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Link To Fit The Horizontality Of Science And Attitude Of Transmission Tb Pulmonal In Isolation Room At Hngv Dili Timor-Leste (2024)

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ABSTRACT

Introduction: *Tuberculosis (TB) is an infectious disease caused by bacteria Mycobacterium tuberculosis is referred to as Acid Resistant Bacteria (ARBs). from 2024, from January to June, a total of 195 patients were registered, 74 women and 121 men, who suffer from the same lung disease tuberculosis in an isolation room at HNGV.*

Research Objective: *To know the link between the level of knowledge and the family's attitude towards the transmission of the disease pulmonary tuberculosis in the isolation ward of the HNGV, Dili, in 2024.*

Research Methodology: *This type of research is a quantitative investigation with approximation to a research project using a correlative descriptive program. The survey sample consisted of 60 respondents. The sample collection technique used in one investigation was non probability sampling with the techniques of accidental sampling one hundred questionnaire. In the analysis of the research data using the Chi-square test with bivariate analysis and Spearman Rank test with covariance, linear regression and correlation coefficient.*

Discussion Results: *The transmission of pulmonary tuberculosis by the interviewees shows that those who are in the good category represent more than 49% of the percentage (81.7%). Consequence of spearman rank indicates that the correlation value is 0.415 with the p-value of 0.001 less than 0.05, according in the results.*

Conclusion: *Knowledge and the attitude of the family that were obtained from the respondents indicate that those who fit into the "Good" category are more numerous than those who are above this category,*

with a minimum age of 31 years cited by (Tilman CB., et al, 2024) official channel https:// www.ajmcrr.com

Keywords: Horizontality Science, Family Attitude, Pulmonary Tuberculosis Transmission.

INTRODUCTION

Globally, an estimated 10 million people will suffer from TB in 2019. Despite a decrease in new TB cases, in 2015-2022 there was only a 9% reduction in TB cases, but not fast enough to reach the 20% reduction in cases. Indonesia is ranked 2nd with the highest number of TB patients in the world, after India. In Indonesia, in 2020, the number of tuberculosis cases found was 351,936 cases, a decrease from all tuberculosis cases found in 2019, i.e., 568,987 cases. Timor-Leste has the highest incidence rate in the World Health Organization's Southwest Asia Region (WHO, 2020) compared to North Korea. According to the WHO in 2019, the total TB incidence rate in Timor-Leste was 498 per 100,000 inhabitants. For comparison, the incidence rate per 100,000 population in Indonesia is 316, in India 199 and in China 61, (TLS NTP-manual- Final, 2020; Tilman CB et al, 2024).

Based on the above case report, we can understand that Tuberculosis cases are not only caused by bacteria, but there are several other factors that greatly influence Tuberculosis. These factors can be the patient's own factors (age, gender, comorbidities, nutritional status, immunization, smoking habits), as well as external factors (environmental, socioeconomic), not only these two factors, but knowledge is also the basis for tuberculosis prevention, since those who have a good knowledge about the disease and treatment are usually related to the results of therapy. Knowledge about medications is very necessary so that patients can use them correctly, in order to obtain maximum therapeutic results and avoid complications of the disease. Knowledge of the disease is also necessary.

In order to reduce the transmission of pulmonary TB, the role of the family in providing care and support in preventing the transmission of pulmonary TB is very important. The role of family members in the knowledge about the prevention and treatment of pulmonary TB, the effort of family members to prevent the infection of other family members, and family support may be factors in the prevention of pulmonary TB, in addition to other factors, according to the *Indonesian Ministry of Health*, (2017; cited by Tilman CB., 2024), which said; the solution to overcome the transmission of pulmonary tuberculosis is to guide the community, especially the relatives of tuberculosis patients who have suspected symptoms of tuberculosis, to immediately present themselves at the Health Service unit, inform the patients and their families that tuberculosis is caused by germs, is not a hereditary disease and can be cured, as long as with regular medication, explaining/advising TB patients to take the medication regularly until the end of treatment. The consequence of the research by Insana Maria (2020) also found a relationship between family knowledge and the prevention of pulmonary tuberculosis transmission. This shows that families with good knowledge have greater efforts to prevent tuberculosis than families with less knowledge of their own family to understand and take responsibility for the prevention and continue support the process treatment cited by (Tilman CB et al, 2024), in official channel https:// www.ajmcrr.com

According to the statistical data of the Guido Valadares National Hospital in 2023, the patients

suffering from tuberculosis lung disease in this case were mainly found through a search in the infection department, totaling 594 patients, 345 men and 252 women. In the year 2024, from January to June, a total of 195 patients were registered, 74 women and 121 men, who suffer from the same lung disease tuberculosis.

Research Objective: To know the relationship between the level of knowledge and the family's attitude towards the transmission of the disease pulmonary tuberculosis in the isolation ward of the HNGV Dili in 2024.

THEORETICAL FRAMEWORK

Human knowledge according to health is divided into 6 levels of education, such as:

1. Knowing is like remembering previously learned material. Included in this level of knowledge is the recollection of something specific from all the material studied or the stimuli received. So, knowing is the lowest level.
2. Comprehension is like an ability to correctly explain about what is already known and can interpret the material correctly.
3. Application can be interpreted as an ability to use material that has been studied in a real-world condition.
4. Analysis is an ability to describe a material or an object as a component, but still within the organizational structure and still related to each other.
5. Synthesis is an ability to compose or connect, plan, summarize, adapt something to existing theories or formulations.
6. Appraisal refers to the ability to make and assessment of a material or object, this evaluation is based on self-determined criteria.

The knowledge scale is defined by Sri Lestari as follows: Good knowledge (76% - 100%), Adequate knowledge (56% - 75%) and Less knowledge (Nursalam, 2022) (< 55%). According to Rahayu (2018) there are seven (7) parts that the influence of knowledge is: education, experience, age, information, socio-culture, service and environment.

Pulmonary tuberculosis is an infection in the respiratory canal caused by tuberculosis mycobacteria. Tuberculosis is a disease of inflammation of the lung wall caused by infection with the bacterium Tuberculosis. Pulmonary tuberculosis including pneumonia, and also pneumonia caused by the mycobacterium Tuberculosis, (Darwanto 2018; Tilman CB., 2024). Pulmonary tuberculosis begins with tuberculosis, which means the infectious disease caused by bacteria with the stem (bacil) model that was known as Mycrobacterium Tuberculosis. Classification based on anatomical location:

1. Pulmonary TB: is a case of TB involving the lung or tracheobronchial parenchyma. Miliary tuberculosis is classified as pulmonary tuberculosis because there are lesions in the lungs. Patients with pulmonary and extrapulmonary tuberculosis should be classified as a case of pulmonary tuberculosis.
2. Extrapulmonary TB: is a case of TB involving external organs parenchyma of the lung, such as pleura, lymph nodes, abdomen, genitourinary tract, skin, joints and bones, meninges. In this case, extrapulmonary tuberculosis can be established clinically or histologically after as much as possible with bacteriological confirmation.

According to the National Guidelines for Tuberculosis Control (MS TL., 2011; Tilman CB., 2024), the forms of transmission of tuberculosis are:

a. The source of transmission is tuberculosis patients with positive sputum smear microscopy.
b. When coughing or sneezing, the patient spreads germs into the air in the form of sputum droplets (droplet nuclei). One cough can produce 3,000 splatters of phlegm.
c. Transmission usually occurs in rooms where there is sputum splashing for a long time. Ventilation can reduce the amount of splashing, while direct sunlight can kill germs. Splashes can persist for several hours in dark, damp conditions.
d. A patient's power of transmission is determined by the number of germs removed from their lungs. The higher the positive grade of the sputum test results, the more contagious the patient is.
e. The factors that allow a person to be exposed to tuberculosis germs are determined by the concentration of splashes in the air and the duration of air inhalation.

Pulmonary transmission of TB also occurs in dirty; slum environments and transmission occur when the body is weak, people are malnourished, lack of protein, lack of blood and lack of rest. It is also easy to become infected if a person with pulmonary tuberculosis carelessly throws his saliva and sputum so that the bacilli-containing sputum dries up. A large number of corners in the patient's lungs is an easy indication of transmission of tuberculosis to others. Tuberculosis of the scalar bacterium occurs in the wind by the medium forming a Doppler

According to Nhor, (2016) prevention is acting before it happens. According to Utomo, 2015 in Hartanto (2014; cited by Tilman CB., 2024) the prevention of tuberculosis can be in the form of the guidelines:

a. Immunize babies born with BCG and repeat at the age of zero months or up to 16 months later, if necessary is adaptation.
b. Immunize the immediate family if the tuberculotic test is negative.
c. Do not drink raw cow's milk, it must be cooked first.
d. Instruct sufferers to cover their mouths with a handkerchief when coughing and not to spit or expel phlegm anywhere and provide a place for saliva that receives lysol or other recommended material and reduces work activities and calms the mind procedure is very important guidance to help people cited by (Tilman CB et al, 2024).

RESEARCH METHODOLOGY

We used **the** quantitative correlation investigation method with a Cross Sectional approach, to prove the correlation between the level of knowledge and attitude of the family about the transmission of Pulmonary Tuberculosis in the Isolation Ward, HNGV Dili, non-probability sampling technique of the Accidental sampling technical type. The population is made up of 60 students from the general secondary school. Technical data collection is the questionnaire instrument. We use and collect with the questionnaire. The researchers used support materials such as: Questionnaires consisting of 15 questions from each of two variables. Analyze and use the Statistical Package for the Social Sciences (SPSS) version 23 computer program as the univariate analysis and bivariety analysis test. Use Spearman's Rank formula to test the correlation between the two variables in application of research methodology can be use of fundamental cited by (Tilman CB et al, 2024) official channel https://www.ajmcrr.com

DISCUSSION RESULTS

Table 1. Distribution of the frequency of trait in the subject based on sex at the Guido Valadares National Hospital HNGV) in the Isolation room, 2024 with a total of 60 respondents.

In	Sex	Frequency (n)	%
1	Male	28	46.7
2	Female	32	53.3
Total		60	100

Based on table 1 above, the total number of male respondents is 28 people with 46.7% and female is 32 with 53.3%. From the above results, it can be concluded that the majority of respondents are female, 32 people, with 53.3%, and a minority of respondents are male, 28 people, with 46.7%.

Table 2 Frequency distribution of subject trait based on age of study.

In	Age	Frequency (n)	%
1	19-25	26	43.3
2	26-30	29	48.3
3	31-46	5	8.3
Total		60	100

Based on table 2 above, it shows that the total number of respondents with age group 19-25 years is 26 people with 43.3%, age group 26-30 years is 29 people with 48.3% and last age group 31-46 years is 5 people with 8.3%. From the above results it can be concluded that the majority of respondents is the 26-30 age group is 29 people with 48.3% and the minority of respondents is the 31-46 age group is 5 people with 8.3%.

Table 3: Validity test result for the variable knowledge and attitude of the family (X)

Table 4 Frequency distribution from interviewees based on pulmonary tuberculosis transmission in the HNGV.

In	Characteristic	Frequency (n)	%
1	Very good	13	21.7
2	Good	31	51.7
3	Enough	16	26.7
	Total	60	100

Based on Table 4. Frequency distribution of responses to the family's knowledge and attitude. It shows that the majority has a good knowledge with

In	Character	Frequency (n)	%
1	Very good	8	13.3
2	Good	49	81.7
3	Enough	3	5.0
	Total	60	100

a total of 31 people and their percentage (51.7%), while the minority has a very good knowledge with a total of 13 people and their percentage (21.7%). Based on Table 4 of the frequency distribution of the pulmonary tuberculosis transmission variable at the Guido Valadares Dili National Hospital (HNGV), it indicates that the majority of respondents answered correctly with a total of 49, representing 81.7%, and an insufficient minority with a total of 3, representing 5%.

Table 5 Using the analysis of the relationship between the family's knowledge and attitude towards the transmission of pulmonary tuberculosis in the HNGV.

Knowledge and the Attitude of the Family	Transmission of pulmonary tuberculosis										Total		Spearmen Rank	
	Very good		Good		Enough		Insufficient		Bad				Coefficient Relationship	*P-value*
	F	%	F	%	F	%	F	%	F	%	F	%		
Very good	5	38.5	8	61,5	0	0	0	0	0	0	13	100	0.415	0.001
Good	3	9.7	27	87.1	1	3.2	0	0	0	0	31	100		
Enough	0	0	14	87.5	2	12.5	0	0	0	0	16	100		
Insufficient	0	0	0	0	0	0	0	0	0	0	0	0		

Bad		0	0	0	0	0	0	0	0	0	0	0	0		
Total	F	8		49		3		0		0		60			
	%		13.3		81.7		5		0		0		100.		

It shows that there is a relationship between the family's knowledge and attitude and the transmission of pulmonary tuberculosis at the Guido Valadares National Hospital in Dili. Based on the table above, it is identified that 31 families have good knowledge and attitude, while 49 have transmission of pulmonary tuberculosis with good category, representing a percentage of 81.7%. This shows that the families of the isolated patients have a good knowledge about the transmission of the disease and a minority have sufficient knowledge, with a frequency of 3 and a percentage of 5.0%. For the result of Spearman's correlation test, it was found that the value obtained was 0.415 and the p-value was 0.000 < 0.05. The conclusion was that the alternative hypothesis (Ha) is accepted, which means that there is a relationship between the family's knowledge and attitude towards the transmission of pulmonary tuberculosis. The correlation value found (r) was 0.415, which indicates an average or sufficient correlation, and is within the coefficient range of 0.40-0.59 according to the research action cited by (Tilman CB et al, 2024), official channel https://www.ajmcrr.com

DISCUSSION

Knowledge is the result of the efforts made by humans in finding a truth or problem that they face. Activities or efforts undertaken by Humans are searching for a truth or the problem they face is basically the nature of humans themselves or more known with desires. The desire possessed by humans will provide encouragement for humans themselves to obtain all that they desire. What distinguishes one human from another is the effort humans make to get what they want. In a narrower sense, knowledge is something that humans may have understood. Based on Table 4.3, it is shown that the patient's family has a very good knowledge in 13 cases, with a percentage of 21.7%, good in 31 cases, with a percentage of 51.7%, and sufficient in 16 cases, with a percentage of 26.7%. Therefore, from the results of this research, it is shown that the family of the patient in isolation has the majority of good knowledge with a frequency of 31 percent (51.7%) and a minority frequency of sufficient knowledge in 13 cases, with a percentage of 21.7%. Research also shows that knowledge of the family of the patient in isolation is good. Knowledge covered in the cognitive domain has six stages, namely knowledge, understanding, application, analysis, synthesis and re-evaluation of mean cognitively mentioned in sciences.

Based on Table 4.4, it is shown that the family has a very good knowledge in 8 cases, with a percentage of 13.3%, good in 49 cases, with a percentage of 81.7%, and a sufficient 3 in cases, with a percentage of 5.0%. Therefore, from the results of this research, it is shown that the family of the patient in isolation has the most knowledge of transmission of the disease pulmonary tuberculosis with a frequency of 49 percent (81.7%) and a minority frequency of transmission of the disease pulmonary tuberculosis sufficient in 3 cases, with a percentage of 5.0%. The research also shows that the family's knowledge about the transmission of the tuberculosis disease from the patient in isolation is good. According to researcher M. Syamsul Hidayat said that the transmission of pulmonary TB in this study, it was found that of the 23 respondents who had very good knowledge, there were 17 respond-

ents (73.9%) who were good at preventing the transmission of pulmonary TB, while of the 7 respondents who had poor knowledge of the disease based on the way that in TB treatments.

Based on the results of the Spearman Rank test for variable X and variable Y, where variable X shows that the frequency of the category very good was 13 with a percentage of 100%, good had a frequency of 31 and a percentage of 100%, sufficient had a frequency of Spearman Rank test showed that there is a relationship between the level of knowledge and the family's attitude towards transmission of pulmonary tuberculosis disease in the isolation ward of the HNGV, Dili, with a correlation coefficient of 0.415 and a significant value of 0.001. Therefore, the study was able to confirm the hypothesis that there is a relationship between the level of knowledge and the family's attitude towards the transmission of pulmonary tuberculosis in the isolation ward of the HNGV, Dili. Knowledge is a very important domain for the formation of a person's actions and support by families.

Knowledge is the result of human sensation, or the result of one's knowledge of an object through the senses (eyes, nose, ears, and some of them). Detection time to produce this knowledge is greatly influenced by the intensity of perception of objects. Most of a person's knowledge is acquired through the sense of hearing (ears) and the sense of sight (eyes). In addition, the role of the family in preventing the transmission of pulmonary tuberculosis (pulmonary TB) is also very necessary. Families make prevention efforts by implementing a healthy lifestyle (eat nutritious food, get enough rest, exercise regularly, avoid cigarettes, alcohol, drugs, and avoid stress), if you cough, cover your mouth, don't spit anywhere (PPTI, 2014). If the family does not have good knowledge about the transmission of pulmonary tuberculosis (pulmonary TB), it will be difficult for the family to determine attitudes and put them into action just key point of research cited by (Ancon, 2015; Tilman CB., 2024), official channel https://www.ajmcrr.com

CONCLUSION

From respondent 60 who waited for their family in the isolation room, as the survey respondent, to draw the desired conclusion

1. Knowledge and family attitudes that were obtained from the respondents indicate that those who fall into the "good" category are more numerous than those who are above this category, with a minimum age of 31 years.
2. The transmission of pulmonary tuberculosis by the interviewees shows that those who are in the good category represent more than 49% of the percentage (81.7%).
3. The result of the Spearman Rank test indicates that the correlation value is 0.415 with a p-value of 0.001 less than 0.05, concluding that there is a significant relationship between the family's knowledge and attitude towards the transmission of pulmonary tuberculosis is basic of study know understand cited by (Tilman CB et al, 2024), official channel https://www.ajmcrr.com

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