

TREATMENT BEHAVIOR OF TUBERCULOSIS PATIENTS IN TABANAN HEALTH CENTER

I Dewa Ayu Indah Wijayaningrum¹, Ida Bagus Nyoman Maharjana¹, Ida Ayu Manik Partha Sutema^{1*}, I Putu Riska Ardianta¹

¹Clinical Pharmacy Study Program, Faculty of Health Sciences, Bali International University

Corresponding author email: idaayumanik85@gmail.com

ABSTRACT

Background: Tuberculosis is an infectious disease caused by *Mycobacterium tuberculosis*. The treatment behavior of tuberculosis patients plays an important role in preventing transmission and recovery of tuberculosis patients, if the treatment behavior of tuberculosis patients is not good it can cause drug resistance, recurrence of tuberculosis disease, even death. **Objective**: to describe the treatment behavior of tuberculosis patients in the Tabanan Community Health Center area. **Methods**: This research is a type of quantitative descriptive research conducted in April 2023 at Tabanan Health Center. Measurements were carried out using TPB (Theory of Planned Behavior) questionnaires. **Results**: This study presents that most respondents had attitudes with enough categories , while the fewer categories amounted and the good category amounted. **Conclusion**: We found that 57% of respondents suffering from tuberculosis at the Tabanan Health Center had adequate behavior. There is a need for education for tuberculosis patients to prevent and overcome tuberculosis transmission and increase knowledge about tuberculosis infectious diseases either with booklets, leaflets, or animated videos.

Keywords: Treatment behavior; Tuberculosis patient; Health center

INTRODUCTION

According to the World Health Organization, tuberculosis (TB) is the second leading cause of death for the world's population after the human immunodeficiency virus (HIV)/AIDS. Tuberculosis is an infectious disease caused by *Mycobacterium tuberculosis*^[1].

Based on Tabanan Health profile data in 2020, 184 cases of tuberculosis were found in adults and 8 cases in children aged 0-14 years. The average case notification rate of Tabanan Health Center in 2020 is 70.5 per 100,000 population^[2].

As an alternative, prevention of transmission can be done by paying attention to the behavior of patients so that the chain of

transmission can be broken. In the health services, family involvement, especially TB patients must be considered. Knowledge, attitudes, and actions about TB infection are needed to prevent TB infection at home^[3]. Good home conditions are important to build a healthy society, especially to prevent the bacterial transmission, including the provision of clean water, adequate sunlight, disposal of feces and household wastewater as well as food and beverages protected from pollution.

Several behaviors that must be put forward to prevent TB are maintaining a healthy lifestyle, including a balanced nutritional intake, daily physical activity, daily physical activity, complying with OAT comsumption, and the importance of knowledge about the treatment of tuberkulosis patients^[4].

METHODS

This research was conducted by Tabanan Health Center, Bali, Indonesia. The research time lasted for 1 month in April 2023. This is a quantitative descriptive research, conducted to assess the level of treatment behavior of tuberculosis patients. The population of this study is tuberculosis patients who seek treatment at the Tabanan Health Center. The level of behavior was measured using the Theory of Planned Behavior (TPB) questionnaire. Theory of Planned Behavior (TPB) is a theory that explains the causes of behavioral intentions.

The sample in this study was 30 containing respondents. 33 questions (positive and negative questions). The questionnaire used a 4-Likert scale with the lowest score of 33 and the highest score of 132. Behavioral measurements with the following categories: 25%-40% (verv lacking category), 41%-55% (less category), 56%-70% (enough category), 71%-85% (good category), 86%-100% (excellent category).

RESULTS

the characteristics Data on of respondents consisted of age, gender, last education, and duration of patient treatment. Respondents in this study were 30 tuberculosis patients. The characteristics of respondents in the age group of 30 respondents, the age range of 36-45 years is the highest percentage of 33%, in the sex variable as many as 73% are men, based on the last education as much as 70%, namely high school. And on the variable length of treatment showed as much as 67% in the advanced phase.

DISCUSSION

Table 1 explains it is know that of the 30 respondents, the most common age of tuberculosis patients was 36-45 years of productive age, with 33% responden. This is in line with a study that stated that at the productive age of 36-45 years, there was a tendency to interact a lot and had a high mobility outside home, so it was more susceptible to be exposure with TB infection^[5].

Table 1. Respondents Characteris	stics
----------------------------------	-------

Category	n (30)	%
Age		
12-16	2	7
17-25	4	13
26-35	5	17
36-45	10	33
46-55	5	17
56-65	4	13
>65	0	0
Gender		
Female	8	23
Male	22	73
Education		
Elementary school		
Junior high school	2	7
High school		
Diploma	3	10
Sarjana		
	21	70
	3	10
	1	3
Duration of		
Treatment		
Intensive Phase	10	33
Advanced Phase	20	67

It is known that most respondents have attitudes with sufficient categories.

Table 2. Treatment Behavior of TBPatients	Table 2.	Behavior of TBPat	ients
---	----------	-------------------	-------

Category	n (30)	%
Very Lacking	0	0
Less	6	20
Enough	17	57
Good	7	23
Excellent	0	0



The results of this study are also in line with the national surveyfrom the Ministry of Health of the Republic of Indonesia (2017), that 75% of tuberculosis patients were at the productive age (15-65 years), where high activity and mobility leads to a higher risk for possible contact with TB patients. Based on Table 1, it shows that the majority of respondents are male 73% Tuberculosis is more common existed among men than women because most men hve a smoking habit, which mkes it easier for them to contract tuberculosis^[6].

Based on the results of this study, it was stated that the majority of respondents were male 57% compared to female 43%. It can be found that men are more susceptible to tuberculosis. This vulnerability is likely caused by workload, lack of rest, high mobilization, and unhealthy lifestyles including smoking and drinking alcoholic beverages. These behaviors can be risk factors that can reduce immunity so that they are susceptible to tuberculosis⁵. Other studies also reported that men (88.6%) have more pulmonary tuberculosis than women $(11.4\%)^{[7]}$.

Based on the level of education in Table 1, most respondents had high school education, (n=21, 70%). (70%), and sarjana as many as 1 Respondent (3%). Based on this study, most of TB patients were those with a higher education, this shows that educational levels has no influence to health status^[8-9]. Based on Table 1, TB patients who seek treatment at Tabanan Health Center predominantly carry out advanced phase treatment therapy, which is as many as 20 respondents (57%) while the phase that runs intensive phase therapy is as many as 10 respondents (33%). Pulmonary TB patients at Tabanan Health Center tended to have sufficient behavior in the TB treatment, possibly due to several factors including knowledge and behavior. The higher the knowledge of tuberculosis sufferers, the

better they will be able to carry out treatment, prevention and transmission of tuberculosis. positive behavior does not necessarily manifest itself as a form of action.. The behavior of tuberculosis patients at Tabanan Health Center is quite sufficient^[10-11].

The treatment behavior of tuberculosis patients based on the length of treatment of most respondents was in the advanced phase with 12 respondents (40%) in the moderate behavior category. One of factors causing TB patients to not regularly take medication and behave less it's been a long time treatment by taking several types of medication at once and taking them for a long time, up to six months or even more which will cause tuberculosis sufferers to feel bored and there are also side effects of drugs that are felt^[12-14].

CONCLUSION

A number of 57% respondents suffering from tuberculosis at the Tabanan Health Center had adequate behavior. There is a need for education for tuberculosis patients to prevent and overcome tuberculosis transmission and increase knowledge about tuberculosis infectious diseases either with booklets, leaflets, or animated videos.

CONFLICT OF INTEREST

We declare that there was no conflict of interest when preparing this article and it was written independently by the author without the presence of other parties.

ACKNOWLEDGEMENT

The authors would like to thank the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia and the Rector of Bali International University through the Clinical Pharmacy Study Program, Faculty of Health Sciences, Bali International University, for facilitating this research.



REFERENCES

- 1. Ministry of Health. 2018. *Tuberculosis*. Data and information center of the Indonesian Ministry of Health.
- Sigalingging, I. N., Hidayat, W., &; Tarigan, F. L. 2019. "The influence of knowledge, attitudes, contact history and home conditions on the incidence of pulmonary TB in the work area of UPTD Hutarakyat Health Center, Dairi Regency in 2019." Simantek Scientific Journal 3(3):87–99.
- 3. Agustina, wahjuni. 2016. "Household Transmission, Knowledge and Preventive Measures, Pulmonary Tuberculosis Disease in Contact Families." *Epidemiology periodical journal* 1(5):85–94.
- 4. Aditama T Y, 2013. Extensively drugresistant tuberculosis XDR-TB, Jakarta.
- 5. Aulia tsarwah, batara andi surahman, amelia a. Rizki. 2019. "Implementation of a Community-Based Tuberculosis Case Discovery Strategy at the Paccerakkang Health Center in Makassar City in 2019." *Window of public health journal* 2020:98:110.
- 6. Sunarmi & Kurniawaty. 2022. Hubungan karakteristik pasien TB paru dengan kejadian tuberkulosis.
- 7. Ministry of Health of the Republic of Indonesia. 2017. *Health data and information on Indonesia's health profile 2017.* Edited by b. Bps and k. And i. International. Jakarta.
- 8. Marpaung. 2017. "Characteristics of People with Chronic Obstructive Pulmonary Disease (COPD)
- 9. At Haji Adam Malik Hospital Medan for the period January-December 2016." University of North Sumatra.
- Widys Sari, Ira, Desi Reski Fajar, Siti Tasya Salsa Aprilia, and Institut Ilmu Kesehatan Pelamonia Makassar. 2022.
 "Description level of knowledge and

compliance with the use of pulmonary tuberculosis drug outside patients in general hospital in labuang widy region, Makasar 2022." 48–55.

- 11. Nugroho, farid setyo, zahroh shaluhiyah, and sakundarno adi. 2018.
 "Description of Treatment Behavior of Intensive Phase MDR TB Patients at Dr Moewardi Hospital Surakarta." 11(1):32–42.
- 12. Notoadmojo, soekidjo. 2010. "Health Research Methodology." *Rineka cipta*.
- Nurhayati i, kurniawan t, mardiah d. 2015. "Prevention of transmission and faktor_faktor behavior behind it in patients with Tuberculosis Multidrugs Resistance (MDR TB)." *Padjadjaran nursing journal*. doi: :10.24198/jkp.v3i3.118.
- 14. Agustina, riesta. 2015. "The Relationship of TB Patient Knowledge with Treatment Behavior at Seinjo Health Center." Journal of nursing science.