

**Original article:**

## **Study of association of mental health disorders with treatment categories as per the Revised National Tuberculosis Control Program**

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### **Abstract:**

**Introduction:** It is important to train the front line workers to identify existing mental illness in the community. As a part of the National Mental Health Programme, we can use Global Mental Health Assessment Tool –Primary Care Version (GMHAT- PC) screening in community which gives the diagnosis and also, the differential diagnosis according to ICD-10 criteria.

**Methodology:** It was cross sectional study was conducted in Wardha district. Wardha district has 8 Rural hospitals, 27 Primary Health centres and 2 medical colleges. It has 232 Dots centres, 17 Designated microscopy centre (DMC). There are three tuberculosis units in Wardha district Wardha, Arvi and Hinganghat. The population of Wardha district is 13,13, 093 (census 2011), the total number of patients registered and undergoing treatment under RNTCP Wardha in 2011 was 1338

**Results:** In the present study Maximum number of the patients who were on Category I treatment had anxiety i.e. 42(26.75 %) followed by patients who were on Category II treatment i.e. 20 (25.32 %) and least number of the patients in Category IV treatment i.e. 7(22.58 %). This difference was not statistically significant.

**Conclusion:** In this study anxiety disorders in different type of anti tubercular treatment regimens (Category I,II and IV) are studied Maximum number of the patients who were on Category I treatment had anxiety i.e. 42(26.75 %) and the statistical value was significant.

### **Introduction:**

It is important to train the front line workers to identify existing mental illness in the community. As a part of the National Mental Health Programme, we can use Global Mental Health Assessment Tool –Primary Care Version (GMHAT- PC) screening in community which gives the diagnosis and also, the differential diagnosis according to ICD-10 criteria.<sup>1</sup> TB is associated with psychiatric morbidity, particularly depressive disorder, and this has been recognized as a cause of poor compliance and a cause of increased morbidity and mortality from the disease.<sup>3</sup> Thus treating psychological problems in patients with tuberculosis may substantially improve treatment adherence, although further research is needed. Despite this recognition, little attention is paid to the identification of mental health problems among TB patients, particularly in the DOTS clinics that most of these patients attend. In our country, there is paucity of studies regarding the use of such tools & their usefulness in identifying the burden of mental illness in the community. Hence a modest attempt is made to study the mental status of TB patients of Wardha district.<sup>2</sup>

If this study documented the high prevalence of mental health disorder in tuberculosis patients as well as the effectiveness of Global Mental Health Assessment Tools – Primary Care Version (GMHAT/PC), it would be a noteworthy evidence to inform the India’s Revised National TB Control Program to consider mental health assessment of all tuberculosis patients using GMHAT/PC. Moreover, this assessment may be done at the primary health center level, as this tool can be administered even by paramedic after training.

**Methodology:**

- Study design** : Cross sectional study
  
- Study settings** : Study was conducted in Wardha district. Wardha district has 8 Rural hospitals, 27 Primary Health centres and 2 medical colleges. It has 232 Dots centres, 17 Designated microscopy centre (DMC).There are three tuberculosis units in Wardha district Wardha, Arvi and Hinganghat. The population of Wardha district is 13,13, 093 (census 2011), the total number of patients registered and undergoing treatment under RNTCP Wardha in 2011 was 1338
  
- Study period** : Two years
  
- Participants** : Both new and retreatment tuberculosis patients and put on treatment under RNTCP from Wardha District. Including both patients in Intensive phase and continuation phase
  
- Inclusion criteria** : All tuberculosis patient (including TB+HIV, TB+DM and MDR TB) over 15 years of age registered under RNTCP for treatment will be included in the study
  
- Exclusion criteria** : Critically ill tuberculosis patients and children less than 15 years of age were excluded from the study. Tuberculosis patients with the history of mental health disorder / psychiatric disorder / currently on any psychiatric medications were excluded as well. Patients who do not give consent were not considered for the study

Data was collected from the selected patient by giving a home visit. Written informed consent was obtained for the data collection. The GMHAT/PC tool was administered.

**Results:**

**Table 1: Distribution of study group according to type of treatment v/s anxiety disorder**

Category	Present	Absent	Total
I	42(26.75 %)	115(73.25 %)	157(100%)
II	20 (25.32 %)	59(74.68 %)	79(100%)
IV	7(22.58 %)	24 (77.42. %)	31(100%)
Total	69 (25.84 %)	198 (74.15 %)	267(100%)

(Figures in parenthesis indicate horizontal percentages),  $\chi^2$  0.2512, df 2, p = 0.8820

In the present study Maximum number of the patients who were on Category I treatment had anxiety i.e. 42(26.75 %) followed by patients who were on Category II treatment i.e. 20 (25.32 %) and least number of the patients in Category IV treatment i.e. 7(22.58 %). This difference was not statistically significant.

**Table 2: Distribution of study group according to type of treatment v/s mental disorder**

Category	Present	Absent	Total
I	88(56.05 %)	69(43.95 %)	157(100%)
II	69(87.34 %)	10(12.66 %)	79(100%)
IV	28(90.32 %)	3(9.68 %)	31(100%)
Total	185 (69.29 %)	82 (30.71 %)	267(100%)

(Figures in parenthesis indicate horizontal percentages),  $\chi^2$  31.4737, df 2, p = 0.00

**Discussion:**

In this study duration of treatment >3months was independently associated with mental illness. Depressive disorders with different duration of tuberculosis ( $\leq 3$  months and  $> 3$  months) were compared, maximum number of the patients who were on Category IV treatment had depression i.e. 20 (64.51 %) and the difference was highly significant. The longer the duration the more prominent are the depressive disorders. Prolonged duration of illness could cause helplessness, can also lead to financial burden. Patient might develop fearfulness towards tuberculosis leading to more depressive illness. It is comparable with studies by **Swarn Lata Panchal**<sup>3</sup> who found that Category IV treatment patients had maximum depression 73% , **Olusoji Mayow Ige**<sup>4</sup> , and it differs from **Yadav**'s<sup>5</sup> study in which duration of illness was not related to the psychiatric morbidity.

In this study anxiety disorders are compared between patients who has different durations of illness ( $\leq 3$  months and  $> 3$  months). It is statistically not significant. It is comparable with the studies by **Yadav**<sup>5</sup> and differs from study by **John Mathai**<sup>6</sup> , in which longer the duration is more psychiatric disorders are seen.

**Category of RNTCP treatment**

In the present study as compared to category I other categories were significantly and independently at high risk of mental illness, category II and category IV were 5.4 and 7.3 times at higher risk of mental illness as compared to category I In this study depressive disorders in different type of anti tubercular treatment regimens (Category I,II and IV) were studied . Maximum number of the patients who were on Category IV treatment had depression i.e. 20 (64.51 %) and the statistical value was significant. It is comparable with studies by **Swarn Lata Panchal**<sup>3</sup> and **Olusoji Mayow Ige**<sup>4</sup>.The possible reasons as to why patients on category IV regimen are having more depressive disorders are probably because the duration of treatment is more and usually they are patients who are defaulters and INH induced psychosis could be the cause.

**Conclusion:**

In this study anxiety disorders in different type of anti tubercular treatment regimens (Category I,II and IV) are studied Maximum number of the patients who were on Category I treatment had anxiety i.e. 42(26.75 %) and the statistical value was significant.

**References:**

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