HUBUNGAN DUKUNGAN KELUARGA DAN DUKUNGAN PETUGAS KESEHATAN PADA KEPATUHAN PENGOBATAN PASIEN TB DI PUSKESMAS TAMAN

(The Correlation of Family Support and Health Worker Support with Medication Adherence of TB Patients in Public Health Service Taman)

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ABSTRAK

Pendahuluan: Tuberkulosis (TB) perlu mendapat perhatian khusus karena akan memberikan dampak yang besar bagi kehidupan, bahkan sampai timbulnya kematian. Berbagai upaya telah dilakukan pemerintahan namun angka kejadian TB masih tinggi di Indonesia. Penelitian ini bertujuan untuk menentukan hubungan antara dukungan keluarga dan dukungan petugas kesehatan dengan kepatuhan minum obat penderita TB di Puskesmas Taman.

Metode: Desain penelitian adalah cross sectional study. Populasi penderita TB di Puskesmas Taman mencapai 90 orang, jumlah sampel sebanyak 50 responden menggunakan teknik purposive sampling. Variabel independen adalah dukungan keluarga, dukungan petugas kesehatan. Variabel dependen yaitu kepatuhan minum obat. Data dikumpulkan menggunakan kuesioner dan dianalisis dengan menggunakan uji spearman rho dengan tingkat signifikansi $\alpha < 0,05$.

Hasil: Didapatkan hubungan antara dukungan keluarga (p=0,001) dan dukungan petugas kesehatan (p=0,001) dengan kepatuhan minum obat pada penderita TB di Puskesmas TB.

Kesimpulan: *Kepatuhan minum obat berhubungan dengan dukungan keluarga dan dukungan petugas kesehatan. Dalam memberikan intervensi mengenai kepatuhan minum obat penderita TB diharapkan dapat memperhatikan fungsi keluarga dan petugas kesehatan sehingga intervensi dapat berjalan maksimal dan prevalensi TB menurun.*

Kata Kunci

Tuberkulosis (TB), Kepatuhan, dukungan keluarga, dukungan petugas kesehatan

ABSTRACT

Introduction: Tuberculosis (TB) needs special attention because it will have a big impact on life and even cause death. Various efforts have been made by the government, but the incidence of TB is still high in Indonesia. This study aims to determine the relationship between family support and health worker support with adherence to taking medication for TB patients at Puskesmas Taman.

Method: The research design used was a cross sectional study. TB patient population at Puskesmas Taman reaches 95 people, the number of samples of 50 respondents used purposive sampling technique. The independent variables were family support, health worker support. The dependent variable was medication adherence. Data were collected using a questionnaire and analyzed using the Spearman rho test with a significance level of $\alpha < 0.05$.

Result: It was found that there was a relationship between family support (p = 0.001) and support from health workers (p = 0.001) with adherence to taking medication in TB patients at Puskesmas (public health service) Taman.

Conclusion: Adherence to taking medication is related to family support and support from health workers. In providing interventions to increase medication adherence for TB patients, it is hoped that the function of the family and health workers can be considered so that the intervention can run optimally and the prevalence of TB decreases.

Keywords

Tuberculosis (TB), Adherence, family support, health worker support

1. INTRODUCTION

Pulmonary Tuberculosis (Pulmonary TB) has been a well-known world public health problem and has occurred to date (Kementrian Kesehatan Republik Indonesia., 2020). TB is a direct infectious disease caused by the Mycobacterium TB germ, which mostly attacks the lungs, but can also attack other organs (Afiat et al., 2018). Pulmonary TB disease suffered by individuals will have a very big impact on their lives, both physically, mentally and socially, even until death (Kementrian Kesehatan Republik Indonesia., 2020). TB can be cured if the patient regularly takes anti-tuberculosis (OAT) drugs for 6 months, then sputum examination is carried out, if the negative result of the patient is declared cured, but one of the challenges in this treatment is the patient's lack of compliance in taking the drug itself (Kemenkes, 2017). The duration of treatment and drug side effects might cause the sufferer become saturated, and causing stop taking the drug. If these problems are not resolved, the patient will continue to be a source of infection and can cause complications in other organs and death.

Globally in 2016 there were 10.4 million TB incident cases (CI 8.8 million - 12 million) which is equivalent to 120 cases per 100,000 population (Kementrian Kesehatan Republik Indonesia., 2020). In 2019 there are an estimated 488,163 cases Pulmonary TB in Indonesia (Annabel, B., Anna, D., & Hannah, 2019). Based on data from the Minister of Health 2019, TB cases in East Java that were detected compared to the number of national cases increased from 40% in 2016, to 46% in 2017 and 49% in 2018. In 2018, East Java ranked second in Indonesia in terms of The number of TB cases found was 57,014 cases with 26,152 new BTA + cases (Kementrian Kesehatan Republik Indonesia., 2020). In 2018, Sidoarjo is the 3rd ranked district in East Java which has a fairly high incidence of TB. According to data from the Sidoarjo Regency Health Office, there has been an increase in the incidence of TB from 2017, which was 2089 residents to 2153 residents in 2018, while the number of TB cases of re-treatment in 2018 in Sidoarjo was 111 residents (Dinkes Sidoarjo, 2019). Among public health offices located in the city of Sidoarjo it is stated that Taman Public health service has the highest suspicion among public health services in Sidoarjo with 141 TB suspects in 2019.

Pulmonary TB treatment aims to cure patients, prevent death, prevent recurrence, break the chain of transmission and prevent germ resistance to Anti-Tuberculosis Drugs (OAT). TB treatment is divided into early (intensive) and advanced stages where OAT is provided in packages to facilitate drug administration and ensure continuity of treatment until completion (one package for one patient in one treatment period) (Kementrian Kesehatan Republik Indonesia., 2020). Pulmonary TB treatment requires a long period of time and is routine, namely 6 - 8 months. Therefore, if a patient consumes or takes irregular treatment, it will result in a double immunity to pulmonary TB germs against OAT, and in the end the patient has to take a relatively longer treatment course (Dhewi, 2012).

Family support is a form of interpersonal relationship that protects a person from the bad effects of stress. Family support according to Friedman (2014) is an attitude, an act of family acceptance of family members, in the form of informational support, assessment support, instrumental support and emotional support. So family support is a form of interpersonal relationship which includes attitudes, actions and acceptance of family members, so that family members. Family support really helps improve the success of treatment for pulmonary tuberculosis patients by always reminding patients to take medication, having a deep understanding of patients who are sick and encouraging them to be active in taking medication.

Apart from family, the role of health workers is one that is no less important in efforts to improve health, prevent and cure diseases by providing education and motivation (Kemenkes RI, 2015). The support of health workers is professional social support such as doctors, nurses and other professionals (Gottlieb & Bergen, 2010). As one of the main elements of DOTS, health care providers must participate actively in patient care (Baniqued et al., 2020). Social support has a support component such as emotional support, informational support, reward support and instrumental support (Sarafino & Smith, 2011).

Family support and support from health workers is needed, especially for TB sufferers who are also

Table 1 Characteristics of respondent demographic data (n = 50)

Respondent Characteristics	Frequency (n)	Percentage (%)
Age		
17-25 years	17	34
26 - 35 years	12	24
36 - 45 years	3	6
46 - 55 years	5	10
56 - 65 years	13	26
Gender		
Male	25	50
Female	25	50

Table 2 Distribution of Variables in Medication Adherence

Variable	Frequency (n)	Percentage (%)
Family support		
Supportive	38	76
Less Supportive	12	24
Health workers		
Supportive	40	80
Less Supportive	10	20
Medication Adherence		
High	23	46
Moderate	22	44
Low	5	10

chronic diseases and require patients to undergo therapy for a long time. Family is the first line for sufferers when they have health problems. It is one of the functions of the family to support family members who are sick in various ways, namely providing support in consuming drugs. Awareness to recover from the disease is the basis for the client to behave to prevent and comply with treatment, so that, the most appropriate step in order to succeed in treatment requires adherence to taking anti-tuberculosis drugs regularly and supervisors taking effective medication, in this case there is a role for both families and health workers (Herawati et al., 2020). Social support is able to influence the formation of health behavior, there are many types of social support that TB sufferers can experience apart from their family, such as support from health workers, support from partners, close friends, peers who are able to help TB sufferers adherence to taking medication (Irwan, 2017).

2. METHOD

This research was a descriptive analytic study with a cross sectional approach. The population in this study were 95 TB patients who were actively seeking treatment at Puskesmas Taman, Sidoarjo. The sample in this study were 50 respondents obtained by purposive sampling technique. The inclusion criteria used were pulmonary TB patients aged 17-65 years and currently undergoing TB treatment. Exclusion criteria were patients with MDR and / or XDR tuberculosis, as well as those with comorbidities such

as HIV / AIDS and / or Diabetes Mellitus. The independent variable was family support and health worker support. The dependent variable was medication adherence.

The family support questionnaire includes questions about the respondents' perceived family support during treatment which has been tested for validity and reliability consisting of 6 questions. This questionnaire is a *closed ended* question with a *dichotomy question* type, namely limited yes and no answers. The score given is supportive if> 50% and less supportive ≤ 50%.

The health worker support questionnaire includes questions about the support of puskesmas officers felt by respondents during treatment which have been tested for validity and reliability consisting of 6 questions. This questionnaire is a closed ended question with a dichotomy question type, namely limited yes and no answers. The score given is supportive if> 50% and less supportive ≤ 50%.

The medication adherence questionnaire includes questions about the respondent's compliance in undergoing therapy during the treatment process which has been tested for validity and reliability consisting of 8 questions. This questionnaire is a *closed ended* question with a dichotomy question type, namely limited yes and no answers. The score given is high adherence with a value of 8, moderate adherence is 6 - 7, and low adherence is ≤ 5.

The research procedure started with arranging letters from the nursing faculty, National Unity and Politics Agency, then to the health office and Puskesmas Taman. After the permission was granted by the Puskesmas, the researchers coordinated with the head of the Taman Puskesmas Tuberculosis division to obtain respondent data that matched the researchers' criteria. The researcher then coordinates with the person in charge of the TB program to determine the population size, then determines the respondents from the total population according to the needs of the researcher. Next, the researcher conducted an ethical test for the feasibility of the study. This research has conducted an ethical test at the Faculty of Nursing, Airlangga University and has passed the ethics review with the certificate number No. 1989-KEPK on April 25, 2020. The coordinator of the puskesmas provided data in the form of the respondent's telephone number that matched the criteria and agreed to be the subject of the study. The data collection procedure was carried out by filling out a questionnaire via google form or online interview by telephone. Each questionnaire filling up to 20 questions takes 10 minutes. The google form has been explained by the researcher about the objectives and steps of the study and there is an informed consent to the respondent, after which the respondent fills out a questionnaire. After filling out the questionnaire, the respondents were given souvenirs from the researchers. After collecting the questionnaire, the data analysis will then be carried out, which includes the editing, coding, and data analysis processes. This research was conducted with

Table 3. Distribution of answers to family support variables

Indicator	Yes		No	
	n	%	n	%
Family provide enthusiasm or motivation for healing	39	78	11	22
Family take care of them when they are in pain from the side effects of drugs	48	96	2	4
Family always remind them to take TB drugs	39	78	11	22
Family remind to always eat nutritious food	28	56	22	44
Family accompany to go for treatment	31	62	19	38
Family support to always use masks every time they do activities	30	60	20	40

Table 4. Distribution of answers to the variable health worker support

Indicator	Yes		No	
	n	%	n	%
Accompany during the treatment process	42	84	8	16
Health workers make home visits	15	30	35	70
Provide information about therapy	49	98	1	2
Remind to take medicine	45	90	5	10
Remind to eat nutritious food for your stamina	40	80	10	20
Provide a solution when you start giving up because of drug side effects	31	62	19	38

IBM SPSS Statistic 22 with the Spearman rho test with a significance level of $p < 0.05$

3. RESULT

The results of the univariate analysis showed that most of the respondents were in the late adolescence category 17-25 years as many as 17 respondents (34%). 25 respondents were male and 25 respondents were female (Table 1).

Most of the respondents had support from their families as many as 38 respondents (76%) and support from health workers as many as 40 respondents (80%), and most of the respondents had high adherence, namely 23 respondents (46%).

In the first indicator regarding the family which gives enthusiasm and motivation felt by the respondents, 39 respondents answered yes (78%) and 11 respondents answered that they were not encouraged or motivated by the family (22%), then in the second indicator regarding the caring family If the respondent experienced pain due to the side effects of the drug, 48 respondents answered yes (57.9%) and 2 respondents answered no (42.1%). In the third indicator concerning families who reminded them to take TB medicine, 39 respondents answered yes to be reminded (78%) while 11 respondents answered that they were not reminded (22%), and for indicators regarding reminding to eat nutritious food, 28 respondents answered yes to be reminded (56%) and 22 respondents answered that they were not reminded (44%). In the indicator of accompanying them to go to treatment, 31 respondents answered yes with accompanying treatment (62%) and 19 respondents answered that they were not accompanied by medical treatment (38%). And in the last indicator support for using masks, as many as 30 respondents answered yes supported to use masks (60%), 20 respondents answered not supported using masks (40%) (Table 3). In the first indicator regarding assistance during the treatment process, as

many as 42 respondents answered yes (84%) while 8 respondents answered no (16%), then in the second indicator regarding visits by health workers, 15 respondents answered yes, health workers had visited houses (30%) and 35 respondents answered that health workers had never been visited (70%). In the third indicator regarding the provision of information about therapy, 49 respondents answered yes given information (98%) and 1 respondent answered no (2%), for indicators regarding health workers who reminded them to take medication, 45 respondents answered yes reminded (90%)) and 5 respondents answered that they were not reminded (10%). And on the indicator regarding reminding to eat nutritious food, 40 respondents answered yes to be reminded to eat nutritious food (77.6%), 10 respondents answered not to be reminded (20%). In the last indicator regarding health workers who provide solutions when they start to give up, there are 31 respondents who answered yes (62%) and 19 respondents answered no (38%) (Table 4).

4. DISCUSSION

4.1 Correlation between family support and medication adherence to TB patients

The results of the Spearman test on the relationship between family support and medication adherence showed a significant relationship with the strength of a strong relationship, which means that the more the family provides support, the better one's adherence to medication will be. Distribution data shows that respondents who have family support have high adherence to taking medication.

This research is in line with the research conducted by Trilianto, A. E., Hartini, H., Shidiq, P., & Handono (2020) and Sukartini et al. (2020). The study stated that there was a relationship between the role of the family and adherence to taking TB drugs in TB patients. Patients who received negative

family support were not obedient to taking

Table 7. Relationship between family support and health worker support with medication adherence

Variable	Correlation coefficient	p value
Family support	0.468	0.001
Health Officer Support	0. 453	0.001

medication when compared to patients who received positive support. This shows that there is a strong correlation between positive support and adherence to taking medication for patients with pulmonary tuberculosis.

Family is the leading health care unit in improvement health status and has the function of providing health care aims to maintain health conditions family members (Kristinawati et al., 2020). Family support is one of the factors that influence a person's adherence to pulmonary TB treatment by always reminding patients to take medication regularly (regularly in hours or days), providing good care during the patient's treatment process, providing understanding and encouragement to remain patient, diligent and regular in caring (Sukartini et al., 2020). Families who have been able to perform family health tasks well will shape good health behavior as well, which in this case is medication adherence behavior (Sukartini et al., 2020). Families need to provide positive support to involve families as treatment supporters so that there is cooperation in monitoring treatment between officers and family members who are sick (Friedman, 2014).

Based on the above review, the researchers assumed that there was a correlation between family support and medication adherence to TB patients. The family is appointed as supervisor for taking medication by the health worker or the person in charge as long as the patient is receiving treatment, this shows that the family is able to control the compliance of TB sufferers in undergoing therapy. In increasing the cure rate for TB sufferers, the health worker at Puskesmas Taman also appointed a family member to act as a supervisor in taking medicine. Interaction through family communication can also provide emotional support to pulmonary TB patients, which includes attention, trust, attention, listening and being listened to. Family is the closest person and understands the sufferer the most. When there is a family member who is sick, other family members will certainly provide positive support for the sufferer to recover. Researchers believe that the empathy that families have for fellow members is very high compared to others. This causes this empathy to encourage families to provide full support for sufferers, especially tuberculosis, which requires sufferers to take drugs for a long time.

4.2 The correlation between support from health workers and medication adherence for TB patients

The research distribution data explains that respondents who have support from health workers have high adherence to taking medication. The results of the Spearman test on the relationship between health care workers' support and medication adherence showed that there was a significant correlation with the strength of a strong enough correlation which meant that the more a health worker provided support, the better one's adherence to medication would be.

This research is in line with research conducted by Rumimpunu dkk (2018) and Herawati et al. (2020). The study stated that having good health workers would make TB sufferers more obedient than those who were not good. Encouragement from health workers is a support system for patients by providing assistance in the form of information or advice, real assistance or actions that have emotional benefits or affect the behavior of the recipient. Encouragement of health workers is another factor that influences patient compliance treatment behavior. Likewise they can influence the patient's behavior by conveying their enthusiasm for the patient's particular actions and continuously, give positive rewards for patients who have been able to adapt to their treatment program. The health worker performance element has an influence on the quality of health services, including health services for tuberculosis patients which will directly or indirectly affect the patient's regularity of treatment which in the end also determines the outcome of treatment (Rumimpunu dkk, 2018). Support from health workers is one of the important supports in improving health, preventing, and curing deseases by providing education and motivation (Kemenkes, 2015).

Based on the above review, the researchers assumed that there is a correlation between support from health workers and medication adherence to TB patients. The DOTS pulmonary TB cure program emphasizes the importance of monitoring pulmonary TB patients so that they take medication regularly according to the provisions until they are declared cured (Muniroh, N., & Aisah, 2013). Positive support from health workers, such as reminding when taking medicine and eating nutritious food, providing health information, providing support and encouragement, and providing solutions in case of side effects will help improve compliance with TB sufferers. Good communication between patients and health workers is an important factor in patient compliance (Sukartini, T., Sitorus, R., Waluyo, A., & Darmawan, 2015). Therefore, having a professional health worker who shows genuine compassion and concern for the health, emotional, and social suffering experienced by TB patients assures them to continue medication adherence (Baniqued et al., 2020).

5. CONCLUSION

There is a significant correlation between family support, support from health workers and adherence to taking medication for TB sufferers. Family support is related to medication adherence because the family has an important role in reminding them to take medication, the family also acts as a supervisor for taking medication. In addition, support from health workers is also related to medication adherence because the performance element of health workers has an influence on the quality of health services, including services for TB patients.

There is a role between family support and support from health workers in increasing adherence with TB patients in taking anti-TB drugs (OAT). Suggested to improvethe role of health workers in counseling and educating people with pulmonary tuberculosis as well as their families about the diseases they suffer and the impact of their treatment. The role of the family in the supervision of taking medicine for pulmonary tuberculosis patients and providing encouragement and improving communication between family members.

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