

The Relationship between Knowledge and Attitude of Pulmonary TB Patients on the Prevention of Pulmonary TB Disease Transmission at Puskesmas Padangmatinggi

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ABSTRACT

Tuberculosis is an infectious disease caused by TB germs (*M. tuberculosis*) which mostly attack the lungs but can also attack other organs of the body. *Mycobacterium tuberculosis* which is one of the lower respiratory tract diseases. This research is descriptive, the method of collecting data from interview experience using a questionnaire/questionnaire. The sample of this study amounted to 23 people. from the results of the study of the relationship between knowledge and attitudes of pulmonary TB patients towards the prevention of transmission of pulmonary TB disease at the Padangsidimpuan Health Center in 2022. it can be concluded that of 23 respondents, the majority of respondents were 23 respondents with sufficient knowledge and did not take steps to prevent transmission as many as 11 people (73.3%) 1 person (20%). From the results of statistical tests conducted by researchers using the SPSS program, the respondents' knowledge obtained p-value = 0.009 ($p < 0.05$) meaning H_0 was accepted and H_1 was rejected, so there was a relationship between knowledge on the Prevention of Pulmonary TB Disease Transmission at the Padangmatinggi Public Health Center, Padangsidimpuan City. The respondent's attitude variable obtained p-value = 0.317 ($p > 0.05$) H_0 is rejected and H_1 is accepted, it can be concluded that there is no relationship between patient attitudes towards the Prevention of Pulmonary TB Disease Transmission

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1. Introduction

Tuberculosis is an infectious disease caused by infection with the bacterium *Mycobacterium tuberculosis*. This disease spreads through droplets (phlegm) of people who have been infected with the tuberculosis bacillus, the main symptoms of tuberculosis sufferers are having a cough for 2 weeks or more, coughing accompanied by additional symptoms, namely phlegm, phlegm mixed with blood, shortness of breath, body weakness, decreased appetite, decreased body weight, malaise, night sweats without physical activity, fever for more than 1 month (Kemenkes RI, 2014). Globally, the annual number of people reported to have pulmonary TB disease has been given, treatment for TB disease has grown in recent years, from about 6 million in 2015 to 7.0 million in 2018 and 7.1 million in 2019. Annual number people who reported being given treatment for drug-resistant TB or rifampin (MDR/RR-TB) TB disease has also progressed, from a global total of 122,726 in 2015 to 156,205 in 2018 and 177,099 in 2019. (global tuberculosis report, 2020). The incidence of pulmonary TB is 0.5-2/episode/person/year in developed countries while in developing countries it is more than that. In the United States (USA) with a population of about 200 million, it is estimated that 99 million people with pulmonary TB each year (Festy Andyanastry, 2012).

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Pulmonary TB As a type of dangerous disease, public awareness and understanding of this disease is needed. In Indonesia alone, pulmonary TB is included in one of the 10 causes of death and the main cause of infectious agents. WHO 2019 data states that the estimated number of cases of pulmonary TB in Indonesia is 843,000 people. According to Indonesian TB data in 2020, the number of cases of pulmonary TB increased to 845,000 with treatment hygiene reaching 85% and the Indonesian population suffering from drug-resistant pulmonary TB in 2018 reached 24,000 and more than 98,000 people died. (TB Indonesia, 2019). In North Sumatra, in 2019 there were 33,779 cases of tuberculosis, an increase compared to all cases of tuberculosis found in 2018, which were 26,418 cases. Based on gender, the number of cases in men was 21,194 cases, higher than women, which was 12,585 cases. In each district/city throughout North Sumatra, more cases occurred in men than women. The highest number of reported cases was in the Regency/City with a large population, namely Medan City with 12,105 cases and Deli Serdang Regency with 3,326 cases. (North Sumatra Health Profile, 2019).

From the data obtained from the Padangsidimpuan City Health Office, in 2016 the number of people suffering from pulmonary TB disease increased by 382 people so that the total number of patients suffering from pulmonary TB disease was 2,797. And those who recovered were 246, the highest number of pulmonary TB patients (cured) was at the Sadabuan Health Center, namely 89 people. The percentage of cure for pulmonary TB patients in Padangsidimpuan City in 2016 was 82.0%. While the number of cases died is 3 people. (Health profile of the Padangsidimpuan City Health Office, 2016). Based on a preliminary survey conducted by researchers by conducting interviews with health workers at the Padangmatinggi Public Health Center, Padangsidimpuan City, from the results of the interviews, researchers obtained data on pulmonary TB patients in the Padangmatinggi Public Health Center working area. 530 people. The data was taken from data from January to September 2022. In January, there were 81 cases. In February, it decreased to 52 cases. In March there was an increase of 60 cases. In April it decreased to 40 cases. In May, it increased again to 62 cases. In June, it increased again to 69 cases. And in July it decreased to 36 cases. And in August it increased again to 46 cases. And increased again in September to 89 cases. And from July to September there was an increase of almost 50%. The highest cases were obtained in September with 89 cases.

2. Research methods

The research used in this study is a descriptive type of research with a cross-sectional design. The population in this study were pulmonary TB patients using the accidental sample method, namely the samples involved were patients who came for outpatient treatment at the Padangmatinggi Public Health Center, Padangsidimpuan City. Data collection in this study used a questionnaire that was distributed directly to respondents to determine the knowledge and attitudes of respondents with pulmonary TB prevention. The results obtained through the questionnaire were analyzed to analyze the relationship between knowledge and attitudes of respondents with prevention of pulmonary TB transmission. The process of data analysis in this study is descriptive analytic in which there are two stages of data analysis, namely univariate analysis to describe the frequency distribution of each dependent and independent variable. And Bivariate Analysis is an analysis to see whether there is a relationship between the independent and dependent variables.

3. Results And Discussion

3.1. Results

1) Analisis Univariat

Frequency Distribution of Respondents

No	Knowledge	Total	Percentage%
1	Good	8 People	35%
2	Enough	15 People	65%
No	Attitude	Total	Percentage(%)

1	Positive	18 People	78%
2	Negative	5 People	22%
No	Prevention of Transmission	Total	Percentage(%)
1	Doing	11 People	47,8%
2	Not doing	12 People	52,2%

The table above shows that of the 23 respondents who were studied based on knowledge, there were 8 respondents with good knowledge (35%), and 15 people with sufficient knowledge (65%). Based on the attitude table, it can be seen that there were 18 respondents who had a positive attitude (78.3%) and 5 respondents who had a negative attitude (21.7%). Based on the Prevention of Transmission measures taken by the respondents, there were 11 people (47.8%) who took the Communication Prevention action and 12 people (52.2%).

2) Bivariat Analysis

Relationship of Knowledge to Prevention of Pulmonary TB Disease Transmission

Karakteristik	Prevention of Transmission				Total	P-Value		
	Doing		Not doing					
	F	%	F	%				
Knowledge	Good	7	87,5	1	12,5	8	100	0,009
	Enough	4	26,7	11	73,3			
Total		11	47,8	12	52,2	23	100	

Based on the table above, it can be seen that from 23 respondents, there were 8 (100%) respondents who had good knowledge who took measures to prevent transmission of pulmonary TB disease, totaling 7 people (87.5%), and respondents who had good knowledge who did not take measures to prevent transmission of TB. Pulmonary TB disease amounted to 1 person (12.5%). Of the 15 respondents who had sufficient knowledge (100%) there were 4 people (26.7%) who took measures to prevent the transmission of pulmonary TB disease and 11 respondents (73.3%) who had sufficient knowledge who did not take measures to prevent the transmission of pulmonary TB disease. Based on statistical tests using the SPSS application, p-value = 0.009 ($p < 0.05$) means that H_0 is rejected and H_1 is accepted so that it is concluded that there is a relationship between knowledge and prevention of pulmonary TB disease transmission at the Padangmatinggi Public Health Center, Padangsidimpuan City.

Relationship of Attitudes to Prevention of Pulmonary TB Disease Transmission

Karakteristik	Prevention of Transmission				Total	p-value		
	Doing		Not doing					
	F	%	F	%				
Attitude	Positive	10	55,6	8	44,4	18	100	0,317
	Negative	1	20%	4	80%			
Total		11	47,8	12	52,2	23	100	

Based on the table above, it can be seen from 23 respondents, there are 18 people (100%) respondents who have a positive attitude, respondents are positive who take action to prevent the transmission of pulmonary TB disease as many as 10 people (55.6%) and respondents are positive who do not take preventive measures Transmission as many as 8 people (44.4%). Of the 5 respondents (100%), 1 person (20%) negative respondents who took measures to prevent transmission of pulmonary TB disease were 1 person (20%) and 4 people (80%). Based on statistical tests carried out using the SPSS application, it was found that p-value = 0.317 ($p > 0.05$) meaning H_0 was accepted and H_1 was rejected so it could be concluded that there was no relationship between Attitude and Prevention of Pulmonary TB Disease Transmission at the Padangmatinggi Public Health Center, Padangsidimpuan City.

3.2. Discussion

Based on statistical tests performed using the application, the value of $p = 0.009$ ($p < 0.05$) means that H_0 is rejected and H_1 is accepted so that it can be concluded that there is a relationship between knowledge of the prevention of transmission of pulmonary TB disease at the Padangmatinggi Public Health Center, Padangsidempuan City. Notoadmodjo (2015) states that knowledge is the result of knowing and this is after people sense certain objects, which occur through the five human senses, namely the senses of sight, hearing, smell, taste and touch. Based on the results of the analysis of the relationship between knowledge and efforts to prevent transmission of pulmonary TB transmission to patients in the Padangmatinggi working area, Padangsidempuan City, the researchers concluded that the study was in accordance with the theory where the researcher assumed that the higher a person's education, the better his knowledge. In this study, the background of the respondent's highest education level is university and the majority of respondents have a high school education so that this affects the respondent's actions to prevent the transmission of pulmonary TB. Based on statistical tests performed using the spss application, the p -value = 0.317 ($p > 0.05$) means that H_0 is accepted and H_1 is rejected, so it can be concluded that there is no relationship between patient attitudes towards the prevention of transmission of pulmonary TB disease. The results of this study are inversely proportional to the research of Susilawati et al. (2007) regarding the relationship between knowledge and patient attitudes with efforts to prevent transmission of pulmonary tuberculosis transmission in the work area of the Muaro Kampeh Public Health Center, Muaro Jambi Regency, whose research results showed p -value = 0.000 ($p < 0.05$).) which means H_0 is rejected and H_1 is accepted, with the conclusion that there is a relationship between attitude and efforts to prevent transmission of pulmonary tuberculosis transmission in the work area of the Padangmatinggi Public Health Center, Padangsidempuan City. According to Widayatun (2018), the definition of attitude is a mental and nervous state of readiness that is regulated through experience that provides a dynamic or directed influence on individual responses to all objects and situations related to them. Based on the results of the analysis conducted by researchers regarding the relationship between the attitudes of pulmonary TB patients towards the prevention of transmission of pulmonary TB disease at the Padangmatinggi Public Health Center, Padangsidempuan City, the researchers concluded that the attitudes of pulmonary TB patients were inversely proportional to the existing theory. The researcher assumes that this is due to several factors that may prevent patients from taking steps to prevent the transmission of pulmonary TB disease, including, because some patients are indifferent to the risk of transmitting pulmonary TB disease so that they do not take steps to prevent the transmission of pulmonary TB disease, it can be seen based on the results. Observations and interviews of researchers with patients, researchers found that patients felt there was no need for separation from other family members at home, such as separation of beds, their own dining area, toiletries and others because it was felt to complicate the situation of the patient and the patient's family, The researcher also found that there are still some patients who travel never use a mask plus the environment around the patient feels no problem with this. Based on the possible factors above, it is the reason for the absence of a relationship between the attitudes of pulmonary TB patients towards the prevention of transmission of pulmonary TB at the Padangmatinggi Public Health Center, Padangsidempuan City.

4. Conclusion

Based on the statistical test of the relationship between patient knowledge and prevention of pulmonary tuberculosis using the SPSS program, the value of $p = 0.009$ ($p < 0.05$) means that H_0 is rejected and H_1 is accepted, so it can be concluded that there is a relationship between patient knowledge and prevention of transmission of pulmonary TB disease in Puskesmas Padangmatinggi, Padangsidempuan City. Based on the statistical test of the Relationship of Attitudes to Prevention of Pulmonary Tuberculosis Transmission at the Padangmatinggi Health Center which was carried out using the SPSS application, the p -value = 0.317 ($p > 0.05$) meaning H_0 was accepted and H_1 was rejected so it could be concluded that there was no relationship between the patient's attitude towards prevention. Pulmonary TB disease transmission at the Padangmatinggi Public Health Center, Padangsidempuan City.

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