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The Influence Of Attitudes And Social Support On The Smoking Behavior Pulmonary Tuberculosis Patients In Medan City 2016.

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ABSTRACT

Smoking is one of the factors that led to the lack of effective treatment of pulmonary tuberculosis, increasing the risk of pulmonary tuberculosis disease, exacerbating the disease pulmonary tuberculosis, as well as the increase of recurrence and failure in the treatment of pulmonary tuberculosis. The results of the initial survey of 2015 there are about 120 patients with pulmonary tuberculosis. It is known that about 50-60% of all patients with pulmonary tuberculosis in Medan city are smokers with the highest age of 31-50 years. The purpose of this study was to analyze the influence of attitudes and social support on the smoking behavior with pulmonary tuberculosis in Medan City. This Study use research explanatory with cross sectional design, the population in this study were all patients with pulmonary tuberculosis who underwent pulmonary tuberculosis treatment at all health centers in Medan city about 120 patients in period August 2015-February 2016. The number of samples obtained after fulfilling the inclusion criteria and exclusion was 88 samples. Data collection methods used in the form of a structured questionnaire by directs interview method. Data was processed and presented in tabular form according to various determinants, and the data were analyzed by using pearson correlation test. The results of research on the significance level of 95% ($p < 0.005$) indicates attitude variables have an influence on smoking behavior ($p = 0.001$) and variable social support have an influence on smoking behavior ($p = 0.033$).

Keywords: Attitudes, Social Support, Smoking Behavior, Pulmonary tuberculosis.

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INTRODUCTION

Pulmonary Tuberculosis is a major health problem in the world. In 2014, an estimated 9.6 million new Tuberculosis cases: 5.4 million in men, 3.2 million in women and 1 million children. Also found were 1.5 million deaths from pulmonary tuberculosis (1.1 million people with HIV negative and 0.4 million in HIV-Positive) [1], [2]. Pulmonary tuberculosis is a chronic infectious disease. These bacteria are able to survive and thrive in humid temperatures, spreading the disease through sputum (droplet) of people who have been infected with tuberculosis. This disease spreads rapidly in susceptible people and low endurance immune system. Pulmonary tuberculosis is a disease that disrupts human resources and generally attacks societies with low socioeconomic groups [3] [7].

Indonesia has a high burden of tuberculosis. Indonesia was the first country among the High Burden Country in the WHO South-East Asia Regional region capable of achieving global tuberculosis targets for case detection and treatment success in 2006. In 2009, 294,732 cases of tuberculosis have been found and treated and more than 169,213 [1] [6] [8].

Suction large quantities of cigarettes can increase the risk of pulmonary tuberculosis, aggravate pulmonary tuberculosis, and increase the risk of recurrence and failure in the treatment of pulmonary tuberculosis. Lin's research from Harvard's school of public health in 2009 proves there is a link between smoking habits, passive smoking and indoor air pollution from firewood and coal to the risk of infection, disease and death from pulmonary tuberculosis. Based on the Global Adult Tobacco Survey: Indonesia report 2011, found 59.8 million smokers in Indonesia (34.8% -67% male and 2.7% female) with an average of 12.8 cigarettes smoked per day [1] [4] [5].

The purpose of this study was to analyze the influence of attitudes and social support on the smoking behavior with pulmonary tuberculosis in Medan City 2016.

MATERIALS AND METHODS

The type of this research is research explanatory with cross sectional research design to analyze the influence of attitude and social support to the happening of pulmonary tuberculosis in Medan city 2016. The research location is all of health centre in Medan city. The time of the research was conducted in August 2015-February 2016. The population in this study was all patients with pulmonary tuberculosis who undergoing treatment in Medan city on 2015 as many as 150 people. The sample of the study was male lung tuberculosis patients who were undergoing pulmonary tuberculosis treatment which has fulfilled the criteria of inclusion as a sample: lung tuberculosis patients undergoing treatment, male, age 17-70 years and willing to be respondent.

Data collection method is structured questionnaire by interview method. With the type of research data that is primary data obtained through interviews using questionnaires and secondary data obtained through documentation record medic records patients with pulmonary tuberculosis in the city of Medan in 2016.

EXPERIMENTAL

Performed a validity test with correlation of pearson correlation. The test is performed on 10 statements of each independent variable. All statements are valid if the correlation of the calculated results is greater than the criterion value of the correlation rate of 90% significant level. And reliability test results using cronbach's alpha test obtained rcronbach alpha value overall > 0.65.

RESULTS AND DISCUSSION

The city of Medan is located between 2°27' - 2°47' North Latitude, 98°35' - 98°44' East Longitude. Medan City 2.5-37.5 meters above sea level. Boundary of Medan city to the north, south west and east with Deli Serdang district. Medan city is one of the 33 regions of level II in North Sumatra with an area of about 265.10 km².

This city is the central government of the region I of North Sumatra which is directly adjacent to Deli Serdang regency in the north. Most of the city of Medan is a lowland which is a meeting place of two important rivers, the Babura river and the Deli river. Medan City has a tropical climate with minimum temperature according to Polonia station in 2011 ranged from 23.2 ° C - 24.2 0C with maximum temperature ranged between 31.60 C - 35.8 0C and maximum temperature ranges from 29.10 C-32 , 90 C. The total population of the city of Medan in 2016 amounted to 2,210,624 inhabitants with a population density of 8,342 inhabitants / km2 [11].

Respondent Character Distribution:

Age of Respondents

Based on the result of the research, the age of respondent of tuberculosis patients is more at the age of 31-50 years old as many as 45 people (51.14%), age 17-30 years 20 people (22,72%) and age 51-70 year 23 people (26.14%). The age distribution of respondent of pulmonary tuberculosis patients in Medan city at 2016 was shown in table 1.

Table 1: Age distribution Respondents of pulmonary tuberculosis patients in Medan City

Number	Age Respondents (Years)	Frequency	%
1	17-30	20	22,72
2	31-50	45	51,14
3	51-70	23	26,14
Total		88	100,00

Last Education

Based on the result of the research, the last education of Tuberculosis Pulmonary respondents are: not completed primary school / elementary school finish as many as 35 people (39,78%), finished junior high school as many as 26 people (29,54%), finished senior high school as many as 27.27% and graduate degree as many as 3 people (3.41%) can be viewed in table 2.

Table 2: The last educational distribution of Pulmonary tuberculosis patients in Medan city

Number	Last Education	Frequency	%
1	not completed primary school / elementary school finish	35	39,78
2	finished junior high school	26	29,54
3	finished senior high school	24	27,27
4	graduate degree	3	3,41
Total		88	100,00

Job

Based on the result of the research, the Job of respondent of tuberculosis patients are as follows: not working as much as 3 people (3.40%), fishermen as much as 20 people (22.73%), Laborers as much as 5 (5.69%), Government employees/private employees as much as 60 people (68.18%). The distribution of Job of pulmonary tuberculosis patients was shown in table 3.

Table 3: Distribution of Job of Pulmonary tuberculosis patients in Medan City

Number	Job	Frequency	%
1	Not working	3	3,40
2	Fishermen	20	22,73
3	Laborers	5	5,69
4	Government employees / private employees	60	68,18
Total		88	100,00

Univariate analysis

Based on the measurement of the number of respondents who do not smoke there are as many as 70 people (80%) while those smoking as many as 18 people (20%) with a total of 88 respondents. The data was shown in table 4.

Table 4: Distribution of the number of respondents did not smoke and smoke tuberculosis patients in the city of Medan in

Number	Respondents	Frequency	%
1	Did not Smoke	70	80
2	Smoke	18	20
Total		88	100

Attitude

Respondents' answers on each question the attitude of patients with pulmonary tuberculosis can be seen in table 5.

Table 5: Distribution of respondents' answers on the attitude statement of pulmonary tuberculosis patients in Medan city

	Statement	answers				Total (%)
		Very agree (%)	Agree (%)	disagree (%)	Very disagree (%)	
1	Pulmonary tuberculosis is a highly contagious disease	13 (14,77)	68 (77,27)	7 (7,95)	0 (0)	88 (100)
2	Pulmonary tuberculosis patients should take medication regularly until completely	20 (22,72)	65 (73,86)	3 (3,41)	0 (0)	88 (100)
3	Pulmonary tuberculosis patients should not throw sputum in all places	7 (7,95)	72 (81,82)	9 (10,23)	0 (0)	88 (100)
4	Pulmonary tuberculosis patients should not be alienated	7 (7,95)	73 (82,96)	8 (9,09)	0 (0)	88 (100)
5	Pulmonary tuberculosis patients get treatment from health workers	27 (30,68)	59 (67,04)	1 (1,14)	1 (1,14)	88 (100)
6	Smoking harms others	19 (21,59)	48 (54,55)	17 (19,31)	1 (1,14)	88 (100)
7	Smoking affects household income	22 (25)	48 (54,55)	17 (19,31)	1 (1,14)	88 (100)
8	Smoking has a related with pulmonary tuberculosis	4 (4,55)	61 (69,32)	21 (23,86)	2 (2,27)	88 (100)
9	Non-smoking area in a public area	12 (13,64)	37 (42,04)	35 (39,77)	4 (4,55)	88 (100)
10	Pulmonary tuberculosis patients should not smoke	23 (26,13)	52 (60)	12 (13,64)	1 (1,14)	88 (100)

The result of measurement of respondent attitude of tuberculosis patients in Medan city, then categorized and obtained that attitude with good category as many as 32 people (36.37%), enough category 46 people (52.27%) and less category as many as 10 people (11.36%) can be seen in table 6.

Table 6: Distribution of respondents' category of tuberculosis patients in the city of Medan city

Number	Attitude Category	Frequency	%
1	Good	32	36,37
2	Enough	46	52,27
3	Less	10	11,36
Total		88	100,00

The dominant attitude of the respondents in the Enough category reaching 51.14% indicates that the attitude of the respondent should be increased with the hope of the final response of the attitude can be realized the behavior of smoking is eliminated. The results of this study is similar to the research Kang M J. Confidence and emotion to stop smoking behavior in patients with pulmonary tuberculosis have an important role. High awareness and inner decisions are needed to better cultivate health and stop smoking[9].

Social Support

Respondents' answers to each item of social support statement in patients with pulmonary tuberculosis can be seen in Table 7.

Table 7: Distribution of respondents' answers to the statement of social support of pulmonary tuberculosis patients in Medan city

Number	Statement	Answers		Total (%)
		Yes (%)	No (%)	
1	Family members participate in health activities	23 (26,13)	65 (73,87)	88 (100)
2	Family members ask you to go to treatment	68 (77,27)	20 (22,73)	88 (100)
3	Neighbors accompany each treatment	28 (31,82)	60 (68,18)	88 (100)
4	Supervisors take medicine	63 (71,59)	25 (28,41)	88 (100)
5	Reprimanded if not treated	65 (73,86)	23 (26,14)	88 (100)
6	Don't Smoke in the home	61 (69,32)	27 (30,68)	88 (100)
7	Don't smoke in public place	43 (48,86)	45 (51,14)	88 (100)
8	Offered to smoking	62 (70,45)	26 (29,55)	88 (100)
9	Community organizations invite to go to treatment	13 (14,77)	75 (85,23)	88 (100)
10	Community organizations invite to stop smoking	18 (20,46)	70 (79,54)	88 (100)

The result of measurement of social support to respondent of Pulmonary tuberculosis patient in Medan, then categorized and obtained social support with good category as many as 7 people (7,96%), category enough as many as 51 people (57,95%) and less category as many as 30 people (34,09%). Can be seen in table 8.

Table 8: Distribution of categories of social support of patients with pulmonary tuberculosis in Medan city

Number	Social support category	Frequency	%
1	Good	7	7,96
2	Enough	51	57,95
3	Less	30	34,09
Total		88	100,00

The results of this study is similar to the Westmass research which states the relationship between social support and smoking behavior. Lack of attention neighbors and friends around the respondents have an effect on the success of pulmonary tuberculosis treatment and many families who have no health background or activities that are health or community [10].

CONCLUSIONS

Based on the results of research and discussion that has been done, the conclusion of this study is the variable attitude and social support affect the smoking behavior of patients with pulmonary tuberculosis.



REFERENCES

- [1] World Health Organization. Global Tuberculosis Report 2015. Geneva; 2015
- [2] Sarafino EP, Smith TW. Health psychology: biosychosocial interactions. Seven edition. USA: Jhonwiley& sons inc; 2011
- [3] Chizimba R, Christofides N, Chirwa T, et all. The association between multiple sources of information and risk perceptions of tuberculosis ntcheu district Malawi. Plos one. 2015; 10 (4)
- [4] CrevelRv, Ottenhoff THM, Meer JWMvd. Innate Immunity to Mycobacterium tuberculosis. Clinical microbiology reviews. 2002;15: 294-309
- [5] Lurie M, Dannenberg A. Macrophage function in infectious disease with inbred rabbit. Bacteriol rev 1965;29: 466-76
- [6] Manabe Y, Dannenberg A. Pathophysiology : Basic aspect. In :Sclossberg, ed. Tuberculosis and Nontuberculosis Mycobacterial infection: McGraw Hill; 2006: 18-43
- [7] Fitzgerald D, Sterling T, Haas D. Mycobacterium tuberculosis. In : GI Mande JB, R Dolin, ed. Principle and practice of infectious disease: Chuchill-livingstone; 2010: 3129-64
- [8] PreventionCfDca. Treatment of Tuberculosis In;2003: 19-29
- [9] Kang M J. Lung Matrix metalloproteinase-9 corelates with cigarette smoking and obstruction of airflow. J Korean med sci pp. 2003; 8 (2)
- [10] Westmass JL, Jones JB, et all. Sosial Support in smoking cessation: reconciling theory and evidence. Nicotine and tobacco research. 2010; 12 (7) : 695-707
- [11] Central Bureu Statistics Of Indonesia. Statistics Indonesia.2015