



Stunting Reduction through Healthy Baby Education in Wironanggan Village, Sukoharjo

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Abstract

Stunting is a serious issue affecting children's growth and development, caused by various factors such as chronic malnutrition, infection, and lack of parental knowledge. Based on field observation in Wironanggan Village, Sukoharjo, it was found that 15 children were experiencing stunting in 2024. This community service program aimed to increase parental awareness and knowledge about stunting through a healthy baby competition method combined with nutritional education. The implementation method included observation, preparation, execution, and evaluation stages. The event was held at Anggrek Posyandu, involving 30 children aged 1–3 years and their parents. Nutritional status was assessed through body weight, height, mid-upper arm circumference, and head circumference measurements, followed by educational sessions using leaflets and an interactive lecture method. Results showed an increase in parental enthusiasm and knowledge after the activity. Moreover, the healthy baby competition successfully motivated parents to strive for better child development outcomes. The program concluded with the distribution of supplementary foods (PMT), such as fruits and milk, supporting daily nutritional needs. This activity proved the effectiveness of an educational and participatory approach in tackling stunting at the village level.

1. Introduction

Stunting is a problem caused by chronic malnutrition, which is caused by insufficient nutritional intake for a long time due to feeding that is not in accordance with the nutritional needs of children (Ramadhita, 2020). Stunting can also be interpreted as a condition where children experience problems in their growth and development with characteristics of lower or short height (stunted) than their age standards and experience delays in thinking (Ani *et al.*, 2024). The causes of stunting are caused by several factors, namely economic problems,

nutrition of pregnant women, illness in infants and lack of nutritional intake in toddlers (Hatijar, 2023). Stunting is a very complex health problem and cannot be viewed from only one aspect.

The prevalence of stunting according to the World Health Organization (WHO) in 2017 is the prevalence of stunting in the world of more than 20% and reported that Indonesia entered the top three highest stunting rates in the Southeast Asia / Southeast Asia (SEAR) region (Meilasari & Wiku Adisasmito, 2024). In Indonesia itself according to the 2018 Riskesdas reported that the incidence of stunting averaged 36.4%, and it is estimated that by 2025 it will increase to 56% if this trend is not eliminated (Dekasari & Gunawan, 2024). The prevalence of stunting in Central Java Province is ranked the highest with a stunting prevalence percentage of 20.8%. In Sukoharjo District, it reached 19.8% in 2022 (Nurinasari *et al.*, 2025).

Stunting is caused by several problems including inadequate nutritional intake in children or during maternal pregnancy, poor diet, low food quality, and exacerbated by infection. In addition to this, the causes of stunting are also very diverse and interrelated and related to one another (Nanda *et al.*, 2025). The WHO framework categorizes into two factors, namely internal and external. Internal factors of stunting in children are household and family factors (maternal factors and home environment), inadequate complementary feeding of breast milk, breastfeeding and infection (clinical and subclinical infections). The external factors that cause stunting are influenced by political, social, economic, cultural, educational, nutritional, food systems, water, sanitation and environmental conditions (Madusha, 2025).

Stunting is generally triggered by long-term malnutrition, recurrent infections, and lack of psychosocial stimulation, especially in the first 1,000 days of life (HPK) (Lathifa *et al.*, 2025). This results in long-term effects, problems that include decreased cognitive and physical abilities of toddlers, lower performance tests, increased risk of obstructed labor and increased life and increased risk of degenerative diseases such as obesity, diabetes militus, heart disease, stroke and cancer (Janah *et al.*, 2025). Problems with stunting can occur while in the womb and symptoms only appear when the child enters two years (Asrumi *et al.*,

2024). Stunting also causes a decrease in immunity so that children can range from other diseases (Azizah *et al.*, 2025).

Symptoms of stunting can usually be seen at the age of two, but it is also possible after childbirth or even when the child is still in the womb, where the nutritional status of the mother and child plays a major role in child development. The period of 0-24 months, usually referred to as the “golden period”, is a critical period that greatly impacts the quality of life of children (Kresnina *et al.*, 2024). This golden period phase must be closely monitored because the impact is that babies at this time can survive for a long time, so that nutrition according to standards must be met for the newborn age group (Anggryni, 2024). Parents have a strategic role in overcoming stunting symptoms in children (Hidayah, & Fatimah, 2024).

Wironanggan Village is a village in Sukoharjo, Central Java, which has 22 neighborhoods. Based on observations from the village, midwives and posyandu cadres, the prevalence of stunting is quite high in this village, reaching 15 people in 2024. The incidence rate is quite high in one village. The reason for the incidence of stunting in this village is uncertain, information from the village head reveals that each child clearly has a different background of causes of stunting, some are caused by economic factors, nutritional conditions of the mother during pregnancy and low knowledge of stunting. The partner also explained that there is a need for improvement and education about stunting in mothers of toddlers and education about nutritious food for children.

Responding to the problems that exist in the field, therefore to trigger and reduce the stunting rate in the village, researchers chose to carry out the healthy baby competition method as an effort to reduce the prevalence of stunting. This is in line with research from Agustiani *et al.*, (2024) with the title increasing the knowledge of mothers of toddlers about toddler care myths, healthy toddler competitions and toddler examinations at Stikes Respati in 2023 with the results of increased knowledge in mothers of toddlers.

2. Methods of Implementation

Methods The implementation of healthy baby competition activities with education about stunting and nutrition in toddlers in Wironanggan Village, Sukoharjo Regency, Central

Java, was carried out through several stages, including: (1) observation; (2) preparation; (3) implementation; (4) evaluation. The sequence of the implementation of this activity can be seen in Figure 1 below.



Figure 1. Flow of Activity Implementation

The observation phase was carried out on August 5, 2024 and August 8, 2024. In this observation stage, observations were made about posyandu activities in Wironanggan Village so that we could find out the conditions of stunted children and their parents by asking various questions related to the conditions of stunted children. After finding the problem, the solution formulation and the target of the program outcomes to be achieved are carried out. At this stage, licensing and socialization of healthy baby competitions to the community regarding healthy baby competition activities and inviting partners to collaborate in the success of the agenda, including the village head, midwives and posyandu cadres in Wironanggan Village.

The preparation stage is carried out to follow up on the formulation of solutions and target outcomes that have been determined based on the problems experienced by partners. At this stage, educational materials were made about stunting and nutrition in stunted children. In addition, an assessment system was designed that would be used as a reference in determining the winners who were recapitulated together from the results of posyandu examinations during April-July, which is around 4 months. The process of determining the winner is evaluated together with midwives and posyandu cadres.

The implementation stage of the healthy baby competition was held on August 15, located at the Anggrek posyandu in Wironanggan Village from 09.00-11.30 WIB. Participants or stunting children were checked for height, weight, LILA and LIKA measurements first as a form of monitoring of child growth and development. When the examination is complete, children and parents are gathered in one room to get educational material about stunting and nutritional fulfillment in stunting children which is socialized using leaflet media which contains definitions of stunting, causes of stunting, symptoms of stunting, risk factors for stunting, prevention of stunting and the contents of my plate as the fulfillment of balanced

nutrition in children. After the health promotion was completed, a question and answer session was held and the winners of the healthy baby competition were announced. Before leaving the venue, a group photo session was held and the children were given additional food (PMT) in the form of fruits and milk.

The final stage of implementation is the evaluation of the healthy baby competition in reducing stunting rates and parents' knowledge about stunting in parents and children in Wironanggan Village. It is hoped that the examination, education, and competition of healthy baby competitions will trigger enthusiasm in competing to improve health in children who are stunted and increase knowledge in parents. Leaflets that have been given as health promotion media are also expected to be used as a reference by midwives and posyandu cadres in anticipating the incidence of stunting so as to reduce the incidence of stunting in Indonesia, especially in Surakarta.

3. Results and Discussion

There were 30 children respondents, consisting of 14 girls and 16 boys. The respondents are aged 1-3 years.

Table 1. Characteristics of Children Respondents

Characteristics	N	Percentage
Sex		
Man	16	53.3%
Woman	14	46.7%
Amount	30	100%
Age		
1-3 years old	30	100%

In addition, there are also parent respondents who also accompany their children and are the target targets in providing education about stunting in Wironanggan Village.

Table 2. Characteristics of parent respondents

Characteristics	N	Percentage
Sex		
Man	6	20%
Woman	24	80%
Amount	30	100%
Age		
30-50 years old	23	66.7%
51-65 years ols	7	33.3%
Amount	30	100%

Based on the results of the examination evaluation, there are still many results that show TB, BW, LILA and LIKA in children that are not in accordance with their growth and development, so education is given to parents about stunting and fulfillment of stunting nutrition using the lecture method. The lecture method is a technique used to demonstrate and explain an idea, concept, or information verbally to certain groups so that they gain knowledge about health (Muhamad Sahli, 2025). This method was chosen because the audience or target is parents, the aim is that the education delivered can be received by parents regarding clear information. In addition to the lecture, this forum was also equipped with a question and answer session, there were two questioners from the parents of children who asked about the material that had been delivered.



Figure 2. The atmosphere of the education process

The Healthy Baby Competition was held after the presentation of material and question and answer sessions were completed. In this healthy baby competition, the assessment aspect is seen from the graph of the increase in children's growth and development progress. If the graph continues to increase over the last 4 months then the child is the winner. Data obtained from 3 children who became winners in this healthy baby competition, namely 1st, 2nd and 3rd place, while the prizes given were certificates and cash. The healthy baby competition has the essence of not only looking for the best, but after holding this competition it is hoped that it will increase the awareness of parents of children under five

to know the growth and development of their children with full supervision (Purnama Sari & Indriati, 2020).



Figure 3. Chamption of baby health competition

The closing of this activity was carried out with a documentation session along with the distribution of PMT in the form of fruits and milk for children. This is in line with government policy because PMT is a supplementary feeding program regulated in Presidential Regulation Number 72 of 2021 concerning the National Action Plan for the Prevention and Control of Stunting 2020-2024 (Triuspita & Sihidi, 2024). The PMT program also aims to provide children with adequate nutritional needs every day.

The effectiveness of this activity can be seen and measured by the enthusiasm of children and parents in participating in the entire series of activities, starting from examination and education. The activities carried out make parents and children able to understand more about stunting and be more enthusiastic in improving health in children. This examination activity has been routinely carried out by midwives and local posyandu cadres every 1 month at the posyandu, but the healthy baby competition has never been carried out.

After examining and educating the partners, there was an increase in the partners' knowledge about stunting. The partners also realized the importance of the role of parents, especially in fulfilling nutrition in helping children grow and develop. Furthermore, the healthy baby competition also succeeded in increasing the enthusiasm of parents in achieving better child development targets.

4. Conclusion

The conclusion of this activity is that the healthy baby competition succeeded in increasing the enthusiasm of parents in pursuing child growth and the event ran smoothly with a positive impact on stunted children in Wironanggan Village. The author hopes that the partners can continue these activities and add physical activity games for children.

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