

## Socialization of TB Zero Program During The COVID-19 Pandemic for Residents of Islamic Center Residences in Kediri

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### ABSTRACT

Tuberculosis (TB) problem is still a challenge for Indonesia today. The World Health Organization reports that Indonesia is the third country with the highest TB burden globally. All component of society must take a role in dealing with the global TB problem to achieve Zero TB in 2050. As the implementation, the Pesantren 2 Primary Health Care conducted socialization in the Wali Barokah Islamic Center, Kediri City. Socialization about knowledge to residents of Islamic Center, this study aims to determine the essential characteristics of Islamic Center residents against TB disease. Questionnaires related to knowledge were filled out before and after explanation using PowerPoint and leaflet media. By using purposive, sampling method obtained 100 respondents. The survey results showed a significant increase in the knowledge of Islamic Center residents about TB disease after socialization in terms of signs and symptoms of the disease ( $p < 0.02$ ), modes of transmission ( $p < 0.02$ ), and methods of prevention of transmission ( $p < 0.01$ ). Negative attitudes are still visible by stigmatizing TB sufferers from being ostracized (62.7%). The majority of subjects will go to health facilities (6.9%), but subjects still choose not to go for treatment (68%). The presentation of material about TB leads to reduce the burden of TB disease in TB endemic communities by modifying attitudes and behavior.

### INTRODUCTION

Tuberculosis (TB) is an infectious disease caused by the *Mycobacterium tuberculosis* (World Health Organization, 2019). Based on the data from TB Indonesia in 2020 estimated that there will be 845,000 new TB cases, while in 2018, it was found 842,000 cases (Kemenkes RI, 2020). The high incidence of TB in Indonesia can transmit TB the residents of Islamic Center who live in the same dormitory as TB patients. Inhabitant Islamic Center is a vulnerable group in TB transmission, which is transmitted through the air and inhaled by other people around them (Rutherford *et al.*, 2012). TB bacteria generally attack the respiratory system but can also attack other body organs, so they are classified into two categories, namely pulmonary TB and extrapulmonary TB (Sanches *et al.*, 2015).

Incidence TB of 842,000 cases per year and notifications of 569,899 cases, there are still around 32% that have not been detected or not reported (Kemenkes RI, 2020). The increasing incidence of TB cases is a challenge for the government in TB control in Indonesia. One of the serious problems in TB control, namely the lack of public knowledge and ineffective education, is obstacles in TB control in Indonesia (Sembiring, 2019). Tuberculosis not only has an impact on the health sector but also on declining socioeconomic conditions in various community groups, namely the lack of fulfillment of nutritional status, environmental conditions inside and outside the home strongly support the occurrence of tuberculosis, the impact of the HIV pandemic, namely a person's immune factor due to the influence of tuberculosis. aspects of

nutrition and other infections resulting in a decrease in body resistance such as HIV (Kemenkes 2019). One of the interventions we can do to increase public knowledge is Primary Health education about TB disease. Health education carried out by health workers is expected to be more trusted in promoting health in the community. This is important to make our society aware that TB disease requires attention and awareness from sufferers (Kigozi *et al.*, 2017).

The Covid-19 pandemic that has hit the world, including Indonesia, has created new problems in TB control and the achievement of the elimination targets that the government has proclaimed. Another impact of the COVID-19 pandemic on TB is the decline in treatment adherence rates. Some health facilities provide policies such as patients must be given TB drugs for 1 to 2 months during a pandemic, to reduce patient visits and reduce the risk of disease transmission. This can lead to a lack of control over medication adherence (Jain *et al.*, 2020). Some TB patients during the COVID-19 pandemic stopped rehabilitation activities, limited outpatient activities, and aided access to health facilities for fear even though they had severe symptoms that further aggravated their disease condition and resulted in death (Visca *et al.*, 2020). TB patients become difficult to monitor their health condition, so patients who need regular care and follow-up are not affordable (Jain *et al.*, 2020). Many TB patients experience repeated incidents due to non-adherence to treatment and experience worsening conditions and even death (Putra *et al.*, 2019). Treatment adherence is the key to ensuring a high success rate at the end of treatment and controlling TB disease (Sarinoglu *et al.*, 2020). Intensive counseling and monitoring of treatment are needed in overcoming patient non-adherence in undergoing TB treatment (Kaur *et al.*, 2021).

Health workers have an important role for the community, namely providing services health, fostering a healthy life, and building primary health in the region. Health workers live side by side with the community and are responsible for delivering health information and suppressing the spread of disease, including TB, in the community (Swee-Hock, 2016). Health workers are expected to play an active role and act as drivers, motivators, and health educators for the community, as well as helping communities identify and meet their own health needs (Rakhmawati *et al.*, 2021).

To overcome these problems, it is necessary to increase public understanding

regarding the dangers and control of TB. The effort was made through the "TB Socialization in the Wali Barokah Islamic Center in the Middle of the COVID-19 Pandemic" as the beginning of a series of activities to achieve TB elimination in Indonesia. This study is carried out with the hope of making it easier for health workers to optimize the understanding of TB among residents. Islamic Center is conducted offline according to health protocols.

## METHODS

This study was carried out using a cross-sectional design and a questionnaire about TB disease knowledge as an instrument. The questionnaire used is KAP standard World Health Organization, expected to represent a specific population on what is known, believed, and done about TB. The intervention was carried out by presenting material about TB. Materials are prepared based on TB guidelines from the WHO and the Ministry of Health. This study is part of the annual Primary Health Care study carried out by the Pesantren 2 Kediri City Health Center at the Wali Barokah Islamic Center in Kediri City on December 22, 2021. The subjects in this study are Wali Barokah Islamic Center residents, with inclusion criteria for male-female living in Islamic Center can read and write (not illiterate), fill out a complete questionnaire. Exclusion criteria did not fill out the questionnaire completely. In this study, the determination of the sample size determined using the Slovin formula  $n = N / 1 + N(e)^2$ , the sample size was determined purposively obtained as many as 100. The study began by gathering the cottage residents in one building according to the health protocol, considering that the pandemic was still ongoing. The time required to participate in the socialization consisted of filling out the *pretest* 15-20 minutes, presenting the material for 45 minutes, and filling the *post-test* 15-20 minutes. The data obtained is analyzed using paired t-test and presented descriptively according to the demographic characteristics of the residents of the cottage.

This research is not dangerous because it is done only by filling out a questionnaire. Before filling out the questionnaire, the research subjects signed a consent form. One primary health care doctor and one pharmacist validated the questionnaire. This research has passed the ethical review by the Health Research Ethics Commission of the UKDW Faculty of Medicine based on issuing the Certificate of Passing the Ethics Review number: 1338/C.16/FK/2021.

## RESULTS AND DISCUSSION

The result of the socialization was to increase knowledge by providing health education as needed by using media both face-to-face and electronically in overcoming the spread of TB infection in Islamic Center. Knowledge prevention information is a very important domain for the formation of one's actions, because high knowledge can create good behavior.

Characteristics of respondents are used to determine the diversity of respondents based on gender, age and status. Judging from the data obtained in Table 1, the characteristics by gender, most of the respondents in this study were male (65%). Judging from the education level of the respondents, all of them graduated from high school. Respondents' age ranged from 20 years (43%), and all respondents were unemployed.

Before the exposure to TB disease, the survey showed that the baseline regarding the level of public knowledge of TB disease was still low at 83.7%, with 72 respondents. The story of knowledge was seen from how many respondents answered "NO" to the question about TB, signs and symptoms, modes of transmission, methods of prevention, and treatment of TB.

Obtained different results after exposure to TB disease with Powerpoint and video media. The survey results in Table 2 show a significant increase before knowledge of the cottage residents are in terms of signs and symptoms of the disease ( $p < 0.02$ ), mode of transmission ( $p < 0.02$ ), and methods of prevention ( $p < 0.01$ ). The level of knowledge after socialization showed better results than before. c Sufficient public knows who received different results try to have clean and healthy living behaviors (Fitriani, 2013).

Based on the answers to the questionnaire, the perception of TB is a disease that causes sufferers to have a prolonged cough. It is contagious because it can be contagious and dangerous later, so people like to stay away. TB is a good disease of the lungs that can attack all ages without exception, and this disease can also cause a thin body.

Knowledge of TB disease based on the results of the questionnaire, TB disease is caused by germs. TB germs can come out freely in the air when a patient coughs, transmission occurs because the germs are coughed or cleaned so that symptoms appear marked by coughing up phlegm and blood, diseases that attack the lungs, spread by a sprinkling of saliva, decreased appetite, thin body, and TB disease can be cured with proper and regular treatment (Tobergte *et al.*, 2013).

**Table 1.** Characteristics of respondents

Characteristics	Frequency	Percentage (%)
<b>Gender</b>		
Male	63	73.2%
Female	23	26.7%
<b>Age</b>		
18	6	6.9%
19	10	11.6%
20	62	72.1%
21	6	6.9%
>22	2	2.3%
<b>Last education</b>		
SD	-	-
Junior high school	-	-
SMA	86	100%
University	-	-
<b>Work</b>		
Work	-	-
Not working	86	100%
Student / student	-	-

**Table 2.** Knowledge of TB Disease

Variable	Pre-Test N (%)	Post Test N (%)	Value
<u>Knowledge TB</u>			
Knowing TB disease	101	146	0.01
TB disease is caused by mycobacterium tuberculosis	97	151	
TB not only attacks the lungs but glands, bones, etc.	91	150	
TB germs die in the sun	99	151	
<u>Signs and symptoms of TB</u>			
Cough >3 weeks	108	151	0.02
Coughing up blood and nausea	97	150	
Fever >1 week	97	151	
Chest pain	114	150	
Weight loss drastically			
<u>Modes of transmission of TB</u>			
Through the air	97	151	0.02
Through food	93	143	
Through shared eating utensils	86	152	
Sharing personal items	91	150	
<u>Ways to prevent information</u>			
Covering the mouth when sneezing/ cough	94	151	0.01
Avoid sharing meals	96	139	
Washing hands	89	147	
Eating healthy food	97	151	
<u>TB treatment TB</u>			
can be cured	95	151	0.01
Taking medicine regularly from health services	99	151	

Ayurti *et al.* (2016), stated that the attitude of the closest person determines the treatment. Especially in preventing transmission, if the environmental perspective of a patient diagnosed with TB understands what he is doing, then the most intimate people will automatically protect himself and other member. If the behavior given is good, it will positively impact preventing tuberculosis transmission. The support given by the closest person in the form of intervention to the patient provides a sense of comfort in doing a treatment. The intervention offered by the nearest person is advice and assistance to the subject in carrying out treatment. This support can affect the patient, and the environment faces challenges and obstacles during the treatment period.

Suppose the community of Islamic Center understands TB well. In that case, it is hoped that they can create environmental perceptions of TB disease, which can be transmitted through the air

when eating together, and can be prevented by protecting food from sufferers, distinguishing eating utensils from sufferers, avoiding direct splashes from sufferers when sneezing/ coughing, and avoiding transmission through the patient's phlegm so that the patient is expected not to dispose of his coughing phlegm carelessly.

Table 3 describes the attitude of the subject towards TB disease. The philosophy of the residents of the cottage to condition is still minimal. Most subjects felt embarrassed if exposed to TB (37.2%), but negative attitudes were still visible by giving adverse treatment to TB patients (62.7%). The stigma attached to the disease and TB sufferers can cause disease detection and control to be low due to low *health-seeking behavior*.

Most subjects will go to health facilities if they have a severe illness (6.9%), but many issues choose not to go for treatment (68%) because they believe they do not have a severe

disease but a common condition. Research conducted by Nataprawira *et al.* (2014), that the most common problems found in the field are financial problems, time, and the distance of health facilities far away.

Factors that support the perception of the cottage community that TB is a prolonged and contagious disease are the negative response and lack of social support. Adverse reactions to TB disease will cause sufferers to fear and refuse so that they want to seek self-medication or *self-medication errors*. Based on Nurhidayati *et al.* (2014), psychosocial factors play a role in shaping the stigma against sufferers by the environment. Accepted stigma causes sufferers to fear social isolation and delay seeking treatment.

According to Hendiani *et al.* (2014), for TB patients who have not or have recovered from their illness, of course, it is not easy to be able to return to normal activities. This, of course, requires support from the people around him and how the sufferer can give a deeper meaning to what has happened in his life. Individuals with tuberculosis usually lack social support from the surrounding environment due to the accepted attitude of being ostracized in the background. The meaning of a person's life can be influenced by two factors, namely internal factors, and external factors. Here, the internal factor is self-

efficacy, while the external factor is social support (Hendiani *et al.*, 2014).

Social support is exceptionally influential on the meaning of life. This is explained by Sejati (2013), that the motivation, information, and fulfillment given mainly by family, closest people are pretty influential for the individual concerned. Individuals get support in carrying out daily activities and self-actualization to meet the need for meaning or meaning in their lives. Individuals who receive good social support from those closest to them and their social environment will be more enthusiastic in managing their lives to try to do better; for people with TB, for example, social support can help individuals to struggle to get cured and carry out their normal daily activities well. Meanwhile, individuals who do not get attention, direction, information from their family and closest people will be less enthusiastic in managing their lives (Sedjati, 2013).

Suppose individuals receive high social support from their social environment, which can be in the form of enthusiasm. In that case, with information, facilities and infrastructure, and reinforcement, the individual will feel that his life is meaningful. Therefore, it is hoped that the Islamic center community will be more concerned with other friends if exposed to TB disease with the dissemination of knowledge and attitudes.

**Table 3.** Subject's Attitude towards TB

Variable	N (Total Respondents)
<u>Reaction when exposed to TB</u>	
Fear	26.7%
Shame	37.2%
Desperate	36%
<u>Treatment of people with TB</u>	
Friendly but trying to avoid	37.2%
Exiled and ostracized from the environment	62.7%
<u>Stages of going to health facilities</u>	
Self-medication with received medicine from the health facility during treatment last month	15%
When self-medication did not work	8.1%
Will not go for treatment	68%
Go to a health facility if >3 days does not recover	6.9%

The limitation of this study is that this research is a socialization activity that takes place in 1 day only, so it cannot cover many

residents or monitor changes in attitudes and behavior after the poster media socialization intervention regarding TB. Attitudes and behavior are variables that are difficult to assess



only through one examination, so long-term intervention and monitoring are needed to be able to determine changes. The advantage of this research is that it is the first research conducted on the knowledge, attitudes, and behavior of the residents of Islamic Center Residences TB disease in the Kediri City area, East Java so that it can be a pilot study for further research.

### CONCLUSION

Socialization event that has been done to the Residents of Islamic Center Residences successfully increased the Level of knowledge about TB, from 83.7% to 96,2%  $p < 0.01$ . Changes in the knowledge and attitudes of Islamic Center residents increased after being given TB socialization so that they could help reduce the burden of TB disease in TB endemic communities.

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