

Utilization of Living Pharmacy in Overcoming Stunting in Tanjung Batu Seberang Village

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Abstract

The overall objective of this community service activity is to empower the community through the use of medicinal plant gardens as one of the efforts to address stunting in Tanjung Batu Seberang Village, Tanjung Batu Subdistrict, Ogan Ilir Regency, South Sumatra. Specifically, this activity aims to: (1) provide a deeper understanding of the importance of health, (2) explain the various types of medicinal plants that can be used to improve health, particularly in combating stunting, and (3) change the community's mindset regarding the importance of health quality. The approach used in this activity is a descriptive qualitative method. The implementation of the activity is divided into three phases: first, administering pre-test and post-test questionnaires to assess participants' initial and final understanding; second, delivering materials on the use of medicinal plant gardens to address stunting; and third, providing training on planting medicinal plants. The subjects of this activity are 50 residents of Tanjung Batu Seberang Village. The instruments used are pre-test and post-test questionnaires, with the activity conducted in one day. The results show that 86.50% of participants understand basic health concepts, 92.54% can explain the types of medicinal plants that could potentially combat stunting, and 91.51% experienced a shift in mindset regarding health quality. In conclusion, this training provides practical solutions and motivation for the community to adopt healthier lifestyles, particularly in maintaining children's nutrition by utilizing processed plants as a source of nutritious food, thus improving nutritional status and the overall quality of life in Tanjung Batu Seberang Village.

A. Introduction

Indonesia is an agrarian country, with the majority of its population working as farmers engaged in agricultural activities. As an agrarian nation, Indonesia boasts a wide range of resources both on land and in water. Plants also play a vital role in healing and medicine (Jupri et al., 2024). The therapeutic properties of medicinal plants have been passed down through generations, long before scientists discovered chemical-based medicines. Over 10,000 species of plants can be utilized as raw materials for herbal medicine, making the cultivation of medicinal plants in Indonesia a highly promising area for development. Cultivating medicinal plants in rural areas has a relatively high success rate. From both an anthropological and topographical standpoint, villages offer far better open land compared to urban areas (Jannah et al., 2023). However, despite Indonesia's rich natural resources, health issues such as stunting remain a serious concern, particularly in rural regions. Stunting, caused by chronic malnutrition during the first 1,000 days of a child's life, has detrimental effects on child development and the future quality of human resources. In many

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villages, limited access to nutritious food and unbalanced diets are the primary causes of stunting. In this context, cultivating medicinal plants in villages not only holds economic potential but can also play a key role in improving family nutrition. Locally grown plants that are easy to cultivate in rural areas can offer a solution to improve family nutrition quality, thereby helping to reduce stunting rates.

Stunting in Tanjung Batu Village, Ogan Ilir Regency, South Sumatra, remains a serious issue that requires urgent attention. Although data from 2022 indicates a decrease in stunting rates in Ogan Ilir Regency from 35.6% in 2019 to 24.9%, this figure still significantly exceeds the national target. Tanjung Batu Seberang, a village in Tanjung Batu Subdistrict, offers great potential to address this problem. In addition to being known for its local industries, such as the production of gazebos and knock-down wooden furniture, the village has vacant land that can be utilized to support food security and public health. This land can be transformed into a medicinal plant garden that provides various healthy plants, such as vegetables and traditional medicinal plants—including moringa leaves, turmeric, ginger, lemongrass, and others (Efendi et al., 2022). The benefit of creating a living pharmacy is to maintain the body's immunity, serving as an alternative form of herbal medicine (Lefubun et al., 2023).

The use of a living pharmacy offers numerous benefits, including boosting the immune system, providing alternative herbal treatments, and enhancing family food security. By having a living pharmacy in the backyard, daily kitchen needs can be fulfilled without relying on the market (Mooy et al., 2022). Additionally, utilizing vacant land to grow medicinal plants offers several other benefits, such as: 1) providing affordable, accessible, and quick natural remedies without the need to purchase them, 2) improving air quality around the house, 3) supporting reforestation efforts and environmental conservation, 4) generating family income, and 5) fulfilling the need for healthy and natural herbs and spices. Furthermore, cultivating a living pharmacy can have a positive economic impact by raising community awareness of entrepreneurship, particularly in the field of herbal medicine (Jannah et al., 2023). Live plant cultivation activities indirectly promote community independence, both financially and medically, while reducing reliance on chemical drugs. Medicinal plants can boost people's income because by cultivating these plants, they can be used for personal health purposes and also sold, thereby increasing their earnings (Pitayanti & Suharyati, 2023). Additionally, processed medicinal plants offer added value, which can further enhance their market price.

The Health Law of the Republic of Indonesia No. 36 of 2009 defines health as a state of well-being that encompasses physical, mental, spiritual, and social aspects, allowing individuals to live productively in both social and economic contexts. This definition emphasizes that health is not merely the absence of physical illness, but also a crucial asset for enhancing the quality of life. Therefore, health is viewed as an investment that positively impacts both individuals and society as a whole (Limbong & Tampubolon, 2019). In this context, Article 100 of the Health Law emphasizes that sources of traditional medicine proven to be beneficial and safe must be preserved, particularly for the prevention, treatment, care, and maintenance of health (Atmojo & Darumurti, 2021). In line with this, Tanjung Batu Seberang Village has implemented various strategic measures to address stunting, with a focus on improving nutrition, health, and the well-being of mothers and children. These efforts include providing supplementary food, nutrition education, and health services such as routine check-ups at the integrated healthcare posts (posyandu). These initiatives aim to improve the community's nutritional status and reduce the prevalence of stunting in the village.

Stunting is a health problem caused by chronic malnutrition, resulting from prolonged inadequate nutritional intake, primarily due to the provision of food that does not meet the nutritional needs of children (Lefubun et al., 2023). The phenomenon of stunting can begin during pregnancy and typically becomes more apparent in children by the age of two (Septiani et al., 2023). Stunting occurs when a child's growth is not supported by catch-up growth, leading to delays in physical development and other health issues. The impact of stunting extends beyond inhibited physical growth; it can also cause delays in motor and cognitive development, as well as increase the risk of disease and death in children (Tome & Dungga, 2022). To address stunting, several strategies can be implemented, including: a) providing nutritious food sources, such as spinach and water spinach, which can be grown in pots and serve as a rich source of vegetables high in vitamin A, iron, and calcium—vital for supporting children's growth and development; b) incorporating natural supplements, such as moringa leaves, known for their rich nutritional content and numerous health benefits; and c) utilizing traditional medicine, such as turmeric, ginger, and curcuma, which have long been used to strengthen the immune system, improve digestive health, and contribute to fulfilling children's nutritional needs (Efendi et al., 2022). According to the author, in order to address this issue, it is important to immediately promote the use of live pharmacies in stunting prevention programs. This can be done by offering training and counseling on how to plant and care for medicinal plants and

nutritious vegetables, collaborating with community health centers and posyandu, and providing seeds and agricultural tools.

The living pharmacy program involves utilizing land to grow herbal or medicinal plants that are beneficial in daily life, both for human health and environmental beauty (Meliantari, 2023). Herbal plants can be used as medicine to prevent and treat diseases, either through consumption or topical application (Atmojo & Darumurti, 2021). The benefits of cultivating a living pharmacy include: (1) Being safe for health, as they have no side effects, (2) Cost-effective, as medicinal plants are easy to grow and process, (3) Simple processing to create beneficial herbal medicines, and (4) Enhancing the beauty of the environment by creating green, lush yards. The practice of planting living pharmacies can also promote community independence, both economically and health-wise, while reducing dependence on chemical drugs (Rahmayani et al., 2022).

Efforts to prevent stunting, starting from pregnancy and the early years of life, include improving maternal knowledge and attitudes regarding stunting prevention. Additionally, strengthening interventions to enhance maternal knowledge and attitudes about health and nutrition is essential, including the provision of nutritional packages (such as supplementary feeding, vitamin A, and iron tablets) for pregnant women and young children. This also involves promoting proper parenting practices and supporting child growth and development. Stunting is a result of chronic malnutrition caused by inadequate nutrition over an extended period, often due to a diet that does not meet nutritional needs (Lefubun et al., 2023). Stunting begins in the womb and becomes noticeable by the time the child reaches two years of age. Early childhood malnutrition increases infant and child mortality rates, leads to frequent illnesses, and results in suboptimal physical growth in adulthood. Affected individuals also experience reduced cognitive abilities, contributing to long-term economic losses for Indonesia.

Stunting is a multifaceted issue, influenced by a range of factors beyond just poor nutrition during pregnancy and early childhood. The most effective intervention to reduce stunting prevalence must occur during the critical 1,000 Days of Life (HPK), which span from pregnancy through the child's second birthday (Anora et al., 2023). Several key factors contribute to stunting, including inadequate parenting practices, insufficient maternal knowledge of health and nutrition before and during pregnancy, as well as postpartum (Basri et al., 2021). In addition, limited access to healthcare services such as Ante Natal Care (ANC), Post Natal Care, and quality early childhood education, as well as inadequate household access to nutritious food, clean water, and sanitation, exacerbate the problem (Nurbaya et al., 2022). Stunting prevention is a priority for health policies in many countries, including Indonesia, particularly in Tanjung Batu Seberang Village. Stunting refers to a failure in physical growth due to chronic malnutrition, resulting in a child's height being significantly below the standard for their age. One promising approach to combatting stunting is through the use of living pharmacies, which offer multiple benefits, such as: providing essential nutrients, reducing dependency on commercial food sources, educating families on nutrition, and utilizing medicinal plants to support health (Mooy et al., 2022). The primary objective of this community service initiative is to empower the local community by utilizing living pharmacies as a strategy to combat stunting in Tanjung Batu Seberang Village, Tanjung Batu Subdistrict, Ogan Ilir Regency, South Sumatra. Specifically, this initiative aims to: (1) enhance the community's understanding of the importance of health, (2) introduce and explain various living pharmacy plants that can be used to improve health, with a particular focus on preventing and addressing stunting, and (3) change the community's mindset regarding the critical role of maintaining and improving health quality.

B. Methods

The survey method employed in this study utilizes a descriptive qualitative approach. The implementation of the assessment activities is divided into three stages: first, the administration of pretest and posttest questionnaires; second, the delivery of materials on the use of living pharmacies in addressing stunting; and third, the practical implementation of planting living pharmacy plants such as spinach, cassava, galangal, lime, lemongrass, ginger, turmeric, and others on land provided by the village government. The subjects of this service activity are 50 residents of Tanjung Batu Seberang Village.

Instrument

The instruments used for this study are pretest and posttest questionnaires. The activities were carried out within a one-day timeframe (Anora et al., 2023).

Forms of PKM Activities

This community service activity is delivered through a combination of lecture, discussion, and demonstration methods. The primary material focuses on the use of living pharmacies in combating stunting. The activity is complemented by intensive guidance services, where communication between the PKM team and the community is fostered to ensure the effectiveness and efficiency of the implementation.

Implementation Process

The implementation of this activity includes an effective process evaluation. The evaluation is conducted by observing and assessing participant engagement during the material delivery. The participants' commitment to using their time for guidance is demonstrated by their active and intensive communication with the PKM team. The effectiveness of the evaluation process is reflected in the participants' understanding of the use of living pharmacies in addressing stunting. This is measured by indicators related to the participants' mastery of healthy lifestyle concepts and the utilization of home garden spaces for planting simple yet highly beneficial plants, particularly those containing high nutritional value, relevant to stunting prevention (Rahmayani et al., 2022).

C. Result and Discussion

Community service activities with the theme "Utilization of Live Pharmacies in Overcoming Stunting" will be held in Tanjung Batu Seberang Village, Tanjung Batu District, Ogan Ilir Regency, on Saturday, March 2, 2024. The event will involve 50 participants. Throughout the activity, all participants demonstrated high enthusiasm and support. This is evident from the availability of appropriate venues and facilities that facilitated the smooth execution of the event, as shown in Figure 1 below:



Figure 1. (a) Opening Activity, (b, c, and d) Participants of the PKM Program.

1. Providing Understanding about Health

The results indicate that 86.50% of participants were able to comprehend the significance of health for both families and communities. The material covered several key areas, including: 1) the importance of understanding healthy lifestyles and concepts, as well as health services such as community empowerment through training health cadres and creating food security programs; 2) the benefits of home yard land; 3) an understanding of stunting and its solutions; 4) the utilization of live pharmacies in tackling stunting; and 5) plants beneficial for health. These five components are essential for improving healthy lifestyles (Lefubun et al., 2023).

2. Types of Live Pharmacy Plants Useful for Health, Especially in Preventing Stunting

Approximately 92.54% of the community demonstrated the ability to identify various live pharmacy plants that can be used to prevent stunting, particularly through the live pharmacy program. This includes utilizing home gardens with nutritious food sources such as spinach, water spinach, moringa, and other vegetables rich in vitamins and minerals. These plants, especially those high in vitamin A, iron, and calcium, play a crucial role in improving children's nutrition and supporting their growth and development (Lefubun et al., 2023).

3. Mindset Change Regarding Health Quality

A total of 91.51% of participants reported a shift in their mindset regarding the quality of health, especially in relation to efforts to prevent stunting. This shift was facilitated by the explanation of the causes of stunting, the importance of good nutrition, increased access to health services, and improvements in sanitation and cleanliness (Khotimah, 2022). By adopting this mindset, it is anticipated that stunting prevention efforts will be more effective, resulting in significant improvements in the health and quality of life for both children and the broader community of Tanjung Batu Village.



Figure 2. The PKM Team Presenting Educational Materials to the Participants

The participants' enthusiasm during the material presentation by the PKM team was clearly evident through their active engagement and genuine interest in the subject matter. Their curiosity and comprehension were reflected in the insightful questions they posed, particularly concerning the use of land for cultivating plants as living pharmacies to prevent stunting. One notable inquiry came from the Head of Tanjung Batu Village, Mr. Robby, who asked, "How can home yard space be utilized for planting simple yet highly beneficial plants?" This question, along with others, highlights the community's keen interest in practical solutions for stunting prevention. The interaction is illustrated in Figure 3.



Figure 3. Awarding of Plaques by the PKM Team to the Village Head and Officials

D. Conclusion

The conclusions drawn from the community service activities highlight the significant impact of the initiative, titled "Utilization of Live Pharmacies in the Context of Preventing Stunting in Tanjung Batu Seberang Village, Tanjung Batu District, Ogan Ilir Regency." This program has provided the local community with valuable knowledge and insights into the importance of early health interventions. It offered practical solutions for addressing the use of live pharmacy plants that promote health, particularly in preventing stunting. The program emphasized the benefits of utilizing home yard spaces for planting nutrient-rich vegetables such as spinach, kangkong, moringa, and other crops that not only enhance the beauty of the environment but also serve as natural remedies.

Furthermore, this initiative has inspired and motivated the community to rethink their approach to a healthy lifestyle. The concept of a living pharmacy, using medicinal plants grown in home gardens for daily health needs, has proven to be an effective strategy in combating stunting, particularly in areas with limited access to modern healthcare services, such as Tanjung Batu Seberang Village.

To further enhance the impact of this approach, several recommendations have been proposed, including the need for continued education and counseling, crop diversification, integrating medicinal plants into the daily diet, and fostering policy development and government support to sustain these efforts.

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