

## COMMUNITY EDUCATION PROGRAM REGARDING TUBERCULOSIS AND NUTRITIONAL ASSISTANCE AND PSYCHOSOCIAL SUPPORT FOR TUBERCULOSIS PATIENTS

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### Abstract

Tuberculosis (TB) remains a significant public health problem in Indonesia. Sembayat Village, located in Manyar District, Gresik Regency, East Java, is one of 23 villages in the district. Currently, 1 active TB patient has been found in RT 22 RW 02. Seeing the densely populated situation, it is possible that the disease will spread if preventive measures are not taken immediately. Psychosocial assistance is also needed for patients and families considering that this disease requires relatively long treatment and must be completed. We divide this Community Service Activity into several stages of activity. The first stage is the preparation stage. Community service activities were carried out on Thursday, May 8, 2025, starting at 09.00 - 12.00. The activities carried out were counseling on TB (Definition, signs and symptoms, treatment, prevention), Healthy lifestyles to increase immunity, and good nutrition to stay healthy. In addition, there was a symbolic handover of the TB Guidebook for the Community and distribution of basic necessities to families of TB patients. On the evaluation stage, the community was very enthusiastic about asking questions, this proved that the community understood what was explained during the counseling.

**Keywords:** Tuberculosis (TB), Public Health, Community Service

### INTRODUCTION

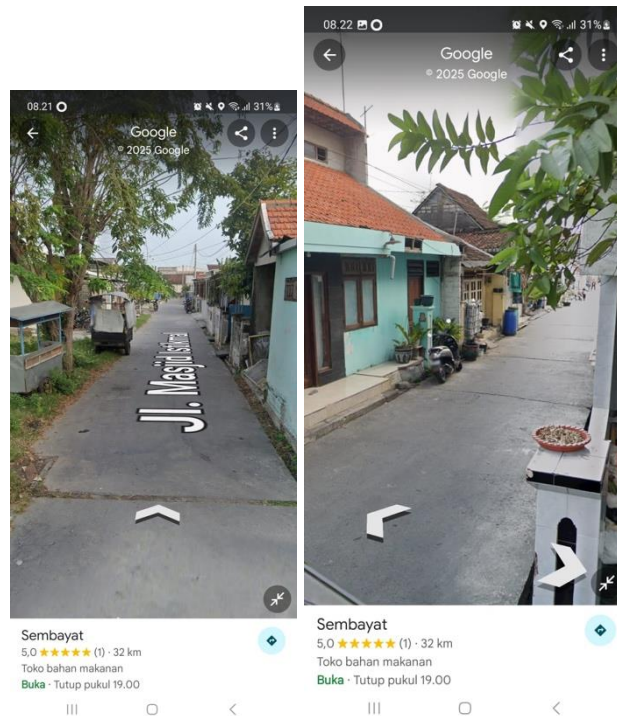
Tuberculosis (TB) remains a significant public health problem in Indonesia. According to data from the World Health Organization (WHO), Indonesia ranks second with the highest number of TB cases in the world after India (WHO, 2022). The Ministry of Health of the Republic of Indonesia (Kemenkes RI) reported that in 2021 there were more than 820,000 cases of TB detected, with the incidence rate continuing to increase every year (Kemenkes RI, 2022). Although effective and free treatment is available, many patients still face various challenges in completing therapy, including a lack of understanding of the disease, low socio-economic conditions, and strong social stigma (Yunus et al., 2021). Tuberculosis is an infectious disease caused by *Mycobacterium tuberculosis*, which primarily attacks the lungs but can also spread to other organs. This disease is closely related to socio-economic factors, such as malnutrition, poverty, and limited access to health services (Lönnroth et al., 2010). One of the main obstacles in handling TB is patient compliance with long-term treatment that takes at least six months.

Non-compliance with treatment can lead to drug resistance, increase the risk of disease spread, and increase morbidity and mortality rates due to TB (Migliori et al., 2018).

Some of the main challenges faced by TB patients in the community include: Lack of Education about TB Where many patients and the general public still do not understand the symptoms, how it is transmitted, and the importance of completing treatment therapy, Nutritional Limitations, Where TB patients often experience malnutrition which can slow the healing process and increase the risk of complications (Cegielski, J. P., & McMurray, 2004), and Psychosocial Impact and Stigma, Where Stigma towards TB patients is still high in the community, resulting in social isolation and psychological stress for patients (Courtwright, A., & Turner, 2010).

Sembayat Village, located in Manyar District, Gresik Regency, East Java, is one of 23 villages in the district. This village is located on the banks of the Bengawan Solo River, so it has potential flood vulnerability. In 2023, Manyar District has an estimated population of around 118,437 people spread across 23 villages, including Sembayat Village. Although there is no specific data regarding RT 22 RW 02 in Sembayat Village, several initiatives have been carried out to improve the welfare of the village community as a whole. For example, in 2023, Community Service (KKN) students from Semen Indonesia International University (UISI) implemented various programs in Sembayat Village. These programs include education using the "fun play" method at SDN 46 Gresik, content design guidance for village MSMEs, socialization of chili planting, and preparation of a database of more than 5,000 village community data to support the management of the SIAP Village website. Based on available data, there has been an increase in the number of Tuberculosis (TB) cases in Gresik Regency over the past three years. In 2021, 1,760 sufferers were recorded; this number increased to 2,755 in 2022, and reached 3,388 sufferers in 2023. Although specific data for Manyar District is not available in the source, the increase in cases at the district level indicates the need for vigilance and preventive measures in all districts, including Manyar. Preventive efforts, such as socialization of TB prevention, have been carried out in several villages in Gresik, for example in Pantenan Village, Panceng District. This activity aims to increase public awareness about the dangers and characteristics of TB disease, as well as preventive measures.

Currently, 1 active TB patient has been found in RT 22 RW 02. Seeing the densely populated situation, it is possible that the disease will spread if preventive measures are not taken immediately, such as providing knowledge about TB not only to patients and families but also to the community around the patient. Psychosocial assistance is also needed for patients and families considering that this disease requires relatively long treatment and must be completed. We will also provide nutritional assistance and counseling regarding the fulfillment of TB patient nutrition.



**Figure 1 and 2. Densely populated area RT 22 RW 02 Sembayat, Manyar, Gresik**

The purpose of this program is to improve patient and community understanding of TB, including prevention and treatment, provide nutritional support for patients to help the recovery process and provide psychosocial support for patients to reduce the impact of stigma and increase motivation to recover.

For the TB incident in RT 22 RW 02 Sembayat, currently 1 case of TB patient has been found, where looking at the map of the dense community conditions above, if the community still lacks knowledge about TB, it will be very vulnerable to disease transmission. For families, if they still have a lack of knowledge about nutrition for patients, the healing process will be hampered, especially knowledge about the treatment process. On the other hand, the stigma of society which can also interfere with the psychosocial of patients and families, requires handling in the form of psychological assistance for patients and families from health workers.

So in general, partners currently need assistance from health workers to prevent the spread of TB cases. To overcome these problems, this community service will conduct activities to provide counseling about TB to the community (Understanding, causes, prevention of transmission, responding to TB patients, with the success indicator of no new TB patients found in residents. For families of TB patients, counseling and assistance will be provided regarding the importance of proper nutrition for patients, regarding compliance with taking medication that can support patient recovery, with the success indicators being that patients' nutritional needs are met, they are compliant in taking medication according to the dosage and complete, and they recover on time. Psychosocial assistance will also be provided for patients and their families so that they can undergo the treatment period completely without worrying about community stigma, and as an indicator of success, patients can still interact and be accepted in the community.

We have conducted a literature review on the role of the family in adherence to taking medication in pulmonary TB patients, and it has been published in the Sinta 3 accredited

journal, namely the Unisma Islamic Health Journal in 2024. The study provided results that from the six journals we reviewed, it showed that there was a role for the family in adherence to taking medication in pulmonary TB patients, therefore success in treating pulmonary TB requires support in the form of motivation, supervision, and family education for patients with routine treatment of taking OAT. (M. Khafid, et all, 2024).

## **IMPLEMENTATION METHOD**

We divide this Community Service Activity into several stages of activity. The first stage is the preparation stage. At this stage, the activity permit will be processed to the Head of RT, RW and Kelurahan, preparation of tools and materials such as banners/banners, materials and leaflets for counseling, physical examination tools/demonstrations for counseling if needed and transportation vehicles to reach the location.

The second stage is the activity, where the activity program offered is providing counseling to the community around the patient's location regarding TB (Definition, causes, prevention of transmission, responding to TB patients). providing counseling to the patient's family and patient (regarding everything explained to the community plus nutrition for patients, treatment compliance and psychosocial support), as well as providing nutritious nutritional assistance to patients and families.

Conducting psychosocial assistance to patients and families. At this time, our team also submitted the TB Guidebook for the Community which is our innovative product in this activity.

The next stage is the final stage, namely evaluation. Indicators of the success of this community service activity include no new TB patients found in residents, patients' nutritional needs are met, they are obedient in taking their medication according to the dosage and complete, recover on time, and patients and families can still interact and be accepted in the community.

This Community Service activity not only involves lecturers, but also involves students with the aim of improving students' ability to socialize with the community.

## **RESULT AND DISCUSSION**

### **Preparation stage**

In the preparation stage, a communication and licensing process was carried out with the local RT Head, then a community discussion activity was held to plan the time and socialize what activities would be carried out related to this Community Service activity.

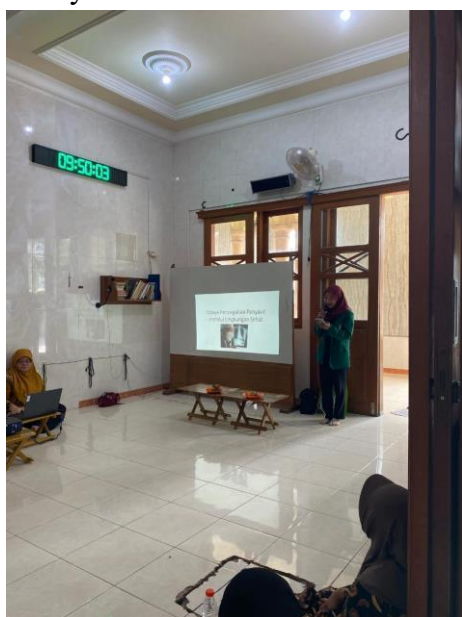
The community discussion activity was carried out in the yard of one of the residents' houses, attended by one of the Community Service team, a Lecturer, the RT Head and local community leaders and representatives of the residents. It was agreed that the residents accepted the activity and it would be carried out in the second week of May 2025.



**Figure 3. Atmosphere of community discussion**

### **Implementation stage**

Community service activities were carried out on Thursday, May 8, 2025, starting at 09.00 - 12.00. The activities carried out were counseling on TB (Definition, signs and symptoms, treatment, prevention), Healthy lifestyles to increase immunity, and good nutrition to stay healthy. In addition, there was a symbolic handover of the TB Guidebook for the Community and distribution of basic necessities to families of TB patients.



**Figure 4. Opening**



**Figure 5. Material Counseling**





**Figure 6. material Counseling 2**



**Figure 7. Submission of TB Guide Book**



**Figure 8. Distribution of basic food assistance to families of TB patients**

### **Evaluation stage**

The evaluation stage was carried out during the question and answer session, where the community was very enthusiastic about asking questions, this proved that the community understood what was explained during the counseling.



**Figure 9. Q&A atmosphere**



**Figure 10. Group photo after the event**

## **CONCLUSION**

The role of lecturers can be said to support the community service if supported by institutions that hire them and involve them in community service activities. Basically this lecturer is not only related to teaching alone. Personality that build as a lecturer to fly in a career other than a lecturer is very awakened, his job as a lecturer is greatly cultivated by society. Sometimes the public can appreciate his or her career outside the lecturer because he is a lecturer. (Montoya and Peter, 2002, Undang Undang Guru dan Dosen, 2005).



**Figure 11. Group Photo of the Community Service Team**

This community service activity, in addition to providing direct assistance in the form of basic necessities for families of TB patients, also provides knowledge to healthy residents so that they do not contract TB and can accept the patient's family as part of the community as a whole



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