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DESCRIPTION OF CHARACTERISTICS OF PULMONARY TUBERCULOSIS PATIENTS AT THE PULMONARY POLY ADAM MALIK HOSPITAL MEDAN 2020

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ABSTRACT

Background: Tuberculosis is a disease caused by Mycobacterium tuberculosis. Tuberculosis usually attacks the lungs, which can then attack all parts of the body. WHO in 2017 reported that there were 1.3 million deaths caused by pulmonary tuberculosis and there were 300,000 deaths due to pulmonary tuberculosis. Indonesia is a country with the third rank after India and China in cases of pulmonary tuberculosis. In 2017, the Case Notification Rate/CNR (new cases) number of pulmonary tuberculosis AFB (+) in North Sumatra was 104.3 per 100,000. Purpose: to identify the characteristics of pulmonary tuberculosis patients based on age, gender, education, and occupation. Methods: This type of research is a descriptive study using a total sampling technique of 525 patients. Data analysis using univariate analysis. Results: in terms of age the most at the age of 41-60 years, namely 204 patients (39%), the most gender was male, namely 344 patients (65.5%), the most education was in high school, namely 418 patients (80%) , and the highest number of occupations is self-employed, namely 160 people (31%). Conclusion: the results of this study indicate that based on the characteristics of patients with pulmonary tuberculosis who suffer the most, namely high school education. Suggestion: it is hoped that the hospital will further improve health education to the community, especially for patients with pulmonary tuberculosis.

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1. INTRODUCTION

Tuberculosis is a disease caused by Mycobacterium tuberculosis. Tuberculosis usually attacks the lungs, which can then attack all parts of the body (Fina, 2019; 100). According to the Health Profile (2018), tuberculosis (TB) is still a public health problem that is a global challenge (Kemenkes RI, 2019). The characteristics of patients with pulmonary tuberculosis include age, which is the majority in toddlers and the elderly, occupations exposed to sources of pollution, gender, education, socio-economic factors and the results of smear tests which usually find positive test results in TB patients. If these factors are ignored, TB sufferers can experience various complications that can lead to death (KN et al., 2015).

Pulmonary tuberculosis causes 10 million deaths worldwide, 5.8 million men, 3.2 million women and 1 million children (WHO, 2018). Indonesia is the third country after India and China in pulmonary TB cases, as shown from two thirds of the number of TB cases in the world occupied by eight countries, including India 27%, China 9%, Indonesia 8%, Philippines 6%, Pakistan 5%, Nigeria and Bangladesh have 4% and South Africa 3% respectively. The prevalence of pulmonary tuberculosis in Indonesia is divided into three regions, including Sumatra 33%, Java and Bali 23%, and eastern Indonesia 44% (Kristini & Hamidah, 2020). Based on data from the Global Tuberculosis Report (WHO, 2018) the incidence of tuberculosis in Indonesia reaches 391 per 100,000 population and the death rate is 42 per 100,000 population. Then in 2017 it was found that Tuberculosis cases

increased by 425,089 cases, compared to 2016 as many as 360,565 cases.

The lowest CNR of all tuberculosis cases (per 100,000 population) was in Bali (89), DI Yogyakarta (99) and West Nusa Tenggara (129). The highest CNR of all tuberculosis cases was DKI Jakarta (410), South Sulawesi (357) and Papua (347). When compared between 2017 and 2018 the CNR of all tuberculosis cases increased by 28 provinces (82.4%) and decreased by 6 provinces (17.6%) namely West Nusa Tenggara, North Kalimantan, North Sulawesi, Maluku, North Maluku and Papua (Kemenkes RI, 2019). The DOTS strategy (Directly observed treatment short course) is direct supervision of short-term treatment supervision with the obligation of every Tuberculosis program manager to focus attention (direct attention) in an effort to find patients with a microscope examination. The World Health Organization (WHO) targets in 2020 to reduce the death rate from tuberculosis by 40% and reduce morbidity by 30% in 2030 compared to 2014. Tuberculosis control in Indonesia uses the DOTS strategy that has been recommended by WHO since 1995. DOTS is a strategy for controlling pulmonary tuberculosis which aims to cut off the transmission of pulmonary tuberculosis so as to reduce the morbidity and mortality of tuberculosis in the community (Samhatul & Bambang, 2018). Characteristics of groups at risk of tuberculosis need to be known in order to increase the rate of case finding and early treatment. Estimates of tuberculosis cases decreased after there was a case finding program in groups at high risk of contracting tuberculosis (Novita & Ismah, 2014).

Based on a documentation study conducted by researchers at the Medical Record at Haji Adam Malik Hospital Medan in 2020, there were 525 patients suffering from pulmonary tuberculosis with characteristics based on age, gender, education and occupation. Based on this phenomenon, researchers are interested in conducting research with the title Description of Patient Characteristics of Pulmonary Tuberculosis at the Pulmonary Polyclinic of Haji Adam Malik Hospital Medan in 2020.

2. METHOD

This study uses a descriptive method where the data collection uses the documentation study method, namely the data collected by the researcher is obtained from the patient status book in the Medical Record of Haji Adam Malik Hospital Medan 2020. The sampling technique uses a total sampling of 525 patients. The research instrument used by the researcher was in the form of a master table for data collection which was made by the researcher himself, namely the researcher spontaneously recorded what he saw with a little planning from the medical record consisting of the total pulmonary tuberculosis patients. The data analysis technique used is univariate analysis (Nursalam, 2020).

3. RESULT

Based on data obtained from the medical records of the Haji Adam Malik Hospital in Medan in 2020, there were 525 patients with pulmonary tuberculosis.

Table 1. Characteristics of patients by age at the pulmonary polyclinic of Haji Adam Malik Hospital Medan

Characteristic	*F*	(%)
Age :		
18-40 years old	199	38%
41-60 years old	204	39%
>60 years old	122	23%
Amount	**525**	**100%**

Table 1 shows that the age group of 41-60 years is the highest result, namely 204 patients (39%) and the lowest age characteristic is age >60 years with a total of 122 patients (23%).

Table 2. Characteristics of patients by gender in the pulmonary polyclinic of Haji Adam Malik Hospital, Medan.

Characteristic	*F*	(%)
Gender :		
Male	344	65,5%
Female	181	34,5%
Amount	**525**	**100%**

Table 2 shows that most of the patients were male, namely 344 patients (65.5%).

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Table 3. Characteristics of patients based on education in the pulmonary polyclinic of Haji Adam Malik Hospital, Medan

Characteristic	*F*	(%)
Education :		
Not completed in primary school	4	1%
Primary school	42	8%
Junior high school	38	7%
Senior high school	418	80%
College	23	4%
Amount	**525**	**100%**

Table 3. shows that the majority of patients with pulmonary tuberculosis are in high school education with a total of 418 patients (80%).

Table 4. Characteristics of patients by occupation in the pulmonary polyclinic of Haji Adam Malik Hospital Medan

Characteristics	*F*	(%)
Profession :		
PNS/TNI/POLRI	52	10%
Private/Honor	49	9%
Entrepreneur	160	31%
Laborers/farmers/casual workers/fishermen	57	11%
IRT/Not working	144	27%
Other	63	12%
Amount	**525**	**100%**

Table 4 shows that most of the patients with self-employed jobs were 160 patients (31%) and IRT/Not working were 144 patients (27%).

4. DISCUSSION

1. Age

The results of the research in table 1 show the age characteristics of patients with pulmonary tuberculosis mostly at the age of 40-60 years, namely 39% and at the age of 18-40 by 38% and a small proportion at the age of >60 years, namely 23%. The results of this study are in line with the research of Rahmatillah T, Nuzirwan Acang, 2017 at the Bandung Community Lung Health Center regarding the description of the characteristics of Tuberculosis patients in terms of age. age 41-60 years by 25.84%, and the least percentage is age >60 years by 10%. This is because at productive age there is a tendency to interact a lot and have high mobility outside the home so that they are more susceptible to contracting pulmonary tuberculosis. This can also be possible because someone who is of a productive age tends to have high activity and relates to many people (such as school or work). Meeting with many people can make it easier for someone to contract the disease (Damayati & Susilawaty, 2016).

In contrast to research conducted by (Syamsu, 2020) based on age group, Tuberculosis patients were mostly found in the >50 year age group as much as 47.16%, followed by the 26-50 year age group as much as 32.07% and the 1-year age group. 25 years as much as 20.75%. This is associated with decreased immune function in the elderly. In the elderly there is a decrease in innate function and cell mediated immunity, so the elderly are more susceptible to infection.

2. Gender

The results of the research in table 2 show that the sex characteristics of patients with pulmonary tuberculosis are greater in male sex. The male gender group was 65.5% and the least in patients with female sex was 34.5%. The results of this study are in line with the results of research by Rahmatillah T, Nuzirwan Acang, 2017 at the Bandung Community Lung Health Center about the description of the characteristics of Tuberculosis patients in terms of gender, that the most male gender is 56.6% and the most slightly female percentage is 43.4%. The study (Fitria et al., 2017) also stated that male respondents suffered from pulmonary TB more, namely 71.4% compared to female respondents with a percentage of 28.6%. Male respondents dominated pulmonary TB patients both

microscopically by smear and by PCR.
There are several reasons why men are at risk than women, such as a woman's immunity is higher than that of men. Then another cause of differences in the frequency of pulmonary TB disease between men and women is the difference in living habits. Differences in living habits that are possible are smoking and drinking alcohol. Where more men smoke and drink alcohol compared to women, smoking and alcohol can lower the body's immunity so that it is more susceptible to pulmonary TB disease. Smoking can increase the risk of developing TB by 2 times. Men also do more strenuous activities, work hard and rest less so that men are more susceptible to pulmonary TB disease (Damayati & Susilawaty, 2016).

3. Education

The results of the research in table 3 show the educational characteristics of patients with pulmonary tuberculosis, the majority in high school education, namely 80%, and minorities in elementary education 8%, junior high school education 7%, tertiary education 4%, and education not completing elementary school 1%. From the results obtained by the researchers that the percentage of education varies, the educational characteristics of the majority of patients in high school education and elementary education. The results of this study are in line with research conducted by (Fitria et al., 2017) in Aceh Besar District, that the education level of most respondents is high school graduates with a percentage of 33.8%

According to researchers, a person's level of education will have an effect on responding to something that comes from outside. Highly educated people will respond more rationally to incoming information and will think about the extent to which they might benefit from the idea. Education can influence a person, including a person's behavior regarding lifestyle, especially in motivating attitudes and participating in health development. Education indirectly plays a role in health status. The more individuals have a higher education level, the more they will realize that health is an important thing for life so they are motivated to make visits to better health care centers (Absor et al., 2020). With higher education, people can find out more knowledge, especially about health, especially in terms of prevention, so that people can improve their health status in a better direction (Nurhanah et al., 2010).

4. Profession

The results of the research in table 4 show the occupational characteristics of patients with pulmonary tuberculosis mostly in self-employed jobs, namely 31%, household work / unemployed 27%, Labor / Farmers 11%, PNS / TNI / POLRI 10%, Private / Honor 9% and others such as students/college students 8%, and at least 3.4% in retirement work, 0.4% Medical Personnel and 0.2% pastor. The results of this study are in line with the research conducted by Rahmatillah T, Nuzirwan Acang, 2017 at the Bandung Community Lung Health Center regarding the description of the characteristics of TB patients in terms of work. / not working by 24.13%, students 10%, retirees 4.16% and the lowest percentage is retirees and civil servants at 3.3%. In line with the results of research conducted by Surya Hajar et al. shows that the job characteristics of the respondents are generally entrepreneurs, amounting to 25 people (57.1 %).

In contrast to the results of the research by Fitria et al., it was stated that respondents who worked as farmers or laborers dominated the incidence of pulmonary TB, namely 38.78% and did not work/IRT 26.5%. According to researchers, work has a close relationship with the incidence of pulmonary TB. A person's work can measure socioeconomic status as well as health problems and the conditions in which a person works. Work also determines the amount of income received by a person. People with low incomes often have difficulty getting good health services, so infectious diseases such as pulmonary TB are a threat to them. Working as an entrepreneur, such as trading, has a more vulnerable and greater risk of being infected with pulmonary TB sufferers because these workers have contact with many people. Likewise, those who work as IRT/Not working also affect, because with jobs and low incomes, these people focus more on their income to meet their daily needs, and if they are sick, most people with low social levels will not immediately check their illness to the officers. health, it is only when they feel sick that they are not recovering then they check their illness to health care workers. Therefore, the higher the level of work, the lower the incidence of positive smear pulmonary TB. With a good level of work, someone will try to get better health services, in contrast to people who have a low level of work who think more about how to meet their

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daily needs.

5. Conclusions

Based on the results of research on the characteristics of Pulmonary Tuberculosis at the Pulmonary Polyclinic of Haji Adam Malik Hospital Medan in 2020, the following conclusions can be drawn: Pulmonary Tuberculosis sufferers are mostly in the 41-60 year age group by 39% because at productive age there is a tendency to interact a lot and have high mobility and activities outside the home so they are more susceptible to contracting pulmonary tuberculosis. Based on the characteristics of the sex of patients with pulmonary tuberculosis more in the male sex, namely 65.5% due to differences in living habits between men and women. Based on the educational characteristics of pulmonary tuberculosis patients, the majority in senior high school education is 80%. Education can influence a person, including a person's behavior regarding lifestyle, especially in motivating attitudes and participating in health development. Based on the job characteristics of pulmonary tuberculosis, most of them are in self-employed 31% and IRT/Not working 27%. Work has a close relationship with the incidence of pulmonary TB, where a person's work can measure socioeconomic status as well as health problems and the conditions in which a person works.

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