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Treatment Determinants Influence the Health of Tuberculosis Patients

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ABSTRACT
Tuberculosis is a bacterial infection caused by Mycobacterium tuberculosis. TB is the world's tenth biggest cause of mortality, with an estimated 1.3 million tuberculosis patients dying each year. This study aims to determine and analyse the determinants of treatment that affect the healing of Tuberculosis Patients in the Karang Anyar Health Centre Work Area, Beringin District, Deli Serdang Regency. The research design used was an analytic survey with a cross sectional design. The research sample was all 44 people with pulmonary TB who had recovered. Data analysis with chi square test and multiple logistic regression test. From 44 respondents, it was found that the results of the TB patient healing study had a significant relationship with the results of the Logistics Regression Test on the PMO variable (p=0.004, OR=1.332), contact history (p=0.004, OR=2.001), medication adherence (p=0.001, OR=27,267), education level (p=0.002,OR=2,998), knowledge (p=0.003,OR=6.334), nutritional status (p=0.000,OR=5,333), religious (p=0.001,OR=9,445) and the most dominant factor was medication adherence (OR=27,267). Compliance with treatment affects the cure for tuberculosis where there is family support, patients are motivated to recover and routinely carry out treatment. It is expected that all tuberculosis sufferers to consume a balanced nutritional diet, perform treatment obediently and have good faith and knowledge as an effort to cure tuberculosis.

Keywords**:** *Treatment, Healing, Tuberculosis*

INTRODUCTION

Tuberculosis or TB is an infectious disease caused by the bacterium Mycobacterium tuberculosis (Mabhula & Singh, 2019; Bussi & Gutierrez, 2019). There are several species of Mycobacterium, including: M. tuberculosis, M. africanum, M. bovis, M. leprae etc. Tuberculosis is still a public health problem that is a global challenge (Dong & Soong, 2021; Xiong et al., 2018; Jain et al., 2020). Minister of Health Regulation Number 67 of 2016 concerning Tuberculosis Management sets the target for the national TB control program, namely elimination in 2035 and Indonesia Free of TB in 2050. TB elimination is the achievement of 1 TB case per 1,000,000 population. Meanwhile in 2017 the current number of TB cases is 254 per 100,000 or 25.40 per 1 million population. Indonesia is one of the countries that has the largest burden of tuberculosis among 5 countries, namely India, Indonesia, China, the Philippines and Pakistan (Global Tuberculosis Report, 2017; p. 1). Based on the 2017 Global Report on Tuberculosis, globally, new cases of tuberculosis were 6.3 million, equivalent to 61% of the incidence of tuberculosis (10.4 million).

Tuberculosis remains the 10th leading cause of death in the world and global tuberculosis deaths are estimated at 1.3 million patients. Data from the North Sumatra Provincial Health Office in 2019 the highest positive smear positive TB cases in North Sumatra, namely Medan City (3,217 people), Deli Serdang (2,623 people) and Serdang Bedagai (1,091 people). TB cases in Deli Serdang Regency, according to data from the Deli Serdang Regency Health Office, in 2019 it was estimated that SO TB cases were 3259 cases, deaths due to SO TB were 14 cases and RO TB was 33 cases and for TB with HIV positive 43 cases. Based on Public Health Centre data since 2016 that the number of TB patients was 23 people with 22 people recovering and 1 person dying, in

2017 the number of TB patients was 36 people with 27 people recovered, 7 people died and 3 people dropped out. In 2018, there were 30 TB patients, 25 of whom recovered, one of whom died, and one who dropped out. In 2019, the number of TB patients was 34, with 22 recovering, 6 dying, and 6 dropping out, whereas in 2020, the number of TB patients was 52, with 44 recovering, 4 dying, and 4 dropping out.

Various factors that contribute to the recovery of pulmonary TB patients include education level (Ren et al., 2019; Sukartini et al., 2020; Vázquez-Pérez et al., 2020), socioeconomic status, nutritional status, patient knowledge of treatment, treatment history, complications with other diseases, presence or absence of PMO, patient contact history, treatment adherence, patient attitude towards recovery. Pulmonary tuberculosis and patient behaviour in relation to pulmonary tuberculosis recovery (Fan et al., 2018; Migliori et al., 2021; Azizi et al., 2018). The performance of the Drug Swallowing Supervisor is one of the measures used to assess the efficacy of pulmonary TB therapy (success rate) (PMO). Those who got less PMO monitoring were 1.83 times more likely to not be cured of pulmonary tuberculosis than patients who received adequate PMO supervision.

Currently, therapy of sick individuals (patients) must be carried out holistically by encompassing four areas of treatment, namely Bio-Psycho-Social-Religious, because many diseases are caused by psychological issues (Snow et al., 2020; Connery et al., 2020; Balinda et al., 2019), which might indirectly impact their state, rather than someone's physique biological viruses. With these medical personnel are increasingly convinced that the disease and the process of healing the disease, apart from the physical aspect, can also be investigated from a psychological perspective (Ayana et al., 2019; Sweetland et al., 2018; Datta & Evans, 2019).

METHODS

The research used is quantitative research which is an Analytical Survey. This study uses a cross sectional approach, which is a study to study the dynamics of the correlation between factors and effects, by approaching, observing or collecting data at once (point time approximation). This research was conducted at UPT Karang Anyar Public Health Centre, Beringin District, Deli Serdang Regency. The population in this study were all patients with pulmonary TB who had recovered from treatment based on the doctor's diagnosis, as many as 44 people. The sampling technique in this research is total sampling.

RESULTS

After conducting research in the Work Area of the Karang Anyar Health Centre UPT on 44 respondents by filling out a questionnaire, the following results were obtained:

Univariate Analysis

Table 1.
Frequency Distribution of Respondents Based on PMO at Karang Anyar Health Centre in 2021

PMO	f	%
Good	11	25
Not Good	33	75
Total	44	100.0

According to the table above, the majority of respondents (33%) replied negatively about PMO, whereas a good minority of respondents (25%) answered positively.

Table 2.
Frequency Distribution of Respondents Based on contact history at Karang Anyar Health Centre in 2021

Contact History	f	%
Good	15	34.1
Not Good	29	65.9
Total	44	100.0

According to the table above, the majority of respondents replied less well regarding contact history, with as many as 29 respondents (65.9%) and a good minority of 15 respondents (34.1%).

Table 3.
Shows the frequency distribution of respondents based on treatment adherence at Karang Anyar Health Centre in 2021.

Medication Adherence	**f**	**%**
Obey	10	22.7
Not Obey	34	77.3
Total	44	100.0

According to the table above, the majority of respondents replied non-compliant as many as 10 respondents (22.7%) and a good minority as many as 34 respondents (77.3%) considering treatment adherence.

Table 4.
Shows the distribution of education level frequency based on treatment adherence at Karang Anyar Health Centre in 2021.

Education	**f**	**%**
Primary School	9	20.5
Junior High School	18	40.9
Senior High School	12	27.3
College	5	11.4
Total	44	100.0

According to the chart above, the majority of respondents (40.9%) have completed junior high school, while a minority of 5 respondents (11.4%) have completed higher education.

Table 5.
shows the frequency distribution of respondents based on knowledge at Karang Anyar Health Centre in 2021.

Knowledge	**f**	**%**
Good	16	36.4
Not Good	28	63.6
Total	44	100.0

According to the table above, the majority of respondents (63.6%) answered poorly regarding contact history, while a good minority of respondents (16.4%) answered positively.

Table 6.
Shows the frequency distribution of respondents based on nutritional status at Karang Anyar Health Centre in 2021.

Nutritional Status	**f**	**%**
Good	12	27.3
Bad	32	72.7
Total	44	100.0

According to the table above, the majority of respondents (72.7%) replied negatively about their contact history, while a good minority (27.3%) reacted positively.

Table 7.
Shows the frequency distribution of respondents at Karang Anyar Health Centre according on religion in 2021.

Religious	**f**	**%**
Praying	12	27.3

Not Praying	32	72.7
Total	44	100.0

According to the table above, the majority of respondents (72.7%) replied negatively about their contact history, while a good minority (27.3%) reacted positively.

Bivariate Analysis

Table 8.
Relationship between PMO and healing of tuberculosis patients at Karang Anyar Health Centre in 2021

PMO	Tuberculosis Patient Recovery				Total		*p*
	Healthy		Relapse				
	f	%	f	%	f	%	
Good	7	63.6	4	36.4	11	100	
Not Good	5	15.2	28	84.4	33	100	0,004
Total	12		32		44		

Table 9.
Relationship of contact history with healing of tuberculosis patients at Karang Anyar Health Centre in 2021

Contact History	Tuberculosis Patient Recovery				Total		*p*
	Healthy		Relapse				
	f	%	f	%	f	%	
Good	6	54.5	5	45.5	11	100	
Not Good	3	9.1	30	90.9	33	100	0,004
Total	9		35		44		

Table 10.
The relationship between medication adherence and the recovery of tuberculosis patients at the Karang Anyar Health Centre in 2021

Medication Adherence	Tuberculosis Patient Recovery				Total		*p (value)*
	Healthy		Relapse				
	f	%	f	%	f	%	
Obey	6	66.7	3	33.3	9	100	
Not Obey	3	8.6	32	91.4	35	100	0,001
Total	9		35		44		

Table 11.
The relationship between education level and cure for tuberculosis patients at Karang Anyar Health Centre in 2021

Education Level	Tuberculosis Patient Recovery				Total		*p*
	Healthy		Relapse				
	f	%	f	%	f	%	
Primary School	4	44.4	5	55.6	9	100	
Junior High School	2	11.1	16	88.9	18	100	
Senior High School	4	33.3	8	66.7	12	100	0,002
College	5	100	0	0	5	100	
Total	15		29		44		

Table 12.
Relationship between knowledge and healing of tuberculosis patients at Karang Anyar Health Centre in 2021

Knowledge	Tuberculosis Patient Recovery				Total		*p*
	Healthy		Relapse				
	f	%	f	%	f	%	
Good	4	66.7	2	33.3	6	100	
Not Good	3	7.9	35	92.1	38	100	0,003
Total	7		37		44		

Table 13.
Relationship between nutritional status and recovery of tuberculosis patients at Karang Anyar Health Centre in 2021

Nutritional Status	Tuberculosis Patient Recovery				Total		*p*
	Healthy		Relapse				
	f	%	f	%	f	%	
Good	8	72.7	3	27.3	11	100	
Bad	4	12.1	29	87.9	33	100	0,000
Total	12		32		44		

Table 14.
Religious relationship with healing of tuberculosis patients at Karang Anyar Health Centre in 2021

Religious	Tuberculosis Patient Recovery				Total		*P*
	Healthy		Relapse				
	f	%	f	%	f	%	
Praying	9	69.2	4	30.8	13	100	
Not Praying	5	16.1	26	83.9	31	100	0,001
Total	14		30		44		

Multivariate Analysis

Table 15
Shows the impact of PMO, patient contact history, medication adherence, education level, knowledge, nutritional status, and religious status on tuberculosis patients' recovery at Karang Anyar Health Centre in 2021.
The Initial Stage of Multiple Logistics Regression Testing

Variable	B	Sig.	OR
PMO	1.664	.009	1.332
Contact History	111	.345	2.001
Medication Adherence	.244	.002	2.998
Education Level	3.970	.006	27.267
Knowledge	1.452	.001	6.334
Nutritional Status	1.626	.001	5.333
Religious	1.369	.001	9.445

Based on the table above, after the first stage of the multiple logistic regression test, it was found that the PMO variable, medication adherence, education level, knowledge, nutritional and religious status, had a p-value <0.05, but the variable history of patient contact (p= 0.345) p-value > 0.05. The second stage of the multiple logistic regression test was carried out on variables with p-value <0.05, so that the patient's contact history variable was excluded or omitted.

Table 16.
Shows the impact of PMO, medication adherence, education level, knowledge, dietary condition, and religious status on TB patients' recovery at Karang Anyar Health Centre in 2021.
Second Stage Double Logistics Regression Testing

Variable	B	Sig.	OR
PMO	1.664	.009	1.332
Medication Adherence	.244	.002	27.267
Education Level	3.970	.006	2.998
Knowledge	1.452	.001	6.334
Nutrition Status	1.626	.001	5.333
Religious	1.369	.001	9.445

Based on the table above, it shows that the results of the second stage of the multiple logistic regression test obtained significant values for the PMO variables, treatment adherence, education level, knowledge, nutritional and religious status <0.05. That is, the six variables interact with each other for the healing of tuberculosis patients at the Karang Anyar Health Centre in 2021.

DISCUSSION

The Effect of PMO on the Healing of Tuberculosis Patients at Karanganyar Health Centre in 2021

Based on the results of the study that of the 11 respondents who had a good PMO, 7 respondents (63.6%) were healthy from tuberculosis and 4 respondents (36.4%) relapsed from tuberculosis. Of the 33 respondents who had poor PMO, 5 respondents (15.2%) were healthy from tuberculosis and 28 respondents (84.8%) relapsed from tuberculosis. Based on the analysis of the chi square test, the p-value was 0.004 <0.05 and the results of the Multiple Logistics Regression Test obtained a p-value of 0.009 <0.05 OR = 1.332, so it can be concluded that there is a relationship between PMO and the cure for tuberculosis. This is consistent with Fird studies, the findings of this study show that the function of PMO in pulmonary TB patients in the Baki Sukoharjo Health Centre's working area is mostly a role, and the effectiveness of pulmonary TB treatment in pulmonary TB patients in the work area. The Baki Sukoharjo Health Center was mostly successful, and the role of the PMO had an effect on the success of pulmonary TB treatment in pulmonary TB patients in the Baki Sukoharjo Health Centre's working area.

PMO can be more effectively carried out by families. Strong support for sufferers, especially from the family, will greatly assist the healing process of Tuberculosis, for example in improving treatment adherence by monitoring the swallowing of drugs and giving encouragement to patients with family emotional support/PMO for pulmonary TB patients is needed because the PMO's job is to provide encouragement to patients (Prabawa et al., 2018; Mochartini, 2022; Kristinawati et al., 2019). the patient to want to seek treatment regularly and remind the patient to re-examine the sputum at the appointed time. With good PMO performance, patients are more motivated to undergo treatment regularly, with PMO, patients can be motivated and supported by PMO to recover quickly and routinely carry out treatment. Because with the treatment the patient has been taking for 6 months and there are also a lot of drugs that must be taken, it is possible for the patient to drop out of treatment.

The Influence of Contact History on the Healing of Tuberculosis Patients at Karanganyar Health Centre in 2021

According to the study's findings, among the 11 responders with a history of excellent contact, as many as 6 (66.7%) were free of TB and as many as 5 (33.3%) relapsed. Of the 33 responders with a history of inadequate contact, as many as 3 (9.1%) were free of TB and as many as 30 (90.9%) relapsed. The chi square test analysis yielded a p-value of 0.004 0.05. The Multiple

Logistics Regression Test yielded a p-value of 0.345>0.05 OR=2.001, indicating that there was a link between contact history and TB patient healing but had no influence on tuberculosis patient healing. This is consistent with the findings of the dwi study, according to the findings, half of the 72 respondents (51.4%) had a residential density that matched the guidelines, and more than half (54.2%) had no history of contact with TB patients. The Chi square calculation yielded OR = 7,800 with p value = 0.000, and OR = 7.955 with p value = 0.000, implying that there is a relationship between Occupancy Density and TB Incidence at the Kembang Seri Health Centre, Central Bengkulu Regency. A family member's history of transmission if someone has pulmonary TB will also be able to transmit 79,781 times from a family who does not have pulmonary TB. Meanwhile, respondents who have a history of contact can be said to have a high risk of suffering from smear-positive pulmonary TB, which is 5 times greater than respondents who do not have contact history.

People who have a history of this exposure can develop active TB if their immune system is weak (Sagavkar & Devkar, 2018), but people with good immunity can develop latent TB (Chee et al., 2018; Wang et al., 2018; Estévez et al., 2020). Latent tuberculosis occurs when the body is already infected with tuberculosis bacteria, but white blood cells can fight these bacteria so that they do not experience the symptoms of pulmonary tuberculosis disease and do not have the potential to infect others. However, bacteria can be reactivated when the body's immune system weakens, leaving room for the bacteria to grow worse. Therefore, even if they do not experience symptoms of tuberculosis, latent TB patients need to take treatment to prevent active tuberculosis bacterial infection (Drain et al., 2018; Sharma et al., 2019; Yan et al., 2020). For those detected with active pulmonary TB, treatment will be carried out for 6 months and must be done regularly and should not stop in the middle of treatment because it will cause the bacteria to become resistant to the drug (Asriwati & Tristiyana, 2020; Bao et al., 2022; Aziz et al., 2018).

The Effect of Medical Compliance on the Cure for Tuberculosis Patients at Karang Anyar Health Centre in 2021.

Based on the results of the study that of the 9 respondents who obeyed as many as 6 respondents (66.7%) were healthy from tuberculosis and as many as 3 respondents (33.3%) relapsed from tuberculosis. Of the 35 responders who did not comply, three (8.6%) were tuberculosis-free, whereas the remaining 32 (84.2%) had relapsed. The chi square test analysis yielded a p-value of 0.001 0.05, and the Multiple Logistics Regression Test yielded a p-value of 0.002 0.05 OR = 27,267, implying that there is a link between medication adherence and tuberculosis cure. Patient compliance with therapy is one of the criteria of successful TB therapy management (Alipanah et al., 2018; Lan et al., 2020; Ahmad et al., 2018). Noncompliance with therapy will result in failure and recurrence, leading in resistance and the spread of illness. This can raise the risk of morbidity, death, and medication resistance in patients as well as the general population. Noncompliance with long-term therapy results in deteriorated health and greater healthcare expenses.

This is in agreement with Dewi, the findings revealed a p-value of 0.026 association between medication adherence and health behaviour in individuals with pulmonary tuberculosis. Maslina's research Bivariate statistical tests show that a sense of responsibility (p=0.040), family support/PMO (p=0.044), encouragement from health workers (p=0.024), and compliance (p=0.024) have a relationship with the cure rate for pulmonary TB treatment. Non-adherence to regular treatment for TB patients remains an obstacle to achieving high cure rates. Most patients do not come during the intensive phase because of inadequate motivation for adherence to treatment and most patients feel good at the end of the intensive phase and do not feel the need to return for further treatment.

The Impact of Education Level on Tuberculosis Cure at Karang Anyar Health Centre in 2021

According to the study's findings, out of 9 respondents with elementary education, 4 (44.4%) were healthy and 5 (55.6%) relapsed from tuberculosis; out of 18 respondents with junior high school education, 2 (11.1%) were healthy and 16 (88.9%) relapsed from tuberculosis; and

out of 12 respondents with high school education, 4 (33.3%) were healthy and 8 (66.7%) relapsed from tuberculosis. Based on the chi square test analysis, the p-value was 0.002 0.05, and the Multiple Logistics Regression Test findings yielded a p-value of 0.006 0.05 OR = 2.998, it can be inferred that there is a link between education level and Tuberculosis Treatment. The higher the education, the more insight or broad experience and good ways of thinking and acting will be (Tomlinson & Jackson, 2021).

Low education affects the level of understanding of very important information about adherence behaviour in undergoing TB treatment therapy and all the negative impacts it will cause, because low education makes it difficult to receive new information and has a narrow mindset and there are still some patients with educational backgrounds. low who has non-adherent behaviour in undergoing treatment therapy. This study supports Education (p = 0.207), the existence or absence of PMO (p = 0.426), and medication adherence (p = 0.700) were shown to be variables that impact the recovery of pulmonary TB patients at the Tegal Sari Health Centre. At the Tegal Sari Health Centre, there is no impact with TB treatment. Attitude variable (0.0001) is a variable that influences the healing of pulmonary tuberculosis patients in the Tegal Sari Health Centre operating area.

The Effect of Knowledge on the Cure for Tuberculosis Patients at Karanganyar Health Centre in 2021

According to the study's findings, four of the six respondents with good knowledge were healthy, whereas two (33.3%) relapsed from TB. Of the 38 responders with limited understanding, as many as 3 (7.9%) were healthy, and as many as 35 (92.1%) had relapsed from TB. Based on the chi square test analysis, the p-value is 0.003 0.05, and the Multiple Logistics Regression Test findings yielded a p-value of 0.001 0.05 OR = 6.334, it can be inferred that there is a link between knowledge and TB patient healing. This is consistent with Ardy studies, the study's findings revealed that knowledge and attitudes had a p value of 0.0001 and an influential attitude had a p value of 0.004. Behaviour and habits, one of which is knowledge, have a great impact on the conclusion of compliance. Otri conducted yet another investigation in 2018 where patients with good knowledge number 40 (80%), whereas those with dutiful obedience number 50 (100%). Statistical studies reveal that there is no association between the degree of knowledge and the level of drug adherence.

Good knowledge will bring up an attitude to react to objects by accepting, responding, appreciating and discussing it with others (Alannasir, 2020) and inviting others to influence or encourage others to respond to what they believe because the better the knowledge about how to take medication regularly, the more patients will be affected. increase the frequency with which medicine is taken, and in the end, will tend to act diligently for treatment in order to heal the sickness.

The Impact of Nutritional Status on Tuberculosis Cure at Karang Anyar Health Centre in 2021

According to the study's findings, of 11 responders with good nutritional condition, 8 (72.7%) were healthy, while 3 (27.3%) relapsed from TB. Four (12.1%) of the 33 responders with poor nutritional status were healthy, whereas 29 (87.9%) had relapsed TB. Based on the chi square test analysis, the p-value was 0.000 0.05, and the Multiple Logistics Regression Test findings yielded a p-value of 0.001 0.05 OR = 5.333, it can be inferred that there is a link between nutritional status and TB patient healing. This study supports Etra research, the findings of this literature study clarify whether there is a link between nutritional status and the prevalence of pulmonary tuberculosis. Research conducted by Berihun described that malnutrition was found to be high in TB cases, in addition to nutritional factors, functional status factors and dietary counselling were also very influential in this case due to the lack of public knowledge about nutrition needed to prevent this case.

Nutritional status is an important factor that affects the recovery of TB patients and nutritional status can be a risk factor for the recovery of TB patients, poor nutritional status in patients increases the risk to 5.6 times greater than patients with normal nutritional status (Sinha

et al., 2019). Nutritional status and tuberculosis (TB) are burdens that are often found in developing countries. These two problems are related to each other. Poor nutritional status is often found in patients with active TB compared to healthy individuals. TB infection itself causes anorexia, malabsorption of nutrients and micronutrients as well as metabolic disorders resulting in a process of decreasing muscle mass and fat. Nutritional supplementation is thought to improve the general condition of the patient during the administration of antituberculosis drugs (OAT) but the patient's prognosis is related to various factors such as organism, individual and environmental factors.

The Influence of Religion on the Cure for Tuberculosis Patients at Karang Anyar Health Centre in 2021

Based on the results of the study that of the 13 respondents who answered religious prayer, 9 respondents (69.2%) were healthy and as many as 4 respondents (30.8%) relapsed from tuberculosis. Of the 31 respondents who answered religious did not pray as many as 5 respondents (16.1%) were healthy and as many as 26 respondents (83.9%) relapsed from tuberculosis. Based on the chi square test analysis, the p-value is 0.001 0.05, and the multiple linear regression test obtained an OR value of 9.445, indicating that respondents who express opinions about the importance of religion have 9 times the opportunity to influence the healing of tuberculosis patients, implying that there is a religious relationship with tuberculosis patient healing. According to Hn that health workers in the service and treatment of pulmonary tuberculosis patients need to prioritize the beliefs and values of spiritual intelligence. In addition, there is a need for spiritual assistance in the hope that the treatment program will be successful if there is a balance between medical treatment programs and spiritual intelligence (religious values) against pulmonary TB disease. This study supports the Chmy study, this study found a significant relationship between medicine adherence (OR = 13.21 95% CI 3.90-44.80), attitude (OR = 7.03 95% CI 2,23-22,16), dietary status (OR = 7,01 95% CI 2,32-21,20), and religion (OR = 4,18 95% CI 1,30-13,39) and TB healing. Cultural setting, family, developmental level, and health state are all factors that impact spirituality. The impact of family and environment on the evaluation of spiritual beliefs.

CONCLUSION

There is an effect of PMO on the healing of tuberculosis patients at Karang Anyar Health Centre. There is a relationship between patient contact history and healing of tuberculosis patients at Karang Anyar Health Centre. There is an effect of adherence to treatment on the healing of tuberculosis patients at the Karang Anyar Health Centre. There is an effect of education level on the healing of tuberculosis patients at Karang Anyar Public Health Centre. There is an influence of knowledge on the healing of tuberculosis patients at the Karang Anyar Health Centre. There is an influence of nutritional status on the healing of tuberculosis patients at the Karang Anyar Health Centre. There is a religious influence on the healing of tuberculosis patients at the Karang Anyar Health Centre. The most dominant variable on the healing of tuberculosis patients at Karang Anyar Health Centre is medication adherence with an OR value of 27,276.

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