

FAMILY-BASED HEALTH EDUCATION TO IMPROVE MATERNAL AWARENESS AND PREVENT STUNTING IN THE WORKING AREA OF MARTAPURA 1 HEALTH CENTER

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ABSTRACT Background: Stunting remains a chronic nutritional problem in Indonesia, particularly in regions such as Banjar Regency. Lack of nutritional knowledge, low socioeconomic conditions, and inadequate sanitation contribute significantly to this issue. Objective: This community empowerment activity aimed to improve maternal awareness and family involvement in stunting prevention through family-based health education. Methods: The program was conducted in December 2024 in the working area of Martapura 1 Health Center, involving 10–16 families with children under five. The intervention included group education sessions, discussions, demonstrations, and distribution of educational leaflets. Evaluation was conducted qualitatively through interviews and observations of maternal behavior before and after the intervention. Results: The findings showed increased maternal understanding of stunting, improved knowledge of balanced nutrition, better feeding practices, enhanced involvement of other family members, more consistent growth monitoring, and improved hygiene and sanitation behaviors. Conclusion: Family-based education significantly improved maternal awareness and health behaviors relevant to stunting prevention. This approach is effective and replicable in similar communities. Recommendation: Sustained collaboration with health cadres and institutions is necessary to ensure long-term behavioral change and program sustainability.

KEYWORDS: *Child Nutrition; Community Empowerment; Family Education; Health Behavior; Stunting Prevention*

1. INTRODUCTION

Stunting is a chronic nutritional problem resulting from prolonged inadequate nutrient intake and frequent infections, particularly during the first 1,000 days of life (Majid et al., 2022). Children who experience stunting typically have a height below the age-appropriate standard and are

vulnerable to delays in cognitive and motor development, as well as reduced productivity in later life (Mulyana, 2025). Stunting has long-term, irreversible impacts, especially in terms of physical growth and cognitive development of children, which can last a lifetime and affect the quality of future generations (Annisa & Ikasari, 2025).

According to data from the World Health Organization (WHO) in 2022, approximately 22.3% of children globally are affected by stunting (World Health Organization, 2023). Based on the 2022 Indonesian Nutritional Status Survey (SSGI), the national stunting prevalence in Indonesia reached 21.6%, with South Kalimantan categorized as a high-prevalence region at 24.6% (Kementerian Kesehatan Republik Indonesia, 2023). In Banjar Regency, the stunting prevalence is recorded at 24.46% (AMNESIA ID, 2024).

The working area of Martapura 1 Health Center has been selected as a focus for intervention due to suboptimal posyandu (integrated health post) coverage, low public awareness regarding child nutrition, and the uneven distribution of health education. Most mothers in this area have limited educational backgrounds and insufficient knowledge about the importance of maternal nutrition during pregnancy, exclusive breastfeeding, appropriate complementary feeding (MP-ASI), sanitation, and healthy parenting practices. Socioeconomic conditions also play a dominant role: many families have low incomes, making it difficult to access nutritious food, proper sanitation, and safe parenting environments, while also continuing traditional practices that are often unhealthy.

Previous educational approaches have mostly been one-way and have not fully involved all family members. Yet, the success of stunting prevention does not rely solely on mothers but also requires the support of the entire family, including fathers, grandparents, and other caregivers who are actively involved in child-rearing and feeding. Therefore, a comprehensive, family-based health education approach is needed—one that engages all household members as part of the support system for optimal child growth and development.

Martapura 1 Health Center plays a vital role in implementing public health programs, including stunting prevention. Although several programs are already in place, such as posyandu, maternal classes, home visits, and supplementary feeding, their effectiveness has been limited due to low family health literacy and community engagement. Health education tends to be incidental and delivered solely by health workers without the aid of appropriate educational media, which presents an additional barrier.

Hence, family-based health education is considered a relevant and impactful strategy. This approach places the family at the center of behavior change by instilling health values through discussion, training, and direct practice tailored to the local context. In practice, education can be

delivered through regular posyandu meetings, home visits, or accessible digital and print media such as illustrated leaflets, short videos, or simple modules.

Educational activities must also be adapted to the community's literacy level. The language used should be simple, easy to understand, and incorporate familiar local cultural elements. For example, the importance of breastfeeding can be explained through analogies drawn from daily life, and the preparation of nutritious MP-ASI can be demonstrated using affordable local ingredients. In this regard, community health workers and nursing students involved in community service activities play a critical role in simplifying information and guiding families in everyday application.

Moreover, the involvement of higher education institutions such as STIKES Intan Martapura is crucial in bridging theory and practice in the community. Lecturers and students not only deliver evidence-based health education but also assist with mentoring, developing educational media, and monitoring the effectiveness of the programs. Community service activities also provide students with real-world learning experiences and simultaneously strengthen family capacity in preventing stunting. Nationally, the Indonesian government has integrated stunting prevention into the National Strategy for Stunting Reduction (*Stranas Stunting*), emphasizing specific and sensitive nutrition interventions, one of which is family-based education (Mastina, 2021).

Martapura Health Care Center 1 has significant potential to serve as a model for family-based educational interventions. The presence of an established posyandu network, support from the health center, and partnerships with higher education institutions constitute major assets for implementing a comprehensive education program. Empowering families as agents of change is key to creating an environment that supports the optimal growth and development of children.

The implementation of this community service program is expected to enhance mothers' and families' knowledge and awareness regarding the importance of nutrition, healthy living behaviors, and regular monitoring of child growth. Furthermore, it aims to strengthen cross-sector collaboration, increase the capacity of community health cadres, and establish a sustainable system of monitoring and evaluation. Ultimately, the success of this family-based educational approach in Martapura 1 may be replicated in other regions with similar conditions. Family-based health education is not merely a technical intervention but a means of fostering collective awareness and a culture of care toward child development. Preventing stunting is not the task of a single party—it requires joint efforts from all elements of society, beginning with the family as the foundational pillar.

2. METHOD

This community service program was conducted using a participatory, family-based educational approach involving mothers, fathers, and other family members who play a role in child caregiving. The method was designed to enhance family knowledge and awareness regarding the importance of stunting prevention through education on nutrition, sanitation, and healthy parenting. The activities were carried out in the working area of the Martapura 1 Health Center during June 2025, and were held in the homes of targeted families.

The target participants of this program were families with children under five years of age (0–5 years), especially mothers as the primary caregivers, as well as fathers or other family members involved in caregiving and fulfilling the child's nutritional needs. A total of approximately 10–16 families were selected based on data provided by the Martapura 1 Health Center.

The implementation method consisted of several phases: preparation, implementation, and evaluation. During the preparation phase, coordination was carried out with relevant stakeholders, including Martapura 1 Health Center and local posyandu (integrated health post) cadres. The intervention locations were selected based on stunting prevalence data and cadre readiness. The target families were determined using posyandu and health center data and were selected based on the following criteria: having children aged 0–5 years, willingness to participate in the educational sessions, and residing within the Martapura 1 Health Center's service area. Educational materials were also prepared during this phase. These materials were developed by a team of lecturers and students from STIKES Intan Martapura and included topics such as the concept of stunting and balanced nutrition for children and pregnant/lactating mothers. The materials were formatted into illustrated leaflets.

The implementation phase began with an opening session conducted by the community service team in collaboration with health center representatives. The team explained the objectives, benefits, and structure of the activities to the participants. Group education sessions were then conducted in small groups (1–5 participants per group). The materials were delivered using a participatory approach through discussions, question-and-answer sessions, simulations of child feeding practices, and case studies. Each family received educational leaflets as take-home materials for independent learning.

The evaluation phase was conducted qualitatively through brief interviews with several mothers to assess changes in attitudes and understanding. Observations were also made directly in the homes to assess practical behavior such as feeding patterns and environmental hygiene. Follow-up monitoring was carried out in collaboration with posyandu cadres and nutrition staff from the

health center. The key partner in this activity was the Martapura 1 Health Center, which provided target data and field personnel support.

3. RESULT AND DISCUSSION

The results of this community service activity are presented qualitatively in the following table.

Table 1. Maternal Understanding of Stunting Prevention Before and After Education

Assessment	Before Education	After Education
Understanding of stunting	"I thought stunting was just about children being short for their age and assumed they would eventually catch up in height."	"Now I understand that stunting is not only about height but also affects brain development and long-term health. I realize the importance of early prevention."
Knowledge of child nutrition	"To meet a child's nutritional needs, I usually serve rice, vegetables, and some side dishes in one meal."	"Now I know that a balanced meal should include carbohydrates, proteins, vegetables, and fruits. For protein, it's better to choose animal-based sources. I'm more attentive to daily menus."
Complementary feeding practices (MP-ASI)	"I make MP-ASI (complementary feeding) myself, but sometimes I use instant products because they are practical and my child likes them."	"I will try to prepare MP-ASI more often using natural ingredients like vegetables, eggs, and fish. I've also learned to adjust the texture and timing according to the child's age."
Family role in nutrition fulfillment	"I usually take care of my child's meals on my own. My husband rarely helps because he is busy working."	"Now I will start involving my husband and other family members. My husband also helps buy healthy food and reminds me about the child's meal schedule."
Response to growth monitoring	"I rarely go to the <i>posyandu</i> (community health post) because I forget or am busy. Even if I go, I don't really understand the KMS growth chart."	"I will routinely attend <i>posyandu</i> every month and start learning how to interpret the growth chart. I want to know if my child is growing normally or not."
Hygiene and sanitation habits	"I usually wash my hands before preparing or feeding food, but sometimes I forget to clean the child's hands."	"I will make sure to wash my hands with soap before preparing and feeding food. I also pay more attention to keeping the environment clean to prevent illness."

Our findings demonstrate that the family-based educational approach was effective in improving awareness and changing health practices at the household level. Education that is rooted in daily experiences, delivered in the local language, and supported with visual media proved to be more acceptable and easier to internalize by the community. The success of this community engagement was also supported by collaboration between higher education institutions, healthcare providers, and local health cadres.

These results align with behavior change theories in health promotion, which emphasize that awareness combined with capacity building and social support can lead to sustainable change. Nevertheless, challenges remain, including time constraints, irregular attendance, and adherence to longstanding beliefs. Therefore, sustaining the intervention requires consistent follow-up and strengthening the role of cadres as change agents.

Based on our findings, there was a noticeable improvement in knowledge after the delivery of the family-based education intervention. These results are consistent with the community service program conducted by Fitriani, Isnaeni, Kusnadi, Tuti, Amelia, Purnomo, Mumtaz, and Yati (2023), titled *Family-Based Stunting Prevention Efforts in Krapyak Subdistrict, Pekalongan City* (Fitriyani et al., 2023). Their program reported an increase in understanding among pregnant women, mothers with toddlers, and prospective brides regarding stunting and its prevention through various educational media.

Our results are also in line with another community service program titled *Stunting Prevention Education Through Family Education in Punggur Besar Village, Kubu Raya Regency*, conducted by Alunaza, Nuzulian, Rohilie, Almutahar, Umniyah, Mahesa, and Cantik (2023). Their findings indicated that awareness-raising and education helped the community better understand the causes and prevention of stunting in the local context of Punggur Besar Village (Alunaza et al., 2023).

In summary, these findings confirm that family-based education can be applied effectively to enhance maternal awareness in preventing stunting.



Figure 1 & 2. Implementation of Community Service

CONCLUSION

The community empowerment program through family-based health education successfully achieved its target of increasing maternal awareness and improving household practices in stunting prevention. The participatory educational method used in this intervention proved to be in line with local needs and challenges, especially in areas with low literacy and limited resources. The positive changes observed included enhanced maternal knowledge, better dietary practices, and more active roles of other family members in child care. The collaboration with local health centers and cadres further strengthened the impact of this program. In conclusion, this model of intervention is impactful and suitable to be replicated in similar high-risk communities. Future programs should include follow-up support and capacity building for health cadres to ensure sustainable outcomes.

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CONFLICT OF INTERESTS

The author declares no conflict of interest related to this manuscript. There were no financial, personal, or professional relationships that could influence the content or outcome of this work.

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