THE RELATIONSHIP BETWEEN FAMILY SUPPORT AND TUBERCULOSIS DRUG'S COMPLIANCE IN PEKANBARU

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Abstract

Tuberculosis until now is still a health problem in Indonesia and global. A cross sectional study was conducted determines the relationship between family support and tuberculosis drug's compliance in Pekanbaru. A total of 58 patients were included in the study that admitted in the ward and came to the respiratory discipline clinic that consume anti tuberculosis drug more than three month. Data collection was done by family support and tuberculosis drug's compliance questionnaire had been valid (0.96 and 0.79). The questioner had been test to 20 respondent in Petalabumi Hospital . The data was analyzed by chi square test. The result study showed that 74.14% had positive family support and 65.52% was compliance to consume drug for tuberculosis. However there was relationship between family support and tuberculosis drug's compliance with p value 0.036. Compliance and family support are the great of Tuberculosis control. To improve Tuberculosis drug's compliance need to understand non-compliance and need to adopt a very and comprehensive view of patient compliance.

Keywords: Compliance, Drug, Family support, Tuberculosis

BACKGROUND

Tuberculosis (pulmonary TB) is a disease that has long been known and is still a health problem in many countries in the world (Dep Kes RI 2008). According to the World Health Organization (WHO) in 2013, there were approximately 8.6 million people fell ill with pulmonary TB and 1.3 million died of pulmonary TB. More than 95% of deaths from pulmonary tuberculosis in low and middle income countries, and it is among the top three causes of death for women aged 15 years to 44 years. An estimated 530,000 children became ill with pulmonary TB and 74,000 children died from pulmonary TB HIVnegatif. Pulmonary TB is the major killer of people living with HIV, causing one quarter of all deaths.

Pulmonary TB global impact, approximately 80% of TB cases were reported in 22 countries worldwide. Based on the report the results of a survey conducted by WHO from 2008 to 2012 in the countries of the world, that the use of Directly Observed Treatment Short Course (DOTS) and stop TB strategy able to reduce the burden of TB each year. The use of stop TB DOTS strategy is treatment with direct supervision of therapy by helping patients take the drug on a regular basis to ensure compliance in the treatment of patients with pulmonary TB

Millennium Development Goals (MDGs) to reverse the spread of TB in 2015 and the number of deaths caused by pulmonary TB decreased 45% and an estimated 22 million people in the world is saved by The program (WHO, 2013). The same thing happened in Indonesia. Pulmonary TB control in Indonesia a lot of progress, even close to the MDG target for the prevalence of pulmonary tuberculosis patients in Indonesia demonstrated treatment success rate with the use stop TB DOTS strategy. The percentage for the success of such treatment from 2003 through 2008 that, in 2003 (87%), in 2004 (90%), from 2005 to 2013 are all the same (91%) with prevalence of the burden of pulmonary TB 297 cases per 100,000 population in Indonesia. Overall cases of TB in Indonesia at this time as much as 331 424 cases (WHO, 2013). Pulmonary TB is a disease that can be treated and cured. Pulmonary TB treatment can be given in two stages, namely the 2-month intensive phase of treatment and the advanced stage of the next 4-

6 months. Regular treatment in patients with pulmonary TB can be cured completely, if the patients themselves want to obey the rules concerning the treatment of pulmonary TB. It is important for patients to seek treatment and do not drop out if patients stop treatment, pulmonary TB bacteria will start to multiply again, which means the patient repeats intensive treatment during the first 2 months (WHO, 2013). Without treatment, after five years 50% of TB patients will die, 25% will heal itself with higher endurance, and 25% as chronic cases that remain infectious (Limbu & Marni, 2007). Conversely, if the patient execute well treatment or treatment with supervision taking medication directly so that they can defend themselves against diseases, prevent the entry of germs from the outside and can reduce the number of deaths caused by the pulmonary tuberculosis (Muniarsih & Livana, 2007).

Family support is supporting successful treatment of pulmonary TB patients by always reminding the patient to take medicine, understanding to patients who are sick and encouraged to remain diligent treatment. Family support is needed to encourage patients with pulmonary tuberculosis show concern and sympathy, and care for patients. Family support, which involves the concerns of emotional support and affirmation, will make the patient's pulmonary TB is not alone in dealing with situations and family support can empower patients with pulmonary TB during treatment with support continuously, such as reminding patients to take medication and be sensitive to Pulmonary tuberculosis patients if they experience side effects of TB drugs According Zahara (2007), in his research he found that family support is an important factor in the success of TB patients adhere to the treatment program. Regional General Hospital Arifin Achmad is one of the hospitals that serve patients with pulmonary TB in the province of Riau, to provide room for patients with pulmonary TB and MDR Poli.

Based on the results of the medical record that the cases of pulmonary tuberculosis from 2010 to 2012 decreased, which recorded 45% of cases of pulmonary TB in 2010, 32% of cases of pulmonary TB in 2011 and 21% of cases of pulmonary TB in 2012 (Medical Record (MR) Arifin Achmad Hospital, 2013). Based on preliminary observations made in October 2013 obtained information that the number of visits of pulmonary TB patients in 2012 to the District General Hospital and Poly MDR Arifin Achmad every bulannnya average of 350 patient visits to both old and new patients. Is a frequent complication of TB recurrence and also new problems. Results of interviews with five patients with pulmonary TB patients found three people say come to the clinic sometimes escorted by family, two people often come alone. Of the five patients, two patients said already bored with their disease and feel burdening families, while the other 3 patients say difficult to do daily activities due to illness and feel less noticed by his family. Based on the above background, the researchers are interested in knowing more deeply the relationship with the family support medication adherence in patients with pulmonary TB at District General Hospital Arifin Achmad.

This study aims to determine the relationship with the family support medication adherence in patients with pulmonary TB at District General Hospital Arifin Achmad. Results of this research are used for the development of science, especially in the Department of Nursing, University of Riau. To add insight and experience of researchers in particular on the question of pulmonary TB. To be used as an input for the Regional General Hospital Arifin Achmad in preparing the management plan pulmonary TB disease in the future.

METHODS

This research is a quantitative research design analytic survey with cross sectional survey design a study to study the dynamics of the correlation between the two variables simultaneously at any one .This research studies the relationship of independent variables (independent variables) are variables that the cause of change or the emergence of the dependent variable (dependent variable) as a variable effect or effects. This study consists of two (2) variables, namely, support for the family as an independent variable

(independent variable) and medication adherence as the dependent variable (dependent variable).

The population in this study were all patients with pulmonary tuberculosis who admitted in Kenanga ward and came to pulmonary clinic. The number of samples in this study is 58 people. The data was collected by used family support and medication adherence questioner. his study uses analysis Univariate and Bivariate Analysis. Univariate analysis only produces the frequency distribution and percentage of each variable. Bivariate analysis was conducted to determine the relationship between the two variables are independent variables (family support in patients with pulmonary TB) with dependent variable (medication adherence in patients with pulmonary TB). To determine the relationship between the variables used Chi-square test with significance ( ) = 5%General.

RESULTS

The study found that there was 60.34% people stay in the city of Pekanbaru. The majority of respondents was adults end (39.66%) and most of them was male sex (74.14%). Base on the level of education majority of respondent was not school (31.01%). The majority of respondents in this study low income and majority they lived with his wife (43.10%). The majority of respondents in this study get support positive from their family. The proportion of respondents can be seen in medication adherence found 65.52%people obedient and 20 non-compliance (34.48%). The majority of respondents in this study obedient. Judging from the relationship with the family support medication adherence was obtained 43 positive family support (74.14%), 32 adherent to take medication (55 , 17%), and 11 were non-adherent (18.97%). Results of statistical test Chi-square with p-value = 0.036. There is indicates that there is a relationship between family support with compliance to take medication in patients with pulmonary TB at District General Hospital Arifin Achmad. From the analysis results obtained value OR = 4.3 means that patients who have had a negative family support 4.3 times for non-

compliant in taking the drugs when compared to patients that received positive support.

DISCUSSION

The majority of patients with pulmonary tuberculosis at the Regional General Hospital Arifin Achmad addressed in the city of Pekanbaru. Pekanbaru city used as a city of trade and services, including as a city with a growth rate, migration and urbanization are high. Pekanbaru city development with regard to the health of their own community. One permasalahnya today is the population explosion that occurred in the city of Pekanbaru, either due to urbanization or because birth control. This resulted in an imbalance between the growth of population with the government's ability to provide new permukimanpermukiman, so that the newcomers will be looking for alternative living in slums to sustain life in the city of Pekanbaru. According to the survey that was conducted Darmawati (2012), the most common cases of tuberculosis in the slums of Pekanbaru and humid areas, due to the unhealthy areas, transmission or spread of the deadly disease fast enough. The majority of pulmonary tuberculosis patient age in this study are in the age group of early adulthood and late adulthood.

According to the CDC (2009), pulmonary TB disease is a chronic disease that can affect all ages; In addition to causing morbidity and mortality is high enough, it can also be detrimental to the economy because of loss of working hours. Based on research Panjaitan (2012), the highest incidence of pulmonary tuberculosis usually affects adults. Pulmonary TB disease mostly occurs in adults who have received primary infection in childhood and is not handled properly. Followed adulthood and old age are most often affected by TB in the United States in 2008. The highest number of cases of TB most about the age of 25 up to 44 years (33% of all cases), followed by ages 45 to 64 years (30% of all cases). At the age of above 65 years old in the 19% range. While the rest of the population is aged between 15 to 24 years of age (11%) and aged 14 years and under (6%). This situation allegedly had to do with the level of activity and work as

productive labor that allows for easily infected with the TB germ at any time of the patient, especially with smear positive.

Mobility and social interaction is higher in people aged 15-50 years, who had to work to earn income to meet family needs, enabling them to be infected than other people becomes higher. The majority of patients with pulmonary tuberculosis at the Regional General Hospital Arifin Achmad male sex. More men than women suffer from pulmonary tuberculosis in District General Hospital Arifin Achmad. According to research by Watkins and Plant (2006), this is due to the habit of smoking in males.

Smoking is predicted as a significant factor causing differences in the proportion of sex on the incidence of pulmonary tuberculosis in the world. The study also concluded that smoking is an important risk factor that can be changed (modified) and has a significant impact on the epidemiology of TB globally. According to the research that has been conducted Hiswani (2009), patients with pulmonary TB tended to be higher in men than women. At this gender characteristics of men is higher because of smoking tobacco and drinking alcohol so it can reduce the body's defense system, making it more easily exposed to the agent that causes tuberculosis of the lungs. The majority of patients with pulmonary TB in this study low levels of education.

According to research Panjaitan (2012), education is a risk factor for the transmission of tuberculosis. The low level of education of the respondents, will affect the understanding of tuberculosis. People who feel higher education, seven times more vigilant against pulmonary TB (symptoms, modes of transmission, treatment) when compared to people who just go through primary education or lower. Low education is associated with low levels of awareness of pulmonary tuberculosis infection. According Hiswani (2009) in his research mentions one's education will also influence the person's knowledge of them on homes and neighborhoods that meet the health requirements, so with enough knowledge then someone will try to have a clean and healthy

ifestyle. In addition the level of pedidikan someone will influence the type of work.

The majority of patients with pulmonary TB income in this study low income. According Kunoli (2013), that the development of pulmonary TB according to age, the adult higher TB incidence rates in males. Pulmonary TB morbidity rates are higher among the poor and the urban areas compared to rural areas. According Illu, Picauly and Ramang (2012), the deterioration in economic circumstances, a group of poor people increased, diminishing the purchasing power, the ability to meet basic needs dwindle and feared it would worsen the state of public health conditions, especially pulmonary tuberculosis patients.

According Hiswani (2009), a low income can increase a person's risk of tuberculosis. This situation leads to poor housing (room temperature, ventilation, lighting, humidity, inadequate sanitation) and too dense, nutrient poor food intake and poor working conditions. The humidity inside the house facilitates the proliferation of pulmonary TB germs, as well as the state of the air vents in rooms that are small (less than 15% of the floor area) is closely related to the incidence of pulmonary tuberculosis disease. Ventilation plays a major role in the circulation of air is mainly emit CO_2 and hazardous materials such as pulmonary TB germs. The majority of patients with pulmonary TB in this study lived with his wife. According Zahara (2007), the treatment of pulmonary TB takes a long time (up to 6 or 8 months) to achieve healing and with a guide (a combination of) several kinds of drugs, so it is not uncommon patients stop taking medication before the treatment is completed resulting in failure in TB treatment ,

WHO DOTS strategy (Direct Observed Treatment Short Course) in the management of TB patients to ensure the patient swallowing the drug, conducted the direct supervision of a Supervisory Drinking Drugs (PMO). Supervision and efforts to shorten the time span of treatment, TB patients are expected to take medicine on a regular basis so that the complete treatment period. Based on research conducted by Purwanta (2005), the results of research some respondents wanted the PMO is

a woman, his wife, and there is no problem with sex. This is because women have the nature of patient and painstaking.

These results indicate that the PMO is expected is the patient who lives one house. This is in accordance with the instructions of the MOH (2008), PMO is someone who lives close to the homes of people, willing to help people voluntarily. Supervisory Drinking Drugs (PMO) who lives one house with the patient can keep an eye on the patient to actually ingest the drug every day, so there is no withdrawal. The majority of patients with pulmonary TB in this study support positive family. According to research Limbu and Marni (2007), that a positive family support is expected to either deliver directly to check on the health center or hospital, physician or other health care workers. . Support positive family is participating fully in the treatment of such patients; menu settings eating and drinking, resting pattern, especially hygiene self-care, taking medication and be able to refer the patient if there are symptoms of severe drug side. According Dhewi et al (2011), said that family support has an association with medication adherence of TB patients in which he stated should PMO is a family member is a child or partner is the reason more believable. Besides the emotional closeness of the relationship affect the PMO than as supervisors taking medicine also provide emotional support to people with TB. Pulmonary TB disease is a chronic infectious disease caused by the bacterium Mycobacterium tuberculosis.

The main transmission pulmonary TB disease is by bacteria contained in droplets released when sneezing and even talking sufferers (Muttaqin, 2008). These bacteria also have a high fat content in the cell membranes, causing the bacteria are becoming resistant to acids and growth of bacteria occurs very slowly (Tabarani, 2010). Long treatment time which causes the sufferer is often in danger of dropping medication during the healing period for various reasons, among others felt it was healthy or economic factors. The result is a pattern of treatment should be started from scratch at a cost even become bigger and spend a longer treatment time (Riskesdas,

2010). According to the researchers this situation is caused by non-compliance of patients in treatment.

Compliance is very important in healthy behavior. In addition other issue is the treatment of pulmonary TB disease requires 8 Jom PSIK VOL.1 NO 2 a long time and a routine that is 6-8 months. Thus, if the patient taking the medication irregularly or not completed, it will result in immunity multiple germs of TB against Anti pulmonary tuberculosis (OAT), which is ultimately for the treatment of patients must pay a high / expensive as well as within a relatively longer. Compliance is an attitude that is a response that appears only when the individual is exposed to a stimulus that calls for individual reactions. If the individual does not comply with what has become statute can be said to be obedient.

Medication adherence is influenced by several variables: age, education, income, knowledge, attitudes, and the role of the PMO (Budiman, Mauliku & Anggreini, 2010). Relations with the Family Support Compliance Drink Drugs in Patients with pulmonary TB bivariate analysis results Chi-Square indicates that there is a relationship with the family support medication adherence in patients with pulmonary TB Regional General Hospital Arifin Achmad. Based on the results of the odds ratio (OR) of patients who received a negative family support also have a chance to disobey than respondents who support positive family. According to Niven (2012), the family can be a very influential factor in determining the health of the individual beliefs and values and can also determine on a treatment program that they receive. Family support in the form of support from family members is an important factor in adherence to medical programs.

Research on family support and treatment success researched many researchers, including research conducted Rachmawati, Laksmiati and Soenarsongko (2008), family support has a very important role for pulmonary TB patient compliance. Aside from being a party always supports for healing families are also responsible as Trustees Drinking Drugs (PMO) which will act to

monitor and remind continuously to the patient so that the patient takes the medicine regularly and on time in accordance with the dose that has been set by health workers , Other studies that support is implemented by Pare, Amiruddin and Leida (2012), which found that there is a relationship of family support with medication adherence with pulmonary tuberculosis, meaning families who plays PMO provide support unfavorable risk by 3,013 times to cause the patient does not dutifully repeated sputum check at the final phase of treatment compared with patients who have good family support.

Family support is one of the factors that affect adherence to treatment of pulmonary TB, where the nuclear family and extended family serves as a support system for family members. The basic functions of the family that is the function of health care. Health care function is the ability of families to care for family members who suffer from health problems. Families need to provide positive support to involve the family as a support treatment so that the cooperation in the monitoring of treatment between officers and family members who are sick (Friedman, Bowden & Jones, 2010).

CONCLUSION

The majority of TB patients who went to hospital Arifin Achmad Pekanbaru addressed in the city (60.34%), and the age and sex of the most productive were male 43 (74.14%) with the majority of out of school education and low income. Patients get more positive support from family amounted to 74.14%, and the majority of respondents obedient amounted to 65.52%. Concluded there is a relationship with the family support medication adherence in patients with pulmonary tuberculosis at the Regional General Hospital Arifin Achmad with a p-value = 0.036 (p <0.05). Iformasi for the need to provide clear and complete to the pulmonary TB patients and families about the treatment of pulmonary TB patients, but it is expected to increase awareness of pulmonary TB patients so that patients in following the spirit of the treatment.

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