RELATIONSHIP BETWEEN KNOWLEDGE AND WORK WITH MEDICATION ADHERENCE AMONG PULMONARY TUBERCULOSIS PATIENTS AT THE DEMPO HEALTH CENTER IN PALEMBANG CITY

[1]Dwi Salsabilah, [2]Henni Febriawati, [3]Riana Dewi, [4] Sri Aisyah Hidayati.

[1]Health Administration, Collage of Health Sciences Al-Su'aibah, Palembang, South Sumatera, Indonesia
*Correspondence: dwiisalsabilah@gmail.com

ABSTRACT

WHO noted that in 2022 the number of people diagnosed with TB globally will be 7.5 million. Indonesia is the second country with the highest number of TB sufferers, amounting to 658,543 cases according to data from the Indonesian Ministry of Health, one of the provinces with the highest number of TB cases in South Sumatra. Tuberculosis is an infectious disease caused by bacteria in the form of bacilli or rods called mycobacterium tuberculosis. Compliance with taking medication occurs for the success of taking medication in pulmonary TB sufferers. This study aims to determine the relationship between knowledge and work and compliance with taking medication for pulmonary TB sufferers at the Dempo Community Health Center, Palembang City in 2024. The research was conducted on 20 May – 20 June 2024, this research used a cross sectional research design. The total sample was 41 people. The sampling technique is accidental sampling. The results show that there is a relationship between knowledge and adherence to taking medication in pulmonary TB sufferers (p = 0.005) with an OR value = 9.333, and there is a relationship between work and adherence to taking medication in pulmonary TB sufferers (p = 0.033) with an OR value = 20.693. Based on research results, the availability of many drugs is influenced by several knowledge factors to increase awareness, and work factors related to stress that a person can experience. Dempo Community Health Center is expected to always provide education to patients and patient families regarding the importance of compliance in TB treatment and the risks that will occur if they do not comply.

Keywords: Knowledge, Medication Adherence, Works.

INTRODUCTION

Tuberculosis is an infectious disease caused by bacteria in the form of bacilli or rods called Mycobacterium tuberculosis which attacks lung pancreas characterized by the formation of granulumola. Tuberculosis can be transmitted through splashes of saliva when talking, coughing or sneezing which are released by tuberculosis sufferers through the air and inhaled into the lungs.(Supriatun & Insani, 2020)

WHO recorded the global number of people reported to have been diagnosed with TB at 7.5 million in 2022. This figure is the highest number since WHO started monitoring TB in 1995. The peak was 7.1 million in 2019, and up from 5.8 million in 2020 and 6.4 million in 2021. The numbers are in 2022. India, Indonesia and the Philippines are the countries that account for the majority (≥60%) of the global reduction in the number of people newly diagnosed with TB in 2020 and 2021. Globally in In 2022, TB caused approximately 1.30 million deaths, estimated at 1.4 million in 2020 and 2021 and almost back to 2019 levels.(WHO, 2023)

Based on data from the Indonesian Ministry of Health, the total number of TB cases in 2023 was 658,543 cases as of November 3 2023. The Indonesian Ministry of Health noted that there were 4 provinces with high caseloads but which had not yet reached the indicator, namely East Java Province (42.54%), South

Sulawesi (26.60%), North Sumatra (24.82%) and South Sumatra Province (26.60%) (Kemenkes RI, 2023). Data from the South Sumatra Provincial Health Service, the number of TB suspects who received standard services in South Sumatra in 2022 was 18,122 cases with the highest number in Palembang City at 6,927 cases. The largest number of deaths was in Palembang City with 93 cases (Dinkes Prov Sumsel, 2023)

Based on data obtained from the Dempo Community Health Center, Palembang City, showing the program's achievements, it was found that there were still 40.1% of pulmonary TB sufferers who received incomplete treatment in 2021, it was found that there were still 39.39% of pulmonary TB sufferers who received incomplete treatment in 2022, and It was found that as many as 78% of pulmonary TB sufferers had not received complete treatment by 2023. The achievement of TB treatment has not been achieved due to many factors, including drugs, disease and the sufferers themselves. One of the factors of TB sufferers is a lack of knowledge about the disease they are suffering from, which causes patients to be reluctant to take medication. There is a need for follow-up to increase compliance with taking medication in TB patients. Information is needed both through information and media to patients about the benefits and importance of compliance to achieve program success. (Swarjana et al., 2021)

Another factor that can influence a person's health behavior in undergoing treatment is employment status. According to (Syatriani, 2019) people who do not work are more susceptible to stress than those who work, this can affect a person's compliance in taking medication and undergoing treatment, individuals need someone to provide advice and someone to talk to to lift his spirits and cheer him up. This study aims to determine the relationship between knowledge and work on compliance with taking medication in pulmonary TB sufferers at Puskesmas Dempo, Palembang City.

METHODS

This research is included in quantitative research with a cross-sectional study design. The research was carried out on 20 May–20 June 2024, where the research was carried out at the Dempo Health Center, Palembang City. The population in this study was all 41 pulmonary TB sufferers who were undergoing treatment at the Dempo Community Health Center, Palembang City. The sample in this study was taken from the total population, namely 41 people, using an accidental sampling technique or the entire population. This research instrument uses a questionnaire, and data analysis uses the Chi-Square test with a significance level of 5%.

RESULT AND DISCUSSION

UNIVARIATE RESULT

Based on the results of research on univariate analysis of the variables of knowledge, work, and compliance with taking medication in pulmonary TB sufferers at the Dempo Health Center, Palembang City in 2024, it can be seen in the following table.

Table 1 Frequency Distribution of Respondents Based on works, knowledge, and compliance with taking medication in pulmonary TB sufferers at the Dempo Community Health Center.

Variable	Frequency (n)	Presentation (%)
Works		
Employed	24	58,5
Unemployed	17	41,5
Knowledges		
Good	17	41,5
Enough	24	58,5
Medical Adherence		
Obedient	22	53,7
Not Obey	19	4,3

Based on Table 1 above, it shows that the frequency distribution of the employment variable was obtained from 41 respondents who worked, amounting to 24 (58.5%) respondents, more than the respondents who did not work, 17 (41.5%). The knowledge frequency distribution of the 41 respondents who had sufficient knowledge was 24 (58.5%) respondents, more than the respondents who had good knowledge who were 17 (41.5%) respondents. Meanwhile, the results of the distribution of the frequency of adherence to taking medication from 41 respondents who adhered to taking medication amounted to 22 (53.7%) respondents, more than respondents who did not comply with taking medication, amounting to 19 (46.3%) respondents.

BIVARIATE RESULT

Table 2 Relationship between Knowledge and

Work with Medication Compliance for Pulmonary TB Sufferers at the Dempo Health Center, Paembang City

Variable	Compliance with Medication						P-Value	OR (95% CI)
	Obedient		Not Obey		Total			
	n	%	n	%	n	%		
Knowledges								
Good	14	82,4	3	17,6	17	100	0,005	9,333
Enough	8	33,3	16	66,7	24	100		(2,065 - 42,18)
Works								
Employed	19	76,0	6	24,0	25	100		5,278
Unemployed	6	37,5	10	62,5	16	100	0,033	(1,346 - 20,63)

Based on table 2, the results obtained from the 17 respondents who were compliant with taking medication were more knowledgeable with good knowledge at 14 (82.4%) compared to those with sufficient knowledge of 8 (33.3%), of the 24 respondents who were not compliant with taking medication more were Fairly knowledgeable were 16 (66.7%) respondents compared to 3 (17.6%) with good

knowledge. Based on statistical tests, it was obtained that p value = 0.005 < 0.05, this means that there is a significant relationship between knowledge and compliance with taking medication for pulmonary TB sufferers at the Dempo Health Center, Palembang City in 2024. From the results of the analysis, the OR value = 9.333, meaning that respondents who have good knowledge have 9.3 times more likely to adhere to taking medication compared to respondents who had sufficient or less knowledge

The work variable was obtained from the 25 respondents who were compliant with taking medication, 19 (76.0%) were more likely to work compared to 6 (24.0%) who were not working, of the 16 respondents who were not compliant with taking medication, the greater number were not working. 10 (62.5%) respondents compared to 6 (37.5%) who worked. Based on statistical tests, it was obtained that p value = 0.033 < 0.05, this means that there is a significant relationship between work and compliance with taking medication for pulmonary TB sufferers at the Dempo Health Center, Palembang City in 2024. From the results of the analysis, the OR value = 5.278, meaning that respondents who work have the opportunity 5.2 times to comply with taking medication compared to respondents who do not work.

THE RELATIONSHIP OF KNOWLEDGE WITH COMPLIANCE WITH MEDICATION IN PULMONARY TB PATIENTS AT DEMPO HEALTH CENTER, PALEMBANG CITY

One of the factors that influences compliance is knowledge, a person's behavior that is based on knowledge will be better understood than behavior that is not based on knowledge. (Niven, 2008) Research on the relationship between knowledge and the success of pulmonary TB treatment has been widely studied by researchers, including research carried out by (Monita & Fadhillah, 2021) which states that there is a relationship between knowledge and adherence to taking medication in TB patients. Knowledge is very important and can be obtained through formal education such as school or informal such as the environment, internet, TV, radio, etc. According to (Adam, 2020) most tuberculosis sufferers have good knowledge in terms of treatment such as knowledge of taking medication and things that cannot be done as well as side effects of medication that can influence and improve their health status. (Hidayati, 2023)also believes that by As a person's knowledge increases, the individual's health behavior will also become more aware of the dangers that will arise.

Based on the research results, not all respondents with good knowledge adhere to treatment and consume daily medication. The theory from (Ranteallo et al., 2021) is that one of the factors that influences knowledge is a person's age. As age increases, a person's knowledge in obtaining and receiving information increases so that they can carry out the treatment process properly and correctly according to existing procedures. From the respondent characteristics data, it was found that there were still some elderly respondents aged <46 years (31.7%) who had experienced a decline in verbal abilities such as reading so that the information conveyed was limited.

The results of this research are in line with research conducted by (Alfa, 2023) which stated that there was a significant positive relationship between knowledge and compliance with taking pulmonary TB medication at the Warungpring Health Center, Pemalang City. Another study was conducted by (Hasina et al., 2023) who said there was a relationship between the level of knowledge and compliance with taking anti-tuberculosis medication in pulmonary tuberculosis patients.

Based on the results of research, theory and related research, the researcher believes that there is a significant relationship between knowledge and adherence to drinking oats in pulmonary TB sufferers. This is because sufferers who have good knowledge about TB will better understand the importance of treatment, how to transmit it, and the risks if not treated. TB requires regular and regular treatment for several months. Good knowledge will help them understand why they must take medication every day without missing a beat to prevent drug resistance and ensure recovery

THE RELATIONSHIP OF WORK WITH COMPLIANCE WITH MEDICATION IN PULMONARY TB PATIENTS AT DEMPO HEALTH CENTER, PALEMBANG CITY

Based on research results, a person's employment status can influence compliance with taking medication for pulmonary TB sufferers, this is because people who do not work are more susceptible to stress than those who work, this can influence a person's compliance in taking medication and undergoing treatment, individuals need someone to provide advice and friend to talk to to lift his spirits and cheer him up. (Syatriani, 2019) Research from (Fitrianti et al., 2022) says that someone who does not work and spends more time at home will be more protected from exposure to pollution, dust and germs that cause pulmonary TB, both from the environment and from human to human. Therefore, individuals who work must pay more attention and avoid things that cause themselves to be exposed to TB germs.

Researchers assume that a person's employment status will influence compliance with taking medication because with a job, the better a person will be in undergoing treatment. This is because there is family support which tends to be more supportive of a person in undergoing treatment. Researchers also hope that working respondents can wear masks when in contact with other people, avoid crowded places, consume foods containing vitamin C to increase body immunity, adopt the habit of washing hands with soap and running water and exercise diligently.

CONCLUSION

There is a relationship between knowledge and adherence to taking medication in pulmonary TB sufferers at the Dempo Community Health Center, Palembang City, where the p-value is 0.005 (p<0.05). There is a relationship between work and compliance with taking medication in pulmonary TB sufferers at the Dempo Community Health Center, Palembang City, where the p-value is 0.033 (p<0.05). Dempo Community Health Center is expected to always provide education to patients and patient families regarding the importance of compliance in TB treatment and the risks that will occur if they do not comply..

REFERENCES

Adam, L. (2020). Pengetahuan Penderita Tuberkulosis Paru Terhadap Kepatuhan Minum Obat Anti Tuberkulosis. *Jambura Health and Sport Journal*, 2(1), 12–18. https://doi.org/10.37311/jhsj.v2i1.4560

Alfa, Z. syani. (2023). Hubungan Pengetahuan, Sikap Dan Tindakan Penderita Tuberkulosis Paru Terhadap Kepatuhan Minum Obat Di Puskesma Warungpring Pemalang. *Program Studi Farmasi Fakultas Kedokteran Universitas Islam Sultan Agung Semarang*, 01, 1–23. https://repository.unissula.ac.id/29924/2/33101800092_fullpdf.pdf

Dinkes Prov Sumsel. (2023). *Profil 2023 | Dinas Kesehatan Provinsi Sumatera Selatan*. 102–104.

Fitrianti, T., Wahyudi, A., & Murni, N. S. (2022). Analisis Determinan Kejadian Tuberkulosis Paru. *Jurnal 'Aisyiyah Medika*, 7(1). https://doi.org/10.36729/jam.v7i1.782

Hasina, S. N., Rahmawati, A., Faizah, I., Sari, R. Y., & Rohmawati, R. (2023). Hubungan Tingkat Pengetahuan dengan Kepatuhan Minum Obat Anti Tuberkulosis (OAT) pada Pasien Tuberkulosis

Paru. *Jurnal Ilmiah Permas: Jurnal Ilmiah STIKES Kendal*, *13*(2), 453–462. https://doi.org/10.32583/pskm.v13i2.908

Hidayati, S. A. (2023). Hubungan Pengetahuan Dan Sikap Masyarakat Dengan Perilaku Pencegahan Wabah Virus Corona Di Puskesmas Plaju Palembang. *Jurnal Kesehatan Abdurahman*, *12*(2), 87–93. https://doi.org/10.55045/jkab.v12i2.182

Kemenkes RI. (2023). *Laporan Kinerja Semester I tahun 2023*.

Monita, B., & Fadhillah, H. (2021). Hubungan Pengetahuan Dan Dukungan Keluarga Terhadap Kepatuhan Minum Obat Pada Pasien Tb. *Indonesian Journal of Nursing Sciences and Practices*, *4*(2), 69–78.

Niven. (2008). *Psikologi Kesehatan : Pengantar untuk Perawat dan Profesional*. ECG.

Ranteallo, R. R., Palette, T., & Palamba, A. (2021). Hubungan karakteristik klien Tuberkulosis dengan Pengetahuan tentang Multy Drugs (MDR TB) di Kabupaten Toraja Utara tahun 2021. *Jurnal Kesehatan Promotif*.

Supriatun, E., & Insani, U. (2020). *Pencegahan Tuberkulosis*. Lembaga Chakra Brahmana Lentera.

Swarjana, I. K. D., Sukartini, T., & Makhfudli, M. (2021). Hubungan Pengetahuan dan Perilaku Pengawas Minum Obat Terhadap Kepatuhan Minum Obat Pada Pasien TB Paru Di Puskesmas Tobadak Kabupaten Mamuju Tengah. *Jurnal Keperawatan Muhammadiyah*, *6*(1), 89–94. https://doi.org/10.30651/jkm.v6i1.2796

Syatriani, S. (2019). Hubungan Pekerjaan dan Dukungan Keluarga dengan Stress pada Pasien DM tipe 2 di Daerah Pesisir Kota Makassar. *SInergitas Multidisiplin Ilmu Pengetahuan Dan Teknologi*.

WHO. (2023). *Global Tuberculosis Report*.

.