

Education on the Use of Family Medicinal Plants as an Effort to Prevent Stunting in Mulyorejo Village

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Abstract: Stunting is a serious health problem in Indonesia that can affect children's physical growth and cognitive development. This research aims to explore the use of family medicinal plants (TOGA) as an effort to prevent stunting in children. Family medicinal plants have great potential in providing important nutrients and bioactive compounds that can support optimal growth. The research method used was a literature study and a survey of the public regarding knowledge and practice of using TOGA. The research results show that there are still many people who are not fully aware of the benefits of TOGA in preventing stunting, even though several plants such as turmeric, ginger, and moringa leaves are already widely known. Therefore, educational programs are needed to increase public understanding of the importance of integrating TOGA into daily diet patterns. It is hoped that this research can contribute to the development of health and nutrition policies in Indonesia.

Keywords: stunting, family medicinal plants, nutritional intervention, child health, public health

Introduction

Stunting is a global health problem that is of serious concern in many developing countries, including Indonesia (Yusriadi et al., 2024). This condition is characterized by permanent failure of physical and cognitive growth and development due to chronic malnutrition, especially during the critical first thousand days of a child's life (Fernandes & Le, 2021). The impact of stunting is not only seen in a child's physical development, but also affects intelligence, productivity, and the risk of health problems in adulthood (Lestari et al., 2024).

Based on the data, Indonesia is one of the countries with the highest prevalence of stunting in Southeast Asia, this shows the importance of handling stunting as a national priority (Devi et al., 2023)

In East Java, the prevalence of stunting among children under five reaches 32.8%, which is higher than the national average, indicating that there are major challenges in fulfilling nutrition and health in the area (Arifin et al., 2025). Mulyorejo Village, one of the areas in East Java, also faces similar problems. As a rural area with limited access to health infrastructure, the Mulyorejo community faces difficulties in obtaining adequate health services (Putri et al., 2021).

To overcome these problems, a strategy that is not only effective but also sustainable is needed, one of which is through community empowerment by utilizing Family Medicinal Plants (TOGA) (Nasution et al., 2024). TOGA is a plant that is cultivated in the yard and has properties as a traditional medicine as well as a nutritional enhancer (Dewi et al., 2024). Plants such as turmeric, ginger, ginger, and galangal are known to contain nutrients that are beneficial especially for pregnant women, infants, and toddlers (Ooi et al., 2022). The use of TOGA can help overcome various mild health problems, including early treatment of the risk of stunting (Suhardi et al., 2025).

In addition, TOGA offers an economical solution that can reduce people's dependence on modern medicines that are expensive and sometimes difficult to access (Rudini et al., 2024). By using TOGA, the community can improve a sustainable and environmentally friendly self-medication system

(ADEBIYI, 2023). Educational programs about TOGA are very relevant to be applied in stunting prevention (Marni et al., 2024). This education aims to increase public knowledge about the benefits of medicinal plants and how to use them.

This program can start from within the family, by utilizing the home yard as a medium for cultivating medicinal plants (Adhikary et al., 2023). This not only encourages the improvement of the quality of family nutrition, but also builds independence in overcoming health problems in a simple way (Varela et al., 2023). In addition, this education program also involves external parties such as the Health Office and the Agriculture Office to provide training and counseling to the community (Organization et al., 2021)

One of the main causes of stunting is lack of access to nutritious food, which is exacerbated by mothers' lack of knowledge about the importance of a healthy diet during pregnancy and lactation. Limited health services and poor sanitation conditions are also contributing factors to stunting in rural areas (Andrés et al., 2021). This problem is further exacerbated by the mindset of people who are more oriented towards treatment than prevention (Yeager et al., 2022). Most people only seek treatment after their illness has become severe. This reflects the low level of preventive awareness among the community, especially regarding the use of TOGA as an effective local health solution (Wijaya et al., 2024).

The use of TOGA to prevent stunting is also in line with the national program stipulated in the Minister of Health Regulation Number 9 of 2016 concerning the development of traditional health through self-service. This policy aims to strengthen disease prevention efforts and improve the overall quality of life of the community. In this context, community empowerment programs through TOGA and Dasawisma (Dawis) are very strategic.

Dawis is a working group consisting of housewives that can be utilized to develop a community-based living pharmacy. Through this group, the community is invited to utilize their yards as a place to cultivate medicinal plants, which also supports the reforestation program (Pearsall et al., 2024)

Mulyorejo Village has great potential to develop TOGA as a stunting prevention strategy. This program can involve housewives and posyandu cadres in various training activities, from cultivating medicinal plants to processing them into herbal concoctions that are safe for consumption by pregnant women, infants, and toddlers.

In addition, the community is also taught the importance of a healthy diet, exclusive breastfeeding, and regular monitoring of child growth and development (Jeong et al., 2022). With this approach, the community is expected to be more independent in meeting the nutritional needs of their families without relying entirely on health services that are often difficult to access (Environment et al., 1980).

c. In many areas, limited infrastructure, such as pharmacies and hospitals, is a major obstacle. In this situation, TOGA is a very relevant solution. Besides being easy to cultivate, medicinal plants also have high economic value. TOGA-based products such as herbal medicine and herbal concoctions can be an alternative additional income for families in rural areas. Thus, the TOGA education program not only supports health efforts but also community economic empowerment (Hikmah, H., & Syahputra, 2024).

In addition to health benefits, TOGA also has significant ecological value. By utilizing yard land for medicinal plant cultivation, the community can create a greener and more beautiful environment. This is in line with the government's efforts to reduce the impact of climate change through increasing green space. In the long run, the development of TOGA can become a development model.

Materials and Methods

Community service will be held at one of the houses in Mulyorejo Village, Singgahan Tuban on October 27, 2024. Community service activities focus on premarital mothers and teenagers in Mulyorejo Village. This community service uses Family Medicinal Plants to provide education to housewives and premarital teenagers on how to prevent stunting. Premarital mothers and teenage girls in Mulyorejo Village will be given counseling to increase their knowledge about how to prevent stunting children through various stages such as:

1. Preparation Stage

The preparation stage involves pre-planning and naming the facilitators who will educate the community as well as preparing materials, tools and venues.

2. Implementation Stages

Before the facilitator provides education to the community about preventing stunting in pregnant women, the facilitator conducts oral questions and answers to get initial knowledge about preventing stunting in pregnant women, after which the material is presented in Power Point or through scientific journals. After that, the facilitator distributes a schedule for providing education to the Mulyorejo Village community. Counseling is held for 1 day.

3. Discussion/Inquiry Stage

Answer The discussion/question and answer stage is conducted by participants after the material is completed. All participants have the same opportunity to ask questions about the material presented.

4. Practice Stage

At this stage, the facilitator and the community practice making jamu gepyokan in mutual cooperation so as to create an atmosphere of intimacy between the facilitator and the community, with the hope of providing direct practice education so that it can be implemented. Practicing it in the future. Their respective homes. In addition, students also created a toga garden behind the Mulyorejo Village Hall office, with the hope that the garden created can benefit the surrounding community who need these plants.

Results and Discussion

The purpose of community service activities is to help certain communities in various ways. Every lecturer is required to carry out community service activities as part of the Tridharma of Higher Education. One of the community service activities is the socialization of Education on the Utilization of Family Medicinal Plants as an Effort to Prevent Stunting in Mulyorejo Village on Sunday, October 27, 2024 starting at 08.00. until completion at Mrs. Puntiah's House and Mulyorejo Village Hall There were 10 participants who participated in the activity.

This activity was conducted in several stages. These stages are:

1. Preparation Stage,
2. Implementation Stage
3. Discussion / Q&A Stage
4. Training Stage

Phase I

Preparation The preparation stage includes prior preparation, division of tasks, facilitators who will provide instructions to the community, and preparation of materials, tools, and locations. The purpose of this stage is to help facilitators prepare instructional materials, and targets to be

educated. The material prepared is in the form of power points taken from health journals which will be educated to the local community.



Figure 1. Photo with Socialization Participants

Phase II

Before educating the community (pregnant women) on how to prevent child stunting in pregnant women, the facilitator conducted a question and answer session to find out how much the participants knew about stunting. Furthermore, materials on preventing child stunting in pregnant women were prepared through PowerPoint materials and scientific journals.

At the implementation stage, the facilitator delivers material to provide an explanation and explanation of the prevention of child stunting in housewives and pre-marital adolescents. At this stage, it is hoped that participants will gain new knowledge, namely the addition of increasing public awareness about nutritional care for mothers and children, as well as child protection and women's empowerment. To improve the quality of life of adolescent girls and reduce the stunting rate of pregnant women in Tuban Regency, especially in Mulyorejo Village. The speaker delivered the material in a PowerPoint presentation, which was then explained in depth verbally and accompanied by examples or contextual problems.



Figure 2. Socialization of Material Delivery

Phase III

Q&A: Questions and answers were conducted by the socialization participants after the material was completed. All participants have the same opportunity and opportunity to ask questions about the material presented, and almost all participants can understand the education provided. given and some have even applied where previously participants had received initial information from

posyandu cadres in Mulyorejo Village in addition to the existence of community service activities making the knowledge and understanding of participants increase so that in the future the stunting rate in Tuban Regency decreases, especially in Mulyorejo Village where in this case almost no number of stunted pregnant women were found.



Figure 3. Planting TOGA

Conclusion

The implementation of education on TOGA plants as an effort to prevent stunting in Tuban District, especially in Mulyorejo Village, showed positive results. This program can be recommended as an intervention model to improve the nutritional status of the community, especially for children under five, to prevent stunting more broadly. From the results of the study, it was found that education on how to cultivate and utilize TOGA needs to be improved so that people better understand its benefits. Extension programs involving health workers and nutritionists are needed to provide accurate information on how to process and use these medicinal plants effectively. The findings highlight the potential of TOGA plants as a sustainable and accessible intervention to prevent stunting, particularly in rural areas. The positive outcomes of the educational program suggest that promoting the use of TOGA can enhance the nutritional status of children under five, ultimately contributing to a reduction in stunting rates. This can be an important step in improving public health in communities with limited access to conventional healthcare resources. It is recommended that future initiatives focus on expanding education programs to other regions, especially in areas with high stunting rates. Collaboration with local health workers, nutritionists, and agricultural experts will be essential in strengthening the education and dissemination of knowledge regarding TOGA plants. Additionally, further research could examine the long-term impact of TOGA-based interventions on stunting and explore how to integrate TOGA cultivation into local farming practices. By incorporating these practices into community health strategies, it is possible to create a more sustainable and holistic approach to addressing stunting.

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