

Determinants of TB-RO Affecting Confirmation Have Not Started the Treatment

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Keywords: Sociodemography, TB-RO Confirmation, Starting Treatment.

Abstract: Indonesia is 8th of the most TB-RO in the world. Indonesia for January-June 2010 there were 3,507 suspected TB-RO, 504 confirmed TB-RO and 377 were treated for TB. From 2012 to 2017 cases of TB-RO in North Sumatra Province were 893 cases. A total of 717 cases (80.3%) underwent treatment, 20% (176 Patients) did not want to undergo treatment. Cases that did not start treatment Became a source of transmission of TB-RO in the community so that experienced Increase in TB-RO. For this reason, it is important to know the factors that affect patients confirmed that TB-RO does not start treatment in Medan. This type of observational research is case control design. The study population was all patients with TB-RO in Medan City recorded in the e-TB Manager 61 patients data. Case sample was 13 people and the control sample was 31 people. Interview of data collection using a questionnaire and analyzed by univariate and bivariate. The results showed that many patients with TB-RO could not be met because of the incompatibility of addresses with reviews those registered in the e-TB Manager and many had died. Bivariate results had no relations with sociodemographic and behavioral-RO starting TB treatment.

1 INTRODUCTION

Cases of drug-resistant pulmonary TB (TB-RO) are increasing at the global and Indonesian levels. Currently Indonesia is ranked eighth in the order of the most cases of TB-RO in the world (Ministry of Health Republic of Indonesia, 2011). The main factor causing an increase in TB-RO cases is due to the management of TB patients not according to the standard (ISTC) and program errors, health workers and the community. In Indonesia from January to June 2010 there were 3,507 suspected TB-ROs, 504 confirmed TB-ROs and 377 were treated with TB-ROs. It is estimated that there are around 6,300 TB-RO cases each year (Burhan, 2010).

From 2012 until 2017-RO TB cases in North Sumatra province as many as 893 cases while it was willing to undergo the treatment as many as 717 cases (80.3%), the rest almost 20% (176 patients) did not want to undergo treatment. Cases that do not want to start this treatment will be a source of transmission of TB in the community so that the RO-RO TB cases are increasing because it will transmit TB-RO also to the surrounding community.

Of the patients who underwent the treatment is also known that the dropout rate treatment from year to year is still high, higher than the number that can be tolerated, True i.e. 5% (provincial health office of North Sumatra, 2018).

Medan is the region with the highest TB cases in Sumatra RO Utara. Until November 2018-RO TB cases that have been confirmed in the city of Medan 324, which has not yet started treatment 61 patients (19%). More patients who already take medication as many as 282 cases (81%), with the status of the treatment was 119 patients (42%), more patients with no status in the treatment (56%).

For that, we need to know the factors that affect patients confirmed TB-RO but not initiate treatment in Medan.

2 METHOD

The research was conducted in the city of Medan. Using a case-control study design that is examining factors that influence TB treatment RO. Population case study of all patients who have no TB-RO

treatment and registered and have a valid address corresponding e-TB Manager that is 13 people. Population control TB-RO that has been treated with a ratio of 3: 1, the total population of the cases obtained 31 respondents. Collecting data using interviews using questioner. the sample was 44 cases and control. Analyze data by univariate and chi-square test, the variables with $P < 0.05$ to be related.

3 RESULT

3.1 Effect of Age with TB-RO

Based on Table 1, the proportion of respondents aged ≤ 40 years in the case group as much as 30.8% lower than the control group 41.9%. While respondents aged > 40 years in the case group as much as 69.2% greater than the control group 58.1%. Results using chi-square analysis showed that it contained no significant effect between age and treatment of TB-RO status ($p = 0.723 > 0.05$). Value OR = 1.61, indicating the status of TB-RO treatment 1.6 times the tendency occurred on the respondents were aged ≤ 40 years versus > 40 years.

The study is in line with research Yusi, et al (2018) in Semarang obtained a value of $p = 0.098$, which means there is no significant effect between age determinant Treatment. Research Dessisa et al in East Shoa, Ethiopia (2018) obtained by value $p = 0,700$ which means there is no effect between age and treatment of TB-RO. At age range before entering old age, a person is less able to adjust to the problems encountered. In developmental age on psychosocial aspects, someone who is considered to have entered the middle to late adult life adjustment

skills of adaptation in which a person diagnosed with TB disease will be having a good attitude and behavior in achieving recovery to resolve the problems faced. In contrast to the theory on the results of the study, the prevalence of age > 40 years higher than the ≤ 40 years.

3.2 Effect of Gender with TB-RO

Based on Table 2, the proportion of respondents who sex men in groups of 8 cases (61.5%) and control group of 20 people (64.5%). While respondents were female in a case group of five people (38.5%) and a control group of 11 people (35.5%). Results of analysis using the chi-square test showed that in this study there was no significant effect between the sexes with RO TB treatment status ($p = 1.000 > 0.05$). Value OR = 1.136, indicating the status of TB treatment RO 1-time tendency occurred on the respondents were male sex than women.

The study is in line with research Wulandari (2015), that shows the value of $p = 0.592$, which means there is no influence of gender with medication adherence in patients with advanced lung TB. Backed by research Anderson et al. (2013) obtained the value $p = 0.256$, which means there is no influence of gender with TB treatment success RO.

In this case, each patient with TB has the motivation to achieve recovery. Their motivation to start treatment and regularly OAT drinking behaviors will increase the likelihood of successful treatment. The chances of success of TB treatment between men and women are equal because TB treatment programs do not discriminate based on gender.

Table 1: Effect of age with status treatment.

Age	Status Treatment				P	OR	95% CI
	Case		Control				
	N	%	n	%			
≤ 40 years	4	30.8	13	41.9	0.723	1.625	0.410 to 6.449
> 40 years	9	69.2	18	58.1			
Total	13	100	43	100			

Table 2: Effect of gender in medicine status.

Gender	Status Treatment				P	OR	95% CI
	Case		Control				
	n	%	n	%			
Male	8	61.5	20	64.5	1,000	1.136	0.298 to 0.693
Female	5	38.5	11	35.5			
Total	13	100	31	100			

Table 3: Effect of education with treatment status.

Education	Status Treatment				P	OR	95%CI
	Case		Control				
	n	%	n	%			
Low	5	38.5	14	45.2	0.940	1,318	0.351 to 4.945
High	8	61.5	17	54.8			
Total	13	100	33	100			

Table 4: Effect of work by status of respondents.

Occupation	Status Treatment				P	OR	95%CI
	Case		Control				
	n	%	n	%			
Not Employed	9	69.2	19	61.3	0.738	0.704	0.177-2.802
Employed	4	30.8	12	38.7			
Total	13	100	31	100			

3.3 Effect of Education with TB-RO

According to the Table 3, the proportion of respondents with low education in case group as much as 38.5%, lower than in the control group as much as 45.2%. While the highly educated respondents in the case group as much as 61.5%, the rate is higher than in the control group as much as 54.8%. Results using chi-square analysis showed that there is no influence of this research study with TB-RO treatment status ($p = 0.940 > 0.05$). Value OR = 1.318, indicating the status of TB treatment RO 1.3 times the tendency to occur in less educated respondents compared educated.

This study is in line with Rusman and Basri (2019) in the Health Center Indramayu Jatisawit obtained $p = 0.082$ which means there is no influence of education with pulmonary TB treatment. According to Green, education is a major factor forming behavior. OAT adherence is one of the behaviors that can be assessed by both observation and recall. In general, the higher a person's education, the better their behavior (Notoadmojo, 2010). The results of the above cross-tabulation obtained by those who have not started treatment was higher in the lower than the higher education, so the results prove that education is not a determinant of treatment TB-RO.

3.4 The influence of Jobs with TB-RO

Based on Table 4 the proportion who do not work in the case group as much as 69,2% and in the control group that did not work as much as 61.3%, while the proportion of respondents who worked in the group amounted to 30.8% of cases and the control group by 38.7% Results of analysis using the chi square

indicates that there is no influence of this research work to the status of TB-RO treatment ($p = 0.520 > 0.05$). Value OR = 0.704, indicating the status of TB treatment RO0.7 times leanings of respondents did not work

The study is in line with research of Yusi, et al. (2018) in Semarang obtained value of $p = 0.995$, which means there is no influence between work and determinants of treatment. Backed by research Kuchukhidze et al. in Geogia, USA (2014) obtained the value $p = 0:11$, which means there is no effect of treatment status job.

In this case, the type of risky work that can cause a person to be exposed to substances that can interfere with lung function and possible work is that someone has direct contact with a TB patient. Traders and workers are more likely to have poor TB treatment outcomes because traders and workers have longer working hours and there are no definite time limits. So it is possible to have a less permissive attitude to start TB treatment and get less support to start treatment from the surrounding environment as a stimulus to increase patient motivation in achieving healing and successful treatment. However, it is different from the results of research respondents who do not work have a higher proportion of not starting treatment than those who work, this is because respondents who used to work are no longer able to work because of the pain experienced.

3.5 Influence of Income with TB-RO

According to the Table 5, the proportion of income in the case group 100% of low-income, whereas in the control group at 93.5% low income and low income of 6.5%. Results using chi-square analysis

showed that it contained no significant effect between age and treatment of TB-RO status ($p = 1.000 > 0.05$). Value OR = -20.40, indicating the status of TB treatment RO 1.3 times the tendency to occur in low income compared high income.

Not meaningless variable revenue due for 100% of the cases and more than 90% in the control to be the subject of research, have in common is living in families with low-income economic status UMR. The similarity in the characteristics of family income in case and control groups, each group has the opportunity determinant of treatment.

3.6 Influence Knowledge with TB-RO

Based on the Table 6, the proportion of respondents who are knowledgeable lower in the case of 6 (31.6%) and a control group of 13 people (68.4%). While the high knowledgeable respondent group of 7 cases (28.0%) and the control group of 18 people (72.0%). Results of analysis using the chi-square test showed that in this study there was no significant effect between knowledge and RO TB treatment status ($p = 1.000 > 0.05$). Value OR = 0.843, indicating the status of TB treatment RO 0.8 times the tendency to occur at low knowledgeable respondents compared knowledge.

This study is in line with research Utami, Tunru and Yusnita (2018) in Johar Baru sub-district health center in Central Jakarta variable results obtained knowledge $p = 0.069$, no effect of the level of knowledge with the successful treatment of TB-RO.

3.7 Attitudes Influence with TB-RO

Based on the Table 7, the proportion of respondents whose attitude is not good in the case group of five people (55.6%) and control by 4 people (44.4%). While both groups of respondents' attitude of 8 cases (22.9%) and the control group of 27 people (77.1%). Results of analysis using the chi-square test showed that in this study there was no significant effect between attitude with TB-RO treatment status ($p = 0.098 > 0.05$). Value OR = 0.237, indicating the status of TB treatment RO 0.2 times the tendency occurred on the respondents' attitude is not better than a good attitude. The study is in line with Mientarini, Sudarmanto, Hasan (2018) obtained the value $p = 0.321$, which means there is no influence by the gesture with medication adherence.

Differences in the characteristics of respondents can influence the attitudes of TB patients while undergoing Treatment. The factors that influence attitude is one's knowledge. The higher the person's knowledge will contribute to the formation of a good attitude. Attitude formation cannot be separated from their factor- factors that influence such a personal experience, culture, others that are considered important, the mass media, as well as emotional factors of the individual. It is clear that the level of acceptance or respondents were permissive to TB drugs will affect the behavior of the TB treatment success to be good or vice versa can be poor. Success to be good or vice versa can be poor.

Table 5: Effect of income to the status of respondents.

Income	Status Treatment				P	OR	95% CI
	Case		Control				
	n	%	n	%			
Low	13	100	29	93.5	1,000	20.40	0,000
High	0	0	2	6.5			
Total	13	100	33	100			

Table 6: Effect of income to the status of respondents.

Income	Status Treatment				P	OR	95% CI
	Case		Control				
	n	%	n	%			
Low	13	100	29	93.5	1,000	20.40	0,000
High	0	0	2	6.5			
Total	13	100	33	100			

Table 7: Effect of attitude to the status of respondents.

Attitude	Status Treatment				P	OR	95%CI
	Case		Control				
	N	%	n	%			
Not Good	5	77.1	4	44.4	0.98	0.237	0.051 to 1.098
Good	8	22.9	27	55.6			
Total	13	100	31	100			

4 CONCLUSION

No influence of sociodemographic (age, sex, education, occupation, income), knowledge and attitude with TB RO Treatment Status.

ACKNOWLEDGMENT

Thank you to the TALENTA Research Institute, University of North Sumatra for providing research funding, with contract number: 4167 / UN5.1.R / PPM / 2019 April 1, 2019.

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