

**ASSESSMENT OF COPING STRATEGIES LEVEL AMONG PULMONARY  
TUBERCULOSIS PATIENTS HAVING DOTS  
THERAPY TREATMENT IN RAJAN BABU TUBERCULOSIS HOSPITAL, NEW  
DELHI**

**Shantanu Bhati  
Assistant Professor  
Kailash Group of Institution, Greater Noida  
nicktchauhan@gmail.com**

## **INTRODUCTION**

Mycobacterium tuberculosis is a chronic infectious disease caused by aerobic acid fast bacilli (AFB). Usually, the organism mainly affects the lungs, causing pulmonary tuberculosis. However, in addition to pulmonary tuberculosis, bones, joints, marrow, lymph nodes, intestines, kidneys, skin, etc., are grouped together. It can affect any organ or body system. This is a chronic disease. Cancer is not only a public health problem, but also a social and economic problem.

Smallpox was the first infectious disease to be declared a "global emergency" by the WHO in 1993 because of its toll on individual health and its wider social and economic impact on country development.

Cancer is a global health problem. India is one fifth of the world's problems. In 2009, the annual incidence in India was 1.98 million (1/5 of the global burden). About 4 million cases of infection (positive sputum for AFB) (1.5 million new cases added every year (15 million) in 40 years). It causes disease and affects the health of millions of people every year, along with the human immunodeficiency virus. I-IIV) as the main cause of death in the world

According to WHO, other people around the world are infected with TB and 5% of people with MI will develop TB in the next five years if not properly diagnosed and treated. In 2014, there were 9.6 million cases of TB, 5.4 million among 3.2 million, and 1.0 million among children. There are also 1.5 TB-related deaths (1.1 million and 0.4 million among HIV-related deaths, HIV disease), approx. 890,000 men, 480,000 women and 140,000 children.

According to the 2015 Global Tuberculosis Report published by WHO; Global TB prevalence is 42% lower than in 1990. India (23%), Indonesia (10%), China (10%) India (23%), Indonesia (10%), China (10%) contribute 27% of total TB cases in the world. Announcement in 2014. At any given time, there are 4 million infectious diseases in India. Measles kills more than 5 million people every year, more than 1,000 people every day, and more than 2 people every 3 minutes.

Tuberculosis is an airborne disease. The main risk factors for developing cystic tuberculosis are poverty, economic depression, malnutrition, overcrowding, smoking, chewing tobacco, and people with immunological disorders. 7

Accurate detection and diagnosis is achieved through subjective assessment results and objective test results. Diagnosing the disease can be difficult because tuberculosis can mimic many other diseases. Typical findings in pulmonary tuberculosis characterized by productive or productive cough (more than two weeks), fatigue, anorexia (loss of appetite), low fever, chills and sweats (usually at night), hemoptysis, dyspnea, and malaise. chest tightness, pleurisy, or chest pain. 8

Cancer is a major contributor to disease burden, particularly in developing countries with HIV/AIDS epidemics. DOTS is an internationally recommended strategy against cancer. This strategy involves delivering standard short-term treatment for six months for new patients and eight months for relapsed patients (all with mild disease). Delivery involves direct supervision of the prescribed treatment (DOTS) by a health worker or health workers, i.e. DOTS providers. This strategy has been introduced and implemented globally.

DOTS therapy has been identified as a key strategy for Tuberculosis B control by providing the most effective drugs and ensuring their acceptance. Program-based DOTS therapy is the only strategy. It has been documented to be effective all over the world. In DOTS therapy, a health care worker or a trained person (DOTS provider) watches the patient swallow the medicine with them during intensive care. In the follow-up phase of treatment, the patient is given one week of medication in an incremental comb package that swallows the first dose with a DOTS provider. It can be said that the main challenge in chemotherapy today is not to introduce new regimens or more powerful drugs, but to use existing ones successfully.<sup>10</sup> Tuberculosis is preventable by health promotion and specific protection that includes improving general health and resistance of children by improving.

Leaving conditions i.e. clean, well ventilated environment, healthy habits, good nutrition etc., specific protection by BCG immunization of children, health education of parents and other members in the family.

## **MAIN OBJECTIVE**

To evaluate the level of coping strategies among pulmonary tuberculosis patients having DOTS therapy treatment.

## **RESEARCH MYTHODOLOGY**

**RESEARCH APPROACH:** Quantitative Research Approach

**RESEARCH DESIGN:** Descriptive research design.

## **POPULATION**

- **Population:** patients.
- **Target Population:** tuberculosis patient.
- **Accessible Population:** Rajan Babu Hospital Tuberculosis Patient in New Delhi.

**SAMPLE SIZE:** 50 Patients

**SAMPLE TECHNIQUE:** Convenient Sampling

## **SAMPLE SELECTION CRITERIA**

### **Inclusion criteria:**

- a) Patient is available during collecting the data.
- b) Patient is willing to participate in the study.
- c) Patient aware about disease condition and treatment.

**Exclusion criteria:** Those students who belong to nursing are not included in the inclusion criteria.

### **Description of the data collection tool:**

Tool Description: The tool consists of two parts.

#### Part I: Selected Demographic Variables

Age, gender, place of residence, source of information, history of TB, all selected variables are considered in the study.

**OBJECTIVE 1:** A questionnaire was designed to assess the level of coping strategies among pulmonary tuberculosis patients receiving DOTS treatment.

Bladder tuberculosis, causes, signs and symptoms, diagnostic tests, management and prevention. The item is yes or no optional item. Each item has only one correct answer. Each correct answer is divided into 3 levels insufficient <15 medium 15-25 sufficient >25

Based on the scoring method, the score obtained in the questionnaire is divided into three arbitrary categories.

## **RESULTS**

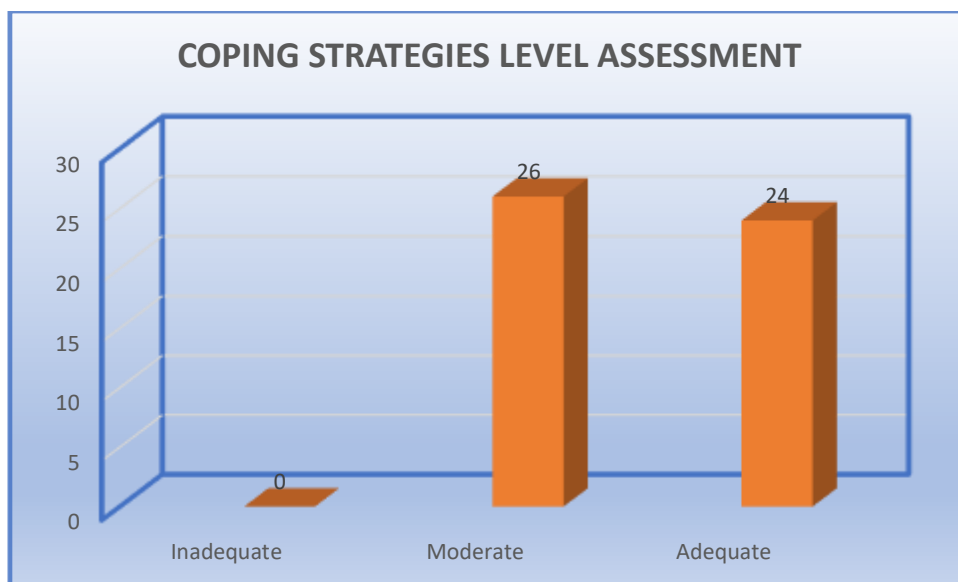
The main objective is to evaluate the coping strategies level among pulmonary tuberculosis patient receiving DOTS therapy.

**Table 1: To assess level of coping strategies among pulmonary tuberculosis patient receiving DOTS therapy.**

|                         |       | N=50               |    |
|-------------------------|-------|--------------------|----|
| Coping Strategies Level | Score | No. of Respondents |    |
|                         |       | No.                | %  |
| Inadequate              | <6    | -                  | -  |
| Moderate                | 7-14  | 26                 | 52 |
| Adequate                | >15   | 24                 | 48 |

The present table projected the category of coping strategies level with marks scored provided by selected patients regarding receiving DOTS therapy. The coping strategies category has been allocated on the basis of total 19 (100%) marks which further divided into 3 parts of coping strategies levels. The existed coping strategies level under 3 categories such as inadequate, moderate and adequate was measured in a given study.

In the present study, the level of coping strategies among pulmonary tuberculosis patient receiving DOTS therapy was assessed about 26 (52%) patients who had moderate adequate knowledge regarding coping strategies levels, about 24 (48%) patients who had adequate knowledge regarding coping strategies receiving DOTS therapy.



**Figure 8 depicting the coping strategies level**

**Table 4. Mean, Median, SD and Mean % of coping strategies scores among pulmonary tuberculosis patient receiving DOTS therapy.**

| <b>Domain</b>                  | <b>Max Score</b> | <b>Range</b> | <b>Mean</b>  | <b>Median</b> | <b>SD</b>  | <b>Mean%</b> |
|--------------------------------|------------------|--------------|--------------|---------------|------------|--------------|
| <b>Coping Strategies Score</b> | <b>31</b>        | <b>2</b>     | <b>24.92</b> | <b>25</b>     | <b>2.7</b> | <b>49.84</b> |

In the present study, the mean, standard deviation, median and the mean percentage was calculated on the coping strategies scores regarding receiving DOTS therapy among pulmonary tuberculosis patients. The mean score for the coping strategies was 24.92 with a mean % of 49.84 whereas a median and standard deviation was 25 and 2.7 respectively.

## **DISCUSSION**

India is the second largest country in the world. India has more new tuberculosis cases each year than any other country. Pulmonary tuberculosis is a top priority to reduce the infection rate of pulmonary tuberculosis. One of the five main goals of the United Nations Millennium Development Goals for global tuberculosis control is to identify 70% of new cases with a positive smear by 2005, and by 2015 to prevent and reverse tuberculosis incidents. By now, 85% of these patients will be successfully treated. halve tuberculosis morbidity and mortality between 1990 and 2015; Mukesh conducted a study with student nurses at a selected hospital in Mangalore to assess and practice self-protection strategies to prevent pulmonary tuberculosis. The study found that the majority of nursing students (62%) had adequate knowledge and coping skills regarding pulmonary tuberculosis. Montagna MT et al. (2014) conducted a study of undergraduates to assess tuberculosis knowledge and screening tests. A total of 2,220 medical and emergency medicine students were selected using sampling methods. Results showed that medical students were more knowledgeable about tuberculosis than paramedic students. In this study, the mean standard deviation, median and mean percentage of coping strategy scores when receiving her DOTS therapy in patients with pulmonary tuberculosis were calculated. The mean coping strategy score was 24.92 and the mean percentage was 49.84, with a median and standard deviation of 25 and 2.7, respectively.

## **CONCLUSION**

The main objective was to determine the level of coping strategies among patients with pulmonary tuberculosis treated with DOTS. The research approach is called a general plan or outline for the researcher to decide what data should be collected and how to analyse it. It also suggests conclusions to be drawn from the data. In the current study, the sample was from Rajan Babu Tuberculosis Hospital, near Kingsway Camp, Main Chowk, GTB Nagar, Cirebon.

Convenience sampling technique was used to select a sample for research. The study included nurses who were patient during data collection, patients were willing to participate, and were informed about the patient's condition and treatment. This does not include nurses who do not meet the registration criteria. The sample size for the study was 50 TB patients admitted to Rajan Babu Tuberculosis Hospital, GTB Nagar, Cirebon. Chi-square test and mean mode should be used for analysis. IBM SPSS Version 22.0 was used for data analysis and interpretation. The study determined the extent of coping strategies with scores provided by selected patients in relation to receiving DOTS treatment. The migration strategy category is allocated based on a total of 19 (100%) marks, further divided into 3 strategy levels. The current study measures the level of coping strategies that fall into 3 categories: inadequate, moderate, and adequate. In the current study, the level of coping strategies among pulmonary TB patients receiving DOTS was evaluated, 26 (52%) patients had moderately adequate knowledge about the level of coping strategies, and 24 (48%) patients had adequate knowledge about coping strategies. Receive DOTS treatment. In the current study, the average, mean, and median percentage reduction in strategy scores associated with receiving DOTS treatment among patients with pulmonary tuberculosis were calculated. The average rating of the transfer strategy is 24.92 with an average of 49.84%, the average and standard deviation are 25 and 2.7 respectively. Mycobacterium tuberculosis is bacteria that can invade the lungs and threaten the patient's life. Pulmonary TB can be cured with medical treatment. This Mycobacterium tuberculosis can cause other forms of tuberculosis if the droplets are inhaled by a healthy person. According to WHO, PTB is treatable and preventable if you receive proper medical care. Flu symptoms include a cough that lasts for several days, chest pain, fatigue, malaise, and fever. Students are placed in the Tuberculosis Unit and DOTS Center. according to the nursing curriculum. Therefore, practice knowledge about the prevention and management of pulmonary tuberculosis. will encourage students to educate and guide people in the community and hospitals in the prevention and management of TB.

## **BIBLIOGRAPHY AND REFERENCES**

1. History of tuberculosis (internet)/ Available at [http: // en.Wikipedia.org/wiki/history of tuberculosis](http://en.Wikipedia.org/wiki/history_of_tuberculosis) .
2. Suryakantam AH, Community medicine with recent advances.Ped.jaypee brother medical publisher(p)Ltd.(2014) p.351-352.
3. WHO Global Tuberculosis report ,2006. p.14-16
4. Joyce Black; Medical surgical nursing clinical management for positive outcomes, 8<sup>th</sup> ed. Elsevier publication: vol. (2004) page no. 1603-1609,1845.

5. Journal of IMAB —Annual proceeding (scientific papers) 2011, vol. 17, book 1 /189.
6. WHO Global Tuberculosis report ,2015.20` ed. p.12-16
7. Park k, essentials of community health nursing .6<sup>th</sup> ed. Bhanot publisher: (2012) p. 229-230.
8. Gulani K.K. Community health nursing principles and practices. 1<sup>st</sup>ed.Delhi ,Neelam Kumar publishing house : 2012,p. 402.
9. Sala M, Lewin S, Smith H. Patient adherence to tuberculosis treatment: a systematic review of qualitative research Available from: [www.medfetch.com/](http://www.medfetch.com/)
10. Thomas CIA. literature review of the problems of delayed presentation for treatment and non-completion of treatment for tuberculosis in developed countries and ways of addressing these problems using particular implementations of the DOTS strategy's *Manag Med.*2002;16(4-5); p.371-400.
11. World Health Organization, tuberculosis fact sheet no.104
12. Dolin Gerald L. Mandell, John E. Bennett, Raphael(2010), principles and practices of infectious diseases 7<sup>th</sup>ed Philadelphia, PA: Church ill Livingstone/Elsevier.p.250
13. Arch G. Mainous (2010) management of antimicrobials in infected diseases impact of antibiotic resistance Totowa, N. J Humana press p.69
14. Swaminathan S, Rekha B. paediatric tuberculosis global overview and challenges. *Clinical infective disease* (2010) s3. p.5184
15. Okada k, Onozaki L, Yamada N, et al. Epidemiological impact of mass tuberculosis screening: a 2-year follow-up after national prevalence survey.2012;16(12) p.1619-24
16. Best Khan. Research in education.7<sup>th</sup> ed Ashok. Ghosh publisher;2003.
17. Montagna MT. Knowledge about tuberculosis among undergraduate health care students in 15 Italian universities: a cross sectional study. *BMC Public Health* 2014; 18(14)
18. Vidani M Vadgam P. Awareness Regarding Pulmonary Tuberculosis — A Study Among Patient Taking Treatment of Tuberculosis in Rural Surat, Gujrat, *Natl J Med Res.* 2012; 2(4): 452-455.
19. Salman Khalil, Zulfia Khan. *Indian Journal of Community Health* 12/2011; 23(2).
20. Irani L, Kabalimu TK, Knowledge and healthcare seeking behaviour of pulmonary tuberculosis patients attending Ilala District Hospital, Tanzania 2006. Available at URL:  
[www.pubmed.com.PMID:18087894http://www.ncbi.nlm.nih.gov/pubmed/16333935?dopt=Abstract](http://www.ncbi.nlm.nih.gov/pubmed/16333935?dopt=Abstract)

21. CP Bhatt, AB Bhatt, B Shrestha. Brassard P, Anderson KK. Knowledge and perception of tuberculosis among a sample of urban Aboriginal people. *Journal of community of community of mental health* 2008 ;33(4):192-8.
22. Kiefer EM, Shao T. Knowledge and attitude of tuberculosis management in San Juan de Lurigancho district of Lima, Peru 2009; Available at URL: [www.pubmed.com](http://www.pubmed.com). PMID20009280
23. Wang H, Huang R. The study on pulmonary tuberculosis knowledge assess its influencing factors among middle school students of Three- Reservoir in Chongqing. Available at URL: [www.pubmed.com](http://www.pubmed.com). PMID: 20047228
24. Mushtaq, M. U., Majrooh, M. A., Ahmad, W., Rizwan, M., Luqman, M. Q., Aslam, M. J., Siddiqui, A M., Akram, J., & Shad, M.A. knowledge, attitude and practices regarding tuberculosis in two districts of Punjab, Pakistan. *International Journal of tuberculosis and lung disease* 2010; 14(3): 303-310.
25. Brassard P, Anderson KK. Knowledge and perceptions of tuberculosis among a sample of urban Aboriginal people. *Journal of community of mental health* 2008; 33(4): 192-8.
25. S.P. Yadav , M.L. et al. The knowledge and attitude of sand —stone quarry workers of jodhpur on tuberculosis. *Indian journal of tuberculosis* 2006; 53:185195.
26. Ilic M, What is the knowledge of tubercular patients about risk factors contributing to development of their disease. Available at URL: [www.pubmed.com](http://www.pubmed.com). PMID:16850917.
27. Koay TK. Knowledge and attitude toward tuberculosis among the people living in Kudat District, Sabah, Malasia. *Med J Malasia*. 2004, 59(4) 502-511.
28. K. Punita. *Indian Journal on tuberculosis*. 2004; 62(7): p.143
29. Hoa NP, Diwan VK. Knowledge about tuberculosis and its treatment among new pulmonary TB patients in the north and central regions of Vietnam. *International journal of tuberculosis and lung disease*. Available at URL: [www.pubmed.com](http://www.pubmed.com). PMID : 15137538
30. Hassim DS, AL Kuhaisy W, AL Dulayml A, *East Mediterranean Health Journal*, 2004 july-sep; 10(4): p.493.
31. Zhao DH, Li HD, Knowledge of tuberculosis amongst service industry workers of the floating population in Changing district, Shanghai. Available at URL:[www.pubmed.com](http://www.pubmed.com). PMID: 15854416
32. Ali SS, Rabbani F, Tuberculosis: do we know enough? A study of patients and their families in an out-patient hospital setting in Karachi, Pakistan. *International Journal of Tuberculosis*



and Lung disease 2003;7 (11):1052-8. Available at URL: [www.pubmed.com](http://www.pubmed.com). PMID 14598964

33. Westaway MS. Knowledge and attitudes about tuberculosis of black hospitalised TB patients. Available at URL: [www.pubmed.com](http://www.pubmed.com). PMID: 2371762.
34. Wandwalo ER, Morkve O. Knowledge of disease and treatment among tuberculosis patient in Mw
35. Tanzania. International Journal of Tuberculosis and Lung disease 2000; 4 (11):1041-6.

