

## Description Of The Level Of Anxiety In The Use Of Anti-Tuberculosis Drugs (OAT) In Pulmonary TB Patients At RSU. Imelda Medan

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### ABSTRACT

Pulmonary TB or tuberculosis is an infectious disease caused by rod-shaped bacteria, namely *Mycobacterium tuberculosis*. (WHO, 2011). Pulmonary tuberculosis can spread to almost any part of the body, including the meninges, kidneys, bones, and lymph nodes. The initial infection usually occurs within 2 to 10 weeks after exposure, then it can form active disease due to a decreased or inadequate immune system response. The purpose of this study is an overview of the level of anxiety in the use of anti-tuberculosis drugs (OAT) in TB patients. Lungs in RSU. Imelda Medan. This type of research is descriptive with a total of 30 respondents. The results of the study based on age characteristics obtained the majority aged 50-54 as many as 16 respondents (53%), for the majority of male gender as many as 20 respondents (66.67%), the majority of education educated DIII as many as 14 respondents (47%). Based on the characteristics of the level of anxiety, it showed that of the 30 respondents, the majority of mild anxiety was 14 respondents (46.7%), and the minority of respondents were poorly informed as many as 2 respondents (6.7%).

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## INTRODUCTION

Pulmonary TB or tuberculosis is an infectious disease caused by rod-shaped bacteria, namely *Mycobacterium tuberculosis*. (WHO, 2011). Pulmonary tuberculosis can spread to almost any part of the body, including the meninges, kidneys, bones, and lymph nodes. The initial infection usually occurs within 2 to 10 weeks after exposure, then it can form active disease due to a decreased or inadequate immune system response. Pulmonary tuberculosis is a worldwide public health problem linked to poverty, malnutrition, overcrowding, substandard housing and inadequate health services. Mortality and morbidity rates continue to increase (Brunner & Suddar, 2016).

Globally in 2016 there were 10.4 million cases of tuberculosis incidence, equivalent to 120 cases per 100,000 population. The five countries with the highest incidence of cases are India, Indonesia, China, the Philippines and Pakistan. Most of the incidence of pulmonary tuberculosis in 2016 occurred in the Southeast Asia region (45%), where Indonesia is one of the countries in it and 25% occurred in the African region after the Americas and Europe (3%), the Eastern Mediterranean region (7%) and the Western Pacific region (17%). The World Health Organization defines *high burden countries* (HBC) for pulmonary tuberculosis based on 3 indicators, namely Pulmonary Tuberculosis, Pulmonary Tuberculosis / HIV and MDR - Pulmonary Tuberculosis. There are 48 countries included in the list. One country can be included in one of these lists, or both can even be included in all three indicators. Indonesia along with 13 other countries are included in the HBC list for these three indicators. This means that Indonesia has a big problem in dealing with tuberculosis (Global Tuberculosis Report, 2017, in Riskesdas, 2018).

Tuberculosis prevalence survey in 2013-2014, with bacteriological confirmation in Indonesia of 759 per 100,000 population aged 15 years and over and prevalence of positive BTA tuberculosis

of 257 per 100,000 population aged 15 years and over. The number of new cases of tuberculosis in Indonesia was 420,994 cases in 2017 (data as of May 17, 2018). Based on gender, the number of new cases of Pulmonary Tuberculosis in 2017 in men was 1.4 times greater than in women (Ministry of Health RI, 2018). The incidence of BTA Positive tuberculosis in South Sulawesi according to the Ministry of Health of the Republic of Indonesia in 2017 was 4,314 with the highest number of sufferers, namely men as many as 2,529 (58.62%) with ages 45-54 years as many as 547 tuberculosis patients. South Sulawesi occupies the fourth most cases suffering from Pulmonary Tuberculosis, which is 7,138 cases after West Java 23,774 cases, East Java 21,606 cases, DKI Jakarta 9,516 cases and fifth place Banten with 6,895 cases. (Ministry of Health, 2017).

Anxiety can have various repercussions on patients. The impact caused by physiological anxiety can be in the form of increased pulse frequency, blood pressure, breath, emotionally feeling fear and helplessness, nervousness and cognitively the patient is unable to concentrate, forgetful and pensive. Research conducted by Soep, (2014) and Andika, (2016), the majority of respondents who have a level of anxiety about pulmonary tuberculosis based on the age of the majority of male respondents aged 46-50 years (Soep, 2014) and ages 56-65 (Andika, 2016) years have a level of severe anxiety with the level of high school education, the higher a person's education the easier to receive information so that the more knowledge they have. According to Soep, (2014) and Andika, (2016) put forward various factors that can cause anxiety, namely age, gender and level of education, occupation and income. Meanwhile, according to Putri, (2016) the factors that cause anxiety are age, experience and level of knowledge.

Based on RSU medical records. Imelda Medan obtained data on the number of pulmonary TB patients in 2020 as many as 40 patients and increased to 41 patients in 2021. Results of preliminary studies conducted at RSU. Imelda Medan in 10 patients with pulmonary TB obtained data 6 respondents (60%) stated that the patient's anxiety level about OAT is related to side effects if consumed with a long term.

## METHOD

This type of research is quantitative description. This study aims to determine the picture of anxiety levels in the use of anti-tuberculosis drugs (OAT) in pulmonary TB patients at RSU. Imelda Medan. This study was conducted by collecting data using research questionnaires. This research was conducted at the Imelda Pekerja Indonesia General Hospital with an estimated time from title approval to completion of the research. The research time is from April to August 2022.

Population is all objects or subjects that have certain qualities and characteristics that have been determined by previous researchers (Donsu J, 2016). The population in this study was all Pulmonary TB patients. Based on data from at RSU. Imelda Medan has 30 patients. The sample is part of the population. The sample is part of the population. The sample in this study is all the total population sampled. So, the sampling technique in this study is *total sampling*. Total sampling is a sampling technique where the number of samples equals the population. The total sample in the study was 30 people. Research instruments are tools that will be used for data collection (Notoadmodjo, 2010). This research instrument is in the form of a test in the form of a questionnaire developed based on a research framework that has been prepared referring to a literature review. The questionnaire sheet consists of 3 (two) parts, namely demographic data sheets, questionnaires on the level of anxiety in the use of anti-tuberculosis drugs (OAT) in TB patients. Lungs in RSU. Imelda Medan is a statement.

The demographic data questionnaire includes age, education, address, occupation, age and address. Demographic data aims to determine the characteristics of respondents and describe them in terms of frequency and percentage distribution.

Questionnaire to measure the level of anxiety in the use of anti-tuberculosis drugs (OAT) in TB patients. Lung Field 15 questions. Using a rating scale, where answers are 0,1,2,3, and 4. The maximum value is 60 and the minimum value is 0.. The criteria for assessing anxiety are panic from values 46-60, weight from values 31-45, medium from values 16-30, mild with values 0-15.

## RESULTS AND DISCUSSION

### General Data

**Table 1.** Distribution of respondents' characteristics based on age in the Use of Anti Tuberculosis Drugs (OAT) in TB Patients. Lungs in RSU. Imelda Medan

No	Age (years)	Frequency (f)	Percentage (%)
1	45-49	14	47%
2	50-54	16	53%
<b>Total</b>		<b>30</b>	<b>100</b>

From the table above, it can be seen that of the 30 respondents, the majority of respondents aged 50-54 were 16 respondents (53%) and minorities aged 45-49 were 14 respondents (47%).

**Table 2.** Distribution of respondent characteristics by sex in the use of anti-tuberculosis drugs (OAT) in TB patients. Lungs in RSU. Imelda Medan

No	Respondents	Frequency (f)	Percentage (%)
1.	Man	20	66,67
2.	Woman	10	33,33
<b>Total</b>		<b>30</b>	<b>100</b>

From the table above, it can be seen that of the 30 respondents, the majority were men, 20 respondents (66.67%), and women as many as 10 people (33.33%).

**Table 3.** Distribution of respondent characteristics based on education in the Use of Anti-Tuberculosis Drugs (OAT) in TB Patients. Lungs in RSU. Imelda Medan

No	Education	Frequency (f)	Percentage (%)
1.	SD	3	10
2.	SMP	3	10
3.	SMA	10	34
4.	D III/S I	14	46
<b>Total</b>		<b>30</b>	<b>100</b>

From the table above, it can be seen that of the 30 respondents, the majority had DIII education as many as 14 respondents (47%), high school education as many as 10 respondents (33%), junior high school education as many as 3 (10%) and minorities with elementary education as many as 3 respondents (10%).

**Table 4.** Distribution of respondent characteristics based on internal work in the Use of Anti-Tuberculosis Drugs (OAT) in TB Patients. Lungs in RSU. Imelda Medan

No	Work	Frequency (f)	Percentage (%)
1.	Housewives	2	7
2.	Self-Employed Jobs	8	27
3.	Private Employee	9	30
4.	Civil Servants	11	36

Total	30	100
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From the table above, it can be seen that of the 30 respondents, the majority of respondents worked as civil servants as many as 11 respondents (36%), private employee jobs as many as 9 respondents (30%), self-employed jobs as many as 8 respondents (30%) and the minority of private employee jobs as many as 2 respondents (7%).

### Custom Data

**Table 5.** Distribution of respondent characteristics based on the level of anxiety in the use of anti-tuberculosis drugs (OAT) in TB patients. Lungs in RSU. Imelda Medan

No	Knowledge	Frequency (f)	Percentage (%)
1	Panic	2	6,7
2	Heavy	3	10
3	Middle	11	36,6
4	Light	14	46,7
<b>Jumlah</b>		<b>30</b>	<b>100</b>

From the table above, it can be seen that of the 30 respondents, the majority of mild anxiety was 14 respondents (46.7%), and the minority of respondents were poorly informed as many as 2 respondents (6.7%).

### DISCUSSION

From the table above, it can be seen that of the 30 respondents, the majority of mild anxiety was 14 respondents (46.7%), and the minority of respondents were poorly informed as many as 2 respondents (6.7%). This study is in line with Sri Nopia (2018) which shows the level of anxiety in tuberculosis patients, stating that almost half of respondents experience moderate anxiety levels, which is as many as 14 respondents (43.8%).

This study also showed that respondents who experienced anxiety were predominantly early elderly as many as 14 respondents (46.7%). One factor that influences anxiety is age. Age plays an important role for each individual because different ages are different stages of development, it will also affect the dynamics of anxiety in individuals. According to Maramis (2009) in Rindayati (2020) in early elderly age must face many changes such as wrinkled skin, eyes begin to blur, body balance decreases, degenerative diseases begin to attack a lot. This condition is a stressor that must be faced by the early elderly and plus the patient must undergo a series of TB treatments, if the adaptation is not good it can cause anxiety. This is in accordance with research conducted by Rindayati (2020) on anxiety in the elderly, it was found that most anxiety occurred in the early elderly with a percentage of 51%. The increasing age factor will cause a decrease in the production of the hormone estrogen which causes the dopaminergic system to be disrupted so that dopamine decreases, and of course individuals will become easily stressed.

From the table above, it can be seen that of the 30 respondents, the majority were men, 20 respondents (66.67%), and women as many as 10 people (33.33%). This study saw from the gender of men more dominant, as many as 20 respondents (66.67%). When the patient is first diagnosed with TB and has to complete a long course of treatment with a large number of drugs, this is certainly a problem for patients because they must be able to adapt to new behaviors to cure the disease. This problem will of course add anxiety to men. This is in line with Sri Nopia's research (2018) which shows that men tend to experience more anxiety with a percentage of 53.1% compared to women 43.8%, this is because men are more sensitive to problems compared to women. But one of the internal factors that influence anxiety according to Stuart is gender, and

anxiety is more often experienced by women than men. When anxiety occurs, the HPA axis increases and glucocorticoids are secreted along with a decrease in estrogen and androgen levels, because the amount of androgens and estrogens changes, anxiety will cause different effects in women than men.

From the table above, it can be seen that of the 37 respondents, the majority had DIII education as many as 14 respondents (47%), high school education as many as 10 respondents (33%), junior high school education as many as 3 (10%) and minorities with elementary education as many as 3 respondents (10%). The education level of respondents in this study had DIII education as many as 14 respondents (47%), high school education as many as 10 respondents (33%), junior high school education as many as 3 (10%) and minority with elementary education as many as 3 respondents (10%). According to Kaplan and Sadock (2010) education for each individual has its own meaning, this is because education is able to change mindsets, behavior and in decision making. A sufficient level of education will make it easier to identify stressors in him. Individuals with sufficient knowledge will know about the advantages and disadvantages of every what happens to him, one of which is OAT treatment so that they always feel anxious about how the next thing happens during treatment. Another study conducted by Sri Nopia (2018) conducted in the Emerald Room of RSUD dr. Slamet Garut to 31 respondents, obtained the most respondents' education results, namely: SD 16 respondents (50.0%), SMP 11 respondents (34.4%), and SMA as many as 4 respondents (12.5%), which means elementary or low education is more anxiety.

### CONCLUSION

The results of this study are influenced by age (the majority of respondents 50-54 years) and education (the majority of respondents graduated from D III / S1) which affects knowledge, the older the more the ability to grasp and mindset, so that the knowledge obtained is better and the higher a person's education the easier the person receives information and also the more health information that comes from the right person, So more and more knowledge is gained about health. The results of the study stated that from 30 respondents, the majority of mild anxiety was 14 respondents (46.7%), and the minority of respondents were poorly informed as many as 2 respondents (6.7%)

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