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Factors Related To The Role Of Community Figure In Tuberculosis Disease Prevention Measures In The community Health centers Tuminting Working Area Manado City

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ABSTRACT

Tuberculosis has become an important health problem in the world for a long time which is still difficult to control. Indonesia is in the third position with the highest number of tuberculosis sufferers in the world. DOTS (Directly observed treatment short course) as a strategy in controlling tuberculosis since 1995, is seen as not yet effective enough in efforts to tackle transmission of tuberculosis. It requires the participation of all components of society, especially community leaders in areas with high tuberculosis cases. The purpose of this study was to determine the factors associated with the role of community leaders in efforts to prevent transmission of tuberculosis in the working area of Tuminting Community Health Center, Manado. Research is an analytical survey with quantitative methods using cross sectional approach. The research instrument used a questionnaire. This research was conducted on the entire population of community leaders in the Tuminting Community Health Center, with a total sampling technique of 60 respondents. Data analysis used univariate analysis with frequency distribution, bivariate analysis with chi-square test and multivariate analysis with multiple logistic regression tests. The results of this study indicate that the variables significantly related to the role of community leaders are knowledge (p = 0.021), attitude (p = 0.003). Multivariate test results showed the most influential variables were attitude (OR = 7.01 and p = 0.002), for knowledge (OR = 5.13 and p = 0.012). The results of this study are expected to be a recommendation for health service providers and community leaders to further enhance collaboration in efforts to control tuberculosis through the accessibility of information, education and promotion to the general public as an effort to break the chain of tuberculosis transmission so that the morbidity and mortality rates due to disease tuberculosis can be inherited.

Keywords: relationship, role, tuberculosis, public figure

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Introduction

Pulmonary tuberculosis is a chronic and contagious infectious disease that affects many people in developing countries, caused by the bacterium Mycobacterium tuberculosis that is spread through droplets of infected people (PAPDI, 2008). In 2012 WHO (world health organization) reported that there were more than 8 million sufferers of pulmonary tuberculosis, of which 1 million were identified as HIV positive (Ministry of Health, 2014). More than half of people with tuberculosis are in their productive age, so when they experience illness it greatly affects the socio-economic life of both the sufferer and family, where by experiencing a long illness the sufferer cannot work optimally which in turn affects work and income to support the family. In addition, there is still an assumption in the community that tuberculosis cannot be or is difficult to cure, so people tend to avoid socializing or socializing with patients or families.

Based on basic health research in 2013 the prevalence of pulmonary tuberculosis in Indonesia was 0.4%, of which the three provinces with the highest rates were in West Java, DKI Jakarta and Papua. While for North Sulawesi province, the prevalence of pulmonary tuberculosis at 0.3% is still the same as the data in the 2007 regional health research. This shows that there was no increase but there was also no decrease in prevalence (Riskesdas 2013). However, in 2016 data were obtained that the achievement of tuberculosis case findings in North Sulawesi decreased due to not yet reporting all cases handled by health facilities, limited funds to support laboratory examinations in the area making it difficult to identify new cases, as well as technical obstacles in reporting in connection with the availability of facilities. For three years from 2014 to 2016, Manado City was the region with the highest CNR (case notification rate) compared to other districts / cities in North Sulawesi (North Sulawesi Health Profile 2017). Of the ten sub-districts in the city of Manado, the highest number of tuberculosis cases were found in the Tuminting District area of 754 cases, this is closely related to population, area and population density. The population in Tuminting sub-district is the third highest after Malalayang and Wanea sub-districts, with an area of only three percent of the total area of the city of Manado (BPS Manado, 2017).

In the 2014 National Tuberculosis Handling Manual explains that the main cause of the increasing burden of tuberculosis problems include poverty in various community groups, such as in developing countries, high economic growth but with disparities that are too wide, so that people are still experiencing problems With poor sanitation, housing, clothing and food conditions, there is still a heavy burden of social determinants such as unemployment, education levels and income per capita which are still low, which results in people's vulnerability to tuberculosis. In addition, the failure of the tuberculosis prevention program so far has also been caused by inadequate political and funding commitments, inadequate tuberculosis service

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organizations such as being inaccessible to the public, finding cases / diagnoses that are not standard, the supply of drugs is not guaranteed, no monitoring, recording or reporting is carried out. standard, inadequate case management in terms of diagnosis and non-standard combination of drugs as well as failure to cure diagnosed cases, as well as a health insurance system that does not cover the wider community equally (Kemenkes, 2014).

Tuberculosis treatment and treatment efforts in Indonesia began in the 1950s and since 1969 tuberculosis control in Indonesia has changed its operational management. Where WHO has recommended the DOTS strategy as a strategy in controlling tuberculosis since 1995, the main focus of DOTS is the discovery and healing of patients where priority is given to infectious (active) tuberculosis patients. This strategy aims to break the chain of transmission of tuberculosis and thereby reduce the incidence of tuberculosis in the community (Kemenkes, 2014).

In the implementation of the Directly Observed Treatment Shortcourse (DOTS) strategy in tuberculosis prevention, one of the efforts taken is direct supervision of swallowing short-term medication by the treatment supervisor every day, but this effort is felt to have not been quite successful due to various obstacles related to the limited scope of the program and the role Drugs Supervisors (PMO) from the families of patients who are still less effective. For this reason, assistance and participation of all components of the community, especially community leaders in regions with high tuberculosis cases, need to be actively involved in efforts to prevent the transmission of tuberculosis, because a figure is seen to have a large influence in mobilizing the wider community, because the general public more easily accept what is explained by the role models.

This is in line with one of the efforts to overcome tuberculosis in the field of promotion as outlined in the Minister of Health Regulation No. 67 of 2016 concerning Tuberculosis Prevention, where community leaders as one of the targets are expected to play a role in tuberculosis prevention, among others, can be a role model not to create stigma and discrimination related to tuberculosis, can help in disseminating information about tuberculosis and PHBS, encourage tuberculosis sufferers to carry out treatment thoroughly, and encourage the community to immediately go to a quality health care center.

Knowledge, attitudes and the role of community leaders have a major influence on the health status of individuals and communities and play an important role in determining the success of a disease prevention program and prevention of transmission including tuberculosis. The purpose of this study was to determine the factors associated with the role of community leaders in efforts to prevent transmission of tuberculosis in the working area of Tuminting Community Health Center, Manado.

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Method

Research is an analytical survey with quantitative methods using cross sectional approach. The research instrument used a questionnaire. This research was conducted on the entire population of community leaders in the Tuminting Community Health Center, with a total sampling technique of 60 respondents. The reason for taking total sampling is the total population of less than 100, then the entire population can be used as research samples. This research was carried out in October by taking preliminary data at the Tuminting Community Health Center and secondary data from the Manado Health Office and Tuminting District Office, and part of the data was also taken from the Manado Central Statistics Agency.

For primary data obtained by structured interviews consisting of four main parts, namely about the characteristics of respondents, then the knowledge variable containing 23 statements, attitude variables containing 24 statements and finally the role variable containing 24 statements using a questionnaire instrument. Data analysis used univariate analysis with frequency distribution, bivariate analysis with chi-square test and multivariate analysis with multiple logistic regression tests using the SPSS 21 program. The analysis used was the chi-square test ($\chi 2$). The significant test is carried out using the significance limit (alpha) = 0.05 and 95% confidence interval with the provisions if: P value $\leq$ 0.05 means Ho is rejected (p value $\leq \alpha$), meaning that the statistical test shows a significant relationship. On the other hand, P value> 0.05 means that Ho fails to be rejected (p value> α), so the statistical test shows that there is no significant relationship.

Research Results and Discussion

1. Characteristics of Respondents
   a. Age

Based on the results of the study, the age of the respondents was categorized into 2 namely early adulthood and late adulthood. If $\geq$ 41 then the category of late adulthood and if age <41 then the category of early adulthood.

Frequency distribution of respondents based on age

No	Age	n	%
1.	Late adulthood	38	63,3
2.	Early adulthood	22	36,7
amount		60	100

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The table above shows the results of age distribution are more often found in respondents with late adulthood as many as 38 people (63.3%) compared with early adulthood as many as 22 people (36.7%).

b. Education

Distribution of Respondents Frequency Based on Education

No	Education	n	%
1.	Elementary school	8	13,3
2.	Middle School	16	26,7
3.	High school	20	33,3
4.	College	16	26,7
amount		60	100

Based on the above table it is known that respondents who have elementary school education are 8 people (13.3%), respondents with junior high school education are 16 people (26.7%), respondents with high school education are 20 people (33.3%), and respondents with tertiary education levels of 16 people (26.7%). The education level of the respondents was further divided into 2 groups: low education (elementary and junior high) and higher education (high school and university).

Distribution of Respondents Based on Education Category

No	Education	n	%
1.	Low education	24	40
2.	higher education	36	60
amount		60	100,0

The education level of respondents in this study were more often found in respondents with a high education level of 36 people (60%) compared to the low education level of 24 people (40%).

c. Gender

Frequency Distribution of Respondents by Gender

No	Gender	n	%
1.	Male	27	45
2.	Female	33	55
amount		60	100,0

Based on the above table, it is known that the respondents in the study were more female, namely 33 people (55%) compared to male respondents totaling 27 people (45%).

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2. Knowledge of Community Leaders

Frequency Distribution of Respondents Based on Knowledge

No	Knowledge	n	%
1.	Well	31	51,7
2.	Less	29	48,3
amount		60	100,0

Based on the above table data it is known that respondents who have good knowledge about efforts to prevent transmission of tuberulosis as many as 31 people (51.7%). 29 people (48.3%) lack knowledge.

3. Public Figure Attitudes

Frequency Distribution of Community Leaders' Attitudes

No	Attitude	n	%
1.	Support	34	56,7
2.	Not Supporting	26	43,3
amount		60	100,0

Based on the table above it is known that respondents who have a supportive attitude in efforts to prevent transmission of tuberculosis are 34 people (56.7%). Respondents who have less supportive attitude in efforts to prevent transmission of tuberculosis as many as 26 people (43.3%).

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4. Role of Community Leaders

Frequency Distribution of Role of Community Leaders

No	Role	n	%
1.	Well	34	56,7
2.	Less	26	43,3
amount		60	100,0

Based on the table above it is known that respondents who have a good role in efforts to prevent transmission of tuberculosis are 34 people (56.7%). Respondents who had an unfavorable role in preventing tuberculosis were 26 people (43.3%).

Bivariate Analysis

Bivariate analysis is an analysis conducted to see the relationship between the independent variable and the dependent variable.

1. The relationship of age with the role of community leaders in efforts to prevent transmission of tuberculosis

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Age Relationship with the Role of Community Leaders

No	Age	The role of community leaders				Total	
		Good		Less			
		f	%	f	%	f	%
1.	< 41 years	13	59,1	9	40,9	22	100,0
2.	≥ 41 years	21	55,3	17	44,7	38	100,0
p value = 0,773							

The table above shows that a good role in preventing tuberculosis transmission is 59.1% more found in respondents with an age category less than 41 years compared with respondents with the same age category or more than 41 years. From the results of bivariate statistical tests with the chi square method obtained p value = 0.773 with a value of α = 0.05, then p value> α means that H0 is accepted that there is no significant relationship between age and the role of community leaders in the prevention of tuberculosis transmission.

2. The relationship of education with the role of community leaders in efforts to prevent transmission of tuberculosis

Relationship of Education with the Role of Community Leaders

No	Education	The role of community leaders				Total	
		Good		Less			
		f	%	f	%	f	%
1.	Basic	15	62,5	9	37,5	24	100
2.	High	19	52,8	17	47,2	36	100
p value = 0,457							

The table above shows that a good role in the prevention of tuberculosis transmission is equal to 62.5% more found in respondents in the basic education category than respondents in the higher education category. From the results of bivariate statistical tests with the chi square method p value = 0.457 with α = 0.05, then p value> α (0.475> 0.05) means that H0 is accepted so there is no significant relationship between education and the role of community leaders in efforts to prevent transmission of tuberculosis.

3. Gender relations with community leaders in efforts to prevent transmission of tuberculosis

Gender Relationship With the Role of Community Leaders

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No	Gender	The role of community leaders				Total	
		Good		Less			
		f	%	f	%	f	%
1.	Male	16	59,3	11	40,7	27	100
2.	Female	18	54,5	15	45,5	33	100
p value = 0,714							

The table above shows that respondents who have a good role in efforts to prevent transmission of tuberculosis are 59.3% more common in male respondents than female respondents. From the results of bivariate statistical tests with the chi square method obtained p value = 0.714 with a value of α = 0.05, then p value> α (0.714> 0.05) which means that H0 is accepted, so there is no significant relationship between sex and role community leaders in efforts to prevent transmission of tuberculosis.

4. Relationship of knowledge with the role of community leaders in efforts to prevent transmission of tuberculosis

Relationship of Knowledge with the Role of Community Leaders

No	Knowledge	The role of community leaders				Total	
		Good		Less			
		f	%	f	%	f	%
1.	Good	22	71	9	29	31	100
2.	Less	12	41,4	17	58,6	29	100
p value = 0,021							

The table above shows that respondents who have a good role in efforts to prevent transmission of tuberculosis that is equal to 71% are more likely to be found in respondents with good knowledge categories compared to respondents with less good knowledge categories. From the results of bivariate statistical tests with the chi square method obtained p value = 0.021 with a value of α = 0.05, then the p value <α (0.021 <0.05) which means H0 is rejected so there is a significant relationship between knowledge and the role of community leaders in efforts to prevent transmission of tuberculosis.

5. Relationship between attitude and role of community leaders in efforts to prevent transmission of tuberculosis

Relationship attitude with the role of community leaders

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No	Attitude	The role of community leaders				Total	
		Good		Less			
		f	%	f	%	f	%
1.	Support	25	73,5	9	26,5	34	100
2.	Not Supporting	9	34,6	17	64,5	26	100
p value = 0,003							

The table above shows that a good role in the prevention of tuberculosis transmission is equal to 73.5%, more often found in respondents with a supportive attitude category than respondents with a less supportive attitude category. From the results of bivariate statistical tests with the chi square method obtained p value = 0.003 with a value of α = 0.05, then p value <α (0.003 <0.05) which means H0 is rejected so there is a significant relationship between attitude and the role of community leaders in efforts to prevent transmission of tuberculosis.

Multivariate Analysis

Variables that are proven to be related to efforts to prevent transmission of tuberculosis can be seen in the following table.

Multivariate Test Results

No	Variable	B	*Wald*	*p* Value	OR	95%CI
1.	Knowledge	1,635	6,324	0,012	5,13	1,434 – 18,34
2.	Attitude	1,990	9,347	0,002	7,31	2,043 - 26,221
Constanta		-5,624				

The table above shows that the independent variables that are proven to be related to the dependent variable (p <0.05) are knowledge and attitudes. The contribution of the two variables that influence the role of community leaders can be seen from the Odd Ratio (OR), where the knowledge variable OR = 5.13 with p value = 0.012 and attitude variable OR = 7.31 with p value = 0.002. The result of the multiple logistic regression equation above shows that the coefficient value of the attitude variable is greater than the knowledge variable. The attitude variable has a coefficient of 1.999 while the knowledge variable has a coefficient of 1.635. These results indicate that the attitude variable has a greater relationship with the role of community leaders than the knowledge variable.

According to Green in the theory drawn through the framework of the PRECEDE-PROCEED concept, knowledge and attitudes are predisposing factors in someone to behave. Where knowledge and attitudes are included in the fourth phase of the PRECEDE phase which is

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used in problem diagnosis, setting priority problems and program objectives, while PROCEED is used to set policy targets and criteria as well as implementation and evaluation (Green, 2000).

In this study it was found that good knowledge about tuberculosis became the basis or motivation of respondents as community leaders to play an active role in preventing tuberculosis transmission, where respondents who obtained information from various media or direct information from health workers would have more knowledge better than respondents who lack access to information. The results of this study are in line with the results of Sari's (2017) research showing that knowledge also has a relationship with efforts to prevent tuberculosis. Good respondent's knowledge in the study had a prevention effort of 71% compared to respondents who had less knowledge of only 18.4%.

From the results of this study obtained information that respondents have attitudes that support the implementation of government programs in the eradication of tuberculosis in the community, another attitude of support is to encourage the families of patients to immediately bring sufferers to check themselves to the health care center. This supportive attitude is a manifestation of the active role of community leaders in the prevention of tuberculosis. The results of this study differ from the results of Bani's study (2015) which shows that most people have good knowledge 92.5%, negative attitude 50.5% and positive behavior 54.8%. Chi Square test results found r count (0.104) <r table (3.841) with a significance of 95%. and a significant value of 0.747> 0.05, then Ho is accepted so that it is concluded that there is no relationship between the level of attitude towards the prevention of tuberculosis.

Conclusions and suggestions

In this study the results obtained that characteristics such as age, education and gender do not have a significant relationship with the role of community leaders in efforts to prevent transmission of tuberculosis. Factors that are significantly related to the role of community leaders in efforts to prevent transmission of tuberculosis are knowledge and attitudes, where attitudes are the most dominant factors related to the role of community leaders because they have an OR 7.31, which means that supportive attitudes can provide a good role as much as 7.31 times greater than the knowledge factor associated with the role of community leaders with an OR 5.13 which means that good knowledge can provide a good role as much as 5.13 times.

The results of this study are expected to be a recommendation for health service providers and community leaders to further enhance collaboration in efforts to control tuberculosis through the accessibility of information, education and promotion to the general public as an effort to break the chain of tuberculosis transmission so that the morbidity and mortality rates due to disease tuberculosis can be inherited.

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