



RELATIONSHIP OF SELF EFFECTIVENESS WITH COMPLIANCE OF EATING MEDICINES FOR PULMONARY TUBERCULOSIS SUFFERERS

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ABSTRACT

Self-efficiency and attitude in order to be able to adapt to self-changing in the sense of obedience to medication. Compliance in taking anti-tuberculosis drugs is crucial in the healing process of pulmonary tuberculosis. In undergoing long-term treatment, patient compliance is highly required to know the patient's attitude and behavior to the treatment program given by the health officer. In order to have medication compliance, the patient must have high self-efficiency. Method : The research method is an observational analytical with cross sectional design approach involving 51 respondents who are undergoing treatment in the Puskesmas Beruh Work Area. Sampling technique is total sampling. The data collection technique in this research is by using an angket or a questionnaire. Data analysis using a chi square test with a fertility rate of 0.05. Result : The results of the research show that health workers in the area of Puskesmas Batang Beruh work should pay attention to the improvement in the effectiveness of patients with pulmonary tuberculosis, with a p value of 0,000. The results of the bi-variation test showed a significant correlation between self-effectiveness and drug consistency, with a high-grade majority of 59.18% and a higher-category majority of 75.51%.

Keywords: lung tuberculosis; obedience to medication; self-effectiveness

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INTRODUCTION

In Indonesia, cases of pulmonary tuberculosis have risen rapidly lately. This is due to a variety of factors, including the Covid-19 pandemic. Progress that has been achieved in early detection and the eradication of pulmonary tuberculosis in previous years has been slowing down, even stalled, since 2019. Currently, the goal of TB-free access globally is really beyond the route planned. The direct impact of pulmonary tuberculosis is physical weakness, persistent coughing, shortness of breath, chest pain, decreased appetite, weight loss, sweating at night, and high heat. In addition, the impact on the family is that an untreated lung tuberculosis patient can transmit the virus to a member of his family, which is very difficult if the patient lives in one home with many people. (Jurnal Ilmu Keperawatan, 2018).

Indonesia is the country with the second highest number of TB cases in the world with 14%. It is behind India (41%), the Philippines (12%), and China (8%) (World Health Organization, 2021). According to Riskesdas 2018, based on medical history, there were 1,017,290 cases of TB, 511,873, and only 1,616 patients taking medication regularly during one treatment. (Kemenkes, 2019). To control pulmonary tuberculosis, treatment should be done to reduce the

prevalence of the disease. TB treatment can take six to nine months and is carried out in two stages: the initial stage and the advanced stage. (Kementrian Kesehatan RI, 2010). For lung tuberculosis healing, it is essential to obey and be disciplined in taking anti-tuberculosis drugs (TB). On the contrary, an irregular treatment and an incomplete combination of OATs will lead to treatment failure, resulting in Mycobacterium Tuberculosis becoming immune to drugs, leading to cases of MDR (Multidrug Resistance) TB and transmission to others. (Anugerah, 2007)

Because bored with their drugs, many lazy lung tuberculosis patients take their drugs and undergo timely control. Pulmonary TB patients feel worthless because of long-term treatment. This caused the treatment for six to eight months to fail and take extra time. Patients with pulmonary tuberculosis usually experience physical changes, such as becoming slimmer and pale, frequent coughing, weak bodies, and reduced physical abilities. (Aditama and Tjandra, Y, 2011) A 2020 study by Herdiman, Rahman, and Lindayani found that respondents' compliance with the Anti-Tuberculosis Drug (OAT) drink was 54% obedient, 40% disobedient and 6% non-obedience. In addition, a study conducted by Silalahi et al. on knowledge picture, medication compliance, and family support for the healing of patients with pulmonary tuberculosis at IMU Imelda Pekerja Indonesia (IPI) Medan showed that 16 patients with Pulmonary TB obeyed (47%) and 18 people with disobedience (53%).

Patients must have high self-effectiveness to have medication dietary compliance. A person's belief that they can correct certain behaviors for healing is known as self-effects. Patient confidence in recovery can be achieved through cognitive knowledge or knowledge provided by health professionals through counselling. (Hendiani, Sakti, and Widiyanti 2013) The individual's faith in treatment is crucial to the cure of pulmonary tuberculosis. Self-effects can be acquired, modified, enhanced, or diminished. A person with low self-efficiency may face problems or difficulties that will slow down his treatment and loosen his effort or activity, possibly even surrender to treatment. Data collected from the medical records of Puskesmas Batang Beruh at Sidikalang district of Dairi indicates that there are 51 people who are still receiving treatment for pulmonary tuberculosis. According to a preliminary survey conducted by the researchers of seven patients with Pulmonary Tuberculosis at the Batang beruh district, four of them stated that they are confident they will recover and will adhere to the protocol of treatment because it is not too difficult; while three others stated they are unable to follow the protocol due to the side effects of treatment. In the Batang Beruh Batang Puskesmas Working Region of Dairi district, researchers wanted to study the influence of self-effectiveness on the dietary compliance of drugs for patients with pulmonary tuberculosis. The aim is to find out the relationship between self-effectiveness and compliance of lung tuberculosis patients with their medication.

METHOD

This research uses quantitative observational analytical methods with cross-sectional design. The whole research object or object to be studied is called a population. The study involved all patients with pulmonary tuberculosis in the Puskesmas Working Region of Beruh Stang from January to September 2023. The sample of this study consisted of the entire population of patients with pulmonary tuberculosis who were in the Puskesmas Beruh Work Area from January to September 2023, a total of 51 people. The data gathering technique in this research is by using an a questionnaire. The analysis can be performed gradually including bivariate and univariate analysis. Data analysis using a Chi Square test with a fertility rate of 0.05.

RESULTS

Table 1.
Distribution of Respondent Characteristics by Age

Karakteristik	f	%
Umur		
15 - 19 tahun	7	14,29
20 – 24 tahun	4	8,16
25 – 29 tahun	4	8,16
30 – 34 tahun	3	6,12
35 – 39 tahun	1	2,04
40 – 44 tahun	6	12,24
45 – 49 tahun	3	6,12
50 – 54 tahun	5	10,20
55 – 59 tahun	4	8,16
60 – 64 tahun	3	6,12
65 – 69 tahun	4	8,16
≥ 70 tahun	5	10,20
Jenis Kelamin		
Laki-Laki	29	59,18
Perempuan	20	40,82
Pendidikan		
SD	3	6,12
SMP	13	26,53
SMA	21	42,86
Perguruan Tinggi	12	24,49
Pekerjaan		
Petani	16	32,65
PNS	4	8,16
Pensiunan PNS	1	2,04
Wiraswasta	5	10,20
Karyawan Swasta atau BUMN	1	2,04
Pelajar/Mahasiswa	14	28,57
Ibu Rumah Tangga	1	2,04
Lain-lain		
Pendapatan	7	14,29
< UMK	41	83,67
≥ UMK	8	16,33
Lama Menderita TBC		
≤ 3 bulan	12	24,49
3 – 6 bulan	25	51,02
≥ 6 bulan	12	24,49
Pengawas Menelan Obat		
Ada	12	24,49
Tidak ada	37	75,51
Lama Menjalani Pengobatan		
≤3 bulan	13	26,53
3-6 bulan	32	65,31
≥ 6 bulan	4	26,53

According to table 4.2, the majority of respondents aged 15–19 were 7 (14.29%) and the minority aged 35-39 were 1 (2.04%). The majority respondents were 29 men (59.18%), 21 had a high school education (42.86%), 16 were employed as farmers (32.65%), 41 people (83.67%) had incomes below, and 25 people (51.02%) suffered from TB for 3-6 months.

Self Effectiveness of Respondents

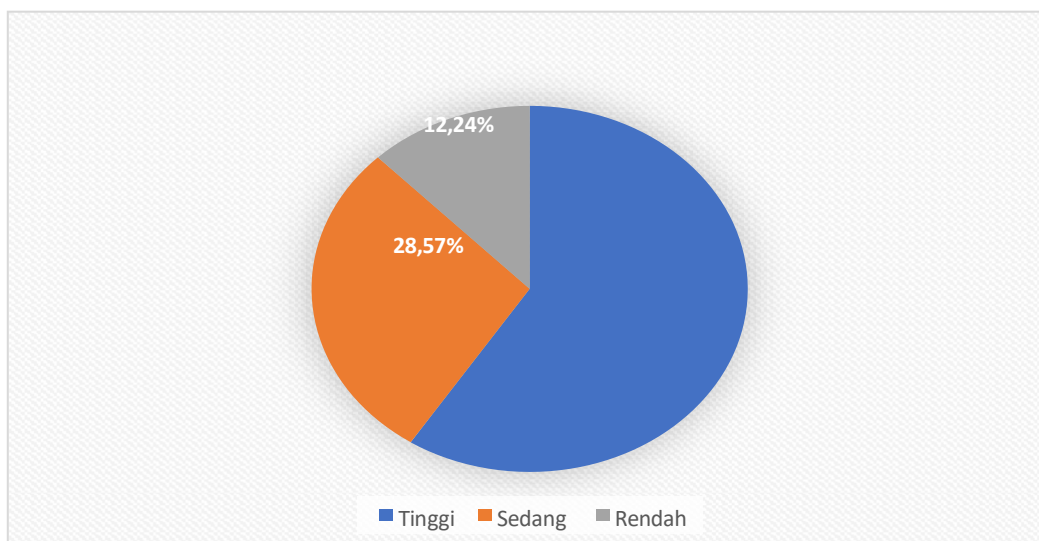


Figure 1. Response Self Effectiveness Overview

The above picture shows that the respondents had a high self-efficiency of 59.18%, a moderate self efficiency of 28.57%, and a low self effectiveness of 12.24%.

Compliance Eating Medicine



Figure 2. Compliance Eating Drug Respondents

The results of the study showed that 75.51% of respondents had high compliance in taking the drug, 18.37% moderate compliance and 6.12% low compliance.

Self-Effectiveness Relationship with Dietary Compliance Of Drug Respondents

Table 2.
Chi Square Tests Self-Effectiveness Relationship to Nutrition Compliance Drug Tuberculosis Patients

	Chi-Square Tests		
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	27.235 ^a	4	.000
Likelihood Ratio	18.372	4	.001
Linear-by-Linear Association	14.733	1	.000
N of Valid Cases	49		

Based on the results of the majority of respondents' analysis, the majority of them used TB medication in a safe category and had a good level of self-efficacy. To assess if there is an efficacious relationship between the consumption of TBC Paru oral supplement in the Batang Beruh work area using chi square statistical analysis with a 95% confidence level ($\alpha=0,05$). If the uji results show a p-value less than 0.05, it indicates a weak or non-significant relationship. The results of the bivariate experiment indicate a significant correlation between the subject's efficacy and the amount of TBC Paru's medication consumed in the Batang Beruh work area, with a p-value of 0.000.

DISCUSSION

Self Effectiveness of Respondents

A person's belief in their ability to a planned level of performance, motivated by important events in their lives, is known as self-efficiency. (Ghufron dan Risnawati 2017). The results showed that 59.18% of respondents had a high level of self-efficiency. In a 2018 study by Herawati and Purwanti on the relationship between knowledge and self-efficiency of patients with pulmonary tuberculosis, none of the 72 respondents have low self-effectiveness. It's caused by the patient's confidence to recover so they come for medication. Furthermore, Suryalaga's 2020 study investigating the relationship between self-concept and self-effectiveness in lung TB patients in the Wonosari puskesmas work area found that the most respondents had self-efficiency in the categories of good (72%) and bad (28%). Furthermore, this study is in line with the findings of Wulandari, Rantung, and Malindi's 2020 study on factors associated with drug consumption compliance of TB patients in the Parongpong Puskesmas Working Region. The study found that 60% of respondents had high self-effectiveness, and only 8.6% had low self efficiency.

Compliance Eating Medicine

The results show that 75.51 per cent of respondents obeyed OAT, which is in line with the findings of Wulandari, Rantung, and Malindi's 2020 study, where 16 respondents (69.6 per cent) were obeying the drug. In addition, in a study conducted by Priyaputranti, Rahmawati, and Yasin in 2023 on the conformity evaluation of the use of anti-tuberculosis drugs in lung tuberculosis patients in Puskesmas Pahandut Palangkaraya City, it was found that 24 (77%) patients obeyed and 8 (23%) disobeyed. Non-compliance can be caused by patient factors, such as lack of patient motivation, forgetting to take medication, not understanding the explanation of health care, confusion about how to take medicine, access factors, like lack of vehicles, social factors such as work, as well as family support and lack of the role of PMO.

It is important to adhere to the use of pulmonary tuberculosis medication because if the treatment is not done regularly and not as planned, there may be immunity of the tubercle germ to anti-tuberculosis drugs (OATs), also known as resistance to various drugs (MDRs). (Kemenkes, 2011).

Self-Effectiveness Relationship With Dietary Compliance Of Drug Respondents

Based on the results of the study, the majority of respondents adhered to the dietary tuberculosis medication in the category of good and self-efficacy of a majority good. To test whether there is a link between self-effectiveness and consistency in the diet of patients with pulmonary tuberculosis in the work area of Puskesmas Barang Beruh with statistical analysis of chi square. with a fertility rate of 95% ($\alpha=0,05$). If the test results show a p value < 0.05 means there is a meaningful or significant relationship. The results of this study are in line with the research of Fintiya and Wulandari who investigated the relationship of self-effectiveness with medication consistency in TB patients in the work area of Puskesmas Parongpong, ParongPong district of West Bandung. This study

showed that there was a relationship between self-effectiveness and drug consistency with a p-value of 0.030 or ($p \leq 0.05$) and a moderate correlation rate. (0,454). Furthermore, Andini's study of the relationship between self efficacy and drug consistency in Islamic Hospital Sultan Agung Semarang showed Sommers'D's P 0,0001 test that there was a positive link between self efficiency and medication consistencies, which means that the better self effectiveness the better drug consistentness.

According to Dwidiyanti (2017) and Fauzi (2019), someone who has high self-efficiency will have confidence to recover. Pulmonary TB patients with high levels of effectiveness will be of public concern. According to Sutarto (2019), there is a correlation between patient adherence to lung tuberculosis treatment and self-effectiveness. Previous experience forms the most effective self-effectiveness. Experience undergoing intensive phase treatment can shape self-effectiveness during advanced phase. Further behavior is influenced by various other related experiences. As long as they're undergoing treatment, lung tuberculosis patients tend to see how other people who suffer from lung TB behave. Treatment that has failed or failed can affect the level of self-effectiveness. People who use drugs regularly and are able to take them in their daily lives.

The results of this study show that there is a significant relationship between self-effectiveness and medication compliance. The better the self-effectiveness of lung tuberculosis patients, the better their compliance with their medication. Decreased, enhanced, modified, or acquired self-effectiveness. Self-efficacy emphasizes the role of observational learning, social experience, and mutual determinism in personality development. When a person is experiencing difficulties or problems, low levels of self-effectiveness will weaken their treatment efforts, even cause them to give up. (Gufron dan Risnawitaq, 2017). In Puskesmas Stang Beruh, the rate of consistency in the consumption of drugs for TB patients is among the best, with a majority of 75.51 per cent of the rates being in the high category; however, more than 25 per cent remain among the poor. These 25% patients are at risk of developing resistance, which can lead to MDR. Based on interviews conducted by researchers with respondents, most of the causes of their non-compliance were forgetting and side effects of the drug given at the beginning of therapy or treatment. Three of the respondents stated that they felt small or not sick because no serious symptoms were shown, and only sputum examinations showed lung tuberculosis.

According to the information provided by the health officer who managed the pulmonary tuberculosis program at Puskesmas Batang Beruh, these disobedient respondents have been sanctioned repeatedly to comply with the therapeutic program. They've also been called over the phone to be reminded to take their medication, but they don't care and even feel annoyed when warned over the telephone when their medicine schedule arrives.

CONCLUSION

The majority of respondents were aged 15 to 19, 7 (14.29%) and the minority aged 35 to 39, 1 (2.04%). The gender of the majority respondents was male, 29 (59.18%), with high school education of 21 majority (42.86%), employment of 16 majority farmers (32.65%), and low income of 41 majority (83.67%). The majority of respondents suffered from TB for three to six months. The results of the study showed that the self-effectiveness of the majority respondents category was high at 59.18%, self effectiveness was moderate at 28.57% and self efficiency was low at 12.24%. The majority dose-compliance rate of 75.51% of respondents had high compliance, 18.37% moderate compliance and 6.12% low compliance. The results of the bivariate test indicate that there is a significant relationship between self-effectiveness

and dietary compliance of patients with pulmonary tuberculosis in the area of work Puskesmas Batang Beruh with a p value of 0,000.

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