

Youth Capacity Strengthening Through Education about Tuberculosis Prevention

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ABSTRACT

Indonesia ranks second among countries with a high burden of Tuberculosis after India, and there was an increasing burden if youth did not acknowledge about how to prevent the transmission of TBC, especially in the family. The education program was delivered to 25 high school students at SMKN 14, Center of Jakarta. The result of this program was that there was an increasing knowledge of 67.5 % students. The student's knowledge that increased could be forwarded into the family; therefore will increase the family health behavior.

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INTRODUCTION

Tuberculosis (TB) is still a health threat in the world and Indonesia, especially since the COVID-19 pandemic occurred. Indonesia is ranked second in the world after India with the highest burden of TB cases. [1]. The high number of TB cases in Indonesia is estimated to have only recorded 46% of suspected TB cases in Indonesia, considering that one untreated TB sufferer can infect 10-15 people around them. [2], [3]. Additionally, this illness primarily affects those who are of working age, including adolescents between the ages of 15 and 24. Adolescents who have family or household contacts with families who have pulmonary tuberculosis are at risk of contracting this ailment; in addition to the home, Islamic boarding schools, schools, industries, or other workplaces are the sites where the highest transmission happens.

The fact that the number of TB cases increased from 2020 to 2021 (from 351,936 to 397,377 cases) indicates that all facets of society, particularly adolescents, must be included in efforts to combat and stop the spread of TB. The percentage of TB cases in the adolescent age group increased by 0.2% from 16.7% to 16.9% as a result of the rise in cases, according to data from the Indonesian Ministry of Health[4].

Emphasizing the need of incorporating adolescents in preventing medication resistance and TB transmission can also be motivated by their risky conduct and lack of awareness about TB. [5], [6]. One of the provinces with the highest number of TB cases nationally is DKI Jakarta.

One of the Indonesian provinces, DKI Jakarta, ranks fourth out of 34 provinces in terms of the number of TB cases in 2021. With a total of 8052 cases in 2019, the prevalence of pulmonary tuberculosis in DKI Jakarta was 0.51%, which is still higher than the national average and is rising annually.[7].

Teenagers' ignorance of TB transmission, particularly if a family member has pulmonary TB and does not inform them, some classmates who exhibit symptoms like weight loss and coughing for longer than two weeks and are frequently mistaken for common illnesses, or risky adolescent behaviors like smoking can all help spread the disease. In order to modify the health behavior of adolescents, a health education program focusing on avoiding TB transmission is required. The program's goal is to increase adolescents' knowledge and understanding of the issue.

Based on this situation, it is necessary to carry out a community service program through a health education program aimed at adolescents.

METHOD

Two nursing instructors from STIK Sint Carolus and one nursing study program student participated in this community service project. In order to prevent the spread of tuberculosis, education and in-person practice were conducted. The three phases of the program are planning, carrying out, and assessing.

- Planning entails arranging the time, location, paperwork, and equipment required to execute this educational program. It also entails preparing materials and cheers to ensure that the interactions between facilitators and students continue to go smoothly. This activity is being held at SMKN 14, Central Jakarta. This unit is a part of STIK Sint Carolus's school health initiatives at the Johar Baru health center, which is a nurtured area.
- The execution of this educational program was conducted in-person with SMKN14 grade 10 students using lecture techniques, hand washing, cough etiquette, and discussions. Following a lesson on how to prevent the spread of pulmonary tuberculosis, cure it, and take care of it, participants were instructed in proper coughing technique and hand sanitizer use. Prior to the lecture, the facilitator used a g-form to administer a questionnaire to the 25 students regarding their understanding about TB treatment and care.
- The evaluation was carried out by giving a post-test for students' knowledge, then for the practical evaluation, students were formed into five groups which were then selected by practicing proper coughing and hand washing etiquette through games together.

RESULTS

Capacity building is the strengthening of the abilities possessed by each individual in society [8]. Adolescent capacity in this context is described as the ability or strength to reduce risk factors, such as smoking, coughing etiquette, and other unhealthy behaviors, in order to avoid the spread of tuberculosis.

This educational activity is an effort to provide knowledge to the community so that there is a change in individual or community behavior. [9]. This capacity-building or empowerment activity increases knowledge to prevent the transmission of TB in families, communities, and school environments.

This activity was held on Wednesday, December 14, 2022, in one of the classrooms at SMKN 14, Central Jakarta, which was attended by 25 students and accompanying teachers from this class. This activity was started by health workers from the Johar Baru Health Center, who explained about the PKPR (Youth Care Health Program) program at the health center.

Next is the pretest conducted online through g-form before being given education on TB prevention, treatment, and care of pulmonary TB. Educational materials are provided in the form of

a PowerPoint, which is continued with the practice of preventing infection transmission. Practice is carried out using hand sanitizer, tissue, and a mask or tissue.

A post-test and a practical evaluation, which involves splitting the group into five groups, are used to gauge knowledge about stopping the spread of tuberculosis. Every group that follows the proper handwashing procedures and is able to respond to inquiries will receive a prize. Games are used to package practical assessments.



Figure 1. Education on prevention of transmission of pulmonary TB



Figure 2. Practice coughing and hand washing etiquette



Figure 3. Group practice on infection prevention

The results of the completed questionnaire were then analyzed, and it was found that there was an increase in knowledge of 62.5% (15 students), and 37.5% (9 students) did not experience an increase in knowledge, as shown in the image below:

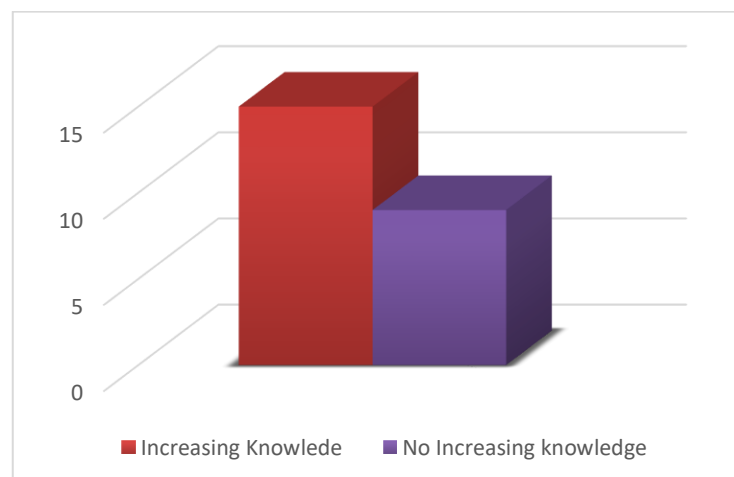


Figure 4. Changes in knowledge of students of SMKN 14

The entire community, in this case the teenagers, must actively participate in the fight against tuberculosis, and efforts to educate them about the disease are one way to demonstrate this commitment. Teenagers have the potential to be change agents in Indonesia's health improvement. The Youth Declaration to End TB, which was held in Jakarta, is one way to encourage young people who can contribute to the eradication of tuberculosis [10]. This proclamation guarantees that there will be no information gaps, particularly with regard to TB among youth. The 2030 TB elimination program must also encourage the development of youth capability. Young people's potential and capacity must be developed under supervision so they can take on leadership roles and contribute to the achievement of health development. It is anticipated that community service projects for SMKN students will improve the surroundings and neighborhood in which they reside and encourage good behavior within the family. Numerous research on schoolchildren's empowerment have influenced parents' health behaviors, particularly with regard to preventing non-communicable diseases.[11]

CONCLUSION

Twenty-five male and female students from SMKN 14 in Central Jakarta participated in educational activities dedicated to the topic of "Stop TBC: Prevent the transmission of tuberculosis". According to the findings of the investigation, 62.5% of pupils had increased their knowledge. 27.5% of students reported no progress in their understanding of how to stop the spread of tuberculosis. To stop the spread of tuberculosis, more at-risk groups, notably teenagers, need to participate in ongoing education initiatives.

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