

Improving Child and Family Health through Growth and Development Screening, Nutrition Education, and Healthy and Hygienic Living Practices in Rejomulyo Village, Kediri City

Eva Agustina Y.^{1*}, Heri Saputro², Intan Fazrin³, Hengky Irawan⁴

^{1,2,3} Pediatric Nursing, ⁴ Community Nursing, STRADA University

* Corresponding author: yalesagustina82@gmail.com

ABSTRACT

One indicator of achieving good child and family health is optimal child growth and development. However, parents are often unaware of delays in their children's development. Common disorders include physical growth, motor, language, and behavioral problems. Based on the 2023 Riskesdas survey, among 82,661 infants and toddlers weighed nationwide, the prevalence of underweight was 19.6%, consisting of 5.7% severe and 13.9% moderate malnutrition. Families with toddlers need adequate education to monitor and stimulate growth and development effectively. Promotive and preventive efforts through community service activities are important strategies to improve child health outcomes. This activity aimed to enhance family knowledge and support early detection of children's growth, development, and nutritional status. The program was conducted on January 25, 2026, in Rejomulyo Village, Kediri City, targeting families with infants and toddlers. Activities included growth and development screening, nutritional status assessment, developmental stimulation through educational games, and education on Clean and Healthy Living Behaviors (PHBS), food safety, and child-friendly environments. Supporting tools included booklets, knowledge questionnaires, and the Pre-Development Screening Questionnaire (KPSP) instrument. The results showed high participant attendance and strong community enthusiasm. No cases of developmental delay or stunting were identified. Families' knowledge regarding child health, nutrition, and PHBS improved after the intervention. This activity effectively increased family awareness of monitoring child growth and implementing healthy living practices to support optimal child development.

Keywords : Growth and Development Screening, Nutrition Education, Healthy Living Practices

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INTRODUCTION

The family is the first and primary environment for fostering the quality of a child's growth and development. Parental caregiving patterns significantly influence a child's growth and development. A study indicates that a child's growth and development are influenced by several factors, including nutrition, health, and education. Other research also indicates that a child's brain potential can be maximized through early stimulation beginning in the first three

years of life; during this period, the number of brain cells grows at a rate twice that of adult brain cells.

According to the results of the 2023 Riskesdas survey, out of 82,661 infants and toddlers weighed nationwide, the prevalence of underweight children was 19.6%, comprising 5.7% with severe malnutrition and 13.9% with moderate malnutrition. These figures fall far short of the 2018 SDG target for the prevalence of severe and moderate malnutrition, which was set at 17%. In Indonesia, 18 provinces have a prevalence of severe and moderate malnutrition ranging from 21.2% to 33.1%, including West Nusa Tenggara, North Sumatra, and Jambi. According to 2018 WHO data, growth issues are not limited to severe malnutrition but also include stunting and overweight. The prevalence of severe malnutrition among infants and toddlers is 7.3%, overweight is 5.9%, and stunting (short stature) is 21.9% (WHO, 2023).

Research findings from global researchers for the WHO indicate that globally, 2.9 million children under the age of 5—54% of whom are boys—had developmental disorders in 2016. Approximately 95% of children with developmental disorders live in low- and middle-income countries. Nationally in Indonesia, the prevalence of nutritional status among infants and toddlers consists of 3.9% malnourished, 13.8% underweight, 79.2% well-nourished, and 3.1% overweight. The prevalence of developmental delays among children under 5 years of age in Indonesia, as reported by the WHO in 2016, was 7,512.6 per 100,000 population (7.51%). It is estimated that approximately 5 to 10% of children experience developmental delays. The exact incidence rate of general developmental delays is not yet known, but it is estimated that around 1–3% of children under the age of 5 experience general developmental delays (WHO, 2023).

The quality of a child's growth and development must be monitored, including through proper nutrition, developmental stimulation, and early detection of developmental deviations. Child growth and development screening aims to detect deviations in a child's growth and development, thereby not only preventing such deviations but also providing stimulation so that the child can grow and develop optimally according to their age. If deviations requiring further intervention are identified, referral must be made as early as possible in accordance with applicable guidelines to ensure prompt intervention.

The health of infants and toddlers is a key indicator in assessing the overall health of the community. The early childhood period is the "golden age" that determines the quality of a child's future growth and development. Issues such as stunting, malnutrition, and developmental delays remain significant health challenges in Indonesia. Early detection efforts through growth and development screening and nutritional status assessments are crucial for preventing more serious health complications. Additionally, enhancing families' knowledge regarding nutrition, developmental stimulation, and Healthy Living Practices (PHBS) is a key factor in supporting children's health. Community service is one of the three pillars of higher education () that plays a role in providing education and direct interventions to the community. This activity focused on families with toddlers in Rejomulyo Village with the hope of increasing families' awareness and skills in maintaining children's health.

The objectives of this activity are to conduct growth and development screenings for toddlers, assess children's nutritional status, provide early childhood development stimulation, and enhance families' knowledge regarding PHBS, food safety, and child-friendly environments

METHOD

Activity Design

This activity is a community service program based on promotive and preventive approaches through educational and health screening methods.

1. Location and Time
The activity was held in Rejomulyo Village on January 25th, 2026, specifically at the Sumberjiput tourist area in Rejomulyo Subdistrict, Kediri City.
2. Target
The target audience for this activity is families with toddlers.
3. Activity Phases
 - a. Preparation
 1. Coordination with village officials and community health workers
 2. Development of screening and educational materials
 3. Preparation of screening tools
 4. Preparation of educational games to be used
 - b. Implementation
 1. Growth and development screening using the KPSP
 2. Nutritional status screening (weight, height)
 3. Development stimulation through educational games
 4. Education on healthy lifestyle practices, food safety, and child-friendly environments
 - c. Evaluation
 1. Observation of participant engagement
 2. Direct assessment of knowledge improvement
4. Instruments
 - a. Pre- and Post-Education Questionnaires
 - b. KPSP (Pre-Development Screening Questionnaire)
 - c. Anthropometric measurement tools (scales, measuring tape)
 - d. Educational materials (leaflets, educational games)

RESULTS

The community service activity was attended by families with toddlers, with a high attendance rate. Participants showed enthusiasm throughout the activity, particularly during the educational and child development stimulation sessions. Results of Growth and Development Screening and Early Childhood Development Stimulation. The community service activity began with an educational session and screening regarding the growth and development of toddlers as well as the stimulation that parents should provide. Prior to the educational session, a questionnaire was administered to assess the knowledge of mothers of toddlers regarding growth and development stimulation. The results of the growth and development screening indicated that all children were in the normal development category, with no developmental delays found.

The following are the Growth and Development Screening Activities:



Figure 1. Leaflet on Growth and Development Stimulation for Young Children

Nutritional Status Screening Results

The results of the nutritional status screening activity conducted revealed a varied picture of the nutritional condition of toddlers in the village. Of the total 37 toddlers measured, the majority had normal nutritional status, and only 1 child was in the overweight category; the measurements used were in accordance with WHO growth standards. Additionally, the nutritional status screening results showed no cases of stunting among the participants.

The following are the nutrition education and screening activities for toddlers:



Figure 2. Nutritional Screening and Education Activities for Toddlers

The education provided, covering healthy lifestyle practices (PHBS), food safety, and child-friendly environments, successfully improved family understanding. This was evident from the participants' active responses and their ability to answer questions following the education session. Before the activity concluded, a post-test was conducted to assess participants' understanding of the presented material and to serve as a basis for further discussion between the service team and partners regarding the current program implementation and future follow-up actions.

The following are the educational activities provided, covering PHBS, food safety, and child-friendly environments:



Figure 3. PHBS, Food Safety, and Child-Friendly Environment Educational Activities as Efforts to Improve Child Health

DISCUSSION

The results of the activities indicate that an educational approach and direct screening of the community are effective in improving family knowledge. This aligns with various studies stating that community-based health education can improve family health awareness and behavior.

The absence of cases of stunting or developmental delays in this activity indicates that children's health in the region is relatively good. In general, children go through stages of growth and development, which are interrelated processes. These stages include infancy (0–12 months), toddlerhood (1–3 years), and preschool age (4–6 years) (Badan Pusat Statistik, 2023). Early stimulation in children is an important component in promoting optimal basic developmental abilities during their growth. This can be carried out routinely through early screening and detection of children's growth and development according to their age (Entoh et al., 2020). However, promotive and preventive efforts must continue to be carried out on an ongoing basis to maintain this condition.

Developmental stimulation through educational games has been proven to increase children's and parents' engagement in the learning process, thereby supporting optimal child development.

Additionally, education regarding healthy living practices and food safety is crucial in preventing environment-related diseases that can affect children's health.

CONCLUSION

The community service activities in Rejomulyo Village were conducted effectively and successfully in enhancing families' knowledge about child health. Screening results indicated no cases of developmental delays or stunting among infants and toddlers. These activities had a positive impact on raising family awareness regarding the importance of monitoring growth and development, ensuring adequate nutrition, and implementing PHBS in daily life.

This community service activity demonstrated positive results in improving family knowledge and maintaining the health status of infants and toddlers in Rejomulyo Village. Therefore, structured and collaborative efforts to sustain the program are necessary. Strengthening similar activities in the future is recommended to involve various sectors in an integrated manner. Collaboration with health workers at health care facilities such as community health centers (puskesmas) is crucial in ensuring the continuity of growth and development screening and regular monitoring of children's nutritional status. Additionally, the involvement of Posyandu cadres and village officials needs to be optimized as the frontline in family education and support at the community level.

In the education sector, collaboration with early childhood education (PAUD) institutions and playgroups can serve as an effective strategy for providing continuous developmental stimulation for children. Teachers and educators can be involved in implementing educational games that support children's motor, cognitive, and social development. Furthermore, support from the environmental and food security sectors is also required, particularly in creating a child-friendly environment and ensuring food safety at the household level. This can be achieved through synergy with village programs, such as empowering families in the preparation of healthy meals and the management of environmental sanitation.

With an integrated cross-sectoral approach, it is hoped that efforts to improve child health will not only be temporary but sustainable, yielding long-term impacts on the quality of human resources in the community.

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