

The Relationship between Knowledge and Nurse's Attitude to The Transmission of Mycobacterium Tuberculosis in Dr. M. Haulussy Hospital, Ambon, 2016

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Abstract

Pulmonary TB is an infectious disease that directly caused by *Mycobacterium tuberculosis* bacteria (Health Ministry, 2013), Hiswani (2012) states that the transmission of tuberculosis from someone is determined by the amount of bacteria found in the lungs of patients, the spreading of the germs is in the air through the phlegm in the form of droplets. The preliminary study is conducted at the hospital of Dr. M. Haulussy Ambon on July-August 2016. The purpose of this study is to know the relationship between knowledge and attitude of nurses with the transmission of *Mycobacterium tuberculosis* at lungs room of RSUD (Local General Hospital) Dr. M. Haulussy Ambon. This research is a descriptive analytical study applying cross sectional method. The samples in this study are 13 nurses who are working at the lungs room of RSUD (Local General Hospital) Dr. M. Haulussy Ambon. The analysis of the data uses univariate and bivariate. Bivariate analysis uses Spearman's rho test. The results of statistical tests in terms of knowledge show that the value of $p = 0.002 (> 0.05)$, then H_0 is rejected. It means that there is a significant correlation between knowledge and *Mycobacterium tuberculosis* transmission. While Statistical test results show that the attitude of $p = 0.019 (p = 0,05)$, thus H_0 is rejected. Therefore, it means that there is a relationship between nurse attitudes with *Mycobacterium tuberculosis* transmission at the lungs room of RSUD DR. M. Haulussy Ambon.

Keywords: Knowledge, Attitude, Nurses, Transmission.

I. INTRODUCTION

Pulmonary TB is an infectious disease directly caused by *Mycobacterium tuberculosis* bacteria (Indonesia Ministry of Health 2013). Most of *Mycobacterium tuberculosis* attacks the lungs, but can also attack other organs including meninges, kidneys, bones, and lymph nodes (Smeltzer & Bare, 2002). Pulmonary tuberculosis is a chronic bacterial infection caused by *Mycobacterium tuberculosis* and it is characterized by the formation of granulomas on tissues infected by hypersensitivity mediated by cell (cell-mediated hypersensitivity) (Wahid and Suprpto, 2014). According to WHO there are 6,800 new cases of pulmonary tuberculosis with Multi Drug Resistance (MDR) every year. It is estimated 2% of new pulmonary TB cases and 12% of re-treatment cases of pulmonary TB is Multi Drug Resistance (MDR). It is also estimated more than 55% consisted of patients with Multi-Drug Resistant. The number of cases of pulmonary TB that is happening in Southeast Asia is 33% of all pulmonary TB cases in the world. In terms of number of population there are 182 cases / 100,000 citizens, whereas in Africa nearly 2 times of Southeast Asia number, namely 350 / 100.000 citizens. Pulmonary TB haven't yet diagnosed or treated properly. Number of patients with pulmonary TB disease in Indonesia now ranks third in the world after China and India. Indonesian population prevalence of pulmonary TB were diagnosed by health personnel of Riskesdas (Basic Health Research) from 2013-2014 by aged 15 years and over was 759 people / 100,000 citizens, while in 2015 the number of pulmonary TB cases as many as 680 patients (Ministry of Health, 2015). In Maluku, Pulmonary TB ranks second after ARI (Acute Respiratory Infection). The prevalence of pulmonary TB is now fairly high at around 281 cases per 100,000 citizens. Papua provinces placed the top positions numbered 302 and for Yogyakarta placed the lowest position that was 72/3.679.200 citizens (Ministry of Health 2015). Nurse comes from the Latin word *nutrix* meaning caring or nurturing. Nurses are the ones who fight in treating or preserving, helping and protecting a person because of illness. Professional nurses are nurses who are responsible and authorized to provide nursing services independently or collaborated with other health professionals in accordance with the authority (Ministry of Health, 2011). Knowledge is very important domain in shaping an action. Thus it is formed the behavior towards a person because of their knowledge to form a new behavior, especially the adults who begin in the cognitive domain. Meaning that someone beforehand is given stimulation in the form of information on pulmonary TB prevention. Thus it become a new knowledge and subsequently cause an inner response in the form of an attitude. Finally the stimuli that is information of Pulmonary TB prevention efforts that have been known and fully realized will further cause a response in the form of action (Notoatmodjo, 2010). The attitude in this case is a person's attitude in facing pulmonary TB disease and prevention efforts. Attitude is a person's tendency to interpret something and acting on the results of interpretation created by her/ him. Attitudes towards something shaped by knowledge, such as the values and norms believed to be embraced. To be able to affect a person, the

information needs to be delivered slowly and repeatedly by showing advantages and disadvantages when adopting such information. (Kurniasari, 2010).

II. METHOD

The research is an analytical descriptive study using cross sectional approach. It was conducted in Pulmonary room dr. M. Haulussy Ambon on July 21st- August 21st, 2016. Population and sample in this study are all nurses in pulmonary room of RSUD dr. M. Haulussy Ambon numbered 13 respondents. Sampling technique used in this study is total sampling technique. Data collection techniques in this study are interview and questionnaire. After data collection is conducted, the next procedure is data processing which includes several sections such as: Editing, Coding, Processing, Cleaning, and Tabulating. Then the data is analyzed using SPSS computer software. The analysis used namely Univariate and Bivariate analysis.

III. RESULTS

A. Knowledge

Table 1. Distribution of knowledge of nurses in Dr.M.Haulussy Hospital Ambon 2016

Knowledge	Frequency	Percent (%)
Good	2	15.4%
Enough	9	69,2%
Less	2	15.4%
Total	13	100%

The table shows that highest kind of knowledge is knowledge in enough category numbered 9 nurses (69.2%) and knowledge in less category numbered 2 nurses (15.4%).

B. Attitude

Table 2. Distribution of attitude of nurses in Dr.M.Haulussy Hospital Ambon 2016

Attitude	Frequency	Percent (%)
Positive	3	23,1%
Negative	10	76,9%
Total	13	100%

The table shows that respondents who have positive attitude as much as 3 nurses (23.1%) while those who have negative attitude as much as 10 nurses (76.9%).

C. Transmission of Mycobacterium Tuberculosis

Table 3. Distribution of transmission of Mycobacterium Tuberculosis in Dr. M. Haulussy Hospital Ambon 2016.

Transmission	Frequency	Percent (%)
Contagious	11	84.6%
Uncontagious	2	15.4%
Total	13	100%

The table shows that the respondents who are contagious are 11 nurses (84.6%) and those who are not are 2 nurses (15.4%).

D. Correlation between Knowledge to Transmission of Mycobacterium Tuberculosis

Table 4. Correlation between knowledge of nurses to transmission of Mycobacterium tuberculosis

			TBC Germ		<i>P</i>
			Knowledge	Transmission	
TBC Germs	Knowledge	Coefficient correlation	1000	0.769	0.002
		N	13	13	
	Transmission	Coefficient correlation	0.769	1000	

N	13	13
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Spearman's rho statistical test value is p value = 0.002 means significance value $\alpha = 0.05 < 0.002$ meaning that there is a relationship between knowledge and transmission of mycobacterium tuberculosis.

E. Correlation between Attitudes to Transmission of Mycobacterium tuberculosis

Table 5. Correlation between attitudes of nurses to transmission of Mycobacterium tuberculosis

		TBC Germs		P
		Knowledge	Transmission	
Attitude	Korelasi Koefisien	1000	640	0,019
	N	13	13	
TBC germs Transmission	Korelasi Koefisien	640	1000	
	N	13	13	

Spearman's rho statistical test value is p value 0.019 means significance value of $\alpha = 0.05 < 0.019$ means that there is a relationship between attitudes and transmission of Mycobacterium tuberculosis.

IV. DISCUSSION

A. Correlation between knowledge of nurses to the transmission of Mycobacterium tuberculosis

Spearman's rho statistics test value is p value 0.002 means significance value of $\alpha = 0.05 < 0.002$ means that there is a relationship between knowledge and transmission of Mycobacterium tuberculosis. This result is supported by research that conducted by Ridwan (2014) who used Spearman's rho test obtained sig $p = 0.021 > 0.05$, means there is a correlation between the level of knowledge with TBC germ transmission in Public Health Center of Ngemplak Boyolali. Knowledge is information that has been combined with an understanding and the potential for action. In general, knowledge has predictive ability towards something as a result of pattern recognition. A good knowledge is also influenced by a good education. The higher one's education is the more knowledge acquired will. According to Ariani and Isnanda (2012) based-knowledge behavior will last longer than unbased one. Thus the researcher can conclude that the based-knowledge behavior will have good impact than unbased one. A good impact here means maintaining health, and if it has been exposed to pulmonary TB disease thus they can make prevention of transmission to family and surroundings. The researcher assumes in terms of the relationship of nurses knowledge and Mycobacterium tuberculosis transmission in pulmonary room of RSUD dr. M. Haulussy Ambon that is increasing the level of knowledge about the transmission of Mycobacterium tuberculosis to nurse, so the more knowledgeable understanding of the problems that can affect decision-making in every action taken. It shows that there is a relationship between knowledge of nurses and the transmission of Mycobacterium tuberculosis.

B. Correlation between attitude of nurses to the transmission of Mycobacterium tuberculosis

Spearman's rho statistical test value is p value 0.019 means significance value of $\alpha = 0.05 < 0.019$ means that there is a relationship between attitudes and transmission of Mycobacterium tuberculosis. This result is supported by research conducted by Astuti (2013) which uses Spearman's rho test produces a probability value = 0,003 smaller than the value of $\alpha = 0.05$. Thus it can be concluded that H_0 is rejected, which means that there is a significant relationship between the attitudes of nurses towards the efforts of transmission of Mycobacterium tuberculosis germs. Coefficient correlation value is 0.378 declares that there is a relationship between the attitudes of nurses with the Mycobacterium tuberculosis germs transmission. Sumiyati (2013) in Notoatmodjo (2012) stated that the domain of behavior is knowledge, attitudes and actions. Astuti (2013) in Notoatmodjo (2010) had the same opinion that the attitudes and practices that are not based on adequate knowledge would not last long in a person's life, while adequate knowledge if it is not matched with the sustainable attitude will have no significant meaning for life. The researcher assumes on the relationship of attitudes of nurses and Mycobacterium tuberculosis infection in pulmonary room dr. M. Haulussy Ambon is that based on extensive knowledge about the transmission of Mycobacterium tuberculosis then it will move the attitude of the nurses in the pulmonary room to be more careful

in doing curative action. Thus, this shows that there is a significant relationship between the attitude of nurses and transmission of Mycobacterium tuberculosis germs.

V. CONCLUSIONS

Based on the results of research and discussion that has been stated previously, the researcher can take the conclusion that there are correlation between knowledge and attitude of nurses to transmission of Mycobacterium tuberculosis in Dr.M.Haulussy Hospital Ambon 2016.

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