Factors Influencing Compliance With Pulmonary Tb Patients At The Lampaseh Health Center, Banda Aceh City Year 2021

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ARTICLE INFO	ABSTRACT
Keywords: *Compliance,* *Taking Medication,* *Pulmonary TB Patients*	Pulmonary Tuberculosis is an infectious disease caused by Mycobacterium tuberculosis and is a health problem at the Lampaseh Health Center in Banda Aceh City in 2021. To achieve recovery, it is necessary to adhere to medication for every patient with pulmonary TB and this compliance is influenced by many factors. The purpose of this study was to find out the factors that influence medication adherence of pulmonary TB patients at the Lampaseh Health Center in Banda Aceh City in 2021, with a cross-sectional research design by knowing the factors that influence medication adherence of pulmonary TB patients at the Lampaseh City Health Center Banda Aceh 2021 which will be held in September 2020 - January 2021. The population in this study were 124 pulmonary TB patients. The sampling technique used was Accidental Sampling, namely patients who came to the Health Center to take drugs regularly with a sample size of 25 people. From the results of the study it was found that the factors that influence adherence to taking medication in pulmonary TB patients areknowledge (96%), motivation (100%), attitude (100%), physical ability (92%), family support (96%), counseling (100%) and side effects (68%). From the results of this study it can be concluded that knowledge, motivation, attitudes, physical abilities, family support, counseling and side effects affect medication adherence in pulmonary TB patients. Therefore, researchers suggest that it is necessary to carry out counseling by health workers and family supervision of pulmonary TB patients so that treatment does not fail and recovery can be achieved.
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1. INTRODUCTION

Pulmonary tuberculosis is actually not an incurable disease. However, pulmonary tuberculosis is still a public health problem in the world, especially in developing countries. This disease is a big threat to the development of human resources so it needs serious attention from all parties. Tuberculosis is an infectious disease caused by germs*mycobacterium tuberculosis*which has infected a third of the world's population, where most of the tuberculosis germs attack the lungs which is called pulmonary tuberculosis, some can also affect other organs of the body. The World Health Organization (WHO) has declared a global emergency for pulmonary tuberculosis because the number of pulmonary tuberculosis cases is increasing and uncontrolled (RI Ministry of Health, 2015).

In many industrialized countries, money, resources, a high standard of living and the widespread use of chemotherapy during the last 40 years have helped reduce cases of pulmonary tuberculosis to a relatively minor problem. WHO predicts that the total number of cases of pulmonary tuberculosis in the world will increase. In 2014, there were approximately 9.2 million new cases of pulmonary tuberculosis globally. It is estimated that 1.7 million people died from pulmonary TB (Ministry of Health RI, 2016). The world pulmonary tuberculosis report by (WHO, 2017), in 2014, Indonesia is in the third largest level in the world in the number of pulmonary tuberculosis sufferers after India and China. The number of new cases is around 539,000 each year and the number of deaths is around 101,000 per year (Depkes RI, 2017).

The increasing number of pulmonary tuberculosis cases can be caused by the increasing

population in developing countries including Indonesia. North Sumatra is one of the provinces in Indonesia with a high incidence of pulmonary TB. Datam Profile of the North Sumatra Provincial Health Office in 2016, the incidence rate of all types of TB cases was 131.65 per 100,000 population, amounting to 4,597 with a CNR of 87.5 per 100,000 population (Janan, 2019).

Even though anti-tuberculosis drugs are now available that can cure patients, there are still many things that hinder the success of this treatment, including: relatively long treatment, poor nutritional intake and patient medication adherence. Compliance is the degree to which patients follow clinical recommendations from health workers who treat them (Syaifiyatul, 2020). Compliance is the extent to which the patient's behavior complies with the provisions given by health professionals (Niven, 2012). According to Sarafino in general, non-adherence can increase the risk of developing health problems or prolong, exacerbate the illness that is being suffered, existing estimates state that 20% of hospitalizations are the result of patient non-compliance with treatment rules.

According to the observations of program managers around the world, if patients adhere to taking medication and do it well, the recovery rate will be higher. Obedient attitude is required to take medicine for every sufferer to achieve recovery. In using anti-tuberculosis drugs (AOT), the patient takes the drug according to the provisions of the health worker, namely every day at the initial stage, three times a week at the advanced stage and takes the drug and checks the sputum according to a predetermined schedule and obeys the advice of the health worker.

Ensuring that patients always adhere to taking medication in the long term is very important. This happens a lot in treatment in the first 2 months where patients experience default, namely stopping treatment too early and deviating from the provisions of treatment. Based on data obtained from the Lampaseh Health Center in Banda Aceh City in 2018, it is known that the number of AFB (+) Lung TB patients from Quarter I-III of 2017 was 195 people with patients who defaulted as many as 49 people (Crofton, 2014).

This is because patients do not adhere to taking medication which is influenced by a lack of knowledge about drug use, lazy to take medication, patients feel cured, limited physical abilities, no supervision from the family, insufficient information from health workers, and also the influence of from drug side effects that make it uncomfortable to carry out daily activities. The interruption of this treatment made the patient have to repeat the treatment from the beginning, namely taking medicine for 6 months. Seeing the phenomenon above, the researchers wanted to conduct research on the factors that influence medication adherence of pulmonary TB patients at the Lampaseh Health Center in Banda Aceh City in 2021.

2. METHOD

The research design used was a cross-sectional approach in which the subject was observed only once and the variables were measured at the same time (Notoadmodjo, 2015). This research was carried out at the Lampaseh Health Center in Banda Aceh City in 2021. The time of the research was carried out in September 2020 - January 2021. All pulmonary TB patients with smear (+) with a total of 124 people. The sampling technique uses Accidental Sampling, namely patients who come to the Health Center to take drugs regularly. In this study, researchers took a sample of 25 people.

3. RESULTS AND DISCUSSION
Frequency of Respondents Based on Characteristics at the Lampaseh Health Center in Banda Aceh City

Table 1. Characteristics of Respondents

No.	Characteristics of Respondents	N	%

		N	%
1.	Age		
	<25 years	6	24
	25-45 Years	12	48
	>45 years	7	28
	Total	**25**	**100**
2.	Gender		
	Man	16	64
	Woman	9	36
	Total	**25**	**100**
3.	Education		
	NoEnd	4	16
	SD	6	24
	SD	4	16
	JUNIOR HIGH SCHOOL	10	40
	SENIOR HIGH SCHOOL	1	4
	Bachelor		
	Total	**25**	**100**

It can be seen that the majority of respondents aged 25-45 years were 12 people (48%), gender namely male as many as 16 people (64%) and high school education as many as 10 people (40%).

Frequency of Respondents Based on factors that influence medication adherence in pulmonary TB patients at the Lampaseh Community Health Center, Banda Aceh City

Table 2. Frequency of Respondents of Knowledge

No.	Knowledge	N	%
1.	Well	24	96
2.	Bad	1	4
	Total	**25**	**100**

It can be seen that the majority of knowledge factors are in the good category, there are 24 respondents (96%).

Table 3. Frequency of Respondents of Motivation

No.	Motivation	N	%
1.	Well	25	100
2.	Bad	0	0
	Total	**25**	**100**

It can be seen that the majority of motivational factors in the good category are 25 respondents (100%).

Table 4. Frequency of Respondents of Attitude

No.	Attitude	N	%
1.	Well	25	100
2.	Bad	0	0
	Total	**25**	**100**

It can be seen that the majority of attitude factors are in the good category, there are 25 respondents (100%).

Table 5. Frequency of Respondents of **Physical Ability**

No.	Physical Ability	N	%
1.	Well	23	92
2.	Bad	2	8
Total		**25**	**100**

It can be seen that the majority of physical ability factors are in the good category, there are 23 respondents (100%).

Table 6. Frequency of Respondents of **Family support**

No.	Family support	N	%
1.	Well	24	96
2.	Bad	1	4
	Total	**25**	**100**

It can be seen that the majority of family support factors are in the good category, there are 24 respondents (96%).

Table 7. Frequency of Respondents of **Counseling**

No.	Counseling	N	%
1.	Well	25	100
2.	Bad	0	0
	Total	**25**	**100**

It can be seen that the majority of good category counseling factors are 25 respondents (100%).

Table 8. Frequency of Respondents of **Side effects**

No.	Side effects	N	%
1.	Well	17	68
2.	Bad	8	32
	Total	**25**	**100**

It can be seen that the majority of side effect factors are in the good category, there are 17 respondents (68%). It can be seen that the percentage of factors that influence medication adherence in pulmonary TB patients is knowledge in the "good" category (96%), motivation in the "good" category (100%), attitude in the "good" category (100%), physical abilities in the "good" category (100%) "good" (92%), family support category "good" (96%), counseling category "good" (100%), side effects category "good" (68%).

Based on the results of research conducted by researchersindicates a good category of knowledge factor (96%). This can be achieved because many pamphlets about pulmonary TB, its transmission and prevention are posted in the Puskesmas, using language that is easy for patients to understand and understand. So that every patient who comes for treatment at the Puskesmas always pays attention to and reads the pamphlets. This achievement is also supported by services, especially in the Pulmonary TB section where every patient who comes for treatment or who regularly takes medication will be given face-to-face counseling from the Pulmonary TB service officer himself and the things conveyed can include side effects from drugs, dosage and time to use the drug, the schedule for coming back to take the drug and other things about treatment (Erawatyningsih, 2016).

This is in accordance with the theory (Niven, 2012) which states that patient knowledge greatly influences and will also increase patient compliance, if this knowledge is active knowledge such as receiving counseling from health workers, using books or tapes containing health information used. by the patient independently. Even so, there are also research results showing that the respondents' knowledge is poor (4%). This happens because of the patient's inability to understand about pulmonary TB treatment which can be caused by a low level of education.

The results showed that the motivational factors were in good category (100%). This can be achieved due to the patient's efforts to experience recovery where recovery can be achieved if the patient regularly and obediently takes medication according to the dosage and time of use of the drug that should be taken. This is based on the patient's ability to understand and understand the treatment of pulmonary TB which is obtained from the counseling provided by the health workers in the pulmonary TB department.

According to (Fujiki, 2014) motivation is the power that moves people to behave. Things related to motivation in behaving, namely progress to strive in success to achieve goals and fulfill individual needs. This understanding becomes a reference for patients to bring up the desire and encouragement of intentions from within the individual itself to adhere to taking medication. This is also in accordance with research (Ester Dc, 2017) regarding adherence to taking medication for pulmonary TB patients at the Olora Health Center which states that motivation from within the individual itself greatly influences the success of treatment (97.6%).

In this study, researchers found a problem that often occurs in pulmonary TB patients, namely stopping treatment before undergoing it for 6 months and became part of the background for conducting this study. Indeed, only a small proportion of this occurs in pulmonary TB patients at the Lampaseh Health Center in Banda Aceh City. However, when patients understand more about OAT treatment that must be followed for 6 months, such things will decrease in pulmonary TB patients because patient knowledge about OAT treatment is a motivation for patients to achieve successful treatment and recovery.

The results showed that the attitude factor in the good category (100%) affected medication adherence at the Lampaseh Health Center in Banda Aceh City. This can be achieved because of the positive attitude of patients in receiving pulmonary TB treatment. What the researchers found during this study was that patients complained a lot because there was more than 1 type of drug to take, complained about side effects that were often felt while taking the drug, also complained about the routine of treatment that had to be followed.

This is supported by the theory stated by (Hudoyo, 2014), that attitude is a form of evaluation or feeling reaction. A person's attitude towards an object is a feeling of support and partiality or a feeling of not supporting and not taking sides with the object. Specifically, attitude is the degree of positive or negative effect on an object. Likewise with the attitude of patients to receive pulmonary TB treatment.

From the results of the study it can be seen that physical ability in the good category (92%) also affects medication adherence in pulmonary TB patients. This can be achieved because of the patient's physical ability to try to take the drug independently or without help from others. Based on the characteristics of the respondents in this study, the majority of the respondents' ages were in the range of 25-45 years, namely patients belonging to the productive age where patients have unlimited physical abilities and are still able to carry out their activities independently. Patients who are able to take medicine independently without help from others will make the patient take medication regularly.

The theory expressed (Philipus,, 2019) states that physical ability is a person's physical potential to do work or an activity. Patients who have physical limitations can prevent patients from taking medication regularly because they have to wait for help from others. From the results of the study also obtained the physical ability factor in the poor category (8%) caused by the patient's physical inability to take medicine independently. This can happen because some of the patients who were respondents in this study experienced illnesses that caused patients to have to*bedrest*so to fulfill the schedule for taking medication, the patient must wait for help from other people to take the drug.

The results showed that family support in the "good" category (96%) affected medication adherence of pulmonary TB patients at the Lampaseh Health Center, Banda Aceh City. This can be achieved because family support that comes from outside the individual can be a separate motivation for patients to increasingly want to achieve healing. At the Lampaseh Health Center in Banda Aceh City, it was found that the family can play a role in reminding patients to take medicine, the family supports the patient by taking the patient for treatment or taking medicine, the family also plays a role in receiving all treatment and is willing to pay for all the treatment that a pulmonary TB patient must undergo.Soedarto, 2020). Even so, the family support factor was also in the bad category (4%) because

some of the patient's family members did not care about the treatment a pulmonary TB patient was undergoing and tried to avoid or be away from the patient to prevent transmission.

From the results of the study it can be seen that the counseling factor in the good category (100%) is also a factor that influences medication adherence in pulmonary TB patients.When this research was conducted, the researchers found that the health workers at the PuskesmasLampaseh City of Banda Acehespecially in the Pulmonary TB service department there is only 1 person. But this does not become a barrier for patients and health workers to interact and discuss each other. What the researchers found during this study was that health workers always reminded every patient who came about the schedule for when the patient had to come back to pick up the medicine and even if a patient forgot to take the medicine, the officer would contact the patient to be able to take the medicine to the Puskesmas. . Counseling is interaction and discussion between health workers and patients about treatment.

The interaction and discussion between the staff and the patient also looks flexible because if there is something the patient does not understand, the officer gives the patient the opportunity to ask questions about things he does not understand and the officer gives an explanation that is easily understood by the patient, so that the patient can understand the explanation from the officer Pulmonary TB health services. Health workers, especially in the Pulmonary TB service section, which only has 1 person, is legitimate. However, researchers see that in the future this will make it difficult for pulmonary TB patients because they only expect treatment services for only 1 person. If the officer does not come, the patient will not receive treatment services until the officer comes to the Puskesmas and this will make the service less than optimal (Widagdo, 2018).

Some of the factors mentioned above, based on the results of the study stated that side effect factors in the good category (68%) and bad category (32%) also affected medication adherence in pulmonary TB patients at the Puskesmas.Lampaseh City of Banda Aceh. This was found by researchers during this study where several patients complained of side effects from OAT and stopped their treatment. Patients also did complain about the side effects of OAT but did not stop their treatment because when these patients took the drug at the Puskesmas, they had received counseling regularly. face to face from health workers about the side effects of some drugs consumed. A side effect is an unexpected and dangerous reaction caused by a medication (Widiyanta, 2020).

The presence of OAT side effects is one of the causes of failure in the treatment of pulmonary TB.In accordance with research (Aditama, 2016) on the analysis of factors related to medication adherence in pulmonary TB patients in the Working Area of the Dompu NTB Health Center, it shows that there is a significant relationship between drug side effects and medication adherence (84.5%) that the more severe symptoms of drug side effects are increasingly non-adherent in treatment.

4. CONCLUSION

The results of the study regarding the Factors Affecting Compliance with Taking Medication for Pulmonary TB Patients at the Health CenterLampaseh City of Banda Aceh in 2021isgood category of knowledge (96%), good category of motivation (100%), good category of attitude (100%), good category of physical ability (92%), good category of family support (96%), good category of counseling (100%), good category of side effects (68%).

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