Article

Determinant Treatment TB Lungs Phase 1 In Regency Coastal West Province Lampung in 2024

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Abstract: In general, tuberculosis control in 2020-2024 aims to accelerate Indonesia's efforts to eliminate tuberculosis by 2030, and end the tuberculosis epidemic by 2050 (Indonesian Ministry of Health, 2020). TB controls efforts are carried out with Direct Observed Treatment Short Courses (DOTS). The use of DOTS and eradication of TB is a treatment with direct supervision. Patient compliance in pulmonary TB treatment is very important (Firdaus, 2019). Method The study design in this research uses analytical observational research with a cross sectional research design. Population The population in this study is all pulmonary TB patients in Pesisir Barat Regency, Lampung Province in 2024, with a total of 238 pulmonary TB patients. Samples The samples is a portions of the number and characteristics of a population of 74 respondents. Data analysis was univariate, bivariate and multivariate using the Chi-square analysis technique. This research began from April to May 2024. The results of medication adherence for TB patients mostly occurred in people aged 45-65 years, low to medium education, working in the private sector, with poor knowledge, poor motivation and lacking family support. There is a relationship between education and adherence to medication in TB patients (p-value 0.002), Employment Status (p-value 0.012), Knowledge (p-value 0.004), Motivation (p-value 0.005), Family Support (p- value 0.002). Motivation is the most dominant factor in medication compliance for pulmonary TB patients in Pesisir Barat Regency, Lampung Province. In 2024, Conclusion: It is hoped that health services in Coastal West Regency can improve health education in the form of education,especially TB, not only for TB sufferers but also the local community. in their work area and provide motivation and support to both patients and their families.

Keywords: Medication Adherence, Motivation, West Coast

1.   Introduction

Globally, tuberculosis (TB) is a significant public health problem. The World Health Organization (WHO) declared TB a global emergency in 1993. According to the WHO 2011 Annual Report on Global TB Control, 22 countries bear the burden of TB. Reports from WHO in 2014 indicated 9 million new TB cases and 1.5 million deaths annually (Ministry of Health, Puslitbang & P2PL, 2021). WHO states that the highest number of TB cases is in India, followed by Indonesia, making it a significant concern for public health with the incidence of tuberculosis cases (Ministry of Health of the Republic of Indonesia, 2020).

Mycobacterium tuberculosis is the bacterium that causes TB disease in humans. While it can affect other organs, TB predominantly attacks the lungs. People spread the disease primarily when patients positive for acid-fast bacilli (BTA) emit germs into the air in the form of droplet nuclei (Ministry of Health, Puslitbang & P2PL, 2021). Pulmonary Tuberculosis (Pulmonary TB) is an infectious disease caused by infection with Mycobacterium tuberculosis. It remains a public health issue worldwide, requiring long-

term treatment in two stages: the initial (intensive) phase and the continuation phase. Adherence is crucial for the recovery of pulmonary TB patients, as non-compliance or treatment dropout can lead to the patient becoming a carrier, potentially spreading the disease to others (Indrawaty, 2019).

Despite annual efforts, new TB cases continue to emerge. In Indonesia, 13% of TB cases received treatment, but there is a potential 2.4% annual increase in new drug-resistant TB cases, with an estimated incidence of 24,000 cases or 8.8/100 population. In 2019, approximately 11,500 cases of rifampin-resistant tuberculosis were reported (Ministry of Health, Research and Development Center & P2PL, 2021). In 2021, Indonesia reported 397,377 TB cases, an increase from 351,936 cases in 2020. Men accounted for 57.5% of cases, while women accounted for 42.5% (Ministry of Health of the Republic of Indonesia, 2021).

The high incidence of pulmonary TB in Indonesia is influenced by factors such as low income, population density, education levels, low health knowledge, and poor home sanitation. Several articles identify risk factors including socioeconomic factors (education, income, ownership index), demographic factors (age, gender, area classification), and environmental health factors (wall type, humidity, air temperature, floor type, ventilation size, lighting, and residential density) (Miharti, 2022).

Non-compliance with medication, lack of treatment knowledge, inadequate family support, limited diagnostic services, transportation issues, previous TB treatment history, unavoidable drug side effects, high therapy failure rates, and even death are contributing factors to the increase in new TB cases (Kolibu, 2018). According to the Lampung Health Profile 2020, TB cases in Lampung Province rose from 2017-2019 by 28%-54%, but saw a decline of 36% in 2020, still below the target of 70% (Lampung Health Office, 2021).

Data from the Bandar Lampung City Health Service show 2,722 TB cases from January 1, 2022, to October 20, 2022, with 2,680 cases of drug-sensitive TB and 42 cases of drug-resistant TB (TB RO) at Abdul Moeloek Hospital, Krui District. Krui District had the highest number of cases (143), followed by the Panjang Health Center (115) and the Rajabasa Indah Health Center (100) (Bandar Lampung City Health Office, 2022). At the Kedaton Community Health Center, 143 TB cases were reported from January to September 2022, with patients declared cured from January to April. However, treatment continued from May to September (Kedaton Community Health Center, 2022).

The goal of TB control in Indonesia from 2020-2024 is to accelerate efforts to eliminate TB by 2030 and end the TB epidemic by 2050 (Ministry of Health RI, 2020). Control efforts include Directly Observed Treatment, Short-course (DOTS), which emphasizes patient compliance in TB treatment (Firdaus, 2019). TB treatment, which involves a combination of several drugs, typically takes 6 to 8 months, with an initial phase of daily medication for 2 to 3 months, followed by a continuation phase of thrice-weekly medication for 4 to 5 months (Ayu, 2019).

Patient compliance is crucial for successful TB treatment, which depends on factors such as understanding treatment instructions, attitude, personality, education level, family support, and social support (Afriani, 2016). Successful TB treatment depends on patient knowledge, self-motivation, and support to complete the treatment (Afriani, 2016).

2. Materials and Methods

This research is analytical with a Cross Sectional research design where in this research design, the independent variables (Education Level, Job Level, Knowledge, Motivation and family support) and the dependent variable (Medication Adherence) are measured over time. simultaneously with the method of approach, observation or data

collection at one time (Point Time Approach) meaning, each subject is only observed once and the measurement is carried out on the status of the subject's character or variable at that time. during inspection

3. Results

The results of univariate analysis to describe each variable used in this research include (level of education, level of employment, knowledge, motivation and family support with treatment Pulmonary TB Phase 1 in Pesisir Barat Regency, Lampung Province in 2024.

Bivariate analysis to see the relationship between variable independent that is (level of education, level of employment, knowledge, motivation and family support with treatment Pulmonary TB Phase 1 In Pesisir Barat Regency, Lampung Province in 2024. The test used in the bivariate analysis is the Chi-Square X2) test with a value of 0.05. This analysis is purposeful to get probability the incident. If P value > 0.05 so Ho rejected and Ha accepted which means there is no relationship between the two variables. Conversely, if the P value ≤ 0.05 then Ho is rejected and Ha is accepted which is meaningful there is a relationship between the two variables. (Askhary, 2017). Multivariate analysis to find out which factors are the most dominant that influence other variables.

Table 1.
Characteristics TB patient Lungs in Regency West Coast Lampung province 2024

1	Age	Frequency (n)	Percentage (%)
	Mature (17-45 Year)	26	35.1%
	Elderly (45-65 Year)	48	64.9%
2	Gender		
	Man	49	66.2%
	Woman	25	33.8%

Source : Research Results Data Year 2024

Table 2.
Distribution Frequency Treatment Patient TB Lungs in
Regency Coastal West Lampung Province 2024

1	Obedience TB	Frequency	Percentage
	Yes	40	54.1
	No	34	45.9
2	Education		
	Low- Medium	47	63.5
	Tall	27	36.5
3	Work		
	Private	50	67.6
	Employee	24	32.4
4	Knowledge		
	Not enough	48	64.9
	Enough	26	35.1
5	Motivation		
	Bad	51	68.9

	Good	23	31.1
6	Support Family		
	Not enough	46	62.2
	Good	28	37.8

Based on Table 2 above, the level of compliance with Phase 1 TB treatment is 40 person with low-middle education as big as 47 person And average 50 people work in the private sector with 48 people lacking knowledge with 51 people with poor motivation support family not enough as big as 46 person

Table 3.
Connection Education with Obedience Drink Drug in Regency Coastal West Lampung Province in 2024

Compliance Education	Yes		No		Total		Taking Medication
	n	%	n	%	N	%	
Rendah-Menengah	19	40.4	28	59.6	47	100.0	0.002
Tinggi	21	77.8	6	22.2	27	100.0	
Total	40	54.1	34	45.9	74	100.0	

In Table 3 Above it can be seen that respondents who have low to medium education with drinking compliance 19 drugs people (40.2%) and those with higher education were 21 people (77.8%), with a pvalue of 0.002 < 0.05

Table 4.
Connection Work with Obedience Drink Drug in Regency Coastal West Lampung Province in 2024

Compliance Work	Taking						Medication P
	Yes		No		Total		
	n	%	n	%	N	%	
Swasta	22	44.0	28	56.0	50	100.0	0.002
Pegawai	18	75.0	6	25.0	24	100.0	
Total	40	54.1	34	45.9	74	100.0	

Source : Research Results Data Year 2024

In Table 4 above, it can be seen that there were 22 respondents (44.0%) who had private jobs and 18 people who had employee jobs. people (75.0%), with a pvalue of 0.002 < 0.05

Table 5.
Connection Knowledge with Obedience Drink Drug in Regency Coastal West Lampung Province in 2024

Compliance Knowledge	Yes		No		Total		Taking Medication P
	n	%	n	%	N	%	
Kurang	20	41.7	28	58.3	48	100.0	0.004
Cukup	20	76.9	6	23.1	26	100.0	
Total	40	54.1	34	45.9	74	100.0	

sSource : Research Results Data Year 2024

In Table 5 Above, it can be seen that respondents with less knowledge and compliance with taking medication were 20 people (41.7%) and respondents with sufficient knowledge were 20 people (76.9%), with a pvalue of 0.004 < 0.05

Table 6
Connection Motivation with Obedience Drink Drug in Regency Coastal West Lampung Province in 2024

Compliance Motivation							Taking
	Yes		No		Total		Medication P
	n	%	n	%	N	%	
Buruk	22	43.1	29	56.9	51	100.0	0.005
Baik	18	78.3	5	21.7	23	100.0	
Total	40	54.1	34	45.9	74	100.0	

In Table 6 above, it can be seen that respondents with poor motivation had 22 compliance with taking medication people (43.1%) and 18 respondents with good motivation people (78.3%), with a pvalue of 0.005 < 0.05

Table 7
Connection Support Family with Obedience Drink Drug in Regency West Coast Lampung Province in 2024

Support Compliance Family							Taking
	Yes		No		Total		Medication P
	n	%	n	%	N	%	
Kurang	19	41.3	27	58.7	46	100.0	0.002
Baik	21	75.0	7	25.0	28	100.0	
Total	40	54.1	34	45.9	74	100.0	

In Table 7 Above, it can be seen that 19 respondents received less family support people (41.3%) and 21 respondents who received good family support people (75.0%), with a p value of 0.002 < 0.05

Table 8. Variables Candidate Analysis Multivariate

Factor No		Obedience Drink Value Medicine		p
	95% CI	OR		
1	Education	,002	,000	9,634
2	Jobs	,012	,000	6,275
3	Knowledge	.004	.000	8.441
4	Motivation	,005	,000	7,874
5	Support Family	,005	,000	7,957

Table 9. Results Analysis Multivariate

No	Obedience Drink Drug	Mark p	95% CI	OR
1	Motivation	0,000	,000	22,484

Table 9 is results analysis model end with meaning mark p Value 0.005 And OR 22,484 on 95% CI (,000) Which is factor relate with Incident TB Patient Medication Adherence is Motivation.

4. Discussion

In Lawrence Green's theory there are 3 One of the factors that determine behavior is predisposing factors. These redisposing factors are factors that can be found within oneself manifested in the form of knowledge, attitudes, beliefs, beliefs, values, and so on. Then education is an influential factor in shaping a person's knowledge, attitudes, perceptions, beliefs and assessments of health. so it's getting more and more The higher a person's education, the easier it is to receive information (Yanto & Verawati, 2022). Occupation is one of the risk factors that influences medication adherence Pulmonary Tuberculosis Patients. This is indicated by the significance value p value = 0.001 (<0.05).

Work is an activity carried out to earn a living. Environmental factor work predisposes a person to exposure to a disease. A bad work environment is more conducive to being infected with pulmonary TB, including drivers, laborers, pedicab drivers and others, compared to people who work in office areas.

Knowledge is the result of " knowing " and this happens after people sense a particular object. Knowledge or cognitive is a very important domain for its formation action somebody (overt behavior). If the acceptance of new behavior or adoption of behavior through a process like this is based on knowledge, awareness and a positive attitude, then the behavior will be long lasting (Notoatmodjo, 2019) and family support in compliance with taking medication (Theresiana, 2020).

Intrinsic motivation for these researchers shows that taking medication is an internal desire of people with Tuberculosis, so that this internal motivation contributes to overall motivation, namely that the majority of respondents have strong intrinsic motivation. Based on the results of the frequency distribution information in the attachment to this research, shows that the majority of respondents (58.1%) have strong intrinsic motivation. Intrinsic motivation is motivation that comes from within a person without any external stimulation. Intrinsic motivation identified in this research is a desire or encouragement from within oneself in the form of the sufferer's attitude to obey or obey the instructions or conditions for taking medication given. includes dosage, regularity of taking medication as well as the healing time period.

Family support really supports the success of a person's treatment by always reminding the sufferer to take medication and encouraging them to remain diligent in seeking treatment. The role of a good family is motivation or support Which powerful in encourage patients to receive regular treatment according to their recommendations. Having full support or motivation from the family can influence the behavior of taking medication for pulmonary TB patients regularly. So the family needs to play an active role in supporting the patient to undergo regular treatment until he is declared cured by health workers.

5. Conclusion

Based on the characteristics of respondents, compliance with taking medication for TB patients mostly occurs in people aged 45-65 years, low-medium education, status Work private, with knowledge lacking, with poor motivation and lacking family support. Motivation is the most significant factor related to compliance with taking medication for TB patients in Pesisir Barat Regency, Lampung Province in 2024, so it is hoped that 1. It is hoped that existing health services in Pesisir Barat Regency can improve health education in the form of counseling, especially TB, not only to TB sufferers but also the community in the work area and provides motivation and support to both patients and the patient's family.

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