



Dedicated:

Journal of Community Services (Pengabdian kepada Masyarakat)

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UPI community services actions to combat stunting in Ciherang Village, Cianjur

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ABSTRACT

Stunting is a significant nutritional problem and is currently prevalent in Indonesia. The problem of stunting will have a negative impact on the physical growth and brain development of children so that it can affect the quality of human resources, worsen intergenerational poverty, and have a negative impact on the country's economic growth, so this problem must be prevented and addressed immediately. This community service aims to increase public awareness and education about preventing stunting through Kuliah Kerja Nyata (KKN) program in Ciherang Village, Cianjur. The community service carried out by KKN-T students from the Indonesian Education University, through seminars and talk shows with the theme "Ciherang, Zero Stunting,," focused on emphasizing public understanding of stunting. The enthusiasm of the participants, especially Posyandu cadres, pregnant women, and adolescents, showed an increase in understanding of the importance of nutrition and a healthy lifestyle. This activity succeeded in making a positive contribution in supporting the program to accelerate the reduction of stunting at the local level. The high enthusiasm of the participants showed the success of the program in providing the information and skills needed to detect stunting early. Through this initiative, UPI KKN students play an active role in educating the community and encouraging real action to combat stunting, which is expected to reduce the prevalence of stunting in Ciherang Village.

ARTICLE INFO

Article History:

Received: 8 Aug 2024

Revised: 4 Dec 2024

Accepted: 8 Dec 2024

Available online: 23 Dec 2024

Publish: 27 Dec 2024

Keywords:

community education; community services; stunting

Open access

Dedicated: Journal of Community Services (Pengabdian kepada Masyarakat) is a peer-reviewed open-access journal

ABSTRAK

Stunting merupakan masalah gizi yang signifikan dan banyak terjadi di Indonesia saat ini. Masalah stunting akan berdampak buruk pada pertumbuhan fisik dan perkembangan otak anak sehingga dapat memengaruhi kualitas sumber daya manusia, memperburuk kemiskinan antar generasi, dan berdampak negatif pada pertumbuhan ekonomi negara, sehingga masalah ini harus segera dicegah dan ditangani. Pengabdian ini bertujuan untuk meningkatkan kesadaran dan edukasi masyarakat tentang pencegahan stunting melalui program Kuliah Kerja Nyata (KKN) di Desa Ciherang, Cianjur. Pengabdian yang dilaksanakan oleh mahasiswa KKN-T Universitas Pendidikan Indonesia, melalui seminar dan talkshow bertema "Ciherang, Zero Stunting" berfokus pada penekanan pemahaman masyarakat mengenai stunting melalui seminar dan talkshow. Antusiasme peserta, terutama kader posyandu, ibu hamil, dan remaja, yang menunjukkan peningkatan pemahaman tentang pentingnya gizi dan pola hidup sehat. Kegiatan ini berhasil memberikan kontribusi positif dalam mendukung program percepatan penurunan stunting di tingkat lokal. Tingginya antusiasme peserta menunjukkan keberhasilan program dalam memberikan informasi dan keterampilan yang diperlukan untuk mendeteksi dini stunting. Melalui inisiatif ini, mahasiswa KKN UPI berperan aktif dalam edukasi masyarakat dan mendorong tindakan nyata untuk melawan stunting, yang diharapkan dapat menurunkan prevalensi stunting di Desa Ciherang.

Kata Kunci: pendidikan masyarakat; pengabdian kepada masyarakat; stunting

How to cite (APA 7)

Fauziah, F., Firdaus, I., & Sukmawati, S. (2024). UPI community services actions to combat stunting in Ciherang Village, Cianjur. *Dedicated: Journal of Community Services (Pengabdian kepada Masyarakat)*, 2(2), 367-376.

Peer review

This article has been peer-reviewed through the journal's standard double-blind peer review, where both the reviewers and authors are anonymised during review.

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INTRODUCTION

Stunting is a phenomenon of growth failure in children from an early age. As stated in the 2018-2024 Stranas period, stunting is a case of growth failure in children under five years of age, often referred to as toddlers. Across the globe, the term stunting continues to be a topic of discussion, particularly in Southeast Asian countries like Indonesia. This issue has garnered global attention, including in Indonesia. Data from the Indonesia Information Portal in 2023 indicates that the prevalence of stunting among infants decreased from 24.4% in 2021 to 21.6% in 2022, with a target reduction to 14% by 2024. Although the data indicates a decrease in stunting rates, this figure remains relatively high (see <https://indonesia.go.id/mediapublik/detail/1925>). The causes of stunting are not only due to insufficient nutritional intake in children, but two main periods pose a risk of stunting: the mother's pregnancy and the child's growth period from birth. Pregnant women at risk of stunting often experience indicators of stunting, such as failure to gain weight during pregnancy, living in environments with poor sanitation, lack of access to clean water, and being hindered by poverty (Darma & Alamsyah, 2024; Patmawati et al., 2024). Meanwhile, the risk of stunting in children from birth is caused by not receiving exclusive breastfeeding for at least six months, complementary foods that do not meet good nutritional standards, and suffering from diseases that hinder nutrient absorption (Ernawati, 2020).

The symptoms of stunting are usually visible from the age of 24 months. At this age, children affected by stunting will appear different from their typically developing peers. This can be seen from their height and weight, which do not meet the standards for children of their age. Stunting refers to short stature, but not all children with short stature are at risk of stunting. This is because stunting is a chronic condition caused by inadequate nutrient intake, which disrupts a child's growth. Short stature, on the other hand, is a genetic trait that is often inherited from parents. He also emphasized that stunting and short stature are distinct. In short, children affected by stunting are indeed short, but not all short children are affected by stunting. This can be further supported by statements explaining that the cognitive development and IQ of short children affected by stunting differ from those of short children not affected by stunting (Welis et al., 2022). The prevalence of stunting in Indonesia is also influenced by education or public knowledge, particularly among all Indonesian women who will eventually become pregnant and give birth to children. Awareness of the dangers of stunting is crucial to eliminating stunting cases worldwide. To enhance and reignite public awareness of the importance of preventing stunting, educational campaigns related to stunting itself must be conducted (Achmad, 2022; Soviyati et al., 2023).

In Ciherang Village, Karangtengah Subdistrict, Cianjur Regency, several activities are focused on preventing or combating stunting. These activities are part of the Kuliah Kerja Nyata conducted by students from the University of Education Indonesia, which took place from July 26, 2023, to August 26, 2023. The students' community service activities in Ciherang Village aim to eliminate the existing cases of stunting in the village. One of these elimination efforts is the "Aksi Melawan Stunting" program, with the theme "Ciherang, Zero Stunting," which was presented at a seminar and talk show held at the Ciherang Village Hall. The reference sources for the "Action Against Stunting" program align with previous research, such as the "Riset Kesehatan Dasar (Riskesdas)" and the "Global Nutrition Report," which extensively discuss the phenomenon of stunting. Additionally, the National Strategy for Accelerating the Prevention of Stunting states that education is one of the methods or actions to combat and eliminate the phenomenon of stunting. Through this community service initiative, we aim to raise public awareness about stunting prevention through the Kuliah Kerja Nyata (KKN) in Ciherang Village, Cianjur. This community service program aims to educate the public about stunting through seminars and talk shows, with the goal of contributing to a reduction in the prevalence of stunting at the local level. This approach is based on the National Strategy

for Accelerating the Prevention of Stunting, which emphasizes the importance of public education as a key solution to addressing the issue.

Literature Review

Community Service

Community service is one of the three pillars of higher education, which includes education and teaching, research and development, and community service. Community service is one of the many obligations that intellectuals, including both lecturers and students, are expected to fulfill (Rusli et al., 2023). This aligns with the statement in the Guidelines for Research and Community Service, which stipulates that higher education institutions are obligated to carry out education, research, and community service by the provisions of Undang-Undang No. 20 Tahun 2003, Pasal 20, concerning National Education.

Kuliah Kerja Nyata UPI is one of the forms of community service that is part of the flagship programs of the Lembaga Penelitian dan Pengabdian Kepada Masyarakat Universitas Pendidikan Indonesia (LPPM UPI). The KKN program provides students with the opportunity to directly contribute to empowering communities, particularly in areas that require support. KKN serves as a bridge between academia and society, enabling students to identify issues faced by communities and formulate relevant solutions. Through this activity, students are expected to develop interpersonal skills, leadership abilities, and analytical capabilities that are crucial for their future careers (Anggriana et al., 2022; Nursanty et al., 2023). Additionally, community service encourages students to actively participate in social and economic development actively, increasing their awareness of the issues faced by the community (Morawska-Jancelewicz, 2022; Tijsma et al., 2020). Thus, community service through KKN is not only beneficial for the community but also for the development of students' character and competencies (Zuhriati, 2024).

Action Against Stunting

Stunting is a serious problem in many parts of the world. Stunting is a nutritional problem that affects children. According to UNICEF, stunting is a global nutritional problem, particularly in countries affected by poverty and those in the developing world (see <https://www.unicef.org/topics/stunting>). The high prevalence of stunting worldwide is leading to an unhealthy future generation (Adriany & Tesar, 2023; Saavedra, 2022; Tahira et al., 2024). Aryu, in his book titled Epidemiologi Stunting, summarizes various methods for preventing stunting, including preparing for a healthy marriage, the need for nutrition education, supplementation for pregnant women, supplementation for breastfeeding mothers, micronutrient supplementation for toddlers, and encouraging increased outdoor activities for children. In addition to the above, stunting prevention can be achieved by acquiring knowledge about proper nutrition for children and mothers, as well as participating in activities such as health education programs, particularly those related to stunting.

Research conducted at the Puskesmas Halmahera Semarang in 2016 found that 49% of pregnant women suffered from anemia. The study also concluded that there is a significant association between anemia in pregnant women and the incidence of Bayi Berat Lahir rendah (BBLR). Low birth weight is an important risk factor for stunting. To address this issue, pregnant women need to consume micronutrient supplements (Falensia et al., 2020; Nguyen et al., 2021). Until now, the only supplements that pregnant women are required to take are folic acid and iron, while other micronutrients must be purchased separately (Singh et al., 2020). However, the cost of multivitamin supplements is often unaffordable, leading pregnant women to avoid taking them even if their daily diet is insufficient.

The fight against stunting is an action focused on preventing and finding solutions to the high incidence of stunting worldwide, especially in Indonesia, so that the stunting rate can be reduced to 0%. These efforts

to combat stunting have been carried out by various health advocates worldwide. ASEAN, as a regional organization, serves as a facilitator. At the same time, the public sector is responsible for producing and marketing nutritious foods, as well as ensuring access to these foods, particularly in areas affected by poverty (Islam & Kieu, 2020). The KKN UPI thematic community service program Si Penting (Students Care About Stunting) assigned to Ciherang Village, Karangtengah Subdistrict, Cianjur Regency, is trying to eradicate stunting cases through programs related to stunting prevention. One of the programs implemented is the dissemination of information or education related to actions against stunting, which is packaged in a seminar and talk show with local nutrition experts. This initiative aims to reignite community awareness of the importance of preventing an increase in stunting cases in Ciherang Village.

METHODS

This community service program consists of seminars and talk shows, which are also used to educate and raise public awareness. The program emphasizes public understanding of stunting through seminars and talk shows.

RESULTS AND DISCUSSION

Analysis of Stunting Prevalence in Ciherang Village

The issue of stunting cannot be taken lightly, as it poses a significant threat to Indonesia's human resources and the nation's future competitiveness. Stunting is a condition of growth failure caused by chronic malnutrition during the 1,000 Hari Pertama Kehidupan (HPK), from conception until the child is two years old (Mawarti, 2021; Puspita et al., 2022; Winda et al., 2024). This condition is of particular concern because malnutrition during this period can have adverse effects on the child's future physical growth and cognitive development (Ruaida, 2018). Over the past 10 years, stunting prevalence data indicate that stunting remains one of the most significant nutritional issues in Indonesia. To address this issue, the government has issued Peraturan Presiden Nomor 72 Tahun 2021, which aims to accelerate the Reduction of Stunting. This policy aims to reduce the prevalence of stunting by improving nutritional intake, enhancing childcare practices, and providing access to clean water and adequate sanitation. In Ciherang Village, Cianjur District, the main factors causing stunting include adolescent nutrition issues such as anemia in adolescent girls, unhealthy eating patterns, and incorrect dietary methods. Early marriage due to unintended pregnancy is also a significant factor contributing to stunting (Feskens et al., 2022; Simbolon et al., 2021).

In this situation, the role of posyandu cadres and village officials is crucial in preventing stunting. Posyandu cadres are responsible for monitoring child growth and development, educating pregnant and breastfeeding mothers about healthy eating habits, and ensuring that children receive complete immunizations. However, limited facilities and knowledge often hinder the effectiveness of their role. Therefore, regular training for posyandu cadres is essential to enhance their ability to detect stunting early and provide community-based solutions. Collaboration between local governments, health workers, and communities must also be strengthened to create an environment that supports optimal child growth and development (Ubaidillah & Musthofa, 2024). If not addressed seriously, stunting will have long-term effects into adulthood, including reduced cognitive intelligence, physical development limitations, and lower productivity. Stunting affects human resource quality, exacerbates intergenerational poverty, and negatively impacts national economic growth due to reduced future labor productivity (Ruhana et al., 2024). Comprehensive and sustainable approaches, such as nutrition education, family economic

improvement, sanitation improvements, and child health monitoring through posyandu, must continue to be pursued to break the cycle of stunting in Ciherang Village.

Education and Socialization Program

To support the program aimed at accelerating the reduction of stunting, students from the KKN-T Universitas Pendidikan Indonesia (UPI) in Ciherang Village conducted a seminar and talk show themed “Ciherang, Zero Stunting.” The event took place on August 10, 2023, at the Ciherang Village Office Hall (see **Figure 1**) and targeted three main groups: adolescents, pregnant women, and village officials and health post cadres.



Figure 1. Speaker Amelia Fitri
Source: Author Documentation 2023

The first target group is adolescents. Education for adolescents is conducted to prevent anemia, improve eating habits, and avoid unhealthy dieting methods. This is important considering that nutritional problems in adolescents often cause stunting later in life, especially if followed by early marriage. The second target group is pregnant women, who are educated about the importance of proper nutrition during pregnancy to support fetal growth. The final target group is village officials and health post cadres, who are trained to enhance their skills in detecting stunting early and implementing preventive measures.

The event began with a presentation by Amelia Fitri, a student from KKN in Ciherang Village, who explained the definition of stunting, its causes, short-term and long-term impacts, and prevention efforts across four life stages: adolescent girls, pregnant women, breastfeeding mothers, and infants aged 6–24 months.



Figure 2. Talkshow with Nutrition Experts
 Source: Author's Documentation 2023

The event continued with a talk show featuring Mrs. Retnia, a nutritionist from Dinas Kesehatan Kabupaten Cianjur (**Figure 2**). During this session, participants were invited to discuss the differences between genetically short children and those who are stunted, the importance of the first 1,000 days of life, and efforts to prevent stunting through animal protein intake and the development of appropriate complementary feeding menus.

Table 1. Results of the Talk Show Q&A

No	Question	Answer
1.	Is stunting considered a disease?	No. Stunting is a phenomenon that occurs in children due to insufficient nutritional intake. Therefore, stunting is not classified as a disease because it cannot be treated.
2.	How can we determine whether a child is genetically short or has a growth disorder?	Stunting is a disorder in a child's physical development that can be observed through physical measurements, such as height and weight. However, not all short children are stunted. A child may be short but have the same cognitive abilities as other children of the same age, in which case they are not considered stunted.
3.	Why is 1000 HPK so important?	Prevention of stunting can begin during the first 1,000 days of life. This period lasts until the baby is 2 years old. During this developmental period, it is essential to monitor the child's growth and development closely. Prevention of stunting can be achieved through the 3P approach, namely a pattern of eating, a pattern of sanitation (hygiene), and additional advice that requires visiting the health center.
4.	What are the efforts to prevent stunting from the food side?	Prevention of stunting can be focused on double animal protein, namely foods that contain animal protein.
5.	Recommendations for MPASI menu?	MPASI should be given to children when they reach 6 months of age. These MPASI must be processed into smooth foods, smoother than regular porridge. MPASI can be made from a mixture of animal and plant proteins.
6.	What if a baby experiences significant weight loss during the first 1000 HPK?	When a child does not experience growth in height and weight within a month after attending the posyandu, we as parents must be vigilant. We must know how to ensure that our child's development is appropriate for their age.

Source: Author Documentation 2023

Evaluation of the KKN Impact

The seminar and talk show were deemed successful based on the high level of enthusiasm shown by participants throughout the event. This was evident from the participants' active engagement in answering questions posed by the speakers and their active participation in the question-and-answer session with the speakers. Posyandu cadres and village officials showed enthusiasm for gaining a better understanding of stunting prevention. At the same time, pregnant women and adolescents demonstrated a greater awareness of the importance of nutrition and healthy lifestyles. Through this activity, there was an increase in public understanding of stunting, its causes, and prevention efforts. Specifically, adolescents and pregnant women received relevant education to prevent stunting from an early stage. Additionally, posyandu cadres and village officials are expected to be able to apply new skills in detecting stunting cases early and providing appropriate solutions. The event concluded with a group photo session and the presentation of certificates to the presenters and speakers as a token of appreciation. The series of seminars and talk shows, which took place from 13:32 to 14:52 WIB, successfully contributed to supporting the accelerated reduction of stunting in Ciherang Village. Through the "Mahasiswa Si Penting" program, UPI KKN-T students have demonstrated their active role in educating the community and promoting concrete actions to combat stunting.

Discussion

Stunting is not classified as a disease but rather as a phenomenon or condition resulting from prolonged inadequate nutrient intake, particularly during the critical 1,000 Hari Pertama Kehidupan (HPK) period. Stunting cannot be treated like a typical disease, as this condition stems from sustained nutritional deficiencies from the earliest stages of a child's life (Khotimah, 2022). The focus of stunting management is not on cure but on prevention through balanced nutrition, improved healthy lifestyles, and optimal access to healthcare from an early age. The difference between children who are short due to genetic factors and those who are short due to stunting can be observed through their physical and cognitive development. Children who are short due to genetic factors typically still possess cognitive abilities and developmental progress comparable to their peers. Conversely, children with stunting tend to exhibit cognitive and motor development disorders, as well as overall growth and development issues (Suryawan et al., 2022). Therefore, monitoring children's growth through regular measurements of height and weight at health posts or healthcare facilities is crucial to determine whether a child is experiencing stunting or not.

The first 1,000 HPK are crucial in preventing stunting because this period is a critical time for a child's growth and development. Adequate and balanced nutrition, along with a healthy lifestyle, during this period will have a significant impact on a child's physical, cognitive, and immune development (Black et al., 2020). Stunting prevention can be achieved through the 3P plus approach, which includes a pattern of nutritious food intake, proper sanitation, and regular visits to the integrated health service post (posyandu). Sanitation and environmental hygiene play a crucial role in preventing infections, such as diarrhea, which can impede nutrient absorption in children. Efforts to prevent stunting from a nutritional perspective can focus on increasing animal protein consumption. Animal proteins, such as eggs, fish, meat, and milk, are important nutrient sources that contain essential amino acids necessary for children's growth (Beal et al., 2023). Animal proteins are more easily absorbed by the body compared to plant proteins, making them a priority in food provision to prevent stunting. Therefore, education for parents on the importance of animal protein intake must be enhanced.

Providing high-quality complementary ASI (MPASI) is very important to prevent stunting. MPASI should be introduced when the child reaches 6 months of age, with a smoother texture than regular porridge, to

facilitate easy digestion. An ideal MPASI should include a combination of animal and plant-based proteins, as well as additional nutrients such as iron and vitamins, to support the child's growth and development (Izah et al., 2024). A good understanding of the appropriate MPASI menu can help parents ensure their children receive adequate nutrition during this critical period. If a baby experiences significant weight loss during the 1000 HPK period, this should be monitored as an early sign of nutritional issues or stunting. Persistent weight loss can hinder a child's overall growth. In such cases, parents should immediately consult healthcare professionals at a health post or healthcare facility to receive appropriate advice and treatment (Ramadhan & Irawati, 2024). Regular monitoring of a child's weight and height is an important step in detecting nutritional issues as early as possible and ensuring optimal child development.

CONCLUSION

Stunting is a serious nutritional problem that negatively impacts children's physical growth and cognitive development, particularly during the 1,000 Hari Pertama Kehidupan (HPK). In Ciherang Village, the causes of stunting include adolescent nutritional issues, unhealthy eating habits, and early marriage. An educational program implemented by students from KKN-T Universitas Pendidikan Indonesia, through seminars and talkshows themed "Ciherang, Zero Stunting," successfully increased community awareness and understanding of the importance of preventing stunting. The activities targeted adolescents, pregnant women, as well as health post workers and village officials, with a focus on balanced nutrition and healthy lifestyles. The high enthusiasm of participants demonstrates the program's success in providing the necessary information and skills for early detection of stunting. Therefore, collaboration between the government, health workers, and the community is crucial to creating an environment that supports optimal child growth. Sustained efforts in nutrition education and improving access to healthcare are needed to break the cycle of stunting in Ciherang Village and enhance the quality of human resources in the future.

AUTHOR'S NOTE

The authors declare that there are no conflicts of interest related to the publication of this article. The authors confirm that the data and content of the article are free from plagiarism.

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