



Stunting prevention through posyandu in Margaasih

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ABSTRACT

There is still a stunting rate in Margaasih Village, so the village community is trying to reduce this rate with ongoing programs. The Posyandu program, one of the village health service programs running every month, seeks to reduce stunting rates. A team of Universitas Pendidikan Indonesia students conducted community service in Margaasih Village to help reduce stunting rates. One of the activities carried out by the service team is assisting ongoing village programs, namely the Posyandu program, counseling, and providing additional food. The team also implemented the program based on the results of surveys and problem identification carried out in Margaasih Village and assisted with Posyandu activities in Margaasih Village, as well as providing additional food from processed catfish to help reduce stunting rates. The team also held counseling regarding complementary foods for breast milk with participant mothers who still have children aged infants to toddlers. It is hoped that this counseling can provide mothers with an understanding of what food preparations are suitable for babies and help reduce stunting rates.

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ABSTRAK

Masih terdapat angka stunting di Desa Margaasih, sehingga masyarakat desa berupaya untuk menurunkan angka tersebut dengan program yang sedang berjalan. Program Posyandu sebagai salah satu program layanan kesehatan desa yang berjalan setiap bulannya berupaya dalam menurunkan angka stunting. Tim mahasiswa Universitas Pendidikan Indonesia melakukan pengabdian di Desa Margaasih untuk membantu mengurangi angka stunting. Kegiatan yang dilakukan oleh tim pengabdian salah satunya adalah dengan membantu program desa yang sedang berjalan yaitu program Posyandu, penyuluhan, dan pemberian makanan tambahan. Tim juga melaksanakan program tersebut berdasarkan hasil survei dan identifikasi masalah yang telah dilakukan di Desa Margaasih dan membantu kegiatan posyandu di Desa Margaasih, serta memberikan makanan tambahan dari olahan ikan lele untuk membantu mengurangi angka stunting. Selain itu, tim juga mengadakan penyuluhan mengenai makanan pendamping asi dengan peserta ibu-ibu yang masih memiliki anak berusia bayi hingga balita. Penyuluhan ini diharapkan dapat memberikan pemahaman kepada ibu-ibu mengenai olahan makanan yang baik untuk bayi dan membantu menurunkan angka stunting.

Kata Kunci: Pengabdian masyarakat; posyandu; stunting

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INTRODUCTION

Based on data from the Bandung Regency Office, Margaasih Subdistrict is one of the areas in the Bandung Regency with a high number of people indicated as *stunted*. Therefore, the Margaasih Subdistrict authorities are working to reduce the *stunting* rate in the Margaasih Subdistrict through several existing programs, such as Posyandu and supplementary feeding (PMT). Supplementary feeding is intended to help provide adequate nutrition for children under five years of age. The supplementary food program features a different menu each month (Iskandar, 2017).

The stunting rate in Margaasih Subdistrict is obtained from the villages within the subdistrict, one of which is the stunting rate found in Margaasih Village. According to data from the Margaasih village office in August 2023, there are four individuals identified as stunted, residing in several Neighborhood Units (RW). Stunting, also known as malnutrition, is a common issue among infants in developing countries. The problem of stunting can be found in infants still in the womb up to toddlers aged two years with height and weight not commensurate with their age. One of the main causes of stunting is below-average economic factors, resulting in inadequate nutrient intake for children. Families with lower-middle economic status face difficulties in meeting their nutritional needs, leading to their children being identified as stunted. Additionally, early marriage can also increase the risk of stunting, as parents may lack the financial and physical readiness to care for their children (Hendrawati *et al.*, 2023; Nguyen *et al.*, 2019; Yaya *et al.*, 2019).

Integrated health service activities (Posyandu) in Margaasih Village are one of the efforts to identify the rate of stunting in toddlers. Integrated health service activities in Margaasih Village can be found almost every day throughout the month, rotating among each RW (neighbourhood unit). Posyandu activities typically include measuring the height, weight, head circumference, and arm circumference of infants, as well as vitamin distribution (twice a year). Posyandu activities are not only for infants but also for pregnant women. This is aimed at identifying stunting rates from the time the baby is in the womb until the age of two (Astikasari, 2023; Nasution *et al.*, 2022).

Previous research conducted by Zogara *et al.* (2021) stated that the factors causing stunting in infants are education, the level of knowledge and nutritional behaviour of mothers, and the timing of complementary foods for breast milk (MPASI). Meanwhile, research conducted by Nurdin (2019) found that maternal factors causing stunting in children include understanding of nutritional intake, parenting practices, and the variety of complementary foods for breast milk (MPASI) provided. Based on the above issues, the Community Service Team from the Universitas Pendidikan Indonesia conducted efforts to assist Margaasih Village in reducing stunting rates through Posyandu activities. Additionally, the team provided counselling on complementary foods for breast milk (MPASI) for mothers to encourage them to pay closer attention to the nutritional intake provided to their children. The team also made efforts to provide supplementary food by creating fish nuggets from processed catfish for infants and toddlers participating in the Posyandu program.

Literature Review

Indonesia is one of many developing countries facing the problem of stunting. If this problem cannot be appropriately resolved, Indonesia will face new problems that will spread widely among the population. One of the problems arising from this double burden of malnutrition is stunting. Stunting itself is a community problem related to chronic malnutrition caused by inadequate nutrient intake over an extended period, often due to inappropriate food choices that fail to meet nutritional needs (Adepoju & Allen, 2019; Leroy & Frongillo, 2019; Rahmadhita, 2020). Stunting is defined as a growth disorder in children

characterized by short or very short stature (Scheffler & Hermanussen, 2022; Simamora *et al.*, 2019; Yanti *et al.*, 2020). The occurrence of stunting is influenced by malnutrition in children under five years of age and children aged two years, both male and female. Nutritional status is assessed by observing the height or length of the body, age, and gender of children under five years of age so that the habit of measuring height or length becomes important in reducing stunting rates. However, the absence of the practice of measuring the height of infants in the community poses a unique problem, making it difficult to identify individuals at risk of stunting (Chainar *et al.*, 2023; Sutarto *et al.*, 2018).

Several causes of high stunting rates in Indonesia exist, including poor child care, limited health services, lack of household access, lack of public knowledge about the causes of stunting, and limited access to clean water and sanitation. These factors must be reduced as much as possible, as they can hinder the cognitive development of children who are indicated as stunted (Bekele *et al.*, 2020; Kwami *et al.*, 2019). According to the World Health Organization, stunting is closely related to the development of children's thinking, motor skills, and speech. Stunting causes children who are categorized as stunted to not develop optimally. In addition, children affected by stunting are more susceptible to diseases, leading to an increase in the mortality rate of children with stunting (Nshimyiryo *et al.*, 2019; Vaivada *et al.*, 2020; Yadika *et al.*, 2019).

According to Indonesian basic health research, the percentage of toddlers with short and very short nutritional capacity (stunting and severe stunting) has increased dramatically from 2007 to 2013. In 2007, 36.8% of Indonesian children under five were stunted, which then increased to 37.2% in 2013. The concept of nutritional transition itself refers to changes in human behaviour related to nutrition that develop in line with human history. The issue of nutritional transition in Indonesia has been going on for a long time, as can be seen from changes in dietary patterns. When these dietary changes are not appropriately addressed, they can increase the prevalence of stunting and, in severe cases, lead to chronic and degenerative diseases that result in death (Akbar *et al.*, 2023; Kusumawardani & Luthfiyana, 2020).

There is one way that the public can take to reduce the prevalence of stunting, namely by implementing the 1000 Days of Life (HPK) program (Sutarto *et al.*, 2018). The 1000 Days of Life (HPK) program is a national initiative launched by the government to address nutrition issues in Indonesia, targeting infants from conception until they reach 24 months of age. The 1000 Days of Life (HPK) movement is based on concrete evidence of a decrease in stunting rates. Therefore, the 1000 Days of Life (HPK) approach emphasizes partnership principles to ensure food security, social safety, health, education, clean water and sanitation, gender equality, and good governance. The implementation of the 1000 Days of Life Movement (HPK) emphasizes the importance of collaborating with various parties to address nutritional issues, as nutrition improvement programs are the responsibility of multiple stakeholders. These stakeholders include ministries and agencies, the private sector, international development partners, and civil society organizations, and are supported by professional organizations, higher education institutions, and the media (Ruaida, 2018).

Activities supporting the 1000 Days of Life (HPK) movement are divided into two categories: specific interventions and sensitive interventions. Specific interventions are actions specifically targeted at the 1000 Days of Life (HPK) group, carried out by the health sector in the short term. Examples of specific interventions include providing iron-folate supplementation and supplementary food for pregnant women, promoting breastfeeding, administering deworming medication, iron fortification, and distributing insecticide-treated bed nets and malaria prevention measures. Sensitive interventions, on the other hand, are development activities outside the health sector that target the broader community, not just the 1000 Days of Life (HPK) group. Examples of sensitive interventions include improving sanitation, providing clean water, ensuring access to healthcare, and nutrition education for the community (Ruaida, 2018).

During the implementation of intervention programs in the fields of health and education with a focus on the first 1000 days of life (HPK), Posyandu, together with relevant cadres, can carry out these programs

with the aim of reducing the rate of stunting in Indonesia. Posyandu activities themselves can serve to discuss health-related issues. However, Posyandu activities are expected to not only discuss health-related issues but also be expanded to discuss other aspects of life (Rodiyah *et al.*, 2023). The expansion of the role of cadres here is intended to provide input to the community in preventing children from becoming stunted. In addition, cadres also have an important role in educating the community on matters related to improving health quality and monitoring toddler nutrition (Novianti, 2021).

Posyandu cadres are the driving force behind all activities implemented at Posyandu. When cadres provide services that leave a positive impression on the community, this also has a positive implication for the cadres in terms of community awareness and participation. Cadres play an active role in promotional and preventive activities, which are aimed at encouraging, motivating, and educating the community. To fulfil this role, cadres need to have and acquire the appropriate knowledge and skills to carry out activities such as data collection on infants, weighing, recording the Health Card (KMS), providing nutrition services or counselling, and administering vitamins. In addition to participating in these activities, cadres also have the responsibility to conduct monitoring and home visits to breastfeeding mothers and mothers with infants (Simbolon *et al.*, 2021).

According to Badan Kependudukan dan Keluarga Berencana Nasional (BKKBN), Posyandu is an integrated health service effort that is regulated and established for the community and created together by the community, with the aim of empowering and providing easy access for the community to obtain health services, which is supported by technical assistance from health workers. The roles of Posyandu include conducting basic immunizations, measuring and weighing, providing health education and counselling on nutrition, and determining the nutritional status of infants (Novianti, 2021). Posyandu can be used to address the issue of stunting by creating a healthy and independent community and advancing the level of public health. This can be done through community empowerment (Megawati, 2019). In social activities for mothers, Posyandu also plays a role in checking and monitoring children's growth and development. This monitoring is based on a monthly weighing of infants, which is recorded in a health card (KMS). The results of children's growth can be seen from the periodic measurement curves recorded in the KMS. When a child experiences growth obstacles, this can be seen in a short period so that further action can be taken, the causes can be analyzed, and measures can be taken to overcome these obstacles (Buchanan *et al.*, 2023; Sacchi *et al.*, 2020).

Nutrition education is an educational approach aimed at improving knowledge about nutrition and eating behaviours to achieve optimal nutrition. This approach can be implemented using various media and methods to clarify and enhance understanding of the material presented. One important nutrition education program for the general public is the “Isi Piringku” nutrition education program. “Isi Piringku” is a guide to daily food consumption, which divides the plate into three important sections: 50% filled with fruits and vegetables, 50% divided into two sections—one filled with protein-rich protein sources and the other with carbohydrates. In its campaign, Kementerian Kesehatan promotes the four pillars of balanced nutrition: consuming a variety of foods, the importance of an active lifestyle and exercise, maintaining cleanliness and health, and maintaining an ideal body weight. Nutrition education related to “Isi Piringku” aims to increase public knowledge in applying a healthy diet and meeting daily nutritional needs to prevent stunting. This education can take the form of printed media, including posters, quartet game cards, pamphlets, brochures, and others (Atasasih, 2022).

METHODS

There are several stages in the community service program (KKN), starting from preparation to implementation.

Approach Method

In this approach method, a survey was conducted at the Posyandu in Margaasih Village, followed by problem identification and discussions related to *stunting* cases and Posyandu activities. The survey was conducted to obtain data from the field through interviews. The method used was a survey, which is one of the data collection methods involving the selection of a population as a sample using questionnaires and collecting responses from respondents, thereby obtaining facts in the form of primary data used to solve the problems in the community service being carried out. Other stages of the approach included the implementation of a community service program (KKN) by assisting Posyandu activities in Margaasih Village, including providing counselling on complementary foods for breast milk (MPASI), measuring children indicated as stunted, and carrying out Posyandu activities such as measuring, weighing, recording data, and providing PMT. Following the completion of the MPASI awareness campaign, the community gained an understanding of the importance of proper nutrition for MPASI among expectant mothers.

Survey to the Posyandu in Margaasih Village

The visit of students to the Posyandu in Margaasih Village was to meet with the Sub-district Working Group, Family Planning Center, and cadres in the Margaasih Village area of Margaasih Sub-district to convey the purpose and objectives of the meeting between the students and the Posyandu. During this phase, the students were met by midwives and sub-district task force members, and interviews were conducted regarding the challenges faced in addressing stunting cases in Margaasih Village so that the students could understand the existing stunting issues. Based on information from the cadres, the community is not fully aware of the importance of nutrition for complementary feeding, which is also related to stunting cases. This affects stunting prevention efforts.

Problem Identification and Proposed Solutions

During the problem identification stage, issues were identified after discussions with village officials and Posyandu staff in Margaasih Village, enabling alternative solutions to be sought, namely 1) Determining solutions by designing relevant KKN programs. Solutions were selected based on the core issues faced, involving Posyandu staff, sub-district task force members, midwives, nutritionists, and community health workers regarding solutions at the implementation stage, which involved children identified as stunted; 2) Implementation of the KKN program activities by providing education on the link between stunting and nutritional intake for MPASI, conducting measurements of children suspected of stunting, and implementing Posyandu activities in Margaasih Village. The tools used for measuring children include scales, height measurement tools, and tools for measuring head circumference and arm circumference; and 3) Program Implementation Evaluation, the program implementation evaluation phase is conducted after the community service program activities, including the collaboration with Posyandu activities, have been completed. This includes evaluating the nutritional status of children identified as stunted, which is monitored through weight charts on the Health Progress Card (KMS) in the Margaasih Village area.

RESULT AND DISCUSSION

The Posyandu in Margaasih Village is held every month in each neighbourhood unit (RW) on different dates. The Posyandu activities in Margaasih Village usually provide vitamins twice a year to ensure adequate nutrition for children. Women cadres and midwives usually attend the Posyandu activities to monitor the growth and development of children in the area. The women volunteers at the posyandu are

responsible for measuring and checking children's growth and development. Meanwhile, the midwives at the posyandu provide guidance if there are children whose growth and development do not align with their age.

Posyandu activities in Margaasih Village consist of several stages, not just measurement and weighing. Posyandu activities in Margaasih Village include registration, height measurement, head circumference measurement, arm circumference measurement, weighing, monthly child growth and development data collection, and the provision of supplementary food (PMT). These stages are aimed at identifying stunting in children at an early age so that children who are indicated as stunted can be treated quickly. Posyandu in Margaasih Village does not only target infants and toddlers but pregnant women are also included as targets of posyandu to combat stunting. Underweight pregnant women can be included in the indications of stunting.

Registration Steps at the Posyandu



Figure 1. Registration Activities at the Posyandu
Source: Author's documentation, 2023

The registration process at the posyandu is the first step in recording infants, toddlers, and pregnant women who visit the posyandu. The registration process at the posyandu aims to identify the names of infants, toddlers, and pregnant women who visit the posyandu, the names of their parents or husbands, and their addresses (see **Figure 1**). Registration cards are organized according to address based on the RT (neighbourhood unit) of the infant, toddler, or pregnant woman who visits the posyandu. Following this, there are stages involving measurement of height, arm circumference, head circumference, weighing, and recording of height and weight for infants, toddlers, or pregnant women.

Stages of Supplementary Feeding at Posyandu



Figure 2. Supplementary feeding activities at the Posyandu
Source: Author's documentation 2023

Finally, the supplementary feeding (PMT) program at the Posyandu (see **Figure 2**) aims to ensure that infants, toddlers, and pregnant women who visit the Posyandu receive a balanced diet. The program features a different menu each month; for example, in August, the theme is fish. Therefore, the community service team assists in providing supplementary feeding with fish nuggets and rice garnished with boiled corn and broccoli.

Discussion

Posyandu activities are essential for pregnant women, infants, and toddlers to prevent *stunting* in children. In line with [Novianti \(2021\)](#), who stated that posyandu activities play a role in immunization, measurement, weighing, counselling, determining the status of children, and nutritional counselling. Information about stunting, socialization of the “Isi Piringku” program, and implementation of the 1000 Days of Life (HPK) program ([Atasasih, 2022](#); [Megawati, 2019](#); [Sutarto et al., 2018](#)).

The steps taken by posyandu organizers in Margaasih Village are aimed at reducing the stunting rate in Margaasih Village. This is based on [Megawati's \(2019\)](#) opinion that stunting can be prevented by empowering the community to create a healthy and clean environment so that children can avoid stunting. This has become an effort.

CONCLUSION

In order to prevent cases of stunting in the Margaasih Village, specifically in RW 13, Posyandu activities are held regularly every month. The role of Posyandu is important in reducing stunting rates because Posyandu implements specific measures to address cases of stunting, such as assisting prospective brides, pregnant women, and postpartum mothers. The mechanism of the Posyandu activities includes registration, height measurement, weight measurement, distribution of supplementary food, addressing challenges faced by participants, checking children's nutritional status, and providing counselling to mothers of infants and pregnant women regarding nutritional needs. Cadres are the key to the success of these Posyandu activities. Cadres also play a role in guiding the community on the importance of exclusive breastfeeding for infants and toddlers, nutritional checks for infants and toddlers, and increasing the

knowledge of mothers of toddlers to reduce the prevalence of stunting. As organizers of Posyandu activities, cadres also need to implement and run several Posyandu programs. It is hoped that the implementation of these programs will reduce the prevalence of stunting and that future Posyandu activities will include the DASHAT (Healthy Kitchen) program, which aims to provide supplementary food (PMT) so that the community can apply the knowledge gained from the DASHAT program in their daily lives, which will be related to the reduction of malnutrition cases or stunting cases occurring in children in Indonesia, particularly in Margaasih Village, Margaasih Sub-district, Bandung Regency, West Java.

AUTHOR'S NOTE

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