



Treatment Behavior In Tuberculosis Patients At Manisa Health Center, Sidenreng Rappang District

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ABSTRAK

Tuberkulosis adalah penyakit yang memengaruhi sistem pernapasan, terutama paru-paru dan disebabkan oleh bakteri *Mycobacterium tuberculosis* atau bakteri Tuberkulosis. Bakteri tersebut dapat masuk ke dalam paru-paru dan mengakibatkan pengidapnya mengalami sesak napas disertai batuk kronis. Tujuan penelitian adalah untuk menganalisis faktor yang berpengaruh terhadap perilaku kepatuhan berobat penderita TB Paru. Metode penelitian yang di gunakan kuantitatif dengan pendekatan cross sectional studi. Hasil penelitian bahwa ada hubungan efek samping obat, lama pengobatan, sikap petugas dan pengetahuan dengan kepatuhan berobat penderita TB Paru di Puskesmas Manisa . Kesimpulan penelitian perlunya penjelasan efek samping obat, khususnya bagi mereka yang mengalami efek samping obat agar tidak menghentikan proses pengobatannya.

Kata Kunci: Behavior, Treatment, Sufferers, Tuberculosis, Manisa Community Health Center, Sidenreng Rappang District

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1. Introduction

One of the infectious diseases is tuberculosis, which is caused by the germ *Mycobacterium tuberculosis*. The source of transmission of the infectious disease is through the air (airborne disease) (Smeltzer, 2016). *Mycobacterium tuberculosis* bacteria





can be transmitted to other humans through sputum splashes (droplets) when people with active pulmonary TB cough or sneeze (Price, S. A. and Wilson, 2006).

Mycobacterium tuberculosis will die quickly when exposed to direct sunlight, but can survive for several hours in dark and humid places. TB cases are also among the highest cases in Indonesia, which is the second highest case in the world after India. In general, the WHO estimates that 10 million people will suffer from TB by 2019. Although there has been a decrease in new TB cases, it has not met the target of the END TB Strategy 2020, which is a 20% reduction in TB cases between 2015 - 2020. From 2015 to 2019, the cumulative reduction in TB cases was only 9% (Global Tuberculosis Report. 99-117., 2020).

In the United States, nearly 40 percent of people with TB are foreign-born. They immigrate to America and become a source of pulmonary TB. Likewise, the increasing number of refugees due to war with an unhealthy environment makes it easier to spread pulmonary TB. It is estimated that as many as 50% of refugees in the world are likely to be infected with pulmonary TB. In the Southeast Asia region, WHO data shows that pulmonary TB kills about 2,000 people every day. And about 40% of the world's TB cases are in the Southeast Asian region. Based on WHO data, the number of tuberculosis cases from 8.8 million cases in 2018 to 10.2 million cases in 2019 with 3.5 million deaths and 11.9 million cases of tuberculosis in 2020 (Azizman, 2020).

The largest cases of tuberculosis are in various countries in the Asian region such as India, China Bangladesh, Pakistan, Indonesia, and the Philippines. Based on data released by WHO (2020), tuberculosis patients in Indonesia are the third largest in the world after China and India.

Based on WHO data (2019), there are 538,000 new cases in Indonesia each year with 140,000 deaths. The attack rate reaches 1.7% - 4.4% per year. Roughly, it is estimated that every 100,000 population in Indonesia there are 130 new TB patients with BTA positive cases (Dahlan, 2019).

Based on WHO data (2020), each tuberculosis patient can infect 10-15 healthy people and every 4 minutes, a life is lost due to tuberculosis and in a day can claim 425





lives. Asia currently has 4.5 million cases of tuberculosis out of the estimated 8 million cases in the world, which is more than 50% of the total number of cases in the world today. Tuberculosis is a systemic disease that can affect the respiratory organs (Pulmonary TB - TBP) or outside the lung organs (Extra Pulmonary TB - TBE) caused by mycobacterium tuberculosis (Stead ww, Betes JH, in Zul Dahlan, 2019).

Tuberculosis is still a public health problem in developing countries, in Indonesia based on research. Data from the Ministry of Health suggests that tuberculosis is the second leading cause of death and the tenth most common disease in the community. It is estimated that about 25 infectious tuberculosis patients are among every 10,000 population. (Sri Widodo, 2020).

The Indonesian Ministry of Health 2020, reported that there were 107,234 cases of tuberculosis with 61,498 BTA positive cases. BTA (+) microscopic case finding in Indonesia has only reached 20% of the target of 40% estimated tuberculosis patients (MOH, 2021). The high incidence of tuberculosis to date, needs attention and case management, especially in the patient's treatment compliance itself, seeing the impact that tuberculosis disease can cause. A decrease in cases of Tuberculosis patients shows the success rate of the implementation of the TB prevention program.

2. Research Methods

This type of research is observational research with a cross sectional study design. The research was conducted at the Manisa Health Center and will be carried out in February 2022. The population in this study were all patients with pulmonary TB who sought treatment at the Manisa Health Center in 2022. The sample in this study were patients with pulmonary TB who sought treatment at the Manisa Health Center in 2022, which was selected by accidental sampling, namely patients with pulmonary TB who came for treatment at the Manisa Health Center at the time the study was conducted as many as 52 patients.

3. Results and Discussion

a. Results

This study aims to determine the factors that influence the treatment





compliance behavior of patients with Pulmonary TB at the Manisa Health Center, by taking 52 patients with Pulmonary TB as samples, with the following research results:

a) Distribution of Patients with Lung TB According to Adherence to Treatment

Table 1 shows that 18 people or 34.6% of patients with pulmonary tuberculosis who did not comply with treatment, and 34 people or 65.4% who complied with treatment.

Table 1.

Distribution of Pulmonary TB Patients at Manisa Health Center

Variables	Frequency (n)	Percent (%)
Treatment Adherence		
Compliant	34	65,4%
Non-compliant	18	34,6%
Drug Side Effects		
Available	21	40,3%
None	31	59,7%
Duration of Treatment		
Short	32	61,6%
Long	20	38,4%
Officer Attitude		
Good	30	57,7%
Less good	22	42,3%
Knowledge		
Enough	33	63,5%
Less	19	36,5%

b) Distribution of Lung TB Patients According to Drug Side Effects

Table 1 shows that Lung TB patients who said there were no side effects of drugs were 31 people or 59.7%, and Lung TB patients who said there were side effects of drugs were 21 people or 40.3%.

c) Distribution of Patients with Pulmonary TB According to Duration of Treatment

Table 1 shows that 38.4% of patients with pulmonary TB had a long treatment period, and 61.6% of patients with pulmonary TB had a short treatment period.

d) Distribution of Lung TB Patients According to Officer Attitudes

Table 1 shows that patients with Lung TB who said the attitude of officers was not good were 42.3%, and patients with Lung TB who said the attitude of





officers was good were 57.7%.

e) Distribution of Lung TB Patients According to Knowledge

Table 1 shows that 36.5% of patients with pulmonary tuberculosis have poor knowledge, and 63.5% of patients with pulmonary tuberculosis have sufficient knowledge.

b. Discussion

1) Drug Side Effects

Drug side effects are impacts that can occur as a result of OAT administration during treatment, such as shortness of breath, itching and fever. Most patients with Pulmonary TB can complete treatment without side effects, but a small percentage can experience side effects, therefore monitoring the possibility of side effects is very important during treatment by explaining to patients the signs of side effects and asking for symptoms of side effects when patients take OAT. So that patients do not become worried.

The results showed that pulmonary TB patients who said there were drug side effects were 40.3%, and pulmonary TB patients who said there were no drug side effects were 59.7%. that of 31 pulmonary TB patients who had no drug side effects and complied with treatment, 93.6%, and of 21 pulmonary TB patients there were drug side effects and complied with treatment, 23.9%. The results of statistical analysis obtained X^2 count value (82.2) > X^2 table (3.841) and p value (0.000) < 0.05, this means that there is a relationship between drug side effects and treatment compliance with pulmonary TB patients.

The results of this study are in line with research conducted by Heri Unita in 2003 which states that patients with pulmonary TB who do not have side effects of drugs tend to adhere to treatment compared to patients with pulmonary TB who have side effects of drugs. The results of this study are also in line with research conducted by Per Gustafson et al, in Bissau Sub-Saharan Africa in 2003, that patients with Pulmonary TB who have no side effects during treatment will be compliant in treatment.





2) Duration of Treatment

Treatment of pulmonary tuberculosis requires a relatively long period of time consisting of several phases and categories of treatment. This psychologically affects the patience and perseverance of patients in treatment. Thus, the length of treatment can provide opportunities and impact on the continuity of patient treatment.

The results showed that patients with pulmonary TB with a long treatment period were 38.4%, and patients with pulmonary TB with a short treatment period were 61.6%. When associated with adherence to treatment for patients with Lung TB, it was found that out of 20 Lung TB patients whose treatment period was long and did not adhere to treatment, 85.0%, and out of 32 Lung TB patients whose treatment period was short and did not adhere to treatment, 3.1%. The results of statistical analysis obtained X^2 value (136.7) > X^2 table (3.841) and p value (0.000) < 0.05, this means that there is a relationship between the length of treatment with adherence to treatment for pulmonary TB patients.

The results of this study are in line with research conducted by Arivothai in 2004 which says that a long treatment period will give the impression of boredom and boredom to people with Lung TB to continue their treatment. According to Tjandra Yoga Aditama, that the boredom of people with Lung TB treatment is mostly caused by a treatment period that is too long so that they are mostly not obedient to treatment.

3) Officer Attitude

The attitude of the officer is what is shown by the officer both at the time of providing direct service to the patient and outside the time of direct service to the patient and outside the time of service in the form of behavior, hospitality to serve, courtesy, skills possessed and the patient's belief that his illness will be cured through the treatment. If the officer who provides the service shows a positive attitude for the patient, then the patient will take the treatment on time





and not be late. However, if the service provider has a negative attitude, the patient will be late or not use the treatment at all.

The results showed that patients with Lung TB who said the attitude of officers was not good were 42.3%, and patients with Lung TB who said the attitude of officers was good were 57.7%. When associated with the incidence of Lung TB, it was found that out of 22 patients with Lung TB who said the attitude of officers was not good and did not comply with treatment, 72.7%, and out of 30 patients with Lung TB who said the attitude of officers was good and did not comply with treatment, 6.6%. The results of statistical analysis obtained X^2 value (144.9) > X^2 table (3.841) and p value (0.000) < 0.05, this means that there is a relationship between the attitude of officers and compliance with treatment for patients with pulmonary TB.

The results of this study are in line with research conducted by Suhardi, et al, 2006 in Salatiga that the attitude of officers plays a very large role in the treatment compliance of patients with pulmonary TB, if the officer is kind to the patient, the patient tends to be obedient to complete the treatment period. The results of this study are also in line with research conducted by Supriyono in 2002 which states that most patients with pulmonary TB who adhere to treatment say that the attitude of officers is good.

4) Knowledge

Knowledge is the result of knowing, this occurs after someone senses a certain object, through the senses of knowledge, hearing, smell, taste and touch. Most of it is owned by someone against an object through the senses of sight and hearing (Soekidjo Notoatmojo).

The results showed that patients with pulmonary TB whose knowledge level was poor were 36.5%, and patients with pulmonary TB whose knowledge level was sufficient were 63.5%. When associated with adherence to treatment for patients with Lung TB, it was found that of the 19 patients with Lung TB whose knowledge was lacking and did not adhere to treatment, 73.6%, and of the 33





patients with Lung TB whose knowledge level was sufficient and did not adhere to treatment, 12.2%. The results of statistical analysis obtained X² count value (136.1) > X² table (3.841) and p value (0.000) < 0.05, this means that there is a relationship between the level of knowledge and treatment compliance of pulmonary TB patients.

The results of this study are in line with research conducted by Abd.Karim, 2017 in Bantaeng Regency that, Patients with pulmonary TB with a lack of knowledge is a factor that causes non-adherence of patients with pulmonary TB to treatment.

4. Conclusion

- 1) Side effects of drugs are associated with adherence to treatment for patients with Pulmonary TB at the Manisa Health Center, with a P value (0.000) < 0.05.
- 2) Duration of treatment is associated with adherence to treatment for patients with Pulmonary TB at the Manisa Health Center, P (0.000) < 0.05.
- 3) The attitude of officers is associated with adherence to treatment for patients with Pulmonary TB at the Manisa Health Center, P (0.000) < 0.05.
- 4) The level of knowledge is associated with adherence to treatment of patients with TB Manisa Health Center, P (0.000) < 0.05.
- 5) The factor most associated with adherence to treatment for patients with Pulmonary TB at the Manisa Health Center is the attitude of officers.

5. Compliance with ethical standards

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Disclosure of conflict of interest





This research collaboration is a positive thing for all researchers so that conflicts, problems and others are absolutely no problem for all writers.

Statement of informed consent

Every action we take as authors is a mutual agreement or consent.

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