INDOGENIUS

ISSN 2828-1365

Volume 4, Issue 2 : 467-135

The Relationship Between Knowledge and Attitudes with Medication Adherence in Tuberculosis Patients in The UPTD Puskesmas Ciamis Work Area

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Article Info

Keywords :
Adherence to Taking Medicatiom, Knowledge, Attitude

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ABSTRACT

Background & Objective: *Mycobacterium tuberculosis* bacteria is an acute infection also known as tuberculosis disease. This disease will have a bad impact if not treated properly. Knowledge and attitude can affect adherence to the healing process, the patient's indiscipline can be caused by the lack of public knowledge and awareness about medication adherence is very important. To find out whether there is a relationship between knowledge and attitude and medication adherence in tuberculosis patients in the work area of UPTD Ciamis Health Center. **Method:** This type of study uses observational analytics with a cross sectional research design.The population in this study is 30 people, and the sampling technique in this study uses Total Sampling because the number of samples is the same as the population and the number of population is less than 100. **Result:** The results of the study showed that there was a relationship between knowledge and medication adherence to outcomes ($p=0.003<\alpha=0.005$) and a relationship between attitude and medication adherence to medication and outcomes ($p=0.011<\alpha=0.005$). **Conclusion:** In this study, almost all of the respondents had good knowledge, good attitude and good medication adherence, and there is a relationship between knowledge and attitude and adherence to taking medicine.

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Introduction

Mycobacterium tuberculosis is an acute/chronic infection also known as Tuberculosis (TB) disease that continues to increase every year worldwide. This disease is an acute or chronic infection caused by bacteria. These bacteria enter the

human body through the air and also breathing and then spread to the lungs and then spread through the blood or lymph nodes (Siburian dkk., 2023). Based on WHO World Health Organization data (2022), Indonesia is the country with the second highest number of cases of tuberculosis disease after India. It is estimated that there are 969,000 incidents of tuberculosis in Indonesia. Every hour there are eight people who die and 140 thousand people die every year. This was revealed by the Chairman of the Central Government of the Lung Association in Indonesia (Rahmasari and Sartika 2022).

Based on the facts found in the field, it also shows that treatment compliance is not fully known by the community and there are still some tuberculosis patients who are not compliant with the treatment they are taking or stop treatment midway because they think the disease is cured. This will occur due to a lack of knowledge and understanding or a negative attitude towards tuberculosis (Muladi dan Sabi 2020).

Tuberculosis disease not only impacts on physical health, but on mental health, financial and social well-being. A person physically infected by these bacteria will often cough, shortness of breath, chest pain, and night sweats that cause a person to become weak due to general symptoms of physical infection caused by these bacteria (Novitriani dkk., 2022). Tuberculosis is a disease that can be treated and also cured. Treatment can be given in the intensive treatment stage for two months and the follow-up stage for 4-6 months. Routine treatment carried out

It is possible for a tuberculosis patient to fully recover if the patient can follow the rules during treatment (Fitriani dkk., 2019). However, currently, the treatment of this disease still has many problems in its treatment, this is because TB treatment therapy requires a fairly long period of time, which is at least 6 months, which consequently makes sufferers bored with their treatment, this boredom may occur because sufferers lack understanding of treatment and do not know the importance of following the rules of health workers. A person's knowledge and attitude will be better if they have a commitment to recovery in undergoing treatment so that treatment success will be easier to achieve (Pratiwi dkk., 2023)..

A person's knowledge can also affect compliance with the treatment process he is undergoing. The irregularity of patients is due to lack of knowledge and the length of treatment duration is due to non-compliance and low public awareness of the importance of treatment. After knowledge, there will be an attitude. Attitude is the foundation of a person's character and shows the nature of a person in taking action. The result of a good attitude is achieved through a positive attitude, which means that the result of a good attitude will make people who suffer from the disease become compliant with the treatment they are undergoing. Compliance itself is an important thing to achieve a healthy lifestyle, the success of a treatment is shown by the regularity and compliance of a person in treatment. The good or bad attitude of a person can affect the order and obedience of a person (Ziliwu dan Girsang 2022).

People often assume that TB disease is a hereditary disease that is difficult to treat. This statement makes many sufferers reluctant to treat TB disease because they feel embarrassed. This is because TB disease is still stigmatized (negative thinking) in the community, although it is not as severe as HIV/AIDS, but people diagnosed with TB disease mostly have pressure and stress which results in many patients who are not adherent to their treatment (Hariadi dkk.,2023).

Efforts to prevent treatment non-adherence by increasing the knowledge and attitudes of TB patients, providing health information and explaining that TB can be

treated with proper and routine treatment in accordance with predetermined rules. This is the same as Siburian's research (2023) that efforts to overcome this disease must also be balanced with correct information. Knowledge is what the community understands about what health and illness are, or issues such as understanding, causal factors, transmission and also disease prevention.

Objective

To find out whether there is a relationship between knowledge and attitude and medication adherence in tuberculosis patients in the work area of UPTD Ciamis Health Center.

Method

A research plan refers to a plan taken by a researcher. Starting from making hypotheses and how to operate until the final data analysis stage. This type of research is using observational analytic with a *cross sectional* approach method aims to determine the relationship between two or more variables in the study. The population in the research conducted was all respondents who had undergone treatment at UPTD Puskesmas Ciamis in 2023-2024, totaling 30 people. in the study using total sampling in sampling because the number of samples was the same as the population and the study population was <100 people.

Primary data technique was used as data collection in the study which was obtained directly from respondents who were or had undergone treatment in the UPTD Puskesmas Ciamis working area and after that a questionnaire or research instrument was distributed to respondents who had been provided by the researcher and the respondents were asked to fill out the questionnaire, previously the respondents were asked for their willingness and agreement to participate in the research conducted by the researcher by filling out the *informed consent* first and after that the results were then compiled and grouped and then processed using the SPSS application and described in the form of a frequency table.

Results

Univariate Analysis

TABLE 1. Frequency Distribution of Knowledge Level of Tubeculosis Patients

Knowledge	Frequency	Percentage
Good	5	16,7
Fair	19	63,3
Less	4	13,3
Not good	2	6,7
Total	**30**	**100**

The table above shows that most of the respondents had good knowledge, namely 19 respondents (63.3%).

TABLE 2. Frequency Distribution of Tuberculosis Patient Attitudes

Sikap	Frequency	Percentage
Good	10	33,3
Fair	17	56,7
Less	2	6,7
Not good	1	3,3
Total	**30**	**100**

The table above shows that most respondents have a fairly good attitude, namely 17 respondents (56.7%).

TABLE 3. Frequency Distribution of Compliance Level of Tuberculosis Patients

Compliance	Frequency	Percentage
Compliant	19	63,3
Non-compliant	11	36,7
Total	**30**	**100**

The table above shows that almost all respondents have a high level of compliance, namely 19 respondents (63.3%).

Bivariate Analysis

TABLE 4. Relationship between Knowledge and Medication Compliance

Knowledge	Compliance				Total	
	Compliant		Non-compliant			
	F	%	F	%	F	%
Good	5	16,6	0	0	5	16,6
Fair	14	46,6	5	16,6	19	63,3
Less	0	0	4	13,3	4	13,3
Not good	0	0	2	6,6	2	6,6
Total	**19**	**63,2**	**11**	**36,5**	**30**	**100**
P=0,003						

The table above shows that there is a relationship between the level of knowledge and compliance with taking medication in tuberculosis patients in the UPTD Ciamis Puskesmas Working Area. This is indicated by a p-value $\leqslant 0.05$, namely p=0.003.

TABLE 5. Frequency Distribution of Knowledge Level of Tubeculosis Patients

Attitude	Compliance				Total	
	Compliant		Non-compliant			
	F	%	F	%	F	%
Good	3	10	7	23,3	10	3,3
Fair	15	50	2	6,6	17	56,6
Less	1	3,	1	3,3	2	6,6
Not good	0	0	1	3,3	1	3,3
Total	**19**	**63,2**	**11**	**36,5**	**30**	**100**
P=0,011						

The table above shows that there is a relationship between attitude towards compliance with taking medication in tuberculosis patients in the UPTD Ciamis Puskesmas work area. This is indicated by a p-value ≤ 0.05, namely p = 0.011.

Discussion

Patient Knowledge in the UPTD Ciamis Puskesmas Work Area

In the study in the UPTD Ciamis Puskesmas Work Area, out of a total of 30 respondents, 19 respondents (63.3%) had a fairly good level of knowledge. Respondents with good and fairly good knowledge understand very well that if they forget to take medicine for just one day it will be difficult to recover and may even repeat treatment from the beginning.

The results of this study can also be influenced by the characteristics of the respondents, based on the results of the study it was concluded that the average (mean) age of tuberculosis patients was at an adult age of 19-59 years. According to Darsini (2019), it is explained that age greatly affects a person's ability to capture and think, therefore the older a person gets, the more his or her ability to capture and think will develop so that the knowledge gained will also increase. This is also in line with research Nengah (2020) which reveals that age greatly affects a person's knowledge, especially at a productive age where cognitive function is still very good.

While there are also some of the respondents who have poor knowledge and one of them is a lack of understanding of their own disease, this will also greatly affect the treatment period they run. the results of research conducted by the author also show that there are several tuberculosis patients who often violate compliance in taking medication, for example, there are several respondents who have wanted to stop taking medication without telling health workers because even without treatment they do not feel pain and also do not feel any symptoms that can have a bad impact.

Patient Attitudes in the UPTD Ciamis Puskesmas Work Area

In the study in the UPTD Puskesmas Ciamis Working Area, out of a total of 30 respondents, most of the respondents had a fairly good attitude, namely 17 respondents (56.7%) because the puskesmas also always made house-to-house visits to monitor treatment results and most respondents also followed all the rules ordered by health workers regarding compliance in treatment. However, there are still some of the research respondents who have a poor attitude, including respondents who do not know some of the stages of treatment that they must undergo during treatment, do not regularly take drugs, ignore side effects without consultation and lack of knowledge.

The formation of attitudes cannot be separated from the factors that influence it, such as personal experience, people around, mass media, and emotional factors from within the person. This is in accordance with research Samory (2022) on factors related to tuberculosis treatment on compliance at the Urei-Faisei Health Center (URFAS) which revealed that there was a relevant relationship from knowledge, attitude towards patient compliance during treatment.

Patient Compliance in the UPTD Puskesmas Ciamis Working Area

In the study in the UPTD Cimais Puskesmas Work Area, out of a total of 30 respondents, most of the respondents had a high level of compliance, namely 19 respondents (63.3%). Because most of the respondents always take medicine on time and follow all the recommendations that have been conveyed by health workers. obedience is an attitude that is manifested in a reaction to something that has rules that must be followed. For example, compliance in treatment is a form of behavior shown by someone in taking medicine according to the rules and also at the right time (Saragih dan Sirait 2020). The results of research Ratnasari (2023) also explain that there are several reasons that are most often expressed by respondents who are obedient in treatment, including the belief in recovery, the support of the family, the presence of a drug supervisor (PMO) and complete information from health workers.

However, in this study there were still some respondents who were not compliant with the treatment they were undergoing, including some of the respondents said that they sometimes forgot to take their own medicine, felt bored

when they had to go to the health center regularly, and the tuberculosis treatment that took a long time resulted in a sense of boredom in the respondents during their treatment.

Relationship between Knowledge and Adherence to Taking TB Medication in the UPTD Ciamis Puskesmas Working Area

Knowledge has a close relationship with medication adherence in tuberculosis patients in the UPTD Ciamis Puskesmas Working Area. Respondents with good knowledge will be more compliant with their treatment. ($p= 0.003<\alpha=0.05$). The conclusion of the analysis also shows that there is a relationship between patient knowledge and compliance with tuberculosis (TB) treatment. Respondents who already know about their own disease will be more compliant with the treatment they receive than those who know little or nothing about their disease. respondents who know their disease well will better understand that if they do not take medicine for just one day then recovery will be difficult and even need to repeat treatment from the beginning. this is in accordance with research conducted by Susilo (2023) that there is a relevant relationship from knowledge to treatment compliance in tuberculosis patients with a p-value of 0.000.

Relationship between Attitude and Adherence to Taking TB Medicine in the UPTD Ciamis Puskesmas Working Area

The attitude has a relevant relationship with compliance in taking tuberculosis drugs in the UPTD Ciamis Puskesmas Working Area. Respondents with good and fairly good attitudes tended to be more obedient in taking their own medicine ($p=0.011<\alpha=0.05$). The results of the analysis also showed a relevant relationship between attitude and compliance with tuberculosis (TB) treatment. This is also in line with research conducted by Saragih dan Sirait (2020) which reveals that attitude is the willingness and desire to do and act and not the realization of certain motives. In this case, the function of attitude is a disposition towards one's behavior which shows that this attitude can influence the person's behavior to take an action. Similarly, research conducted by Maulana (2021) revealed that there is a relevant relationship between attitude towards compliance in tuberculosis (TB) treatment with a p-value of 0.001. This happens because the better the attitude a person gets, the more obedient and obedient the person will be to TB treatment by taking robat regularly.

Conclusion

1. Tuberculosis patients in the UPTD Puskesmas Ciamis Working Area mostly have good knowledge of adherence to taking tuberculosis drugs, namely 19 respondents (63.3%).
2. Tuberculosis patients in the UPTD Puskesmas Ciamis Working Area mostly have a fairly good attitude towards TB treatment adherence, namely 17 respondents (56.7%)
3. Tuberculosis patients in the UPTD Ciamis Health Center Working Area mostly have a high level of adherence to TB treatment, namely 19 respondents (63.3%).
4. There is a relevant relationship between knowledge and compliance with tuberculosis treatment in the Working Area of UPTD Puskesmas Ciamis in tuberculosis patients.

5. There is a relevant relationship between attitude and compliance with tuberculosis treatment in the Ciamis UPTD Puskesmas Working Area for tuberculosis patients.

Suggestion

1. For the Health Office
   Based on the results of the study, the level of compliance is influenced by knowledge and attitude factors which must be supported by the role of family members and health workers. However, the existing human resources at the Puskesmas are incomplete so it is hoped that the Health Office can add special human resources for tuberculosis disease.
2. For Ciamis Health Center
   It is also expected to include the role of health cadres to become PMOs in improving treatment compliance in tuberculosis patients.
3. For Educational Institutions
   As useful information for readers and as a reference for information and input for community service specifically for tuberculosis disease and can also develop nursing science by supporting existing theories.
4. For Further Research
   Can be used as information to improve research to a wider and higher level, for example to find the factors that have the greatest effect on treatment therapy.

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