PAPER NAME

7.Artikel_social medicine approach.pdf

AUTHOR

Cut Khairunnisa

WORD COUNT

2517 Words

CHARACTER COUNT

14208 Characters

PAGE COUNT

5 Pages

FILE SIZE

224.0KB

SUBMISSION DATE

Aug 31, 2022 11:20 AM GMT+7

REPORT DATE

Aug 31, 2022 11:22 AM GMT+7

7% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

- 7% Publications database
- Crossref database
- Crossref Posted Content database

Excluded from Similarity Report

- Internet database
- Submitted Works database
- Bibliographic material
- Quoted material
- Small Matches (Less then 8 words)
- Manually excluded sources

Journal of Health, Medicine and Nursing
ISSN 2422-8419 An International Peer-reviewed Journal
Vol.95, 2021

Social Medicine Approach in the Management of Lung Tuberculosis (TB) in North Aceh Regency: Role of Government and Non-Governmental Organization

Cut Khairunnisa[1*] Albiner Siagian[2] Fazidah Aguslina Siregar[2] Fikarwin Zuska[3] Yuziani[1]
1.PhD Student of Faculty of Public Health, Universitas Sumatera Utara, Medan, Indonesia and Lecturer of Faculty of Medicine, Universitas Malikussaleh, 24351, Aceh Province-Indonesia
2.Lecturer of Faculty of Public Health, Universitas Sumatera Utara, Medan, Indonesia
3.Lecturer of Faculty of Social and Political Sciences, Universitas Sumatera Utara, Medan, Indonesia

Abstract
The Directly Observed Treatment, Short-course (DOTS) strategy has been proven effective in controlling tuberculosis (TB); nevertheless, TB's community burden is still very high. This study aims to determine the role of non-governmental organizations (NGOs), health cadre, and health workers in the North Aceh Regency in overcoming TB. This study used qualitative research methods. The results showed a reasonably synergistic collaboration between NGOs, health cadres, and health personnel in the TB control program. In general, the TB control programs are inclined with national programs such as TOSS TB (Find Treat and Cure TB), implementing DOTS strategy, counseling to prevent TB transmission, and nutrition monitoring. However, the targets of each program have not been fully achieved. This study found several obstacles in the field, such as the lack of program implementation funds, the increasing number of MDR-TB cases, and TB co-infection diseases.
Keywords: Tuberculosis, NGOs, health cadres, health personnel
DOI: 10.7176/JHMN/95-07
Publication date: November 30th 2021

1. Introduction

Tuberculosis (TB) is a bacterial disease caused by Mycobacterium tuberculosis and primarily affects the lungs causing pulmonary tuberculosis. TB still a serious health problem in Indonesia [(1)]. In 2016, WHO estimates that most of the incidence of TB cases were in Southeast Asia (45%), Africa (25%), and the West Pacific (17%). The proportion of cases was smaller in the Eastern Mediterranean Region (7%), Europe (3%), and America (3%). Globally, the WHO stated that in 2017 that there were 10 million TB cases, with 5.8 million men, 3.2 million women, and 1 million cases in children [(2)]. In Indonesia, there are roughly 842,000 TB patients in 2019, however only 53% have been reported, and 47% of cases are still unreported and undetected [(3)].

In 2016, the Aceh Province Health Profile reported that the number of new TB cases BTA (+) was 3,410 cases. The number of new BTA (+) cases was 67 per 100,000 population [(4)]. Aceh Utara regency is the largest contributor to TB cases in Aceh Province, namely 451 cases per 100,000 population, while those who undergo treatment at health facilities are only 27% of the total incidents. The high number of TB cases in Aceh Utara Regency is due to its largest population than other regency/cities in Aceh Province [(5)].

One of the National TB Control Programs is the Home-based Direct Observer Treatment service (DOT–TB) strategy or in Bahasa Indonesia, known as Pengawas Minum Obat (PMO) (1). However, the number of pulmonary TB cases continues to increase, and the cure rates still not meeting the government's target. Therefore, various parties' roles and concerns are indispensable for preventing tuberculosis in Aceh and Indonesia.

The increasing number of drug-resistant TB due to incomplete treatment of tuberculosis exacerbates Indonesia's burden in handling pulmonary tuberculosis [(6)]. The TB eradication program in Indonesia uses the Direct Observed Treatment Short-Course (DOTS) strategy. This program is expected to be able to stop TB transmission; thus, the incidence rate will decrease. Besides, by using the DOTS strategy, TB control program costs will be more efficient. This strategy includes political commitment to provide funding continuously, finding new cases with sputum examinations, implementing standard treatment for TB patients, availability of effective TB drugs, and monitoring patients regularly [(7)].

1.1 Material and Methodology

This study is a qualitative research used social medicine approach. We interviewed eight respondents, namely the chairperson and members of The Indonesian Association Against Tuberculosis (PPTI), cadres and health workers who manage the tuberculosis in Aceh Utara Regency. The data was analyzed through stages of reduction, display, analysis, and conclusion.

1.1.1 Results and Discussions

Aceh Province ranks 12th in the number of tuberculosis cases. The highest number of cases was found in North

Aceh Regency, which was seven thousand people. The number of cases will continue to increase if not appropriately handled.

Those involved in TB control in North Aceh are pro-actively finding patients, indicating that the number of TB cases in the Aceh Utara District is high. According to the Chairperson of PPTI North Aceh regarding the efforts that have been carried out to control tuberculosis in North Aceh Regency, he explained that:

"Since PPTI was formed in North Aceh Regency, we have been actively looking for or finding new TB patients. I wonder, is it because we are actively looking for TB cases, so that many cases are found in this regency? ".

Another factor that causes high tuberculosis cases in North Aceh Regency is the high poverty rate. In 2017, the Central Bureau of Statistics stated that this district was ranked the highest for poverty in Aceh Province with 118,740 people [(8)]. Meanwhile, tuberculosis is closely related to poverty [(9)].

Tuberculosis control in North Aceh Regency involves the health office and staff and non-governmental organizations (NGOs), namely The Indonesian Association Against Tuberculosis (PPTI), Branch of North Aceh Regency. PPTI has been tracking and finding new tuberculosis patients and then given treatment until they recover using the DOTS strategy. To date, the Health Office is collaborating with PPTI in finding and treating tuberculosis patient, according to the following statement:*" We went to the house of TB patient who was undergoing treatment, and then we checked all family members regularly whether they were infected with TB or not. We are not working individually; we also collaborate with the Health Center, therefore if there are family members of TB patients who are positive for TB, we will immediately recommend getting treatment at the Health Center".* PPTI always coordinates and collaborates with the health office and the Health Center. Apart from focusing on case finding, PPTI also increases public knowledge about tuberculosis by providing health education. Based on Sumiati (2018), health education could significantly increase knowledge about tuberculosis [(10)].

Another PPTI program for tuberculosis control is to establish a supported community. Selected villages have to have many outsider visits, including villages with sizeable Islamic boarding schools such as Paloh Gadeng Village. The PPTI Chairperson stated in the discussion that:

"In the future, we are pioneering a supported community in Paloh Gadeng Village. In the village, there are a reputable Islamic Boarding School and many outsiders. This condition will be a risk factor for increasing tuberculosis cases in the village. Therefore we will recruit cadres in each hamlet for training, especially in finding new TB cases. There are five hamlets in Paloh Gadeng village; thus, we will recruit two people per hamlet."

In this village, PPTI trained two cadres per hamlet. Besides health workers and family roles, health cadres is also involved in successfully implementing the DOTS strategy in the community. These cadres have attended a training program. In the community, the TB cadres will able to help TB disease prevention programs. Research in the Bandung Kulon Regency by Yani et al., (2018) found that, overall, the role of TB cadres is excellent (63.6%), which will positively impact community empowerment and community-based TB disease prevention [(11)]. Annually, the Health Office of North Aceh Regency has also conducted training for tuberculosis cadres; still, the implementation is not as expected; not all the trained cadres work actively. Several active cadres have performed their roles well, as mentioned in the following interview*:*

"When carrying out the Pos Pelayanan Terpadu (Posyandu) programs, we asked if there were any mothers who experienced TB symptoms such as a cough that lasts more than two weeks, coughing up blood, fever, and unintentional weight loss. We also asked if anyone at home had a cough. Because Posyandu is only attended by mothers who bring their children, we also asked if anyone at home had a cough. If they answer that a family member has a cough, we will visit their house, and we recommend a health examination at the health center. In addition, we also report to the health center."

Currently, the implementation of TB control efforts in Indonesia is administratively under two Directorate Generals of the Ministry of Health, namely Bina Usaha Kesehatan and P2PL (Tuberculosis Sub-Directorate under P2PL). The tuberculosis control program in North Aceh Regency, whether carried out by health workers, NGOs (PPTI), and health cadres, has followed national regulations. For the new case, the diagnosis algorithm is according to the following figures:

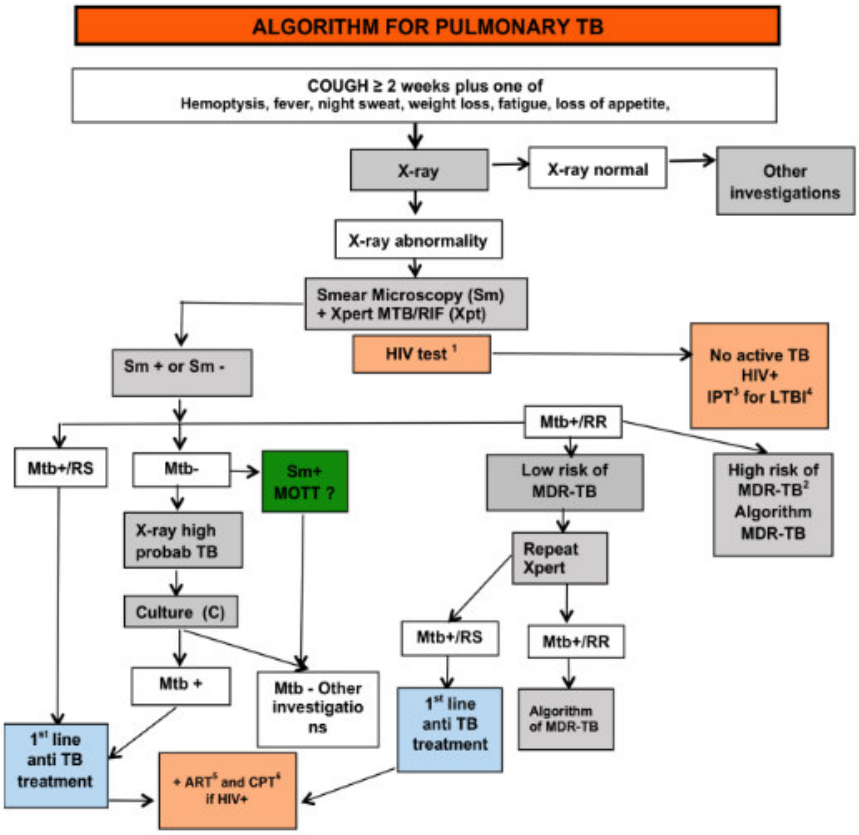

Figure 1. Diagnosis algorithm for pulmonary TB

Information obtained during interviews with health officers stated: "We conducted the program according to the government regulations". "The management of TB patients at the health center follows the health department protocol and Standard Operating Procedure (SOP); thus, the health officers only have to follow the instructions. There is a special book for recording and reporting which is supplied by the health office".

Multidrug-Resistant Tuberculosis (MDR-TB) cases are also increasing in Aceh Utara Regency. Currently, there are about 95 MDR-TB cases registered at Cut Mutia General Hospital, according to pulmonologist dr. Indra Buana. Based on The Ministry of Health of the Republic of Indonesia, the increase in MDR-TB cases is caused by various causes: unequal TB treatment facilities, the number of MDR-TB referral hospitals and treatment satellite hospitals are not yet available and not evenly distributed, and not all hospitals are successful in implementing the DOTS strategy. Factors related to patients are poor treatment adherence due to TB drugs' side effects (1). The diagnosis algorithm for MDR-TB as follows:

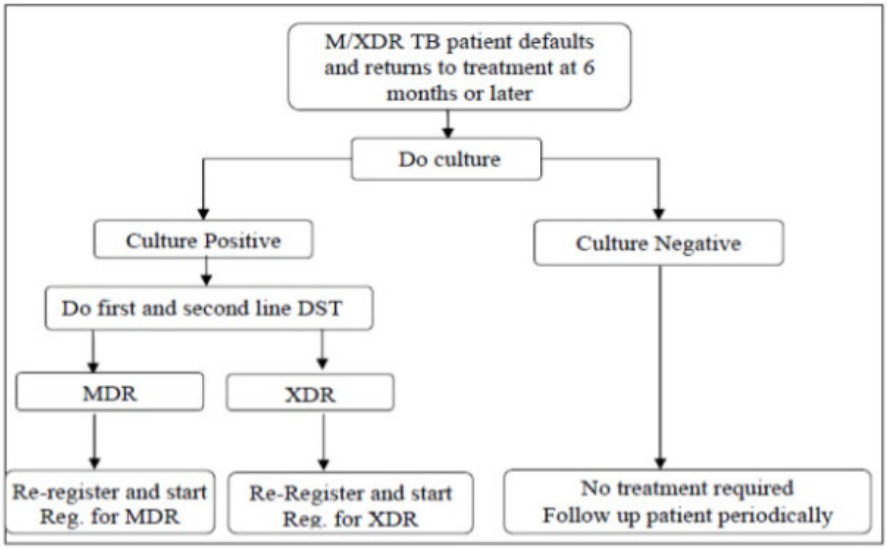

Figure 2. Diagnosis algorithm for MDR-TB

Recording and reporting of tuberculosis cases in North Aceh regency conducted with a level of the hierarchy. TB is an infectious disease; every health facility that provides TB services must record and report TB findings and treatment under the established recording and reporting format. Recording and reporting of tuberculosis cases follow the standard operating procedure (SOP) set by the government. The dosages of the essential first-line anti-drugs for adults and children are presented in table 1 and table 2.

Table 1. Doses of first line anti TB in adults

Anti-TB drug	Daily dose	
	Dose (mg/kg body weight) and range	Maximum (mg)
Isoniazid	5 (4-6)	300
Rifampicin	10 (8-12)	600
Pyrazinamide	25 (20-30)	--
Ethambutol	15 (15-20)	--
Streptomycin*	15 (12-18)	1,000

Table 2. Daily doses of first-line anti-TB drugs for children

Anti-TB drug	Dose (mg/kg body weight) and range	Maximum (mg)
Isoniazid	10 (7-15)	300
Rifampicin	15 (10-20)	600
Pyrazinamide	35 (30-40)	--
Ethambutol	20 (15-25)	--

According to Mr. Syakur from the North Aceh District Health Office, in order to increase TB treatment's success rate, the tuberculosis control programs that have implemented include training for cadres and health workers, supporting facilities and infrastructure, advocacy, monitoring, and evaluation. Even though TB patients' nutrition is also essential and has become a program of the Health Office and PPTI, its implementation has not been optimal. Malnutrition in TB patients complicates the treatment process, resulting in treatment failure [12].

Pillars and components needed in tuberculosis control include (1) integration of TB patient-centered services and prevention, such as early diagnosis, including antituberculosis drugs sensitivity testing for all patients and systematic TB screening for TB contacts and high-risk population groups, treatment for all TB patients, including drug-resistant TB, and patient-centered support. TB / HIV collaborative program and management of TB comorbidities, provide preventive treatment to vulnerable and high-risk groups, and TB vaccination. (2) Bold and transparent policies and support systems as a political commitment to TB care and prevention, active involvement of the community, social community organizations and public and private health service providers, implementation of universal health coverage and other policy frameworks that support TB control such as mandatory reporting, vital registration, governance, and rational use of medicines and infection control, social security, poverty reduction, and other programs to reduce the impact of social determinants of TB. (3) intensification of research and innovation such as discovery, development, and application of new tools, intervention methods, and strategies for controlling TB rapidly; and research development to optimize program implementation, and stimulating innovations to accelerate the development of TB control programs (3).

1.1.2 Conclusion

This study concluded that the main focus of tuberculosis control carried out by the NGO PPTI was tuberculosis patients' assistance, establish supported community, training for cadres of health workers, and improving tuberculosis patients' nutrition. Currently, cadres' role in preventing tuberculosis in the Aceh Utara regency is finding new cases and as Home-based Direct Observer Treatment service (Pengawas Minum Obat (PMO) in the DOTS strategy, however, their role is not maximal yet. Health personnel has also been involved in implementing the government TB prevention programs such as TOSS TB (Find Treat and Cure TB), implementing the DOTS strategy, public education of tuberculosis, and recording and reporting of TB cases. Although NGOs have collaborated with cadres and health personnel in the TB control program in North Aceh Regency, several programs have not yet achieved sophisticated results.

References

1. Kemenkes RI. Tuberculosis (Find a Treat Until Healed). Jakarta: Kementerian Kesehatan Republik Indonesia; 2015.
2. WHO. Global Tuberculosis Report. World Health Organization; 2018.
3. Kemenkes RI. Tuberculosis Data and Information Center. Jakarta: Kementerian Kesehatan Republik Indonesia; 2018.
4. Dinas Kesehatan Provinsi Aceh. Aceh Health Profile. Dinas Kesehatan Aceh; 2019.

5. Dinkes Aceh Utara. Tuberculosis Program Report. Dinas Kesehatan Kabupaten Aceh Utara; 2018.
6. Djojodibroto D. Respirologi (Respiratory Medicine). Jakarta: EGC; 2014. 145–162 p.
7. Kementrian Kesehatan RI. Republic of Indonesia Minister of Health Regulation No.67 of 2016 concerning Repetition of Tuberculosis. 2017.
8. Central Bureau of Statistics. Number of Poor Population by Regency / City in Aceh Province, 2011-2015. Central Bureau of Statistics.
9. Shanmuganathan R, Subramaniam ID. Clinical Manifestation and Risk Factors of Tuberculosis Infection in Malaysia : Case Study of a Community Clinic. Glob J Health Sci. 2015;7(4):110–20.
10. Sumiyati, Hastuti P, Widiastuti A. Effectiveness of Health Counselling to Knowledge and Attitude of Mother about Lung TB of Children in Banyumas District. LINK. 2018;14(1):7–13.
11. Yani DI, Hidayat RA, Sari CWM. Describtion of The Implementation of The Role of Tuberculosis Cadre in DOTS Program in Bandung Kulon Sub-District. J Keperawatan Komprehensif. 2018;4(2):58–67.
12. Lazulfa RWA, Wirjatmadi B, Adriani M. Adequacy Level of Macro Nutrition and Nutritional Status of Tuberculosis Patients with Sputum Smear (+) and Sputum Smear (-). Media Gizi Indones. 2016;11(2):144–52.

7% Overall Similarity

Top sources found in the following databases:

- 7% Publications database
- Crossref database
- Crossref Posted Content database

TOP SOURCES

The sources with the highest number of matches within the submission. Overlapping sources will not be displayed.

1	S. Goutelle, P. Maire. "Individualizing Tuberculosis Therapy", Elsevier B... Crossref	1%
2	Cut Khairunnisa. "Health Risk Analysis of Workers at Motorcycle Work... Crossref	<1%
3	H. Simon SCHAAF. "Tuberculosis at extremes of age : Tuberculosis at ... Crossref	<1%
4	Muhammad Rizki Ashari, Irma Apriani, Firmansyah Firmansyah, Fitriant... Crossref	<1%
5	Muhammad Miftahussurur, Camilia Metadea Aji Savitri, Langgeng Agu... Crossref	<1%
6	Pramod K. Giri, Suraj B. Sable, Indu Verma, Gopal K. Khuller. "Comparat... Crossref	<1%
7	Ervin Kocjancic, Ales Sedlar. "Tuberculous Cystitis", Current Bladder Dy... Crossref	<1%
8	Pierry, C.. "Therapies for childhood tuberculosis - current and future ap... Crossref	<1%
9	Simeon I. Cadmus, Victor O. Akinseye, Babafemi O. Taiwo, Elena O. Pin... Crossref	<1%

10	Alexis R. Frydenberg. "Toxicity of first-line drugs for treatment of tuber... Crossref	<1%
11	Gabriele Karanis, Panagiotis Karanis. "Tuberculosis: Epidemiology and ... Crossref	<1%
12	H SCHAAF. "Tuberculosis drug therapy in children", Tuberculosis, 2009 Crossref	<1%

Excluded from Similarity Report

- Internet database
- Bibliographic material
- Small Matches (Less then 8 words)
- Submitted Works database
- Quoted material
- Manually excluded sources

EXCLUDED SOURCES

"Essential Tuberculosis", Springer Science and Business Media LLC, 2021 Crossref	3%
Ammal M. Metwally, Sara F. Sallam, Khadija M. Alian, Ghada A. Abdel-Latif et ... Crossref posted content	2%