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Increase Family Knowledge of Lung Tuberculosis Prevention Attitudes

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ABSTRAK

Pulmonary Tuberculosis is one of the problems that causes the biggest death after cardiovascular disease and respiratory disease number one from group one of the infectious disease group which is still an unresolved problem in the world, even in Indonesia. This study aims to identify the effect of knowledge and attitudes on prevention of pulmonary tuberculosis transmission in the family. The method used is Case Study Design starting from the data collection stage, namely Case Study is a form of research from a problem that has specific characteristics with individual, family or group targets, even the wider community. The results showed that after giving health education, there was an increase in the level of knowledge and attitude of prevention efforts in the Pretest and Posttest scores. The level of family knowledge is good at 75%, while 25% is still vulnerable to lack of knowledge. Then for the attitude of prevention efforts obtained 100% data in good prevention efforts. In conclusion, the better the level of knowledge, the better the prevention of Tuberculosis in the family of the Community Health Center in Slipi Village.

Keyword : **Attitude, Behavior, Family, Knowledge, Pulmonary Tuberculosis**

INTRODUCTION

Pulmonary Tuberculosis is one of the problems that causes the biggest death after cardiovascular disease and respiratory disease number one from group one of the infectious disease group which is still an unresolved problem in the world, even in Indonesia. Tuberculosis is a global problem where almost a third of the population has been infected with tuberculosis. This causes Tuberculosis is the second highest cause of death after Human Immunodeficiency. (World Health Organization, 2018). Prevalence data in Indonesia, based on the number of sufferers in 33 provinces in Indonesia in 2017, the number of cases of tuberculosis patients was recorded at 420,994 of which an estimated 8,600-15,000 MDR/RR tuberculosis, (estimated 2.4% of new cases and 13% of patients previously treated tuberculosis), but the coverage that was treated was only about 27.36%. Ministry of Health of the Republic of Indonesia, (2018).

Signs and symptoms that will appear are coughing up phlegm for 2 to 3 weeks or more. Cough may be followed by additional symptoms, namely phlegm mixed with

blood, coughing up blood, shortness of breath, weakness, decreased appetite, weight loss, night sweats without physical activity, malaise, fever for more than 1 week. Tuberculosis bacteria is spread through the air when the patient coughs and phlegms. Transmission can occur through the air (airborne spreading) from "droplets" of infection. (Inayah and Wahyono, 2019). Tuberculosis is an infectious disease that is still a major health problem in Indonesia because it has a major impact on the decline in work productivity. Pulmonary Tuberculosis is a case that needs to be considered for its prevention and treatment, so to optimize it, a national standard has been made by the Ministry of Health of the Republic of Indonesia. Efforts are being made to prevent early BCG immunization from infancy. And socialize the movement to find, treat until healed. (Ministry of Health of the Republic of Indonesia, 2016).

Health education is a way of supporting health programs that can produce changes and increase knowledge in a short time. The concept of health education is a learning process for individuals, groups or communities from not knowing about health values to knowing, from not being able to overcome health problems to being able (Notoatmodjo, 2016). According to Maria's research (2020), with the title Relationship of Family Knowledge with Behavioral Prevention of Pulmonary Tuberculosis Transmission in the Work Area of the Martapura II Health Center, it was found that there was a significant relationship between family knowledge and the behavior of preventing pulmonary TB transmission in the working area of the Martapura II Health Center in 2019.

According to Wardanengsih's research (2019), with the title The Effect of Community Knowledge, Attitudes and Behavior on Prevention of Pulmonary Tuberculosis Transmission in the Wewangrewu Health Center area, Tanasitolo District, Wajo Regency, it was found that Knowledge, Attitudes and Community Behavior had a simultaneous effect on the Prevention of Pulmonary Tuberculosis Transmission. According to Febriansyah's research (2017), with the title Relationship of Family Knowledge Level with Efforts to Prevent Pulmonary Tuberculosis Transmission to Families in the Work Area of the Nguter Sukoharjo Health Center, the results showed that there was a relationship between the level of knowledge and efforts to prevent transmission of pulmonary TB to other family members at the Nguter Health Center.

The results of this study become input about the importance of the family's level of knowledge with efforts to prevent pulmonary tuberculosis in the family. According to

Astuti's research (2013), with the title Relationship of Knowledge Levels and Public Attitudes towards Tuberculosis Prevention Efforts in Rw 04 Lagoa Village, North Jakarta in 2013b, it was found that there was a significant relationship between knowledge, attitude and efforts to prevent tuberculosis in Rw 04, meaning the higher knowledge, the better the prevention of pulmonary tuberculosis in the community of RW 04, Lagoa village.

According to the results of research Indriana *et al* (2016) with the title Relationship of Family Knowledge Level with Prevention of Pulmonary TB Transmission Behavior at the Respira Lung Special Hospital Bantul, the results showed that there was a significant relationship between the level of family knowledge and the behavior of preventing pulmonary TB transmission at the Respira Lung Special Hospital. Bantul with strong category relationship strength. Previous studies have revealed that health services, especially services for tuberculosis, are ineffective and limited. Health workers from both the government and the private sector are poorly trained in the diagnosis and treatment of tuberculosis and lack the communication skills needed to motivate patients to improve adherence in tuberculosis cure efforts (Febriansyah, 2017).

Based on the description above, the researcher is interested in compiling and analyzing how "Intervention Analysis of the Effect of Family Knowledge on Prevention of Pulmonary Tuberculosis in the Community Health Center Area of Slipi Palmerah Village" in order to deal with the problem of transmission of Pulmonary Tuberculosis in thefamily.

RESEARCH METHODS

This type of research is a case study *design* research*,* namely case *study* is a form of research from a problem that has a specific nature with the target of individuals, families or groups, even the wider community. (Basuki, 2017). In this study, researchers conducted health education interventions regarding pulmonary tuberculosis in four family members who had tuberculosis patients who were still in the treatment period for 6 months, the fourth were both given health education interventions regarding pulmonary tuberculosis.

In this study, researchers conducted nursing education interventions in family services that have members who suffer frompulmonary tuberculosis with the same characteristics, namely 4 respondents were both given pulmonary tuberculosis health education. The research results meet the requirements for testing,

the researchers have met the proposal test and passed the ethical test of this research.

RESULTS

Table 1 . Distribution of Respondents Characteristics (n=4) family members carry out Tuberculosis treatment at health center

Respondent	Age	Gender	last education
Respondent 1	42 years old	Woman	Primary School
Respondent 2	43 years old	Male	Primary School
Respondent 3	47 years old	Man	Senior High
Respondent 4	42 years old	Woman	SchoolSenior

The results of Table 1 show that the results of the study show that the data on the characteristics of respondents as many as 4 people in the Puskesmas area of Slipi Village, Palmerah District , West Jakarta, obtained data for basic education or only graduating from elementary school (50%) and secondary education or graduating from high school (50%).

Table 2. Distribution of respondents according to the level of knowledge (n=4) Before doingProviding Health Education About Pulmonary Tuberculosis

Data	Before being given Pulmonary Tuberculosis Health Education	
	N	**%**
Less Knowledge Value (<70)	3	75
Good Knowledge Value (>70)	1	25
Total	**4**	**100**

The results of table 2 show that 3 respondents have less knowledge value and 1 respondent has good knowledge value.

Table 3. Distribution of respondents (n=4) According to the attitude of efforts to prevent tuberculosis Lungs in the Community Health Center area

Data	Prior to Pulmonary Tuberculosis Health Education	
	N	%
Value Attitude of less effort (<70)	3	75
Value Good effort attitude (>70)	1	25
Total	**4**	**100**

The results of table 3 show that 3 respondents have a low effortattitude value and 1 respondent has a good effort attitude value.

Table 4. Distribution of respondents (n=4) After Giving EducationHealth Regarding Pulmonary Tuberculosis in the Health Center

Data	After the Pulmonary Tuberculosis Health Education	
	N	**%**
Less Knowledge Value (<70)	1	25
Good Knowledge Score (>70)	3	75
Total	**4**	**100 %**

The results of table 4 show that 3 respondents have good knowledge values and 1 respondent has less knowledge values.

Table 5. Distribution of respondents (n=4) According to the attitude of disease prevention efforts Pulmonary Tuberculosis in the Community Health Center Area

Data	**After the Pulmonary Tuberculosis Health Education**	
	N	%
Value Attitude of less effort (<70)	0	0
Value Good effort attitude (>70)	4	100
Total	**4**	**100**

The results of table 5 show that 4 respondents have a good effort attitude value and no respondent has a low effort attitude value.

Table 6. Distribution of Respondents (n=4) Evaluation of attitude change in efforts Prevention of Pulmonary Tuberculosis Transmission in the Health Center Area

Respondent	**Cough**	**Information**
Respondent 1	There is notany	Doing activities in the form of: drying sleeping equipment.
Respondent 2	There is notany	Doing activities in the form of: drying sleeping equipment.
Respondent 3	There is notany	Doing activities in the form of: drying sleeping equipment.
Respondent 4	There is notany	Doing activities in the form of: drying sleeping equipment.

Table 7. Distribution of Respondents (n=4) Evaluation of attitude change in an effort Prevention of Pulmonary Tuberculosis Transmission in the Health Center Area

Respondent	**Cough**	**Information**
Respondent 1	There is notany	Doing activities such as: drying bedding, and opening windows in the house area
Respondent 2	There is notany	Doing activities in the form of: drying sleeping

		equipment, and opening windows in the housearea.
Respondent 3	There is notany	Doing activities such as: drying bedding, and opening windows in the house area.
Respondent 4	There is notany	Doing activities such as: drying bedding, and opening windows in the house area.

Table 8. Distribution of Respondents (n=4) Evaluation of attitude change in an effort Prevention of Pulmonary Tuberculosis Transmission in the Health Center Area

Respondent	Cough	Information
Respondent 1	Thereis notany	Doing activities in the form of: drying bedding, opening windows in the house area, and washing hands five steps after doing activities.
Respondent 2	There is notany	Doing activities in the form of: drying sleeping equipment, and cleaning the house area and opening windows in the house area
Respondent 3	There is notany	Doing activities such as: drying bedding, and opening windows in the house area.
Respondent 4	There is notany	Doing activities such as: drying bedding, and opening windows in the house area.

DISCUSSION

The research data shows that the respondent's characteristics are 4 people in the Puskesmas area of Slipi Village, Palmerah District, West Jakarta, obtained data for basic education or only graduating from elementary school (50%) and secondary education or graduating from high school (50%). The results of Table 2 show that the results of measuring the level of family knowledge regarding Pre- Intervention Pulmonary Tuberculosis obtained 4 respondents in the Slipi Village Health Center area, data obtained were 2 respondents with less knowledge (50%) and 2 respondents with good knowledge (75%). The results of Table 3 show that the results of measuring the attitude of family prevention efforts regarding Pulmonary Tuberculosis Pre Intervention obtained 4 respondents in the Slipi Village Health Center area, data obtained 3 respondents withan effort attitude (75%) and 1 respondent with a good effort attitude (25%).

According to Astuti's research (2013), a person's level of education will affect a person's knowledge, including regarding a house that meets health requirements and knowledge of tuberculosis so that with sufficient knowledge, someone will try to have a clean and healthy lifestyle. Likewise, the results of research conducted by Batubara

(2018), show that the higher or better a person's knowledge of an object is, the better a person's attitude towards that object will be.

The results of Table 4 show that the results of measuring the level of family knowledge about pulmonary tuberculosis Post Intervention 4 respondents obtained data for 3 respondents with good scores (75%) and 1 person with poor knowledge assessment results (25%). There is a change in the results of knowledge values before and after Lung Tuberculosis health education. Results Table 5 shows that the measurement of the level of knowledge about the family of pulmonary tuberculosis Post Intervention obtained in 4 respondents in Regional Health Center Village Slipi obtained the data no respondents with attitudes effort less (0%) and 4 respondents with attitude good effort (100%).

After the final intervention was carried out, in addition to the *Posttest,* the evaluation of changes in behavior was carried out for 3 meetings which was held every 2 days. Based on table 6, it was found that the four respondents began to carry out activities such as drying bedding such as pillows, mattresses, and blankets aimed at reducing the risk of transmission of pulmonary tuberculosis in the family. Based on table 7, it was found that there was an increase in behavioral attitudes which at first only changed attitudes into several prevention efforts such as: Carrying out activities in the form of: drying sleeping equipment, and opening windows in the house area for Respondents 1 and 2. Then for respondents 3 and 4 Doing activities in the form of: drying bedding, and opening windows in the house area.

Based on table 8, it was found that the increase in TB transmission prevention activities for respondents 1 and 2 carried out activities inthe form of: drying sleeping equipment, opening windows in the house area, washing hands five steps after carrying out activities and cleaning the house area and opening windows in the house area . Then respondents 3 and 4 carried out activities in the form of: Doing activities such as: drying bedding, opening windows in the house area, and consuming nutritious food. This shows that there is a change in prevention attitude that appears gradually starting from only 1 activity to prevent pulmonary tuberculosis transmission until finally several prevention activities begin to emerge.

In a theory, Educational Provision is a very important thing to do as a promotive and preventive effort that can increase individual knowledge and skills. With the provision of education, this can then improve prevention. This is in line with research conducted by

Ruchal, Vale and Sah (2014), showing that all respondents showed changes in attitudes towards prevention efforts or changes in behavior after being given health education. In this study, the attitude of prevention emerged gradually between respondent 1, respondent 2, respondent 3 and respondent 4 who began to carry out transmission prevention activities from those who initially did not really understand, then after being given health education about tuberculosis prevention began to apply the behavior of 1 expected behavior in the future. increasing in order to prevent the transmission of Pulmonary Tuberculosis, especially in the family.

CONCLUSION

The application of this health education intervention has a role inincreasing the level of knowledge, this is evidenced by the data that the respondent's education level is related to the level of education and attitude of prevention efforts. Where if someone has a high levelof knowledge, then someone will create good behavior as well. It can be concluded that knowledge and attitudes are supports in carrying out healthy behavior.

There is a significant relationship between public knowledge and attitude of prevention efforts in the Slipi Village Health Center area before the intervention and after the intervention has a positive relationship shown by the increase in the value of the questionnaire that has been given meaning that the better the level of knowledge, the better the prevention of Tuberculosis disease in the family Health Center area, Slipi Village. The implementation of Lung Tuberculosis prevention health education has increased the understanding and ability of families in making efforts to prevent the transmission of Pulmonary Tuberculosis that has been taught.

SUGGESTION

For Health policy makers. For the Slipi Public Health Center, they can consider conducting this Pulmonary Tuberculosis health education intervention as an effort to prevent Pulmonary Tuberculosis in the family. For Nursing Education Institutions. Can provide a reference for nursing interventions regarding Health Education Regarding Pulmonary Tuberculosis for the problem of the level of knowledge andattitude of family efforts with pulmonary tuberculosis sufferersin particular.

Methods of Health Education regarding the prevention of Pulmonary Tuberculosis can be used as one of the materials given to students, especially to families of patients with Pulmonary Tuberculosis. For Further Researchers. It is necessary to add an intervention process to the relationship between the level of knowledge and family

attitudes in the effort to prevent pulmonary tuberculosis in the context of developing and improving nursing interventions in the application of preventing transmission of pulmonary tuberculosis in the family.

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