and anxiety 2-3 times more often than medically ill patients treated as out-patients.

It is often difficult to determine if the vegetative symptoms of depression or somatic symptoms of anxiety are evidence of the psychiatric disorder a symptoms of medical illness or both.

**AIMS**

To assess the level of psychiatric morbidity (anxiety and depression) in the pulmonary tuberculosis patients

**STUDY DETAILS**

**Study Designed:** Cross Sectional

- Site: This study was conducted in Department of general medicine/ chest and tuberculosis ward at Index Medical College Hospital Research Centre, INDORE.
- Sample: 100 subjects who were diagnosed as having pulmonary tuberculosis are chosen by purposive sampling (judgement sampling) method from the inpatient facility of department of medicine, chest and tuberculosis.

**Inclusion Criteria**

- Patient diagnosed as having pulmonary tuberculosis by x-ray and /or sputum examination.
- Age between 18-60 year.
- Patient should be HIV negative.

**Exclusion Criteria**

- Patients with pulmonary tuberculosis with other medical illness.
- Patient with substance abuse disorder including alcohol abuse.
- Patient who had previous history of psychiatry illness before developing pulmonary tuberculosis.
- Patient developing psychiatry illness other then depression and anxiety.

**METHODOLOGY**

- The diagnosis will be confirmed by history, X-ray examination or sputum examination.
- An inform consent will be obtained from those who are willing to participate in study.
- Patient satisfying the inclusion and exclusion criteria are assessed for psychiatric disorder.

- The socio demographic data of the pulmonary tuberculosis patient are collected.
- After this hospital Anxiety and depression Scale applied

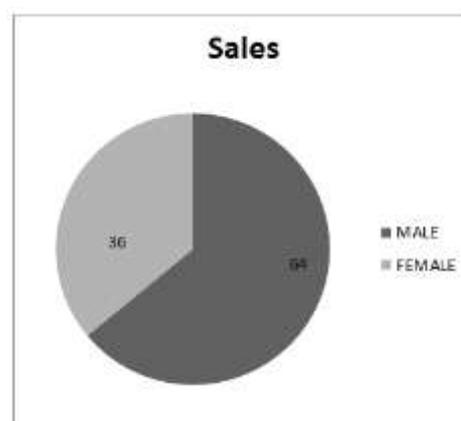
**OBSERVATION AND RESULTS**

**Table-1: Age group distribution**

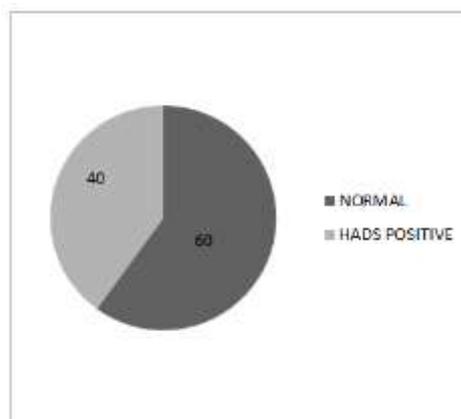
Age	Frequency	Total
<20	13	100
21---30	17	
31---40	23	
41---50	34	
51---60	13	

**Table-2: Educational status**

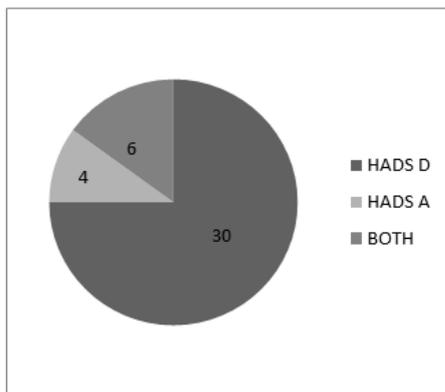
Education	Frequency
Illiterate	15
Primary	15
Middle	26
Secondary	20
High Secondary	18
Diploma	1
Graduate	5
Total	100



**Fig-1: Sex wise distribution**



**Fig-2: Out of 100 patients 40 patients with psychiatric disorder**



**Fig-3: Out of 40 patients with psychiatric disorder 6 qualified for dual diagnosis 30 patients are diagnosis to have depressive illness and 04 patients have anxiety disorder**

### DISCUSSION

- The present study shows psychiatric morbidity in hospitalized tuberculosis patients. It also shows the relationship between sociodemographic variable like age sex, education and complication associated with tuberculosis.
- Previous studies have reported varying rates of anxiety and depression.
- A possible explanation for the difference could be the settings in which the patients were interviewed and different instruments and diagnostic criteria used in earlier studies would also be a reason for the varying findings.

### CONCLUSION

- Depression & Anxiety are significantly associated with a major life threatening illness like pulmonary tuberculosis.
- These results will highlight the importance of holistic care in managing patients.
- The influence of psychiatric morbidity needs to be stressed to the other specialists to have a holistic approach.
- Recognition & early intervention of depression and anxiety will improve quality of life in patients.

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