

Preventing Dropouts in Tuberculosis Treatment with “*Griya Bebas TBC*”

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ABSTRACT: Tuberculosis, a major public health issue, has received international attention and is included in the Sustainable Development Goals. With 969,000 recorded cases in 2021, Indonesia ranked second in the world for TB cases, after only India. This is a 145,000-case increase, or 17%, from 2020, creating a significant obstacle to achieving TB eradication by 2030. Dropout cases exacerbate this challenge, impeding progress toward tuberculosis elimination. Indonesia’s treatment success rate currently stands at 83%, falling short of the 90% target. Dropouts are linked to several issues, such as patient education about tuberculosis, lost motivation, drug side effects, and access to healthcare facilities. This situation underlined the importance of comprehensive support for patients, particularly from families, government entities, and healthcare facilities, to ensure consistent motivation for continuing treatment. The main solution is the provision of patient education, psychological support, and physical condition forming the foundation for the “*Griya Bebas TBC*” program. This study employed a literature review to outline the program’s framework. *Griya Bebas TBC* establishes a supportive environment to sustain patient motivation and deliver accurate information about tuberculosis, drug side effects, and treatment procedures. The primary objective of *Griya Bebas TBC* is to reduce the tuberculosis patient dropout rate by offering comprehensive information and fostering a supportive environment. The program adopts two complementary approaches: group interaction via popular social media platforms such as WhatsApp or Telegram and community-based approach, and individualized engagement through online health consultation applications. WhatsApp, a globally prevalent social media tool, offers a conducive platform for disseminating information to patients. Utilizing social media platforms and applications addresses issues surrounding information dissemination and healthcare facility accessibility. Health workers engaged through these platforms can provide recommendations if a patient’s condition warrants further intervention beyond consultation.

KEYWORDS: tuberculosis; *Griya Bebas TBC*; comprehensive information; supportive environment; dropout.

INTRODUCTION

Pulmonary tuberculosis (TB), a chronic and common infectious disease that is still a global concern, is caused by tuberculosis bacteria, specifically *Mycobacterium Tuberculosis* bacteria (Merzistya & Rahayu, 2019). According to data from the World Health Organization's Global Tuberculosis Report (WHO, 2019), at least 10 million individuals became ill with TB in 2018, with Southeast Asia (44%), Africa (24%), and the Western Pacific (18%) having the greatest incidences. In the Eastern Mediterranean (8%), the Americas (3%) and Europe (3%), incidence rates were lower. Two-thirds of the global total was contributed by eight countries: India (27%), China (9%), Indonesia (8%), Philippines (6%), Pakistan (6%), Nigeria (4%), Bangladesh (4%) and South Africa (3%).

This achievement elevates TB to the level of a major public health problem, garnering worldwide attention and inclusion in the Sustainable Development Goals. With 969,000 recorded cases in 2021, Indonesia ranked second in the world for TB cases, after only India. This is a 17% increase from 2020, creating a significant barrier to achieving TB eradication by 2030 (Tuberculosis Indonesia, 2023). An important factor in preventing tuberculosis from becoming dangerous is preventing tuberculosis patients from dropping out. Dropout cases exacerbate this challenge, impeding progress toward tuberculosis elimination. Indonesia’s treatment success rate currently stands at 83%, falling short of the 90% target (WHO, 2017).

Dropouts are associated with numerous factors, including TB patient education, family motivation, medicine side effects, and access to healthcare services (Syahriddal et al., 2022). TBC patient adherence is connected to health education (Gebremariam et al., 2021). There is a difference in the proportion of respondents who receive good family support compared to those who receive adequate family assistance, such as helping patients and medication supervisors (Arta et al, 2023). Family support has a very important role in supporting TB patient medication adherence. Apart from acting as a

supporter, the family also acts as a medication supervisor (PMO) who will then remind sufferers to continue taking medication until the program is finished (Siswanto et al., 2015).

Drug side effects and availability of healthcare services are also associated with dropout patients. Non-adherence was caused by forgetting to take medication, being away from home, being unable to visit a health institution, and experiencing undesirable drug side effects (Tsfahuneygn et al, 2015). Patients getting therapy have moderate to severe side effects, which commonly induce patients to cease treatment because they are afraid that if they continue, their condition will deteriorate and they will be unable to take it. The most common side effects experienced by respondents every time they took anti-tuberculosis drugs included nausea, vomiting, lack of appetite, tingling, nausea accompanied by vomiting, itching and redness of the skin and difficulty passing urine. (Merzistya & Rahayu, 2019).

The situation highlighted the significance of providing patients with complete support, notably from families, government organizations, and healthcare facilities, to maintain constant motivation to continue treatment. The primary remedy is patient education and psychological support, which serves as the foundation for the "Griya Bebas TBC" program. The primary objective of *Griya Bebas TBC* is to reduce the tuberculosis patient dropout rate by offering comprehensive information and fostering a supportive environment. *Griya Bebas TBC* establishes a supportive environment to sustain patient motivation and deliver accurate information about tuberculosis, drug side effects, and treatment procedures.

The initiative employs two complementary approaches: group participation through popular social media platforms like WhatsApp or Telegram, and customized engagement through online health consulting apps. WhatsApp, a widely used social media network, provides an ideal venue for providing information to patients. Utilizing social media platforms and applications addresses issues surrounding information dissemination and healthcare facility accessibility. Health workers engaged through these platforms can provide recommendations if a patient's condition warrants further intervention beyond consultation.

MATERIAL AND METHOD

This study utilized a literature review to describe the program's structure. This literature review was carried out in stages, including creating PICO (Problem, Intervention, Comparison, Outcome) questions, searching for publications, assessing relevant papers, and analyzing and synthesizing articles (Yanti et al., 2020). The search for relevant articles was carried out through an electronic database, namely Google Scholar in Indonesian and English.

Fifteen (15) articles were selected based on inclusion criteria such as the publication date of the last 10 years from 2013 to 2023 and are Open Access Journals. The assessment of the articles analyzed the suitability of the journal in accordance with the theme, namely data and infographics related to tuberculosis disease, causes of tuberculosis, methods of handling TB patients who drop out, and the role of social media in handling tuberculosis. The study was conducted to map the selected journals based on their background, research methodologies, research findings, and conclusions (Sinanto & Djannah, 2020). The synthesis process involves sorting content from journals to be utilized as references in writing.

DISCUSSION

Griya Bebas TBC is a therapy program for tuberculosis patients. This program provides information and motivational support to TB patients with the goal of minimizing dropout by creating a favorable physical and social environment for patients. "Griya" means "home," thus this program will serve as a home for individuals with tuberculosis, a place of safety for patients in need of support, information, and even protection when necessary.

Griya Bebas TBC program uses WhatsApp, a widely used social media technology, to provide a favorable environment for providing information to patients. Implementing social media platforms and applications resolves information dissemination and healthcare facility accessibility challenges. WhatsApp is utilized as a consultation tool for patients seeking basic information and referral facility services.

A WhatsApp Group featuring Professional Care Providers (PPA) such as nurses, pharmacists, nutritionists, spiritual experts, general practitioners, and health educators with their appropriate roles depending on their occupations will be developed in the program. In addition to PPAs, the WhatsApp Group also contains patients, former patients, and tuberculosis observers. WhatsApp was chosen because social media has an influence on behavior change, as previous research states that WhatsApp has an effect on students' knowledge and attitudes about smoking (Apriyani et al., 2021).

Education through social media is a powerful way to improve patient knowledge, with having a variety of methods for educating patients is essential to improve the attitude of pulmonary TB sufferers in undergoing TB treatment. Through a good attitude towards treatment which must be carried out routinely over six months, it is hoped that medication adherence will increase, dropout cases will decrease, and there will be no patient relapse (extension of treatment) (Sutema et al, 2023).

Professional Care Givers (PPA) such as professional care providers can give suggestions through these platforms if a patient's condition merits additional intervention beyond consultation. Health information and services will be posted on the WhatsApp Group on a regular basis, and consultations will be available 24 hours a day, seven days a week. Not only WhatsApp Group, but the Griya Bebas TBC program will also provide consultation applications between patients and specialist doctors and between patients and PPA groups.

Previous research (Efendi et al., 2022) stated that health counseling can improve knowledge related to TB, reduce stigma, and stress, and reinforces acceptance within the family and community dan health counseling is required by TB patients during the medication to gain knowledge, emotional, psychological, and spiritual support and reduce stigma. Consequently, it will improve medication adherence.

Sufferers who do not have access to the app will be given a halfway house where they will be able to communicate, share information, and organize new activities for TB sufferers. The social support method can be used to supplement or augment the medical approach to preventing and treating TB patients (Simunati et al., 2021). It is envisaged that patients receiving therapy would benefit from a setting that includes a supportive physical environment with a community approach, as well as a pleasant social environment that is available at all times.

According to a previous study (Mundakir et al., 2021), a community-based TBC program is a realistic alternative that may be built on health facilities in DOTS, particularly in developing countries such as Indonesia, where the health system is being strained by an increase in the number of TBC and HIV/AIDS patients. The community-based TBC management must be seen as a complement and perhaps a substitute for a national TBC activity program.

CONCLUSION

The Griya Bebas TBC program is an integrated program with a group or community and individual approach through the provision of information facilities and "shelter" to attain physical, social, and psychological balance in the environment. This program is designed to help patients stay on treatment and avoid dropout, which is impacted by patients' understanding of TB, lack of motivation, medication side effects, and access to health care.

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