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Relationship of Knowledge, Motivation and Role of PMO with the Drop Out of Tuberculosis Treatment in Mahakam Ulu District

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A B S T R A C T
It is estimated that there are 1,000,000 new TB cases per year (399 per 100,000 inhabitants) with 100,000 deaths per year (41 per 100.000 population) in Indonesia.Instead, if the treatment is not regular and the combination of OAT is incomplete, it will result in treatment failure and result in Mycrobacterium Tuberculosis becoming immune, causing the occurrence of MDR cases. (Multidrug Resistance). This research aims to find out the relationship of knowledge, motivation and role of PMO with the case of TB treatment drop out in Mahakam Ulu District. This research uses analytical research design with cross-sectional approach. The sample was selected by consecutive sampling. There is a connection between knowledge, motivation, and the role of the PMO with the TB drop out incident.

INTRODUCTION

Pulmonary tuberculosis (TB) is an infectious disease that can lead to death.Pulmonary tuberculosis is a chronic infectious disease caused by a bacterial infection of Mycrobacterium Tuberculosis. Although patented anti-tuberculosis drugs have been discovered for so long, to this day, lung tuberculosis is still a global health problem. (Humaidi & Anggarini, 2020).

Globally, in 2017, the highest number of TB cases occurred in Southeast Asia and the Western Pacific region with 62% new cases, followed by Africa with 25% new cases. Tuberculosis cases occur in 30 countries with 87%, eight countries accounting for two-thirds of new TB cases: India, China, Indonesia, the Philippines, Pakistan, Nigeria, Bangladesh, and South Africa. Indonesia, along with 13 other countries, is on the list of HBCs (high burden countries) for three indicators: TBC, TBC/HIV, and MDR-TBC. (Mathofani & Febriyanti, 2020).

It is estimated that there are 1,000,000 new TB cases per year (399 per 100,000 inhabitants) with 100,000 deaths per year (41 per 100.000 population) in Indonesia.91% of cases in Indonesia are lung tuberculosis that is potentially contagious to healthy people around them. Currently, high cases and treatment of TB have been discovered in several areas including Banten, Gorontalo, DKI Jakarta, North Sulawesi, and West Sulawesia. Tuberculosis in Indonesia has reached 845 thousand people, but only 562 thousand have been.This high level of TB cases in Indonesia should be watched out. According to the data, cases of tuberculosis in Indonesia in 2017 caused 116 thousand deaths and in 2018 as many as 98 thousand people died. The majority of TB patients, about 75 percent, are productive smokers or in the 15-55 age range. (Firdaus, 2020).

Referring to the estimated incidence figure by the Ministry of Health of 0.6 percent of the population in Kaltim which is currently around 3.5 million people, it is estimated that there are 7.800 TB patients with BTA (+) acid-resistant bacteria examination. Data obtained from the Health Department of East Kalimantan Province, in 2019 found 1.953 lung TB patients and increased by 2020 by 2.391 cases. The number of TB cases with the highest positive BTA in Samarinda City (462 cases) and the lowest cases in Mahakam Ulu District (30 cases) with the incidence rate (IR) 1 case per 1000 inhabitants (Dinas Kesehatan Provinsi Kalimantan Timur, 2018).

According to the Preliminary Study, the number of TB patients by 2022 in the Puskemas Long Hubung work area is 23 people, in the Ujoh Bilang work area 30 people, and in the Laham work area 12 people. Geographically, TB patients in these three areas of work can easily reach health facilities because of their strategic location. These three areas have been chosen to be research areas because they have a larger population of TB patients than other ones.

The Sustainable Development Goals (SDGs) for the period 2016-2030 and the End TB Strategy (2016-2035) have been outlined as an effort to eliminate tuberculosis on the planet by implementing sustainable acceleration strategies, to reduce the prevalence of tubercolosis, especially in low-income countries. In the TB End Strategy, the two programmes have the same objective of ending the global TB epidemic, including a 95% reduction in TB mortality and a 90%

decrease in TB incidence by 2035 compared to 2020. (WHO, 2017). The objective of the tuberculosis control strategy is to protect public health from TB transmission so that no pain, death and disability occurs, the goal of the National Tuberculosis Control Program is to eliminate TB by 2035 and Indonesia TB-free by 2050. TB elimination is achieved coverage of TB cases 1 per 1 million population (Kemenkes RI, 2018).

The DOTS (Directly Observed Treatment Short-Course) strategy was recommended by the World Health Organization (WHO) in early 1995 as a strategy in TB control and has proven to be the most cost-effective prevention strategy, consisting of five key components: (1) political commitment; (2) microscopic sputum examination guaranteed success; (3) standard short-term treatment for all TB cases with proper case execution, including direct monitoring of treatment; (4) guaranteeing the availability of quality anti-TB drugs; and (5) a recording and reporting system capable of assessing patient outcomes and overall program performance. (Kemenkes RI, 2018).

Although it has been known that drugs to treat TB and TB disease can be cured with TB drugs, their rejection and eradication so far has not been satisfactory. High dropout rates, inadequate treatment, and resistance to anti-tuberculosis drugs (OATs) are the main common obstacles in TB control and are a challenge to TB control programmes. (Baginda & Primasari, 2019).

Treatment of the high prevalence of pulmonary tuberculosis should be done to control the disease, one with treatment.Treatment of pulmonary tuberculosis can take six to nine months and is given through two stages, the initial stage and then the advanced stage. (Kemenkes, 2018).To healing is very important for people with pulmonary tuberculosis to have a good knowledge of their disease.This knowledge in terms of regularity, completeness and compliance in the use of Anti-Tuberculosis Medicines (OATs). On the contrary, if the treatment is not regular and the combination of OATs is incomplete, it will result in treatment failure and result in Mycrobacterium tuberculosis becoming immune, causing the occurrence of MDR (Multidrug Resistance) cases of pulmonary TB and will be a source of transmission to others. (Winarni, 2019).

According to Smeltzer and Bare in Suhardini (2020), the main reason why treatment is difficult is that patients do not want to take their medication regularly within the required time. Patients are usually tired of having to take a lot of medication every day for several months, so patients tend to stop treatment unilaterally.The success of lung tuberculosis treatment does not depend solely on medical aspects.But also on the social aspects that play a major role in motivating patients to undergo regular treatment. (Suhardini, 2020).According to Harita in Merzistya (2019), the success of treatment requires the healing motivation of the sufferer who is the driving force within the individual as an attempt to recover from his illness.The healing that is to be achieved requires regular medication for every patient. Patient participation is expected to take medication that will improve medication compliance of patients with pulmonary tuberculosis (Merzistya, 2019).

In the treatment of pulmonary tuberculosis should be done continuously and should not be discontinued.One of the components of DOTS is the presence of a drug swallow supervisor (PMO). The drug swell supervisor plays a major role in the treatment of pulmonary tuberculosis because one of the tasks of the PMO is to monitor the TB patient so that he swallows the drug regularly until the treatment is completed so that the patient can recover. Doing or not doing the PMO's duties will affect the success of the treatment. (Kemenkes, 2018). This is in line with a previous study that stated that there is a relationship between PMO performance and the recovery of TB patients. The new DOTS case strategy.New TB patients with good PMO performances are more likely to recover.DOTS strategy with supervision by PMO, drug cessation rates tend to be lower so that lung TB patients gain total recovery. (Maelani, 2019).

Berdasarkan hasil penelitian oleh Syafruddin (2022) tentang faktor risiko ketidakpatuhan pengobatan penderita TB Paru di Wilayah Kerja Puskesmas Rangas Kabupaten Mamuju, ditemukan bahwa faktor risiko yang bermakna terhadap kepatuhan pengobatan TB Paru adalah pengetahuan, motivasi, PMO (dukungan keluarga). Sedangkan dukungn petugas kesehatan dan akses ke fasilitas kesehatan merupakan faktor risiko yang tidak bermakna terhadap kepatuhan pengobatan TB Paru.Untuk meningkatkan motivasi pasien maka diperlukan peran serta dukungan keluarga dan petugas kesehatan agar motivasi pasien selalu terjaga dalam mematuhi pengobatan TB Paru yang sementara penderita jalani (Syafruddin, 2022).

Berdasarkan penelitian oleh Fitriyatus Sholihah pada tahun 2018 tentang Faktor – Faktor Penyebab *Drop out* Pengobatan Pada Penderita Tuberculosis di Kabupaten Sidoarjo ditemukan bahwa hasil analisis menunjukkan faktor penyebab DO pengobatan pada penderita TB di Kabupaten Sidoarjo adalah faktor personal dan sosial, riwayat sakit dan pendidikan, serta jarak rumah dengan pusat kesehatan (Sholihah, 2018).

Berdasarkan data dan uraian yang dikemukakan di atas maka penulis tertarik untuk mengadakan penelitian guna mengetahui Hubungan Pengetahuan, Motivasi, dan Peran PMO dengan Kejadian *Drop out* Pengobatan Tuberculosis di Kabupaten Mahakam Ulu tahun 2023.

THEORETICAL REVIEW

Tuberculosis is an infectious disease caused by the germ Mycrobacterium tuberculosis. Most of them attack the lungs but can attack other organs in the body.

Drop out or discontinue is a lung tuberculosis patient who has not taken OAT for 2 consecutive months or more before the treatment is completed. (Kemenkes, 2019) DO during lung tuberculosis treatment is one of the causes of treatment failure so can occur drug resistance, MDR among cases of re-treatment of 20% (WHO, 2018).

According to Notoatmodjo (2019), Knowledge is the result of knowing and it is after a person makes a sensation of a particular object. The senses of man are through the senses, through the eyes, the hearing, the smell, the taste, and the taste. The knowledge of man is through his eyes, and through his ears.

In Wikipedia it is described; knowledge is information or information known or perceived by a person.

Tuberculosis drug intake monitoring (PMO) is necessary to ensure regular treatment of patients with tuberculosis. PMOs are health officers, for example, village maids, nurses and sanitary. If no health officer is PMO, then PMO can come from health cadres, teachers, public figures and family members. (Kemenkes, 2019).

METHODOLOGY

This research is quantitative research. The research method used is analytical with a cross sectional approach. This type of research is a correlation study that aims to reveal the correlations between independent variables and dependent variables. The total population in the study is 65 people, which are divided into three Puskesmas work regions.The sampling technique in this study is non-probability sampling with concecutive samplings. In this study, using the total sampling method, so the number of samples in this examination is 65 people. The tools and materials used in this research are questionnaire sheets. The data is then analyzed using univariate and bivariate tests, where the bivariates used are chi-square tests. The data obtained will be processed and the results will be displayed as a percentage of the frequency distribution table using the univariat analysis formula. Where univariate analysis is used to determine the characteristics of respondents as well as research variables. The data is then processed with the help of computerization using statistical tests. Where the bi-variation test in this study uses a chi square with a fertility limit of α=0,05.

RESULTS

Table 1. Distribution of Respondent Characteristics by Age, Occupation, Education, and Gender Type

Distribusi Karakter Responden	Frekuensi (n=65)	Persentase (%)
Usia		
≤ 25 Tahun	3	4,6
26- 45 Tahun	26	40
46-59 Tahun	29	44,6
≥ 60 Tahun	7	10,8
Pekerjaan		
Tidak Bekerja	33	50,8
Karyawan Swasta	22	33,8
Petani	6	9,2
Guru	4	6,2
Pendidikan		
SD	14	21,5
SMP	15	23,1
SMA	31	47,7
Perguruan Tinggi	5	7,7
Jenis Kelamin		

Laki-Laki	47	72,3
Perempuan	18	27,7

Source: Data Primer, 2023

Table 1 shows that the distribution of 65 respondents is characteristic by age, i.e. almost half of them were 46-69 years of age, 29 (44.6%) and a small proportion were ≤ 3 years old, 3 (4.6%). Half of the respondents were unemployed, 33 (33%) and only a small portion were employed as teachers, 5 (6.2%). Nearly half had completed high school education, 31 (47.7%) and 5 college education (7.7%).

Table 2. Frequency distribution based on knowledge, motivation, and role of PMO

Distribusi Frekuensi	**Frekuensi (n=65)**	**Persentase (%)**
Pengetahuan		
Kurang	14	21,5
Cukup	26	40,0
Baik	25	38,5
Motivasi		
Lemah	27	41,5
Kuat	38	58,5
Peran PMO		
Kurang Aktif	24	36,9
Aktif	41	63,1

Source: Data Primer, 2023

Table 2 shows that the frequency distribution of the knowledge level of 65 survey respondents, almost half of the respondents had enough knowledge as 26 people (40%), a small part had a good knowledge as 25 people (38.5%), and a small portion had less than 14 people (21,5%). Frequency distributions based on motivation, half of respondents were 38 people (58.5%) had strong motivation and a tiny portion of respondent 27 people (41.5%) had weak motivation. Frequencies distribution based on the role of PMO, More than half PMO had an active role as 41 people (63.1%) and a minor part had 24 less active roles (36.9%).

Table 3. Frequency Distribution Based on Incidence Drop Out TB Treatment

Distribusi Frekuensi	**Frekuensi (n=65)**	**Persentase (%)**
***Drop out*Pengobatan TB**		
Drop out	18	27,7
Pengobatan Tuntas	47	72,3
Total	**65**	**100**

Source: Data Primer, 2023

Table 3 shows that of the 65 respondents in the study, some completed TB treatment with 21 people (72.3%), and a small fraction did not complete treatment (drop out) with 18 people (27.7%).

Table 4. Analysis of the Relationship of Knowledge with the Incidence of Drop Out TB Treatment

No	Pengetahuan	Kejadian *Drop out* TB				Total		***P-Value***
		Drop out		Pengobatan Tuntas				
		F	%	F	%	F	%	
1	Kurang	12	85,7	2	14,3	14	100	**0,000**
2	Cukup	5	19,2	21	80,8	26	100	
3	Baik	1	4,0	24	96	25	100	

Table 4 shows that out of 14 people with less knowledge in the category, as many as 12 people (85.7%) who have less knowledge have not completed TB treatment (drop out) and as much as 2 people (14.3%) have completed the TB treatment they have experienced. Out of 26 people who have sufficient knowledge in this category, 21 people (80.8%) have finished TB treatment until completed, and 5 people (19.2%) have not terminated TB treatment. Of the 25 people that have a good treatment, 24 people (96%) have finalized TB therapy and 1 person (4%) have not finished their treatment. The statistical test results with the Chi-Square test obtained p-value 0,000 < 0,05, then H1 received and H0 rejected, so it can be concluded that there is a connection between knowledge and the occurrence of TB treatment drop out in Mahakam Ulu district.

Table 5. Analysis of the Relationship between Motivation and Drop-Out Occurrence of TB Treatment

No	Motivasi	Kejadian *Drop out* TB				Total		***P-Value***	***Odd Ratio***
		Drop out		Pengobatan Tuntas					
		F	%	F	%	F	%		
1	Lemah	17	63	10	37	27	100	**0,000**	**62,900**
2	Kuat	1	2,6	37	97,4	38	100		
Total		18	27,7	47	72,3	65	100		

Table 5 shows that out of 27 people with motivation in the category of weak, 17 people (63%) did not complete TB treatment (drop out) and as many as 10 people (37%) ended TB treatment undertaken. Out of 38 people who have motivations in the Category of strong, as much as 37 people (97.4%) end TB treatment until completed, and 1 person (2.6%) did not end TB therapy (drop out). The statistical test results with Chi-Square test obtained p-value 0,000 < 0,05, then H1 received and H0 rejected, so it can be concluded that there is a relationship between motivation and the event of drop out TB treatment in Mahakam Ulu district.

Table 6. Analysis of the Relationship between the Role of PMO and the Incidence of Drop Out of TB Treatment

No	Peran PMO	Kejadian *Drop out* TB				Total		***P-Value***	***Odd Ratio***
		Drop out		Pengobatan Tuntas					
		F	%	F	%	F	%		
1	Kurang Aktif	16	66,7	8	33,3	24	100	**0,000**	**39,000**
2	Aktif	2	4,9	39	95,1	41	100		
Total		18	27,7	47	72,3	65	100		

Table 6 shows that out of 24 people with a PMO role in the less active category, 16 people (66.7%) did not complete TB treatment (drop out) and as many as 8 people (33.3%) completed TB treatment. Out of 41 people with active PMO roles, 39 people (95.1%) finished TB treatment until completed, and 2 people (4.9%) did not finish TB treatment (drop out). The statistical test results with Chi-Square test obtained p-value 0,000 < 0,05, then H1 accepted and H0 rejected, so it can be concluded that there is a relationship between the role of PMO with the occurrence of drop out of TB treatment in Mahakam Ulu District. Obtained OR value is 39,000 means that in patients who will undergo TB treatment with active PMO have 39 times greater chances not to drop out TB treatment compared to less active PMOs.

DISCUSSION

Analysis of the Relationship Between Knowledge and TB Treatment

The results of the study showed that out of 14 people with less knowledge in the category, as many as 12 people (85.7%) who have less knowledge did not complete TB treatment (drop out) and so many as 2 people (14.3%) completed TB treatment undergoing. Out of 26 people who have sufficient knowledge in category, so much as 21 people (80.8%) finished TB treatment until completed, and 5 people (19.2%) did not finish TB treatment. The statistical test results with the Chi-Square test obtained p-value 0,000 < 0,05, then H1 received and H0 rejected, so it can be concluded that there is a relationship between knowledge with the occurrence of TB treatment drop out in Mahakam Ulu district. This study is in line with the study conducted by Yuni (2016) which shows that the statistical trial results using chi-square corrected (Yates) received a p value = 0,039 so it could be inferred that there was a connection between knowledge about TB MDR with compliance treatment of TB patients. On the significant test results showed that the RR value = 1,641 which means that patients who do not comply with the treatment have a risk of 1,164 times less knowledge than patients who comply. (Yuni, 2016).

The results of this study are not in line with the results of a study conducted by Maulidya, dkk (2017), which stated that of the 22 respondents (73%) who successfully declared recovery was as much as 17 orng (85%) and who declared not recovered was as many as 5 people (50%). The results of

analysis using fisher's exact test obtained p value (0,078) > α (0,05) so it can be interpreted that there is no relationship between knowledge and success of treatment of pulmonary tuberculosis in Puskesmas Dinoyo (Maulidya et al., 2017).

According to the theory presented by Yuni (2016), the higher the educational level of the respondent, the better the level of understanding of the disease the patient suffers from.Education affects treatment failures, the less patient education leads to a lack of understanding of the disease and its dangers. The higher the education of a person or community, the easier it will be to absorb information and implement it in everyday life, especially in his health. (Maulidya et al., 2017).

According to the researchers' assumptions, a person's education is very prominent in changing health behavior. A higher education will support a person for the absorption of the knowledge that has been given. The absorption of knowledge about TB has a strong influence on patient compliance behavior in medicine. A lot of patients who don't know about drug-resistant tuberculosis will have an impact on the patient's own treatment. A patient who drops out can be caused because the patient already feels healed from his disease, but the patient does not know what it will result if the patient stops during treatment. Drop out is what will cause MDR TB. Found 1 person (4%) with good knowledge but did not complete TB treatment (drop out), according to the researchers this may be due to several factors, such as side effects of TB treatment that the respondents are unable to withhold, lack of motivation to recover, or the absence of TB symptoms felt by the respondent so decides to stop the treatment.

Relationship between Motivation and Drop-Out Event TB Treatment

The results of the study showed that out of 27 people with motivation in the category of weak, 17 people (63%) did not complete TB treatment (drop out) and as many as 10 people (37%) ended TB treatment undertaken. Out of 38 people who have motivations in the Category of strong, as much as 37 people (97.4%) finished TB treatment until completed, and 1 person (2.6%) did not end TB treatment. (drop out). The statistical test results with Chi-Square test obtained p-value 0,000 < 0,05, then H1 received and H0 rejected, so it can be concluded that there is a relationship between motivation and the occurrence of TB treatment drop out in Mahakam Ulu district.

This is in line with a study conducted by Alwi, dkk (2021) showing that there is a significant relationship between motivation and compliance with taking anti-tuberculosis medication in Tuberkulosis patients (P Value 0,027).With the findings 68.7% of respondents with strong motivation have high compliance and do not drop out of the TB treatment they do. (Alwi et al., 2021).

This study is also in line with the study conducted by Widianingrum (2017) which says there is a relationship between motivation and compliance with taking drugs showing a relationship (p value 0,000) from the results of the research conducted Widianningrum, no one respondent has less motivation, based on the interview conducted has most respondents always get support

from their families and people closest to them in order to healing, in addition to the puskesmas officers in the work area Puskesma Silver East also always give motivations and support to the whole patient to never stop in taking drugs and also to always be routine in conducting examinations and treatments in order for healing to be achieved. In addition, there is also an investigation on TB and TB treatment, so that TB patients in the Eastern Perak Puskesmas Work Territory have learned about the danger if they stop running the treatment program before they are declared recovered.

This is in line with the theory put forward by Widianingrum (2017) The motivation for TB patients is influenced by two things: from within the patient itself with the presence of the urge, the desire to take medication, the wish to do good things in order to healing and the support of the family, the community and health workers in dealing with the disease. (Widianingrum, 2017).

According to the theory put forward by Indrawaty (2018) if the motivation of respondents to take drugs regularly, then respondents will increasingly increase regular drug use behavior, with the presence of positive motivation can lead to a positive behaviour anyway. According to the theory of motivation, motivation is understood as an impulse in action to a certain goal, the result of the impulse and the movement is realized in the form of behavior, but the behaviour itself is formed through a certain process, and takes place in human interaction with its environment. (Indrawaty, 2018).

According to the researchers, the motivation to want to heal is a motivation that comes from within the individual.While family support, social support, and health care support are external motivations, the greatest motivation for recovery comes from oneself and external Motivation comes only as a supportive or predisposing factor. Motivation is the key to the success of treatment, the higher the motivation then will be more obedient, in this case it is compliance taking medication in following the treatment program of the DOTS system to the end. Therefore, in an effort to anticipate non-compliance to patients with pulmonary tuberculosis in medication, it is necessary to have the delivery of information as accurate as possible, with health education carried out by every health care provider.

One respondent was found with strong motivation but dropped out of TB treatment, according to the researchers, it could be caused by several factors, for example, strong motivations but not accompanied by active PMO pren so, when the respondent's medicine is exhausted, the drug is not immediately taken to the nearest health care facility and dropped the drug. Patients with strong recovery motivation also need the support of the patient's family, especially elderly patients who are no longer able to go to their own healthcare facility.

Relationship Analysis The relationship between the role of PMO and the occurrence of Drop out TB Treatment

The study found that out of 24 people with a PMO role in the less active category, 16 people (66.7%) did not complete TB treatment (drop out) and as many as 8 people (33.3%) completed TB treatment. Out of 41 people with active PMO roles, 39 people (95.1%) finished TB treatment until completed, and 2

people (4.9%) did not finish TB treatment (drop out). The statistical test results with Chi-Square test are p-value 0,000 < 0,05, then H1 is accepted and H0 is rejected, so it can be concluded that there is a relationship between the role of PMO and the TB treatment drop out in Mahakam Ulu district. This study is in line with the study conducted by Yoisangadji (2016) which shows that the results of the analysis of the relationship between PMO with drug consistency up to tuntas indicate a p value = 0,004 which means that there has been an internal relationship between P.M.O. and TB consistence until completion in TB patients in the work area of Puskesmas Sario. (Yoisangadji, 2021). The results of this study are also in accordance with the research results carried out by Suryana and Nurhayati (2021) which stated that the study results show that from the test results statistic P Value = 0.009 (p0 <.05), which means there is an relationship between Role of PMOs with pulmonary tuberculosis drug consistentness in Pushesmas II district of Bekasi. (Suryana & Nurhayati, 2021).

According to the theory presented by Mulyadi (2016), which reveals that there is a relationship between the role of the family as PMO and the success rate of treatment in TB patients. Other research also revealed that the role of the family in the form of participation in the process of treatment of patients with pulmonary tuberculosis is to refer the patient to the puskesma, bring the patient in the health care, help the patient on examinations in the laboratory, fulfillment of the needs of the patient, reminding the patient for taking medication and giving medication to drink every night and carrying out drug intake. (Mulyadi, 2016).

According to the assumption of the researchers, it can be concluded to be able to obey in taking drugs, the role of the drug swallowing supervisor has a great influence on the compliance of taking drugs because the role the supervisor swallows drugs is supposed to have a high influence according to the results of research has been carried out, because the PMO determines whether the drug has been taken or not, in addition to PMO is also tasked to observe the side effects of TB treatment experienced by the patient and take the drug to the health care facilities.

It was found that there were two people with the active role of PMO who did not complete the treatment of TB (drop out), according to the researchers' assumptions, this was due to the lack of motivation from within the patient himself to recover, or the side effects of the drug that caused the patient not to want to take his medicine even though routine warned by the PMO, in addition to the inability of the PMOs to act firmly in monitoring the patient in taking the drug for example parents who do not want to follow his child's advice as PMO to take the medicine routine and on time. Therefore, there are some considerations in the selection of PMOs that need to be taken into account by health professionals when appointing PMO before TB treatment begins.

CONCLUSIONS AND RECOMMENDATIONS

Based on the interpretation and description then the conclusion was obtained, among other things: The statistical test results with Chi-Square test were p-value 0,000 < 0,05, then H1 was accepted and H0 was rejected, so it can

be concluded that there is a relationship between knowledge and the occurrence of TB treatment drop out in Mahakam Ulu district. The results of the statistical trial with the Chi-square trial were p - value 0,000< 0,05, then H 1 was received and H 0 was refused, so we can conclude that there was a connection between motivation and TB treatment dropping out occurrences in Mahkam Ulu District.

FURTHER STUDY

As for the advice that can be given to future researchers, it can look more deeply into the factors that influence the occurrence of drop out in patients who are undergoing TB treatment and become a benchmark for making better and beneficial research.

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