

Medication Compliance Analysis in Pulmonary Tuberculosis Patients at Bekasi Jaya Health Center Indonesia

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Abstract.

Tuberculosis is an infectious disease caused by the bacterium mycobacterium tuberculosis. Compliance with taking medication is a key factor in the success of tuberculosis treatment. Medication non-adherence can increase the risk of treatment failure and relapse, and is considered one of the most important causes of drug resistance. Compliance with taking medication is the patient's actions related to patient compliance in the process of taking routine drugs and consuming routine drugs during the intensive and advanced stages of treatment as determined. Based on observations by distributing questionnaires at the Bekasi Jaya Health Center Indonesia in January to October 2021 for patient compliance, the results obtained were 62% obedient and about 38% of patients were not compliant in taking medication. The purpose of this study was to determine the analysis of drug adherence in pulmonary tuberculosis patients at the Bekasi Jaya Health Center. This study uses a descriptive quantitative research methodology with a cross sectional research design. The sample in this study is the total population of 37 people, and conducted by filling out a questionnaire by the patient. Data analysis was performed with Univariate and Bivariate analysis. The results of the univariate analysis in this study showed that the highest proportion of respondents who had higher education was 65%, respondents who did not work were 65%, good knowledge was 65%, the availability of health facilities and facilities of respondents who said complete was 65%, access to health services was 68% of respondents stated that it was not difficult, 86.5% of their family support was good, 68% of health workers' support was good. This study also found the results of bivariate analysis that there was a relationship between educational status ($p = 0.039$; $OR = 2.46$; $95\% CI = 1.089-5.563$), medication adherence ($p = 0.039$; $OR = 2.46$; $95\% CI = 1.09-5.56$), availability of health facilities and facilities ($p = 0.039$; $OR = 2.46$; $95\% CI = 1.09 - 5.56$), access to health services ($p = 0.006$; $OR = 3.32$; $95\% CI = 1.46-7.85$), family support ($p = 0.039$; $OR = 2.46$; $95\% CI = 1.09 - 5.56$), and support from health workers ($p = 0.027$; $OR = 2.78$; $95\% CI = 1.24 - 6.21$) with medication adherence. In addition, the study also found that there was no relationship between work status and medication adherence ($p = 1,000$; $OR = 0.97$; $95\% CI = 0.42-2.3$). The proportion of family support for tuberculosis patients was dominated, because of this, it is necessary to make efforts to increase public awareness of the working area of the health center about the importance of medication adherence in tuberculosis patients. The more active health workers and other related sectors, can increase the rate of adherence to taking medication for pulmonary tuberculosis patients in the work environment at Bekasi Jaya Health Center, Indonesia.

Keywords: Family support, medication adherence, patient education, pulmonary tuberculosis, tuberculosis drugs.

I. INTRODUCTION

Tuberculosis is an infectious disease caused by the bacteria mycobacterium tuberculosis. Most germs attack the lungs, but can also attack other body organs. The source of transmission of this disease is through the sprinkling of phlegm emitted by patients with positive Acid-fast bacillus (BTA) tuberculosis. But tuberculosis (TB) with negative smears also still has the possibility of transmitting TB disease even

though the transmission rate is small[1]. The number of deaths from tuberculosis decreased by 22% between 2000 and 2015, but pulmonary tuberculosis is still the 10th leading cause of death in the world in 2016 according to the World Health Organization (WHO) report[2]. Therefore, until now pulmonary tuberculosis is still a top priority in the world and is one of the goals in the SDGs (Sustainability Development Goals).The World Health Organization (WHO) defines high-burden countries (HBC) for TB based on 3 indicators, namely TB, TB/HIV, and MDR-TBC. There are 48 countries on the list. One country can be included in one of the lists, or both, or even in all three. Indonesia, along with 13 other countries, are included in the HBC list for the 3 indicators. This means that Indonesia has big problems in dealing with TB disease. Adherence to taking medication is a key factor in the success of the treatment of tuberculosis itself. Many in some countries where a number of TB patients discontinue TB treatment before completion for various reasons.

The magnitude of this treatment nonadherence rate is difficult to assess, but it is estimated that more than a quarter of TB patients fail to complete 6 months of treatment. Treatment non-adherence can increase the risk of treatment failure and relapse, and is considered one of the most important causes of drug-resistant TB. In particular, multidrug resistant TB (MDR-TB) and extensively resistant TB pose a serious threat to public health[3]. Nearly half a million people were diagnosed with MDR TB in 2008, according to the latest WHO estimates. According to the Indonesian Ministry of Health, the success of pulmonary tuberculosis treatment is strongly influenced by patient compliance in swallowing the drug itself. Anti Tuberculosis Drugs (OAT) in 1943 Streptomycin was established as the first effective anti-pulmonary tuberculosis. After that found Thiacetazone and Paraaminosalicylic Acid (PAS). In 1951 the discovery of Isoniazid (Isonicotinic Acid Hydrazide; INH), followed by the discovery of Pyrazinamide (1952), Cycloserine (1952), Ethionamide (1956), Rifampin (1957), and Ethambutol (1962). However, progress in the treatment of pulmonary tuberculosis has been challenged by the emergence of OAT-resistant tuberculosis strains[4].The duration of TB treatment causes many TB patients to be disobedient because they feel they are already healthy and feel bored and bored. In addition, there is no family support that participates in supporting the implementation of care and treatment for sick members, so that in the absence of family support and motivation, especially PMO (Drug Drinking Supervisor) in the family, there are many failures of TB patients in carrying out treatment that is still being carried out in the family. Medical facility. If the treatment is not in accordance with the predetermined time, there will be widespread immunity (resistance) of tuberculosis bacteria to Anti Tuberculosis Drugs (OAT). Non-adherence to treatment will result in a high rate of treatment failure for pulmonary TB patients[5].

In order to achieve the goal of adherence to taking TB drugs, it is necessary to get used to it as a norm of life and culture for TB patients so that they are aware and independent to live. However, to raise awareness of adherence to taking anti-TB drugs,

an action is needed that can motivate correctly and consistently. National TB control with Anti Tuberculosis Drugs (OAT) is given to patients free of charge and their availability is guaranteed[6]. The time used for therapy is 6-8 months. This often results in patients being less compliant and taking medication irregularly. Irregular treatment and incomplete combination are thought to have resulted in double immunity of TB bacteria to Anti Tuberculosis Drugs[7]. Therefore, it is very important for patients to complete the therapy program properly, in other words, patient compliance which aims to cure TB disease. There are three factors that determine a person's behavior, namely predisposing factors which include individual characteristics, level of education, knowledge, and attitudes of patients, enabling factors which include side effects of drugs and access to health services, and reinforcing factors, which includes the attitude of health workers and family support as well as the role of the drug swallowing supervisor.

Every patient has the right to continue treatment or stop treatment, but of course there are one or several factors that influence patient behavior in decision making in terms of treatment[2]. Regularity of treatment for pulmonary TB disease is an important factor in the success of treatment, this is very closely related to the health behavior of patients or patients with pulmonary TB, identifying that health behavior is influenced by the following factors, namely (1) predisposing factors such as age, education, gender, knowledge, attitudes, beliefs, values and norms, (2) enabling factors such as availability of resources, skills, affordability, (3) reinforcing factors such as attitudes and behavior of health workers, family, friends, parents and others[8]. Pulmonary TB disease is most often found in productive ages, namely 15-50 years. Today with the demographic transition causing the life expectancy of the elderly to be high. At the age of more than 55 years a person's immunological system will decline, so that he is very vulnerable to various sources of disease, one of which is pulmonary[9] TB. From the results of the study based on the age profile, the most TB patients were above 46 years of age, namely there were 13 patients (57%). Age has a very close relationship with the incidence of TB for the age group above 45 years. Most of them occur in adulthood because they are associated with activity levels, mobility and work as laborers, making it possible to be easily infected with TB germs at any time from patients, especially smear positive patients[10].

Patient compliance in drugs is closely related to the knowledge possessed about pulmonary TB itself. Good knowledge will bring up an attitude to react to objects by accepting, responding, appreciating and discussing it with others and inviting them to influence or encourage others to respond with what they believe. Knowledge will greatly affect a person's adherence to treatment[11]. Patients with very low knowledge can determine irregularities in taking medication due to lack of information provided by health workers about pulmonary TB disease, treatment methods, the dangers of taking medication irregularly and how to prevent it[12]. Higher education will make it easier for the community, especially patients, to absorb

information and knowledge to lead a healthy life and overcome their health problems. In addition, from the results of previous studies, it was found that patients with basic education (junior high school) were mostly obedient in taking medication, as many as 8 people (53.3%).

Meanwhile, patients with secondary education (senior high school) were mostly obedient in taking medication, as many as 19 people (95.0%). The results of the Kendall's Tau correlation analysis obtained a correlation value (τ) = 0.491 with a p-value of 0.003. Due to the p-value ($0.003 < 0.05$), it was concluded that there was a significant relationship between the level of education and the compliance of tuberculosis patients in taking medication at Balkesmas Ambarawa Indonesia. Family support can also help medication adherence in TB patients. Lack or absence of support from families who play a role in providing support in carrying out care and also treatment for sick family members, resulting in the absence of family support and motivation, especially PMO (Drug Swallowing Supervisor) in the family which makes many patient failures in carrying out treatment[13]. In year 2018 that was reported, the total number of TB cases at the Bekasi Jaya Health Center was 45 positive TB cases with 42 cases being successfully treated and 3 cases not being compliant with treatment due to treatment withdrawal from 58,433 the population with suspected TB as many as 210 cases[14]. Then in 2019 it was found that there was a decrease, namely 41 positive TB cases with 39 cases successfully treated and 2 cases not being compliant with treatment due to dropping out of treatment with suspected TB as many as 260 cases.

And in 2020 there was an increase of 96 positive TB cases with 92 cases being successfully treated and 4 non-adherences to treatment due to treatment withdrawal with 447 suspected TB cases. Then 37 positive TB cases were found with 36 cases of success and adherence to treatment and 1 case of non-adherence in treatment due to being absent from treatment with suspected TB as many as 200 cases from January to October 2021 (Bekasi City Health Center Office, 2018). There are still many cases of pulmonary TB found in the working area of the Bekasi Jaya Public Health Center, this could be due to patients who are not compliant in taking TB drugs. The patient's non-adherence in taking anti-tuberculosis drugs can also lead to the emergence of resistance (resistance) of tuberculosis bacteria to anti-tuberculosis drugs or called Multi Drugs Resistance (MDR) which will be more difficult to treat. Patients who are not obedient in taking TB drugs can be caused by a lack of knowledge about the dangers of TB itself, how to treat TB disease, how to prevent it and also a lack of family support as a drug-taking supervisor (PMO).

II. METHODS

The method of research used a quantitative descriptive research methodology with a cross sectional research design to analyze drug adherence in tuberculosis patients at the Bekasi Jaya Health Center Indonesia. This research was carried out from

September to October 2021 at the Bekasi Jaya. In this study, the sample size was determined by the total samepling method, the sample in this study is the total of the entire population or the total of all positive tuberculosis patients from January to October 2021, which is 37 people. The study was conducted by filling out a questionnaire by the patients[15]. Then the data analysis was carried out with univariate and bivariate analysis. The aim is to find out the description and whether there is a relationship between the independent and dependent variables. Data processing techniques were carried out using normality test and univariate and bivariate data analysis[16].

The limitation experienced in the implementation of this research is that the data used is not limited to respondents who have completed treatment for 6 months. The respondent's data used varied in terms of treatment time, some had only undergone 1 month, 3 months, and so on[8]. Because to assess whether or not a person is obedient in undergoing TB treatment, it can be seen based on the length of time such as whether it can be according to the specified time, namely for 6 months or less due to absenteeism or more due to non-adherencen, and proper consumption of medicines according to the directions of health workers[17]. In addition, because all respondents were not found at the tuberculosis clinic at the Bekasi Jaya Health Center, the researcher together with health cadres visited the patient's house to collect data using a questionnaire prepared by the researcher[18].

III. RESULT AND DISCUSSION

1. Overview of Compliance with Taking Pulmonary Tuberculosis (TB) Drugs at Bekasi Jaya year 2021

In this study, the compliance variable was categorized into two, namely, the obedient category if the TB card 01 and TB card 02 regularly took medication and were correct in taking it. The category of non-compliance is if the TB card 01 or TB card 02 has never taken medication regularly or was not taking medication correctly. The following table is an overview of adherence to taking pulmonary TB drugs at the Bekasi Jaya Health Center in year 2021.

Medication Compliance	Frequency	Procentage (%)
Not Obedient	14	38
Obedient	23	62
Total	37	100

Fig 1. Overview of Pulmonary TB Patient Compliance at Bekasi Jaya Indonesia, Health Center in 2021. Source: SPSS output results (modification).

Based on the results of the study, it is known that the highest proportion is found in respondents who are obedient in taking pulmonary TB drugs. From the research results obtained from 37 respondents there are 23 respondents with a percentage of 62%. Compliance with taking TB drugs is the patient's actions related to

patient compliance in the process of taking routine drugs and consuming routine drugs during the intensive and advanced stages of treatment determined by health workers. In accordance with the Regulation of the Minister of Health of Indonesia Number: 67 concerning TB Control (2016), in Chapter VII which contains case management it is said that the principles of adequate TB treatment include giving the right mix and dose, taking drugs regularly, and giving treatment in the early and advanced stages[19][20]. To facilitate monitoring of drinking compliance, there are TB 01 cards, namely patient treatment cards and TB 02 cards, namely TB patient identity cards. In the TB card 01 there is a column that contains the regularity of taking medication for the patient, and the TB card 02 contains the patient's drug taking notes according to the direction or agreement between the health worker and the patient. The results of the study showed that the proportion of compliant patients was higher than the proportion of patients who did not adhere to medication, pulmonary TB. This can be because in the treatment card sheet the patient is recorded taking medication and making treatment visits according to a schedule that has been determined by the previous health officer, so the drugs that must be taken are in accordance with the predetermined dose. Patients are always asked by health workers to be accompanied by a drug taking supervisor to record the routine taking of drugs in the patient's treatment card sheet.

2. Overview of Pulmonary TB Patient Education at Bekasi Jaya in 2021

Result of the condition of formal education of patients who were last taken by pulmonary TB patients at the time of treatment, there were two categories, namely: low education (elementary/junior high school) and higher education (senior high school, universit). The following is a description of the education of pulmonary TB patients at the Bekasi Jaya Health Center UPTD in 2021.

Patient Education	Frequency	Procentage (%)
Low Education	13	35
High Education	24	65
Total	37	100

Fig 2. Overview of Pulmonary TB Patient Education at Bekasi Jaya Indonesia, Health Center in 2021. Source: SPSS output results (processed)

Based on the results of the study, it was found that from 37 respondents the highest proportion was found in respondents with higher education, namely as many as 24 respondents with a percentage of 64.9%. The low level of education will lead to limited public knowledge of pulmonary TB disease. The level of education relates to a person in absorbing and receiving information. Those who have a higher level of education are generally more absorbing and receiving information on health problems compared to those with lower education. The results of the study indicate that the majority of respondents have a high education (high school, university) but there are still respondents who have low education (elementary/junior high school). The working area of the Health center itself is surrounded by several schools ranging from

elementary schools to high schools. Patients who receive treatment are people who live around the Health Center. This is what makes the majority of respondents in this study highly educated[20][21].

3. Job Description of Pulmonary TB Patients at Bekasi Jaya in 2021

The results of the study from 37 respondents, the highest proportion was found in respondents who did not work, namely as many as 24 respondents with a percentage of 65%. The results of this study are where from 96 respondents who do not work as many as 55 respondents (57.3%). Work is something that must be done especially to support life and family. Work is not a source of pleasure, but rather to earn a living which is boring, repetitive and full of challenges. Working people tend to have less time including visiting health facilities.

Pulmonary TB Patient Occupation	Frequency	Procentage (%)
Not work	24	65
Work	13	35
Total	37	100

Fig 3. Overview of Pulmonary TB Patient Occupation at Bekasi Jaya Indonesia, Health Center in 2021. Source: SPSS output results (processed)

Based on the results of the study, it is known that the number of pulmonary TB patients who do not work is more than that of working pulmonary TB patients. Respondents in this study were dominated by unproductive working age (elderly) besides housewives who did not work and only took care of household matters. This elderly age also makes respondents limited in terms of getting a job, as well as housewives who stay at home with their busy lives as housewives and their worries when working with children and household affairs become messy, this makes it impossible for mothers to have jobs[22]

4. Knowledge Description of Pulmonary TB Patients at Bekasi Jaya in 2021

Based on the results of research from 37 respondents, the highest proportion was in respondents with good knowledge, namely as many as 24 respondents with a percentage of 64.9%. The results of this study are in line with research good knowledge. Knowledge is a result that occurs when someone senses a certain object, from the experience gained. An increase in one's knowledge is not absolutely obtained from formal education, but can be obtained through non-formal education. A person's knowledge of an object consists of two aspects, namely positive aspects and negative aspects. These two aspects will determine a person's attitude, the more positive aspects and objects that are known, the more positive attitudes will be towards certain objects. Regarding the ability to justify or evaluate a material or object.

Pulmonary TB Patient Knowledge	Frequency	Procentage (%)
Less Knowledge	13	35
Good Knowledge	24	65

Total	37	100
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Fig 4. Overview of Pulmonary TB Patient Education at Bekasi Jaya Indonesia, Health Center in 2021. Source: SPSS output results (processed)

From the results of this study, the proportion of respondents with good knowledge is greater than those with less knowledge. Respondents understand what is meant by infectious TB disease, how TB disease is transmitted, how to treat TB disease, and the duration of treatment. In this study, the highest proportion of good knowledge was that patients knew that pulmonary TB disease could be caused by *Mycobacterium Tuberculosis* (62.2%), pulmonary TB treatment took up to 6 months (83.8%), than 2 weeks, chest pain, shortness of breath (83.8%), pulmonary TB treatment consists of 2 stages, namely the intensive (initial) stage for 2 months and the advanced stage for 4 months (70.3%), pulmonary TB treatment Irregularity causes germs to become resistant to anti-tuberculosis drugs (62.2%). Respondents who understand TB disease are likely to get information about TB disease apart from health workers but also get knowledge from social media assistance or electronic media. In addition, another possibility is that respondents have paid attention to health education related to TB disease.

5. Overview of the Availability of Health Facilities and Facilities for Pulmonary TB Patients at Bekasi Jaya in 2021

In this study, the availability of health facilities and facilities in question is the completeness of health services which include health workers, available laboratories, pharmacy staff, medicines and other things needed to provide special health services for pulmonary TB at the UPTD Health center Bekasi Jaya. The availability of health facilities and facilities is divided into two groups, namely complete and incomplete. Complete if the result is 6 (median), incomplete if the value is < 6 (median). Based on the research results obtained from 37 respondents, the highest proportion was found in respondents who stated that the facilities and health facilities for pulmonary TB patients were as many as 24 respondents with a percentage of 65%.

Availability of health facilities and facilities, namely the completeness of health services which include health workers, available laboratories, pharmacy staff, medicines and other things needed in providing TB special health services[9]. Based on the results of research on the availability of health facilities and facilities, the highest proportion who stated that they were complete were more, namely, patients easily get medicine when you are scheduled to take medicine to the health center (51.4%), patients at the time of medical examination and also taking medicine, the staff is always there. Health center (54.1%), patients feel comfortable with the pharmacy facilities where TB drugs are taken and the waiting room is available (54.1%) and health services at the Health Center for TB are carried out by doctors and nurses (51.4%).

Availability of Pulmonary TB Health Facilities and Facilities	Frequency	Percentage (%)
Incomplete	13	35
Complete	24	65
Total	37	100

Fig 5. Overview of Pulmonary TB Patient Availability of Facilities at Bekasi Jaya Indonesia, Health Center in 2021. Source: SPSS output results (processed)

6. Overview of Access to Health Services for Pulmonary TB Patients at Bekasi Jaya

In this study, the ease of reaching a health facility is the distance, length of travel, travel costs, type of transportation, and/or other physical barriers that can prevent a person from obtaining health services. Access to health services is categorized into two, namely difficult and not difficult. Difficult if the value < 5 (median), not difficult 5 (median). Based on the results of the study, it was found that from 37 respondents the highest proportion was found in respondents who admitted that access to health services was not difficult, namely as many as 24 respondents with a percentage of 64.9%. Health facility itself is a tool / place used to organize a health service effort, both in terms of promotive, preventive, curative and rehabilitative. Where in its implementation is carried out by the intervention of the government, local government, health agencies or the community. Access to health services itself is the availability of health facilities such as hospitals, health centers or clinics as well as the availability of adequate medicines. Geographical access is measured by distance, length of trip, travel costs, type of transportation and/or other physical barriers which can hinder or make it difficult for someone to obtain health services[23].

From the results of the study, it was found that more pulmonary TB patients were not difficult. Respondents who take TB treatment are people who live around the working area of the Health Center, the distance from where you live to a health facility for TB treatment is < 2 Km (63.3%), the length of time for patients to get to the health center is < 15 minutes (59 ,5%), the condition of the road from where you live to the health center is asphalt and there are no obstacles (67.6%). In addition, the location of the Public Health Center is easy to access either by private vehicle or public transportation. The Puskesmas is also close to other government centers such as sub-districts and sub-districts, this makes it easier for the community to access Puskesmas health services for treatment.

7. Overview of Family Support for Pulmonary TB Patients at Bekasi Jaya year 2021

In this study, the family provides support so that the patient can complete his treatment until he recovers. This family support is divided into two categories, namely poor and good. Less if the value is < 14 (median), good if the value is 14 (median). The following is an overview of family support for TB patients at the Bekasi Jaya Health Center in 2021. Based on the results of research from 37 respondents, the highest

proportion was found in respondents who received good family support, namely 24 respondents (65%) were good[17]. The results of this study are in accordance with research according to Siregar (2019), in the district of North Tapanuli Regency where out of 60 respondents, 58 respondents (96.7%) claimed good family support. This study is also in accordance with Nita's research (2016) at the Madiun City Lung Hospital which said that of 35 respondents, 29 respondents (82.9%) stated that family support was good[24].The family has a role as a supervisor for taking medication or actions that are judged to consist of increasing the patient to take medication regularly and uninterruptedly

8. Overview of Support for Pulmonary TB Patient at Bekasi Jaya Health Center

The support of health workers can be in the form of influencing patient compliance in taking TB drugs. Support from health workers is divided into two categories, namely poor and good. Less is if the value is < 17 (median), good if the value is 17 (median). The following is a description of the support for pulmonary TB health workers at the Bekasi Jaya in 2021.

Support from Health Center Workers	Frequency	Percentage (%)
Less	12	32
Good	25	68
Total	37	100

Fig 6. Overview of Support from Health Care Workers for TB Patients with Pulmonary TB at Bekasi Jaya in 2021

Based on the results of the study, it was found that from 37 respondents, the highest proportion was found in respondents who claimed that the support from health workers was good, namely as many as 25 respondents with a percentage of 68%.Officers or health workers have a role as a supporter 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. The emotional support built by these health workers creates a sense of comfort, a sense of being cared for, empathy, feeling accepted and there is concern for the patient. While cognitive support is where the patient gets information, instructions, suggestions or advice. The interaction of health workers with TB sufferers occurs at several service points, namely polyclinics, laboratories, drug collection points and during home visits and other interactions. Based on the results of the study, the majority of pulmonary TB patients stated that they received good support from health workers, this is because the support of health workers in this case can be in the form of the role of health workers by providing assistance in the form of information or advice, real assistance, or actions that have emotional benefits or influence. on the behavior of the recipient. Emotional support so that you feel comfortable, feel cared for, feel accepted, and there is concern.

IV. CONCLUSION

Conclusion from the results of the study, result that the proportion of adherence to taking medication for TB patients at the Bekasi Jaya until October 2021 was 62%. Pulmonary TB patients at the Bekasi Jaya have more compliant patients than patients who do not comply with taking medication. Some forms of non-compliance can be based on the process of taking routine drugs and taking drugs that are not routine in accordance with the directions of health workers. The following are the results of research conducted at the Bekasi Jaya until October 2021, namely the proportion of education is dominated by respondents who have higher education, which is as much as 65%. There is a relationship between educational status and medication adherence in pulmonary TB patients with a significance = $0.039 < 0.05$. In addition, the proportion of employment status is dominated by respondents who do not work as much as 68%.

There is no relationship between work status and medication adherence in TB patients with a significance of $1,000 > 0.05$. From the results of the study, it was also found that the proportion of knowledge was dominated by respondents who had good knowledge as much as 65%. There is a relationship between knowledge and adherence to medication in TB patients with a significance of $0.039 < 0.05$. The proportion of available health facilities and facilities is dominated by respondents who say 65% are complete. There is a relationship between the availability of health facilities and facilities with medication adherence in TB patients with a significance of $0.039 < 0.05$. Furthermore, the proportion of access to health services is dominated by respondents who say it is not difficult, namely 68%. There is a relationship between access to health services and adherence to medication for TB patients with a significance of $0.006 < 0.05$. Then, for family support, it was dominated by respondents who stated that their family support was good, as much as 65%. There is a relationship between family support and adherence to medication for TB patients with a significance of $0.039 < 0.05$. The support of health workers, it is dominated by respondents stating that the support of health workers is good, as much as 68%. There is a relationship between the support of health workers and adherence to medication for TB patients with a significance of $0.027 < 0.05$.

Suggestion to Health Center

Patients who are still found who are not compliant both in treatment and taking TB drugs, the health center feels the need for efforts to increase public awareness of the working area of the Bekasi Jaya Health Center about the importance of medication adherence in TB patients by means of health promotion and education with good counseling using media. such as brochures, posters and also through electronic media that can be seen by patients both in the home environment and also heard when the patient is in the waiting room of the health center. It is hoped that this will increase the knowledge and insight of patients and the public on the importance of medication adherence in TB patients. In addition, health workers build collaborations with cross

programs and across sectors such as sub-districts, urban villages, health cadres to community leaders to help carry out activities such as knocking on TB doors to attract families who are in close contact with TB sufferers and then given motivation and support so that families can provide support and supervision of swallowing drugs in other family members who are undergoing TB treatment.

As well as carrying out activities such as knocking on TB doors to attract families who are in close contact with TB sufferers and then being given motivation and support so that families can provide support and supervision of taking drugs to other family members who are on TB treatment. Then for patients who cannot reach health services or it is difficult to access health services so that the health center and other cross-sectors help visit patients (pick up the ball) so that the patient's treatment process continues and reduce the risk of patients not taking medication regularly in accordance with the directions of health workers. In addition, it also reduces the incidence of TB treatment failure and can reduce the number of TB diseases in the Bekasi Jaya Public Health Center. Then for further researchers, it is hoped that they can further refine this research because researchers feel that there are still many shortcomings that need to be improved and developed again. Both in terms of influencing factors and other things. Many factors that have been studied so that they do not drop out and can continue to be evaluated by the health center so that the incidence of pulmonary TB does not increase in the future. It is also hoped that the more active health workers and other related sectors, can increase the rate of adherence to taking medication for pulmonary TB patients in the Bekasi Jaya work environment.

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