

Education Using Leaflets for Medication Supervisors Regarding Attitudes to Prevent TB Transmission

Rina Andayani¹⁾, Maulin Halimatunnisa²⁾, Erwin Wiksuarini³⁾, Vera Yulandasari⁴⁾, D.Mustamu Qamal Pa'ni⁵⁾, Itasari⁶⁾

rinaandayani@gmail.com: [1]

^{1,2,3,4,5,6)} Nursing Department, Faculty of Health, Universitas Qamarul Huda Badaruddin Bagu, Indonesia

ABSTRACT

A medication supervisor is someone who ensures the regularity of taking medication for TB patients. The role of the PMO in the TB patient treatment process is not only limited to treating TB patients, but also preventing TB transmission to other family members. The purpose of this study was to determine the effect of education on PMOs on attitudes towards preventing TB transmission. This study used a quasi-experimental research design with one group pre-test-post-test, the sampling technique in this study was Total sampling. The population was all medication supervisors (PMOs) of TB patients who were still undergoing routine treatment in the Janapria Health Center work area. The existing sample was 40 people. Statistical test data analysis was Wilcoxon. The research instruments were questionnaires and leaflets. From the Wilcoxon statistical test, a p value of 0.000 ($p < 0.05$) was obtained. Thus, it can be concluded that there is an Effect of Providing Education Using Leaflet Media for Medication Supervisors (PMOs) of TB Patients on Attitudes to Prevent TB Transmission in the Work Area of the UPTD BLUD Janapria Health Center.

Keywords: Education, Medication Supervisors, Transmission, Tuberculosis

1. BACKGROUND

The WHO reports that the estimated number of people diagnosed with TB globally in 2021 is 10.6 million cases, an increase of approximately 600,000 cases from the estimated 10 million cases in 2020. Of these 10.6 million cases, 6.4 million (60.3%) have been reported and are undergoing treatment, while 4.2 million (39.7%) have not been diagnosed or reported [1].

Indonesia itself ranks second in the world for the highest number of TB cases after India, followed by China, the Philippines, Pakistan, Nigeria, Bangladesh, and the Democratic Republic of the Congo, respectively. In 2020, Indonesia ranked third with the highest number of cases, so 2021 is clearly not much better [2].

The number of TB suspects in West Nusa Tenggara Province who received standardized care in 2021 was 33,195. This figure represents an increase compared to 31,170 in 2020. Males accounted for 60.4 percent of all TB cases, or 3,556 individuals [3]. In 2021, 3,386 TB suspects in Central Lombok Regency received standardized care, representing 89.6% of the estimated 3,781 TB suspects. The death rate during treatment in Central Lombok Regency was 4.5% in 2021, an increase from 3.6% in 2020 [4].

WHO applies the DOTS (Direct Observed Treatment Short Course) strategy in the management of Tuberculosis (TB) patients to ensure that patients take their medication, under direct supervision by a Medication Supervisor. (PMO). PMO is a person who supervises a Tuberculosis patient (PMO) during

treatment to ensure that the patient completes the treatment completely and regularly. The role of PMO in the treatment and prevention of tuberculosis (TB) transmission, 1. Supervise TB patients to take medication regularly until the treatment is completed, 2. Provide encouragement to patients to take medication regularly, 3. Remind patients to re-examine sputum at the specified time, 4. Provide counseling to family members of TB patients who have suspicious symptoms of TB to immediately check themselves at the health service unit (UPK), 5. Make efforts to prevent the transmission of TB to the PMO himself, his family or to other sufferers [5].

Knowledge and attitudes determine a person's behavior or actions. The knowledge of medication supervisors (PMO) regarding pulmonary TB includes the definition, causes, transmission methods, benefits of taking medication regularly, and ways to prevent the disease. Knowledge is the domain that shapes behavior, and one way to provide health education is through leaflets [6].

TB Prevalence Survey Results A survey on knowledge, attitudes, and behavior showed that 96% of families cared for family members with TB, and only 13% hid their presence. 76% of families had heard of TB and 85% knew that TB could be cured, but only 26% could name the two main signs and symptoms of TB. 51% of families understood how TB was transmitted, and only 19% knew that free TB medication was available. The survey results show that there are still families, namely drug supervisors (PMO), who do not have sufficient knowledge about tuberculosis, its transmission and prevention [7].

The results of interviews with 2 TB patients and 6 drug supervisors (PMO) of TB patients revealed that the PMOs only knew that TB was contagious but did not understand its signs and symptoms, how TB was transmitted and

through what methods the disease was usually transmitted, and how to prevent it. Most TB patients still often spit carelessly, cough carelessly without covering their mouths or wearing masks. This is due to the lack of knowledge about how TB is transmitted.

2. RESEARCH METHODS

This study uses a quasi-experimental research design with one group pre-test-post-test. This study was conducted at the TB Polyclinic of Janapria Health Center in 2023. The population is all medication supervisors (PMO) of TB patients who are still undergoing routine treatment in the work area of the UPTD BLUD of Janapria Health Center according to initial data collection (July-December 2023 as many as 40 people) total sampling so that the existing sample is 40 people. The research instruments used in this study are questionnaires, leaflets. statistical tests are the Wilcoxon Test.

3. RESULTS AND DISCUSSION

3.1 Results

Table 1.

PMO's attitude before being given education using leaflet media

Attitude	n	%
Good	2	5,0
Sufficient	11	27,5
Poor	27	67,5
Total	40	100

Table 1 shows that before health education was conducted for medication supervisors (PMO) in the form of counseling, the majority of the attitudes of medication supervisors (PMO) were classified as poor, namely 27 medication supervisors (PMO) with a percentage of (67.5%) of the total respondents, and a small portion of the attitudes of medication supervisors (PMO) were classified as good, namely 2 medication supervisors (PMO) with a percentage of (5.0%).

Table 2.

PMO's attitude after being given education using leaflet media

Attitude	n	%
Good	9	22,5
Sufficient	25	62,5
Poor	6	15,0
Total	40	100

Based on table 2, it shows that after health education was provided to medication supervisors (PMO) in the form of education, the majority of the attitudes of medication supervisors (PMO) were classified as sufficient, namely 25 medication supervisors (PMO) with a percentage of (62.5%) of the total respondents, and a small portion of the attitudes of medication supervisors (PMO) were classified as insufficient, namely 6 medication supervisors (PMO) with a percentage of (15.0%).

Table 3.

The influence of education using leaflet media on the attitudes of PMOs in preventing TB transmission

Attitude	Pre Test	Post Test	Total	p
Good	2	9	11	0,000
Sufficient	11	25	36	
Poor	27	6	33	

Based on table 3, there is the Effect of Providing Education Using Leaflet Media for TB Sufferers' Medication Supervisors (PMO) on the Attitude of Preventing TB Transmission before and after being given education using leaflets and counseling. The dominant attitude of medication supervisors is in the sufficient category, which was previously 11 respondents, and after counseling there was an increase of 25 respondents, and the attitude of medication supervisors (PMO) in the less category before counseling there were 27 respondents and

experienced a change after counseling, namely there was a decrease of 6 respondents, so we can see that there was an increase after counseling from less to sufficient, sufficient to good.

3.2 Discussion

Based on the research results obtained by the researcher, it can be said that there has been a significant change, where there is a level of success in changing respondents' attitudes towards counseling on preventing the infectious disease TB. Previous research showed that the PMO (Physician Monitoring and Prescribing Agent) has an impact on the treatment success of pulmonary TB patients. This occurs when the PMO plays a role effectively, such as supervising TB patients to take Anti-Tuberculosis Medication (OAT) regularly until they are cured, which can create a greater chance of treatment success [8].

The results of previous research show that the spearman rank statistical test between the level of family knowledge and the behavior of preventing TB transmission obtained ($p = 0.051$, $r = -0.359$). Family attitudes with TB prevention behavior obtained a value ($p = 0.000$, $r = 0.688$). There is no significant relationship between the level of family knowledge and the behavior of preventing TB transmission with a value ($p = 0.051$, $r = -0.359$). There is a significant relationship between attitudes and behavior of preventing tuberculosis transmission with a value ($p = 0.000$, $r = 0.688$) [9]. This found in line with the study which analyzed the knowledge and attitudes of drug administration supervisors (PMO) regarding the side effects of anti-tuberculosis drugs and their review according to the views, PMO knowledge about ESOAT experienced a significant increase ($p = 0.003$). There was an increase in PMO attitudes about TB and ESOAT after training although not

significant ($p = 0.187$) because the average score of PMO attitudes before training was already good. The results of the FGD showed that PMOs were able to recognize mild and severe OAT side effects and were able to overcome some mild side effects. Seeking knowledge is obligatory. Good knowledge will produce good attitudes both in carrying out their duties as PMOs and as Muslims [10] Fitria saftarina, Nurul islamy, dkk. (2012). Hubungan Pendidikan dan Pengetahuan Pengawas Minum Obat (PMO) terhadap Keteraturan Minum Obat Anti Tuberkulosis (OAT) pada Penderita Tuberkulosis Paru di Kabupaten Tulang Bawang Barat.

4. CONCLUSION

Based on the research results, it can be concluded that there was an improvement in the attitudes of medication supervisors before and after being given education using leaflets. The attitudes of medication supervisors before education were in the poor category and after education were in the sufficient category. There was an effect of providing education using leaflets on medication supervisors' attitudes towards preventing TB transmission.

5. THANKS

Thank you to the UPTD Janapria Health Center, respondents, and all parties involved in this research.

BIBLIOGRAPHY

- [1] World Health Organization. (2017). *Global tuberculosis report*. swiss: World Health Organization Geneva.
- [2] World Health Organization. Global Tuberculosis Report 2021 [Internet]. 2021. Available from: <https://www.who.int/team-s/global-tuberculosisprogramme/tb-reports/global-tuberculosis-report-2021>
- [3] Dinas Kesehatan Kesehatan provinsi NTB. (2021) Profil Dinas Kesehatan Provinsi Nusa Tenggara Barat tahun 2021
- [4] Dinas Kesehatan Lombok Tengah. (2021) Profil Dinas Kesehatan Lombok Tengah 2021.
- [5] Masdidik. (2020). *Studi Kasus Peran Pengawas Menelan Obat (PMO) Dalam Kepatuhan Minum Obat Penderita TB Di Puskesmas Keputih Surabaya*. Surabaya: Universitas Muhammadiyah Surabaya.
- [6] Notoatmodjo, S. (2012). *Metodologi Penelitian Kesehatan*. Jakarta : Rineka Cipta
- [7] Kementerian Kesehatan Republik Indonesia. (2019). Direktorat Jenderal Pengendalian Penyakit dan Penyehatan Lingkungan. TB Indonesia. Jakarta: Kementerian Kesehatan.
- [8] Abbas, Akhmadi. (2017). Monitoring efek samping obat anti-tuberkulosis (OAT) pada pengobatan tahap intensif penderita TB paru di kota makassar. *Journal of Agromedicine and Medical Sciences*, 3(1), 19–25.
- [9] Perihantoro, A. (2013). *Hubungan Tingkat Pengetahuan Pengawas Minum Obat penderita TBC dengan perilaku pencegahan penularan TBC di Wilayah Kerja Puskesmas Jatiyoso Kabupaten Karanganyar*.
- [10] Pratama' et al. (2018). Hubungan antara Tingkat Pengetahuan Pasien dan Pengawas Menelan Obat (PMO) dengan Kepatuhan Pasien Tuberkulosis di Puskesmas Kabupaten Jember (Correlation Between Knowledge And Patient Adherence Among Tuberculosis Patients And Their Treatment Observers In. *Pustaka Kesehatan*, 6(2), 218–224.