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### THE RELATIONSHIP OF KNOWLEDGE AND ATTITUDES OF PROLANIS PARTICIPANTS WITH COMPLIANCE WITH TAKING HYPERTENSION MEDICATION IN THE UPTD WORK AREA OF THE PANGKALAN KASAI HEALTH CENTER

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#### ABSTRACT

Transmission of pulmonary TB disease is also influenced by one factor, namely the lack of family knowledge in carrying out preventive behavior towards family members who suffer from pulmonary TB. The occurrence of unfavorable attitudes from the family due to lack of family knowledge, in this case how should families of patients diagnosed with pulmonary TB know clearly and correctly what TB disease really is, and how it is transmitted and prevented. The objective of this study to determine the relationship between knowledge and attitudes of families with pulmonary tuberculosis and disease prevention efforts in the UPTD Work Area of the Pangkalan Kasai Health Center which was conducted in October 2022-February 2023. This type of research is descriptive correlational using a cross sectional approach. The number of samples is 84 respondents determined by purposive sampling technique. The statistical test used is the Chi Square Test. The results of the research on the relationship between family knowledge of pulmonary tuberculosis sufferers and disease prevention efforts p value 0.000 <0.05. Furthermore, the relationship between family attitudes of people with pulmonary tuberculosis and disease prevention efforts, p value 0.008 <0.05. So it can be concluded that there is a relationship between knowledge and families of pulmonary tuberculosis sufferers with disease prevention efforts in the UPTD Work Area of the Pangkalan Kasai Health Center. It is hoped that health workers, especially the Tuberculosis Program Coordinator, will be more active in health promotion efforts regarding Tuberculosis, especially counseling directly to individual patients.

Keywords : Knowledge, Attitude, Prevention, Pulmonary Tuberculosis

#### INTRODUCTION

Pulmonary TB is currently still a public health problem in the world even though control efforts using the DOTS (Direct Observed Treatment, Short-course Chemotherapy) strategy have been implemented in many countries since 1995. Despite great progress in controlling tuberculosis (TB), TB is still a problem. one of the biggest public health challenges globally, and not least in Central Asia where TB incidence rates remain high (WHO, 2018).

Based on data from the World Health Organization (WHO), the number of new

cases of tuberculosis (TBC) is 1.7 million TB-related deaths worldwide. The three countries with the highest incidence of cases in 2015 were India (23%), Indonesia (10%), and China (10%). Indonesia is now ranked second in the country with the highest TB burden in the world.

The total number of new and relapsed pulmonary TB cases in Indonesia was 364,671 out of the total notified pulmonary TB cases of 366,763. Based on the Strategic Plan of the Ministry of Health for 2015-2019, the target for tuberculosis prevalence in 2019 is 245 per 100,000 population and if the number of relapse TB cases occurring

in the community increases, of course this will have an impact on not achieving the expected TB prevalence target.

Riau Province is a province in Indonesia where the incidence of pulmonary TB with BTA positive is quite high. In 2020 the incidence of pulmonary TB in Riau Province was 0.24%. The 2020 CNR (Case Notification Rate) achievement in Riau Province for new BTA Positive cases was 57 per 100,000 population, CNR for all cases was 88 per 100,000 population (Riau Provincial Health Service, 2021).

Indragiri Hulu is one of the districts that contributes to a fairly high incidence of pulmonary TB. From 2018 to 2020, the incidence of pulmonary TB continued to increase, reaching 329 cases (Indragiri Hulu District Health Service, 2022).

Pulmonary TB has a very big impact and role in the development and healing process of TB disease, until now the problem of TB disease is still not resolved. The role of the family really supports the success of someone who experiences TB problems, because the family is the person who directly deals with TB sufferers 24 hours a day. If the role of the family is always ignored, it is not impossible that the problem of pulmonary TB cannot be minimized to the maximum as a result, transmission could occur both to other family members and in the environment (Siregar, 2019).

The transmission of pulmonary TB disease is also influenced by one factor, namely the lack of family knowledge in carrying out preventive behavior towards family members who suffer from pulmonary TB. Incorrect preventative behavior will have a negative impact on the patient and other family members. Therefore, efforts to prevent disease can not only be carried out by TB sufferers themselves or health workers, but the family also plays an important role in the healing process, this is because the family is a group that is in direct contact with family members 24 hours a day.

Besides that, the family is seen as an interacting system with the focus being on the dynamics and internal relationships of the family as well as the interdependence of the family subsystem with health and the family with the external environment (M. T. Sari et al., 2022).

Tuberculosis is also inseparable from socio-cultural factors, especially those related to the knowledge and attitudes of local communities. Knowledge, attitude and behavior factors have a major influence on the health status of individuals and society and play an important role in determining the success of a program to control disease and prevent transmission, including tuberculosis (Rahman et al., 2017).

The family's unfavorable attitude is shown by not using masks (when in contact with sufferers), delays in providing preventive therapy of 6-9 months. There is a poor attitude from the family due to a lack of family knowledge, in this case how should the family of a sufferer diagnosed with pulmonary TB know clearly and correctly what exactly this Tuberculosis disease is, and how it is transmitted and prevented.

The family's attitude really determines the success of treatment by preventing transmission, because if the attitude of the family of a pulmonary TB sufferer understands what is actually being done then automatically he or she can and will be able to protect themselves and other family members (Zatihulwani et al., 2019).

According to the research results of Andriani et al. (2020) that people who have low knowledge have a risk of contracting tuberculosis that is 2.5 times greater than people who have high knowledge, for people who have a poor attitude there is a 3.1 times greater chance of contracting tuberculosis than people who have a good attitude.

In other research, it was found that public knowledge regarding the symptoms of tuberculosis is relatively good, but the public's attitude is still less concerned about

the consequences that can be caused by tuberculosis, which makes the public's behavior and awareness of checking phlegm as an effort to prevent tuberculosis still lacking because they are embarrassed. and fear of being sentenced to suffer from tuberculosis (Zatihulwani et al., 2019).

Based on a preliminary study conducted by researchers through interviews with health workers in the Pangkalan Kasai Community Health Center Work Area, it was found that the high number of pulmonary TB cases was caused by transmission from family members who suffered from pulmonary TB. Apart from that, researchers conducted interviews with 10 families where one of their family members was diagnosed with pulmonary TB regarding how to prevent pulmonary TB. Of the 6 families, they said that they did not know how to prevent transmission of pulmonary TB, this was because the family did not understand about preventing pulmonary TB.

Based on the background problems that have been described, and seeing the importance of efforts to prevent pulmonary tuberculosis, researchers are interested in conducting research with the title "The Relationship between Knowledge and Attitudes of Families of Pulmonary Tuberculosis Sufferers and Disease Prevention Efforts in the UPTD Working Area of the Pangkalan Kasai Community Health Center". The aim is to see the attitudes and knowledge of families in efforts to prevent transmission of pulmonary TB.

## RESEARCH METHODS

This type of research is non-experimental quantitative, with a descriptive correlation method, cross sectional approach. The data collection technique was carried out by distributing questionnaires where the instruments used were 3 types of questionnaires including questionnaires on knowledge, attitudes and disease prevention efforts. The measurement scale used is

ordinal knowledge, attitudes and prevention efforts.

The research location was carried out in the working area of the UPTD Pangkalan Kasai Community Health Center, Siberida District, Indragiri Hulu Regency. The population in this study were all families of TB sufferers who were undergoing treatment in the UPTD Working Area of the Pangkalan Kasai Community Health Center, namely 186 people. Sampling in this study used purposive sampling technique with a total sample of 127 people.

The data collection procedure was carried out by distributing questionnaires to respondents, then processing the data using SPSS, analyzing the data using univariate and bivariate analysis, using Chi-square analysis.

## RESULTS AND DISCUSSIONS

### Research Result

#### A. Univariate Analysis

Table 1. Frequency Distribution of Knowledge of Families of Pulmonary Tuberculosis Sufferers in the Pangkalan Kasai Community Health Center Working Area

Family Knowledge	Amount	Percentage
Good	51	40.2
Not Enough	76	59.8
<b>Total</b>	<b>127</b>	<b>100.0</b>

Based on table 1, the results show that 51 (40%) have good family knowledge, 76 (59%) have poor family knowledge.

Table 2. Frequency Distribution of Attitudes of Families of Pulmonary Tuberculosis Sufferers in the Pangkalan Kasai Community Health Center Working Area

Family Attitude	Amount	Percentage
Positive	38	29.9
Negative	89	70.1
<b>Total</b>	<b>127</b>	<b>100.0</b>

Based on table 2 shows that 38 (29%) respondents had positive family attitudes, while 89 (70%) respondents had negative family attitudes.

Table 3. Frequency Distribution of Disease Prevention Efforts for Families of Pulmonary Tuberculosis Sufferers in the Pangkalan Kasai Community Health Center Working Area

Disease Prevention Efforts	Amount	Percentage
Positive	59	46.5
Negative	68	53.5
<b>Total</b>	<b>127</b>	<b>100.0</b>

Based on table. 3 shows that efforts to prevent pulmonary TB disease by families were positive as many as 59 (46%) while efforts to prevent pulmonary TB disease by families were negative as many as 68 (53%).

## B. Bivariate Analisis

Table 4.

The Relationship between Family Knowledge and Efforts to Prevent Pulmonary TB Disease at the UPTD of the Pangkalan Kasai Community Health Center

Family Knowledge	Disease Prevention Efforts						<i>p</i> value
	Postive		Negative		Total		
	N	%	N	%	N	%	
Good	39	76.5	12	23.5	51	40.2	0,000
Not Enough	20	26.3	56	73.7	76	59.8	
<b>Total</b>	<b>59</b>	<b>46.5</b>	<b>68</b>	<b>53.5</b>	<b>127</b>	<b>100.0</b>	

Based on table. 4 shows that 51 respondents had good family knowledge about efforts to prevent TB, 39 of whom were positive while 12 respondents were negative. Of the 76 respondents who had insufficient knowledge, there were 20 positive TB disease prevention efforts and 56 negative respondents. The results of the research show that there is a relationship between knowledge and family prevention efforts against pulmonary TB transmission with a P value of  $0.000 < 0.05$ .

Table 5. The Relationship between Family Attitudes towards Efforts to Prevent Pulmonary TB Disease at the UPTD of the Pangkalan Kasai Community Health Center

Family Attitude	Disease Prevention Efforts						<i>p</i> value
	Postive		Negative		Total		
	N	%	N	%	N	%	
Positive	25	65.8	13	34.2	38	29.9	0,008
Negative	34	38.2	55	61.8	89	70.1	
<b>Total</b>	<b>59</b>	<b>46.5</b>	<b>68</b>	<b>53.5</b>	<b>127</b>	<b>100.0</b>	

Based on table. 5 shows that there were 38 positive family attitudes with 25 positive family prevention efforts against pulmonary TB disease while 13 respondents were negative. Meanwhile, there were 89 respondents with negative family attitudes, 34 respondents with positive disease prevention efforts and 55 respondents with negative efforts.

The results of research using the Chi-Square test showed a P value of  $0.008 < 0.05$ , which means there is a relationship between family attitudes towards efforts to prevent pulmonary TB in the UPTD work area of Kasai Base Public Health Center.

## Discussion

### A. The Relationship between Family Knowledge of Pulmonary Tuberculosis Sufferers and Disease Prevention Efforts

Based on the results of this study, it shows that the majority of respondents' knowledge was lacking, namely 76 people (59.8%) with negative disease prevention efforts of 56 people (73.7%). Meanwhile, 51 respondents' knowledge was good (40.2%) with 30 people's (40.2%) positive disease prevention efforts. The results of the Chi-Square statistical test show that the p value is  $0.000 < 0.05$ , meaning that  $H_0$  is rejected, which means there is a relationship between the knowledge of families suffering from pulmonary tuberculosis and efforts to prevent the disease in the UPTD Working Area of the Pangkalan Kasai Community Health Center.

This research is in line with the research of Sari & Setiyawan (2020), based on the results of the analysis of the chi square test, it was found that the p value was 0.000, which means it is less than the  $\alpha$  value (0.05), which means there is a significant relationship between knowledge and behavior to prevent transmission of pulmonary tuberculosis in family members suffering from tuberculosis.

The better the level of family knowledge, the more positive the family's behavior will be in preventing the transmission of pulmonary tuberculosis, and vice versa, the lower the level of family knowledge, the more negative the respondent's attitude will be. Good knowledge in this research is the insight or understanding that respondents have about Tuberculosis which includes understanding, causes, transmission, signs and symptoms, complications, risk factors and preventive measures for Tuberculosis (Wawan & Dewi, 2018).

According to the researcher's assumption, poor knowledge in this research means that the respondent has poor insight and understanding. Knowledge is related to the amount of information a person has, the more information a person has, the higher the knowledge a person has.

### **B. The Relationship between Family Attitudes of Pulmonary TB Sufferers and Disease Prevention Efforts**

Based on the results of this study, it shows that the majority of respondents' attitudes were negative, namely 89 people (70.1%) with negative disease prevention efforts of 55 people (61.8%). Meanwhile, the attitude of 38 respondents (29.9%) was positive, with positive disease prevention efforts of 25 people (65.8%). The results of the Chi-Square statistical test show that the p value is  $0.008 < 0.05$ , meaning that  $H_0$  is rejected, which means there is a relationship between the attitude of families of pulmonary tuberculosis sufferers and disease prevention efforts in the UPTD

Working Area of the Pangkalan Kasai Community Health Center.

This research is in line with research by Djannah et al. (2018), there was a relationship between respondents' attitudes regarding behavior to prevent the transmission of tuberculosis in Sleman Yogyakarta, it was found that the majority had good attitudes with a Sig value of 0.001 and a coefficient of 0.520, which means there was a moderate and unidirectional relationship between attitudes and prevention of transmission.

Likewise, research from Astutin (2018) concluded that there was a significant relationship between respondents' attitudes and efforts to prevent the transmission of tuberculosis in efforts to prevent tuberculosis in RW 04, Lagoa District, North Jakarta with the probability value obtained being significant, namely  $0.000 < 0.05$ .

One of the factors that influences a person's attitude is the knowledge they have. The higher the knowledge you have, the more it will contribute to the formation of a good attitude. Attitude formation cannot be separated from influencing factors such as personal experience, culture, other people who are considered important, mass media, and emotional factors of the individual (Wawan & Dewi, 2018)

Based on the results of the analysis regarding the relationship between family attitudes and efforts to prevent the transmission of tuberculosis in the work area of the Pangkalan Kasai Community Health Center, it can be concluded in accordance with theory and related research that respondents with a good level of knowledge and a positive attitude have good prevention of the transmission of tuberculosis.

### **CONCLUSION**

The majority of TB sufferers' knowledge regarding efforts to prevent transmission of pulmonary TB disease was in the poor category, namely 76 respondents (59.8%). Meanwhile, the attitude of

families of pulmonary TB sufferers in efforts to prevent pulmonary TB was the majority with a negative attitude, 89 (70.1%).

The general research results based on correlation testing can be concluded that there is a relationship between the knowledge of families suffering from Pulmonary Tuberculosis and efforts to prevent the disease,  $p$  value  $0.000 < 0.05$ , meaning  $H_0$  is rejected, which means there is a relationship between the knowledge of families suffering from Pulmonary Tuberculosis and efforts to prevent the disease in the UPTD Puskesmas Work Area Kasai Base.

Meanwhile, for the results of research on attitudes, after analysis, it can be concluded that there is a relationship between attitudes and disease prevention, where the  $p$  value is  $0.008 < 0.05$ , meaning that  $H_0$  is rejected, which means there is a relationship between the attitudes of families of pulmonary tuberculosis sufferers and disease prevention efforts in the UPTD Working Area of the Pangkalan Kasai Community Health Center.

It is hoped that the implications of the results of this research for nursing services at the Kasai Base Public Health Center will help in efforts to suppress the spread of pulmonary TB in the Kasai Base Health Center working area.

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