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ANALYSIS OF FACTORS AFFECTING ACCEPTANCE AND COMMITMENT THERAPY (ACT) IN PULMONARY TB PATIENTS

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ABSTRACT
Pulmonary tuberculosis (TB) is a chronic infectious disease that is contagious and can cause death. Pulmonary TB is also a global health problem that causes the poor health of millions of people every year. Acceptance and Commitment Therapy (ACT) is one form of implementation to overcome client non-compliance with taking medication. The aim of this study was to analyze the factors that influence ACT in pulmonary TB patients. This study uses a descriptive research design with an analytical survey approach. The population is all pulmonary TB patients at the Frequent Health Center and the Glugur Health Center. The number of samples in this study amounted to 35 people. The sampling technique used is consecutive sampling. Analysis of the data used is the chi square test. The results showed that the results showed that there was a relationship between age and ACT (p value = 0.004., <0.005), there was no relationship between sex and ACT (p value = 0.006., <0.005), there was a relationship between length of time suffering from pulmonary TB. with ACT (p value= 0.001, <0.005), indicating that there is a relationship between age and ACT (p value= 0.001., <0.005) and there is a relationship between never getting counseling about pulmonary TB with ACT (p value= 0.004., <0.005). The conclusion of this study is that the factors that influence ACT in pulmonary TB patients are age, duration of suffering from pulmonary TB, length of time undergoing OAT treatment and having received health education about pulmonary TB.

Keywords: ACT; pulmonary tuberculosis; pulmonary tuberculosis patients

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INTRODUCTION

Pulmonary tuberculosis (TB) is a chronic infectious disease that is contagious and can cause death. Pulmonary TB is also a global health problem that causes poor health for millions of people every year (Kusumawati et al., 2015). Based on the 2013 Global Report of Tuberculosis, it was estimated that there were around 8.6 million new cases of tuberculosis in 2012. This is equivalent to 122 cases per 100,000 population, most of these cases are in Asia (58%) and Africa (27 %). Indonesia is a country with the third highest TB burden in the world, the WHO Global TB Report 2018 estimates the TB incidence to be 842,000 cases with a mortality of 107,000 cases. Indonesia is one of the countries facing the triple burden of tuberculosis, namely the incidence of tuberculosis, the incidence of resistant tuberculosis (RO) and tuberculosis of HIV (Ministry of Health, 2016).

North Sumatra Province has pulmonary TB cases which increased from 17,133 cases in 2008 to 19,673 cases in 2010, with the number of positive smear positive pulmonary TB patients of 16.078 cases, and the rest were obtained by other diagnostic tests (Ministry of Health, 2013).

Pulmonary TB cases in the city of Medan reported from 2013 to 2016 were 7431 cases. To date, there are 299 drug-resistant TB patients in the city of Medan, this is a concern and raises the awareness of all (Medan City Health Office, 2018). The increasing cases of pulmonary TB require serious treatment. Handling of pulmonary TB can be done using the Direct Observe Treatment Shortcourse (DOTS) method where this method is a treatment carried out in the short term which consists of five components, namely political commitment, sputum examination in the laboratory, continuous treatment that must be provided by the state, supervision of taking medication and recording reports (Sulistiowati, 2016).

Attention to patient compliance in taking drugs is one of the keys to the success and success of pulmonary TB treatment. Pulmonary TB treatment takes a relatively long time (6-8 months) to achieve healing and with the guidance of a combination of several kinds of drugs, so it is not uncommon for patients to stop taking drugs before the treatment period is finished which results in failure in pulmonary TB treatment. Therefore, it is necessary to comply during the treatment process. The main challenge to achieve this target is the delay in diagnosis and non-adherence to treatment by pulmonary TB patients and the long treatment time can cause clients to drop out of drugs. This can be because the client already feels healthy or it may be due to a lack of economic factors. The consequence that must be faced by clients is that they have to repeat the treatment process again from the beginning and even add to the cost of treatment and a longer treatment time (Basic Health Research, 2018).

The negative impact of this non-adherence is the impact on the healing process of the disease which results in relapse, re-treatment, longer time for healing, and even attempting suicide (Higashi et al., 2013). Research from Zegeye et al. (2019), namely various factors that cause non-adherence to treatment in patients with pulmonary TB, it can be concluded that there are. Several factors including forgetting to take medication, fear of side effects from drugs, waiting too long at health services > 1 hour and long distance to health services are risk factors for non-adherence to pulmonary TB treatment.

The results of research conducted by Mekonnen and Azwar, (2017) show that patients who have more than one comorbidity tend to be more non-adherent to TB treatment. Lack of knowledge about TB disease and treatment is closely related to non-adherence. The relationship between patients and health workers who are not good also has a significant relationship. Forgetting, busy with other work, and being out of the house/town are the main reasons for most patients to stop taking TB drugs. This study is confirmed by research conducted by Woimo et al. (2017) stated that the relatively high level of non-adherence among pulmonary TB patients was caused by lack of knowledge, the distance to health services was too far, not centralized DOTS services, lack of health information at each visit and the cost of treatment other than TB drugs were obstacles in adherence. TB treatment.

ACT is one of the care management strategies for pulmonary TB patients who do not comply with treatment. ACT therapy in psychiatric nursing in Indonesia has been applied by Sulistiowaty (2016) to the symptoms and behavior of violence and hallucinations with the results obtained that ACT's ability to reduce the incidence of violent behavior and hallucinations. ACT applies teaching to new TB sufferers so that they can adapt without avoiding the purpose of life and still have a good quality of life. This acceptance process must have a commitment from pulmonary TB patients so that all life problems can be accepted and undergo treatment properly (Stuart 2009). Thus the disease experienced by the client is expected to not experience a recurrence. This study aims to analyze the factors that

influence Acceptance And Commitment Therapy (Act) on Drug Compliance in Pulmonary TB Patients.

METHOD

This type of research is a quantitative study with a cross sectional design approach where client data collection is carried out at any time. This study aims to analyze the factors that influence Acceptance and Commitment Therapy (Act) in Pulmonary TB Patients. The population in this study were all pulmonary TB patients who were undergoing outpatient treatment at the Frequent Health Center and the Glugur Darat Health Center in Medan City. Based on medical record data at the Medan City Frequent Health Center, the number of pulmonary TB outpatients in 2020 was 257 people, while at the Glugur Darat Health Center Medan City, the number of pulmonary TB outpatients in 2020 was 231 people. The formula for taking the sample in this study is by using a power analysis table and based on the calculation of the number of samples in this study amounted to 70 people. The sampling technique used is consecutive sampling.

The data collection tools used in this study used a demographic data questionnaire sheet and a Morisky Medication Adherence Scale-8 (MMAS-8) questionnaire. This questionnaire consists of 8 question items consisting of 1 positive question and 7 negative questions with the answer categories "YES" and "NO" for questions number 1-7. Questions 1-4 and 6-7 are worth 1 if the answer is "NO" and 0 if the answer is "YES". Question 5 is worth 1 if the answer is “YES” and 0 if the answer is “NO”. Question 8 is worth 1 if the answer is "NO" and 0 if the answer is "YES". The total score from the calculation results of this questionnaire ranges from 0-8. Next is the interpretation of Morisky's medication adherence. Medication Adherence Scale-8 (MMAS-8) is categorized into 3 levels of compliance, namely high adherence (score = 8), moderate adherence (score = 5-7), and low adherence (score = 0-4). Analysis of the data used is bivariate using SPSS test with Chi Square test.

RESULTS

The results showed that the late elderly had a low ACT and the results of statistical tests found a relationship between age and ACT (p value = 0.004, <0.005), male sex had a low ACT and based on the results of statistical tests found that there was no sex relationship with ACT (p value= 0.006., <0.005), length of suffering from pulmonary TB had a high ACT and statistical test results explained that there was a relationship between length of suffering from pulmonary TB and ACT (p value = 0.001., <0.005) , length of time undergoing OAT treatment had a high ACT and based on the results of statistical tests found that there was a relationship between age and ACT (p value= 0.001., <0.005) and never getting counseling about pulmonary TB had a low ACT and referring to the results of statistical tests. found that there was a relationship between never getting counseling about pulmonary TB with ACT (p value = 0.004, <0.005). The frequency distribution of factors that influence ACT in pulmonary TB patients can be seen in the table below.

Table 1.
Factors influencing ACT in pulmonary TB patients (n= 35)

Data	Acceptanve And Commitment Therapy (ACT)			P Value
	High	Medium	Low	
Age				0.004
Late Teen	6	1	2	
Early Adult	7	1	1	
Late Adult	4	2	2	
Early Elderly	4	0	4	
Late Elderly	1	0	7	
Seniors	2	0	6	
Gender				0.006
Male	7	3	14	
Female	7	1	3	
Long time suffering from pulmonary TB				0.001
New	10	2	8	
Treated after failure	2	1	0	
Relapsed	3	1	4	
Treated after stopping the drug	2	0	2	
Length of time on OAT treatment				0.001
< 2 months	12	3	11	
>2 months	5	1	3	
Have you ever attended counseling about pulmonary TB?				0.004
Yes	12	1	2	
Not	2	3	15	

DISCUSSION

The use of OAT has an effect on the body such as hepatotoxic. The results showed that clients who took OAT based on the results of the examination had impaired liver function. This can be caused by pulmonary TB patients taking combined OAT drugs for a long time. This anti-tuberculosis drug also has a toxic potential effect and one of the effects that appear in the 3rd and 8th weeks is the presence of hypersensitivity reactions such as fever, increased heart rate, decreased appetite, and malaise. If the laboratory examination is carried out, the results will be above normal except for eosinophilia. These symptoms can be eliminated immediately if people with pulmonary TB do not take drugs anymore. Meanwhile, if it is continued, greater symptoms will appear such as exfoliative dermatitis, hepatitis, kidney disorders and acute blood dyscrasias (Gau, 2015). In addition to the side effects of anti-tuberculosis drugs, there are several factors that cause a person's non-adherence to taking medication, namely age. The results of this study found that a person's non-adherence to taking medication decreases with increasing age. This is because at increasing age they have less knowledge of pulmonary TB treatment so they are at risk of experiencing non-adherence to pulmonary TB treatment and will result in incomplete treatment.

Gender is one of the factors that can affect medication adherence. Non-adherence to taking medication is more common in men than in women. However, the results of this study found that there was no significant relationship between gender and ACT. The results of this study are in line with research conducted by Yudinia (2018) which conducted research on pulmonary TB patients where more than half of the respondents were male, found that gender

did not have a significant effect on medication adherence in pulmonary TB patients, but was influenced by by other factors such as family support, the length of the treatment process that a pulmonary TB patient must undergo until he feels he is not recovering.

The duration of suffering from pulmonary TB and the duration of using OAT drugs based on the results of the study showed that there was an effect of long suffering from pulmonary TB with ACT and the duration of using OAT drugs with ACT where patients who had just had new pulmonary TB and had less than two months of treatment had a higher ACT. . This is because new pulmonary TB patients have a high desire to recover quickly. Meanwhile, TB patients who do not comply with treatment are most likely due to long-term drug use, side effects that may arise, and lack of awareness of patients with their disease. The severity of the side effects experienced will have an impact on patient treatment adherence and can even result in loss of treatment (loss to follow-up) from treatment (Sari et al., 2014).

Patients who never attended counseling about pulmonary TB based on the results of the study had a low ACT and based on the results of statistical tests it was found that there was a relationship between having received health education about pulmonary TB with ACT of pulmonary TB patients. Health education that can be given to patients and families of patients with pulmonary TB includes an understanding of the definition of pulmonary TB, the etiology of pulmonary TB disease, transmission of pulmonary TB, the risk of pulmonary TB transmission, the risk of non-adherence in taking drugs, history of pulmonary TB treatment, strategies to improve adherence. in taking the drugs. For the next visit, information can be given about how to swallow the drug, the amount of drug consumed, the frequency of taking the drug and the side effects of OAT consumed by the client and the importance of accompanying pulmonary TB patients so that the drug is consumed regularly and completely.

The results of this study are supported by research conducted by Pardede (2013) which states that Acceptance and Commitment Therapy (ACT) can improve medication adherence, where an increase in the average score means that there is an increase in medication adherence. Compliance behavior is controlling after treatment, adherence to taking medication appropriately, and compliance with following the recommendations of health workers in the form of lifestyle changes (for example how to overcome problems) in accordance with the psychotherapy provided (Aslamiyati & Wardani, 2019). Providing counseling can increase the ACT of pulmonary TB patients. This is because Acceptance and Commitment Therapy (ACT) helps clients accept their situation and events that make them behave badly or badly so that clients must commit to changing their behavior to prevent recurrence.

Acceptance and Commitment Therapy (ACT) is a strategy used to increase acceptance so that it can overcome all problems and direct pulmonary TB patients to have a commitment to overcome and comply with all regulations related to OAT so that the problems experienced by patients can be overcome (Sulistiowati, 2016). This technique uses self-awareness techniques from patients, which means that in carrying out and carrying out all the therapeutic processes undertaken by clients, they must be aware of what and what benefits they will feel. The awareness that is needed is that the client in a conscious state is asked to plan, carry out and undergo all treatment actions effectively so that all the processes undertaken are not in vain, do not waste time and energy and moreover do not repeat all the treatment processes from the beginning again. Clients are also expected to be able to control emotions so that negative emotions can be removed and have positive emotions so that they can achieve a meaningful and quality life. (Harris, 2019).

CONCLUSION

The conclusion of this study is that the factors that affect ACT in pulmonary TB patients are age, duration of suffering from pulmonary TB, length of time undergoing OAT treatment and having received counseling about pulmonary TB.

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