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EVALUATION OF THE IMPLEMENTATION OF THE SUPPLEMENTARY FEEDING PROGRAM (SFP) ON THE RISK OF STUNTING INCIDENCE IN TODDLERS: A QUALITATIVE STUDY

Evaluasi Implementasi Program Pemberian Makanan Tambahan (PMT) dan Tantangannya dalam Pencegahan Stunting: Studi Kualitatif

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ABSTRAK

Program Pemberian Makanan Tambahan (PMT) merupakan intervensi pemerintah untuk meningkatkan status gizi balita dan mencegah stunting. Namun, efektivitasnya masih dipertanyakan karena prevalensi stunting tetap tinggi di beberapa wilayah. Penelitian ini bertujuan mengevaluasi pelaksanaan program PMT di Puskesmas Cilincing menggunakan pendekatan kualitatif dengan desain studi kasus. Pengumpulan data dilakukan pada Agustus–Desember 2023 melalui wawancara mendalam dan FGD terhadap 11 orang tua balita stunting, kader posyandu, dan tenaga kesehatan. Instrumen disusun berdasarkan kajian literatur dan diuji coba untuk memastikan relevansi pertanyaan. Analisis data dilakukan secara tematik menggunakan NVivo versi 25, serta pemetaan input, proses, dan hasil menggunakan kerangka logic model. Teknik pengambilan sampel menggunakan purposive sampling. Hasil penelitian menunjukkan bahwa program PMT telah dilaksanakan sesuai pedoman, namun efektivitasnya masih terbatas. Kendala utama meliputi kurangnya variasi produk PMT, rendahnya kepatuhan keluarga dalam pemberian makanan tambahan, serta koordinasi lintas sektor yang belum optimal. Temuan menunjukkan bahwa keberhasilan program tidak hanya bergantung pada ketersediaan makanan, tetapi juga pada edukasi gizi, peran aktif kader, serta dukungan keluarga dan komunitas. Penelitian ini telah memperoleh persetujuan etik dari Komisi Etik Penelitian Kesehatan Fakultas Keperawatan Kebidanan Universitas Binawan (No. 027/PE/FKK-KEPK/VIII/2023). Simpulan: Program PMT di Puskesmas Cilincing membutuhkan inovasi strategi dan penguatan sinergi antar pemangku kepentingan untuk meningkatkan efektivitas percepatan penurunan stunting.

***Kata kunci**: evaluasi program, pencegahan stunting, pemberian makanan tambahan*

ABSTRACT

The Supplementary Feeding Program (SFP) is a government intervention aimed at improving the nutritional status of children under five and preventing stunting. However, its effectiveness remains questionable, as stunting prevalence is still high in some areas. This study aimed to evaluate the implementation of the SFP program at Cilincing Primary Health Center using a qualitative case study approach. Data were collected from August to December 2023 through in-depth interviews and focus group discussions with 11 parents of stunted children, posyandu cadres, and health workers. The interview and FGD guides were developed based on literature and pre-tested to ensure relevance. Data were analyzed thematically using NVivo version 25, and program inputs, processes, and outcomes were mapped using a logic model framework. Purposive sampling was applied. The findings showed that the SFP program was implemented in

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accordance with guidelines, but its effectiveness was still limited. Key challenges included limited variety of supplementary food products, low family compliance in providing the food, and suboptimal cross-sector coordination. The results indicate that program success depends not only on food availability, but also on nutrition education, the active role of community health cadres, and strong family and community support. This study received ethical approval from the Health Research Ethics Committee of the Faculty of Nursing and Midwifery, Binawan University (No. 027/PE/FKK-KEPK/VIII/2023). In conclusion, the SFP at Cilincing Primary Health Center requires strategic innovation and strengthened stakeholder collaboration to more effectively accelerate stunting reduction.

Keywords: program evaluation, stunting prevention, supplementary feeding

INTRODUCTION

Stunting is a chronic nutritional problem that significantly impacts children's growth and development. The WHO defines it as a condition of stunted growth due to growth hormone deficiency, a weakened immune system, and a lack of psychological stimulation[1]. Stunting represents the cumulative impact of long-term malnutrition and recurrent illness during early childhood, usually occurring in the first 1000 days of life[2]. Although various efforts have been made, the rate of decline in the prevalence of stunting is still slow in many countries[3], so that stunting becomes a focus in the context of the Sustainable Development Goals (SDGs), especially in relation to the second goal, namely ending hunger and all forms of malnutrition by 2030[4]. In Indonesia, the results of the Indonesian Nutritional Status Survey show that the prevalence of stunting in Indonesia decreased from 24.4 percent in 2021 to 21.6 percent in 2022[5]. This figure is still above the WHO standard, which states that stunting rates should be less than 20%. The Indonesian government is targeting a reduction in stunting prevalence to 14% by 2024[6]. Data from the Jakarta Provincial Health Office shows that approximately 14 out of every 100 toddlers suffer from stunting. In 2022, the highest prevalence was recorded in the Seribu Islands at 20.5%, up from 19.3% in 2021[7]. This figure is followed by North Jakarta at 18.5%, West Jakarta at 15.2%, East Jakarta at 14.4%, Central Jakarta at 14.0%, and South Jakarta at 11.9% as the areas with the lowest prevalence[8]. The Cilincing area, which is part of North Jakarta, also shows a relatively high prevalence of stunting compared to other areas in the province. According to this data, the Recovery Supplementary Feeding Program(SFP), introduced in 2024, has not had a significant impact in some areas.

In line with the Sustainable Development Goals (SDGs) and the 2025 Global Nutrition Targets, Indonesia is committed to reducing stunting prevalence by 40%. The stunting rate has decreased from 37.2% to 21.6%[9],[10]. The target for reducing stunting prevalence is set at around 22%, while Indonesia is aiming for a more ambitious reduction of 14% by 2024[11]. The government adopted integrated health services throughout the life cycle in accordance with the 2016 Indonesian Minister of Health Regulation, with a national strategy including revitalization of Integrated Health Posts (Posyandu), strengthening of Posyandu Pokjanal institutions, transforming KMS into KIA Books, strengthening cadres, and SFP programs[12]. Stunting prevention must address the underlying causes, including food security, appropriate parenting practices, access to health services, and a healthy environment[13]. The implementation of the SFP program for stunted toddlers has not been optimal because not all families have access to it or utilize it according to regulations. Key obstacles include poor parental understanding, inconsistencies in taste, social pressure, economic constraints, and weak monitoring by cadres. Program evaluation needs to encompass household utilization and its impact on stunting reduction, not just distribution[14]. Of the 32,442 healthy toddlers in North Jakarta based on medical records at the Cilincing District Health Center, North

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Jakarta, 339 toddlers (≈ 1.05%) were recorded as experiencing stunting in the April–June 2023 period. The main challenge in this region is limited access to quality health services, supported by population density and high socioeconomic inequality.

The Indonesian government has implemented a Recovery Supplementary Feeding Program (SFP) through community health centers (Puskesmas) as a stunting prevention effort. This program includes various types of SFP, including locally sourced, manufactured, and nutrient-dense foods, tailored to the needs of the target population and the availability of resources in the region. Distribution is carried out through integrated health posts (Posyandu) or toddler family development activities (BKB), primarily targeting malnourished toddlers and pregnant women at risk of chronic energy deficiency. SFP implementation follows standards set by the Ministry of Health, including targeting accuracy, nutritional quality, frequency of provision, and monitoring outcomes to ensure the intervention's effectiveness. Although the program has been running, several reports indicate limitations in its effectiveness, particularly related to recipient coverage, family compliance, product variety, and cross-sectoral coordination[15]. Previous research has been largely quantitative and focused on stunting prevalence rates, without exploring the experiences, perceptions, and challenges of local actors. Furthermore, there have been no qualitative studies assessing the implementation of SFP in densely populated areas such as Cilincing District, North Jakarta, resulting in limited in-depth understanding of the factors influencing SFP success. This study evaluates the implementation of the Supplementary Food Program (SFP) at the Cilincing Community Health Center through a qualitative approach with in-depth interviews with parents of toddlers, integrated health post cadres, and health workers. The study focuses on SFP distribution, recipient compliance, cross-sector coordination, and factors influencing program success. The results are expected to provide an overview of the effectiveness of SFP and recommendations for strengthening strategies to reduce stunting prevalence.

METHODS

The research design used qualitative research with a case study approach to evaluate the SFP Program at the Cilincing Community Health Center. The approach used was evaluative, with a focus on assessing the program implementation process and the resulting output. Conducted from August to December 2023. The population in this study were all parties involved in the implementation of the program and recipients of Supplementary Feeding (SFP) in the Cilincing Community Health Center working area, which included parents of toddlers receiving SFP, Posyandu cadres, and health workers implementing the program at the community health center. The sampling technique used purposive sampling with 11 informants until data saturation was reached, namely the point where additional interviews no longer provided new information. Informants in this study consisted of several groups of participants with different numbers and criteria. First, two parents or mothers of toddlers aged 18 years and over, domiciled in the Cilincing area, participating in the stunting prevention program, and willing to provide information and participate in discussions voluntarily. Participants included in the exclusion criteria were participants with significant communication limitations, such as speech or hearing impairments without aids, and those who did not provide consent to participate. Second, one Posyandu (Integrated Service Post) cadre who is active in the Supplementary Feeding (SFP) program in the Cilincing Community Health Center (Puskesmas) area. This cadre must have at least one year of experience assisting Posyandu activities and the SFP program, reside or work in the area, and be willing to provide information through interviews or discussions. Exclusion criteria included cadres who had joined the community for less than one year, were unwilling to be interviewed, had health problems, or were busy schedules that prevented their participation in the study. Third, two individuals from the North Jakarta Health Office, namely officials or staff directly

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responsible for policies and implementation of stunting reduction programs, specifically in the field of Maternal and Child Health. They must have at least one year of work experience in the field, be willing to be interviewed, and have knowledge and involvement in policy implementation and coordination with Puskesmas and Posyandu regarding the SFP program. Exclusion criteria included officials or staff with health problems. , have worked for less than 1 year, are unwilling to be interviewed, or are on long leave, retired, or transferred. Fourth, from the Cilincing Community Health Center there are 6 people including the head of the community health center, the person in charge, and the stunting program implementer. These informants must be directly involved in the implementation of the SFP program, have at least 1 year of experience, are willing to be interviewed, and have knowledge and authority in decision-making and technical implementation of the SFP program. Exclusion criteria include health workers who experience health problems, or have busy schedules that prevent participation in the SFP study, have worked for less than 1 year, are unwilling to be interviewed, or are on long leave, transferred, or retired.

To enhance data validity, this study employed triangulation of sources and methods, comparing interviews across informant groups, activity observations, and official SFP Program documents. Informants were selected to provide in-depth perspectives on the program's processes, constraints, and outputs from multiple perspectives, resulting in more representative and richer data.

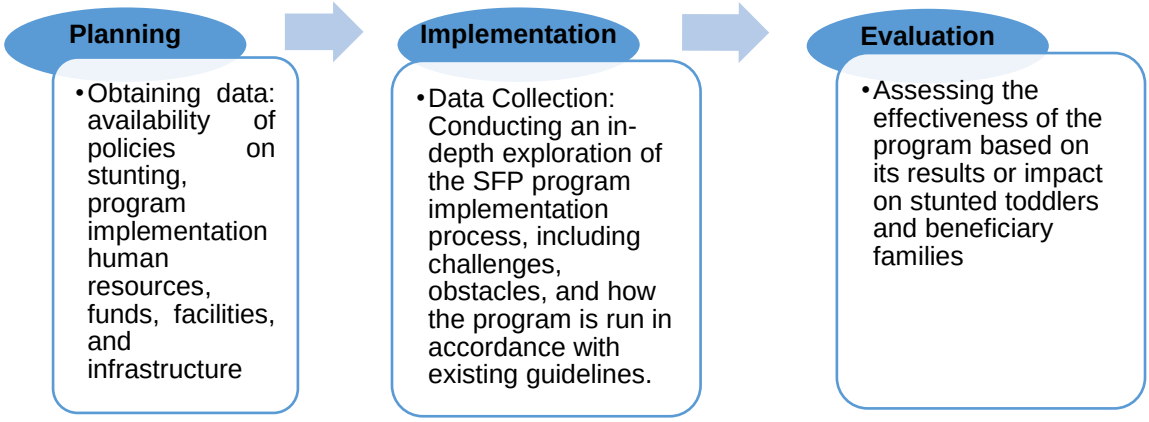

Figure 1. Research Stage

1) Planning. Input provides an overview of the availability of work planning and Stunting policies as a method, provides an overview of the availability of human resources implementing the Stunting program, program facilities and infrastructure, and the availability of funds to implement the planned program. Review official documents and program guidelines as a reference for implementation. 2) Implementation. Plan or planning, carry out. Objective: Explore the process of implementing the SFP program through interviews with health workers, posyandu cadres, and beneficiary families. including challenges, obstacles, and how the program is implemented in accordance with existing guidelines. Observe SFP distribution activities, routine weighing of toddlers, socialization, and family empowerment. Data were collected using in-depth interviews, participatory observation, and official document studies. 3) Evaluation: Assess the output and effectiveness of the program based on informant perceptions and implementation documents. Identify supporting factors, obstacles, and opportunities for program improvement in the future.

This study used focus group discussions (FGDs), in-depth interviews, and participant observation. The FGDs involved mothers of toddlers, cadres, and community health center staff, while in-depth interviews were conducted with community health center heads, health department officials, and beneficiary families. Observations were conducted during integrated health post (Posyandu) activities and SFP distribution to

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observe field practices. Data from various sources were analyzed thematically through open, axial, and selective coding stages, focusing on implementation patterns, obstacles, and program successes. Validity and reliability were maintained through source and method triangulation, member checking, and audit trails. Data validity was strengthened by the application of trustworthiness principles, including credibility, transferability, dependability, and confirmability. This study has received ethical approval from the Health Research Ethics Committee of the Faculty of Nursing and Midwifery, Binawan University, No. 027/PE/FKK-KEPK/VIII/2023.

RESULT

Table 1. Informant Characteristics

Informant Code	Age	Work	Last education	Position
P1	29 years old	civil servant	Medical Profession	Person in charge of stunting program
P2	34 years old	civil servant	Medical Profession	Training
P3	46 years old	civil servant	Bachelor of Nutrition	Nutrition
P4	37 years old	civil servant	Nurse	Executor
P5	49 years old	civil servant	Nurse	Coordinator
P6	36 years old	civil servant	Nurse	Executor
P7	30 years old	civil servant	Midwife	Executor
P8	29 years old	PPPK	Nurse	Executor
P9	45 years old	housewife	Elementary School	Client's Parents
P10	30 years old	housewife	Senior High School	Client's Parents
P11	46 years old	housewife	Senior High School	Cadre

Based on Table 1, the characteristics of informants are that most are aged 29–49 years, with a background as health workers (doctors, nurses, midwives, and nutritionists), and some informants are housewives and cadres. Educational levels vary, from elementary school to professional degrees, demonstrating a diversity of perspectives. In terms of position, informants include program managers, coordinators, implementers, cadres, and parents of toddlers, providing a comprehensive view of the implementation of the SFP Program and stunting prevention.

The research results indicate that the Supplementary Feeding (SFP) program in the Cilincing area has been implemented according to guidelines, although its effectiveness remains limited. Eleven informants, including community health center staff, integrated health post (Posyandu) cadres, and parents of toddlers, shared diverse experiences regarding program implementation, challenges encountered, and perceived advantages.

Most informants assessed that the implementation of SFP had followed SOP. Informant (1) explained that "Usually SFP is distributed at the integrated health post (posyandu), mothers immediately receive it and take it home." A similar thing was expressed by cadre (3) who stated: "We cadres help distribute it and record who has received it." A health center officer (7) also added that "Distribution is carried out through the integrated health post, then recorded for the health center report." This statement confirms that the SFP distribution flow is in accordance with procedures.

However, informants also revealed a number of obstacles that caused the program's results to be less than optimal. One mother (2) complained that "My child gets bored if the menu is always the same, so sometimes he doesn't eat it." Another obstacle related

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to coordination was expressed by informant (5): "Coordination with external parties is not smooth, sometimes distribution is late." Informant (8) added: "There are families who don't provide it regularly, because their children have difficulty eating." Meanwhile, informant (10) highlighted communication problems: "Information about the schedule is sometimes unclear, so mothers are confused about when they can get SFP." Based on findings at the Cilincing Community Health Center, where cross-sector coordination and SFP distribution are sometimes not synchronized and budget distribution is delayed, this study emphasizes the need to improve the synchronization of planning, budget allocation, and supervision of the stunting program from the central level to the community health center so that SFP implementation is more focused and equitable.

On the other hand, informants also acknowledged the benefits of this program. I4 said: “After being given SFP regularly, my child eats more, and his weight has increased a little.” A Posyandu cadre (6) assessed that “This program helps mothers understand more about nutrition.” A similar benefit was felt by a parent (9) who said: “We see changes, the child has become more active after receiving SFP.” In addition, (11) added: “The education from the cadre has made me know how to provide other additional foods at home.”

Overall, these findings indicate that the SFP implementation in Cilincing has been running according to procedure. However, obstacles remain, including limited menu variety, inconsistent family compliance, suboptimal cross-sectoral coordination, and a lack of clear information for the community. Nevertheless, the program continues to have a positive impact, particularly in improving nutritional understanding, mentoring cadres, and changing toddler eating behavior.

DISCUSSION

The discussion of this research is structured based on the SFP Program evaluation framework using a logic model, which includes input, process, output, and outcome.

Input: Resources, policies, and facilities that support SFP in Stunting Prevention

The Cilincing Community Health Center (Puskesmas) has adequate human resources, consisting of a doctor, nutrition officer and coordinator, midwife, and four nurses. The health workers possess knowledge and skills in education, coordination, and reporting on the SFP program. Funding comes from the APBN (State Budget), VOA (Vocational Operational Assistance), village budgets, and CSR support. Posyandu (Integrated Health Post) facilities such as anthropometry kits, "Isi Piring Saya" (My Plate) sheets, SDIDTK (School of Health Education) equipment, and flipcharts are adequately available. Successful program implementation is supported by integrated planning, clear budget allocation, placement of human resources according to needs, and adequate coordination and facilities.

Input is a description of the needs of a program to improve its quality, including resources such as infrastructure, human resources, physical resources, time and funding required in implementing activities[17].According to the logic model, adequate input, including human resources, facilities, and funding, is a key requirement for smooth program processes and the achievement of expected outputs. Previous research in Kedung Banteng, Tegal, showed that a lack of human resources and infrastructure can hamper the implementation of the SFP program and contribute to high stunting rates[18]. Meanwhile, in Enrekang Regency, the availability of sufficient human resources and facilities supports the optimal implementation of stunting prevention regulations[17].Thus, the Cilincing Community Health Center has input that supports a positive and adequate evaluation of the stunting program. The supplementary feeding program at the Cilincing Community Health Center is managed by a team consisting of a doctor, a nutrition officer, a nutrition coordinator, a midwife, and four nurses under the responsibility of the head physician. Data collection results indicate that the health

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workers meet the qualifications and possess good knowledge of education, collaboration, and coordination, enabling the program's monitoring and reporting processes to proceed smoothly.

The budget for the stunting reduction program at the Cilincing Community Health Center comes from the state budget (APBN), village budgets (RAB), the North Jakarta Health Office's BOK (Bantuan Usaha Rakyat), and corporate social responsibility (CSR) funds. Expanding specific nutrition interventions that have proven effective is deemed feasible due to their potential to accelerate stunting reduction and support the achievement of the WHO's 2025 targets[19]. In contrast to the research in Kedung Banteng, Tegal, the number of cadres is still insufficient, there are still villages that have not budgeted for equipment rental and cadre transportation, there are deficiencies in reporting and recording and there are still toddlers who experience stunting after 6 months of the program ending[20]. There needs to be integration of central and regional government policies regarding stunting management in toddlers, so that there is a shared budget for stunting management.

The interview results showed that the availability of facilities and infrastructure such as anthropometric kits, SDIDTK tools, and educational media were key factors in the success of the SFP program, with the input dimension being the most dominant aspect in the evaluation of the stunting program in Cilincing. In contrast to research conducted in Enrekang Regency in 2022, the availability of human resources and facilities and infrastructure to support the Regent's Regulation on the prevention and control of stunting in the area was declared sufficient[21].

Process: Implementation of the SFP Program in Stunting Prevention

The supplementary feeding program (SFP) at the Cilincing Community Health Center ran for 180 days, with monthly toddler growth monitoring conducted by nutrition officers, midwives, nurses, and integrated health post (Posyandu) cadres. Health workers and Posyandu cadres routinely provided nutrition counseling to beneficiary families. SFP was provided twice daily for 56 days, using BOK funds. Program recording and reporting were carried out thoroughly and systematically.The program's success is supported by clear division of tasks, coordination between staff, and family compliance with nutritional counseling, but is hampered by low economic factors and lack of family education, which affect compliance and feeding practices.

In its planning process, the Cilincing Community Health Center has positioned the SFP as one of the main strategies in overcoming stunting. This aligns with the goal of recovery SFP, which is to improve the nutritional status of stunted toddlers so that their growth and development can be more optimal. According to interviews with key informants, nutrition officers, growth monitoring is conducted once a month and is carried out by nutrition officers, midwives, nurses, and Posyandu cadres. The interview results indicate that nutrition officers, health workers, and Posyandu cadres provide counseling. Growth monitoring of stunted toddlers is carried out monthly by nutrition officers, assisted by midwives, nurses, and Posyandu cadres. According to interviews with informants, recording and reporting of the program are carried out well. According to respondents, stunting cases are "very concerning because we know that the problem is parenting patterns, diet, breastfeeding patterns, and maternal compliance with counseling also have an impact." Research shows that most families of stunted toddlers in Cilincing come from low-income groups. This limitation affects a monotonous diet with minimal animal protein, thus impacting the high prevalence of stunting in the region. Poor families usually find it difficult to meet balanced nutritional needs because economic limitations are positively related to the prevalence of stunting in toddlers[22]. Research by Elisaria et al. (2022) shows that malnutrition in toddlers is often related to low maternal education. This low level of education leads to limited understanding of the importance of balanced

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nutrition and proper feeding practices, thus becoming an obstacle to stunting prevention efforts[23],[24].

Although the program has had an impact on improving the nutritional status of stunted children, the results have not been optimal due to various obstacles in implementation in the field. Significant improvements were seen in the absorption of iron and folic acid, delivery in health facilities, pre-lacteal feeding, initiation of breastfeeding within 1 hour of birth, and exclusive breastfeeding for children under 6 months. These results are at the intermediate or distal pathway of stunting in children and can lead to a long-term reduction in stunting[23]. WHO has established child feeding behavior indicators as important nutritional measures, including early initiation of breastfeeding (IMD), exclusive breastfeeding up to 6 months, appropriate complementary feeding starting at 6 months of age, continued breastfeeding up to 2 years or beyond, and ensuring sufficient frequency and variety of foods to support optimal child growth and development. Iron supplementation, initiation and provision of exclusive breastfeeding, and appropriate complementary feeding during the first 1,000 days have been shown to significantly reduce stunting. Studies in various African countries also show that improving maternity services can reduce the prevalence of stunting[23]. Based on evidence from previous research, there are indications that intervention programs can influence pregnant women's behavior in utilizing health services and child feeding practices in the intervention communities. These changes in behavior and practices have the potential to contribute to future reductions in child stunting rates[23].

Implementation of SFP that is structured according toThe principle of program implementation supports changes in family and child behavior, which is an intermediate or distal pathway in preventing stunting[25]. Poor feeding practices, low maternal compliance with counseling, and nutritional limitations are positively associated with the risk of stunting[18]. Evidence from demographic and health surveys in several countries suggests that nutritional interventions, iron supplementation during pregnancy, early initiation of breastfeeding, exclusive breastfeeding, and appropriate complementary feeding during the first 1,000 days of life can significantly reduce the prevalence of stunting[16].

Output: Compliance and Behavior Change in Stunting Prevention

The SFP program has improved family compliance in monitoring toddler growth, providing SFP, and implementing good nutritional practices. Several innovations, such as "Ceting Rematri" for adolescent girls, Hb screening, and adolescent nutrition counseling, have supported long-term stunting prevention. Data from toddler data collection shows a decrease in stunting prevalence at the Cilincing Community Health Center.

The decline in stunting is in line with other studies that have shown that nutritional interventions, iron supplementation, exclusive breastfeeding, appropriate complementary feeding, and community nutrition education contribute significantly to reducing the risk of stunting[16]. Changing maternal and family behavior is a key factor in long-term stunting prevention. The SFP program at the Cilincing Community Health Center not only increases supplementary food consumption but also encourages healthy behaviors that support sustainable child growth. In the first 1,000 days of life, the national stunting reduction strategy focuses on mobilizing resources to support specific and sensitive nutrition interventions, family empowerment, and improving maternal and child health services[26].

In Cilincing, stunting prevalence remains high, and risk factors such as PHBS (Healthy Living Environment), parenting patterns, and a history of diarrhea have a strong influence. This indicates that interventions in Cilincing need to focus on improving PHBS, parenting education, and diarrhea prevention, in addition to nutritional interventions, to effectively reduce stunting rates. The government is strengthening cross-sectoral

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commitment, regulations, and capacity to implement stunting reduction policies by mobilizing all resources to support quality nutrition initiatives in the first 1,000 days of life for pregnant women and children under two years of age[26]. A mixed methods approach and monitoring & evaluation (M&E) system are important to understand the context of caregiver decisions, the quality of implementation, and the effectiveness of stunting reduction programs[27]. At the Cilincing Community Health Center, a combination of quantitative and qualitative data and routine monitoring indicate good program implementation, yet stunting prevalence remains high. This underscores the role of family behavior, nutritional quality, and local context. A mixed-method approach and M&E facilitate a more comprehensive evaluation to improve the effectiveness of the intervention. Other research has shown that changes in pregnant women's health service utilization and child feeding practices resulting from community interventions contribute to future stunting reductions[27].

Outcome: Impact and Effectiveness of SFP Program in Stunting Prevention

Evaluations show a decrease in stunting in the Cilincing Community Health Center area. Toddlers receiving SFP (Food and Nutritional Supplements) experienced improved nutrition, supported by increased family compliance and nutritional practices. Programs such as Ceting Rematri (Rematri), iron supplementation, and routine growth monitoring also support stunting prevention. Success is influenced by cross-sector coordination, nutrition education, and human resource support, despite constraints on family economic and educational factors. To date, evaluations of stunting programs have only looked at factors such as supplementary food or multivitamin consumption, but overall program success needs to be more accurately monitored and evaluated.[28]Most informants reported a decrease in the percentage of stunted toddlers at the Cilincing Community Health Center based on simultaneous measurements. This decrease was also influenced by the increasing age of the toddlers, while the stunting program no longer prioritizes children who have moved out of the toddler age group. Data from the Cilincing Community Health Center shows a high prevalence of stunting in children aged 24–59 months, at 68.9%. Significant risk factors include clean and healthy living habits, parenting patterns, and a history of diarrhea, with children who have had diarrhea having a 56-fold higher risk of stunting. Meanwhile, a history of exclusive breastfeeding was not significantly associated with stunting. Compared to Serdang Regency[29], where the prevalence of stunting decreased by 37% and there was a significant increase in HAZ and WHZ scores after the FSH supplement ± nutritious biscuits intervention, differences in the context and results of the intervention were seen.

Addressing stunting requires cross-sector collaboration across sectors such as health, social, agriculture, and education, as well as strengthening nutrition management and accountability in accordance with the ICN2 integrative framework within the UN Decade of Action on Nutrition[30]. Supervisory meetings are held quarterly and annually. Implementation has achieved the target of at least 70% annually[26]. Monitoring of the stunting program at the Cilincing Community Health Center is carried out routinely every three months and annually with a target of 70% per year. Despite good implementation and administration, the prevalence of stunting remains high (68.9%). Comparisons with Jember and Lombok show that successful stunting reduction is influenced by effective interventions, local innovation, and the involvement of field personnel, not just supervision[31],[32].

The government needs to play a more active role as a coordinator, facilitator, implementer, and accelerator, as well as conduct evidence-based policy evaluations as a basis for formulating new strategies in addressing stunting[33]. The success of stunting reduction efforts depends on effective collaboration between various stakeholders. This study highlights that social capital, consisting of social networks, collective norms, and trust, plays a critical role in strengthening stunting reduction efforts[34]. Village-based

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nutrition education provided in groups to caregivers on key infant and young child feeding practices, as well as improved knowledge and practices on water, sanitation, and hygiene (WASH), has been shown to have an impact on increasing children's dietary diversity. However, these interventions have not shown a significant impact on reducing stunting in a recent study conducted in Northern Malawi[35]. The private sector plays an important role in improving child nutrition, but national authorities need to define their role according to local needs and evidence-based policies, such as the International Code of Marketing of Breast-Milk Substitutes[36].

Study limitations

This study has limitations such as the subjective nature of the qualitative analysis, limited coverage within the Cilincing Community Health Center area, a small number of informants, and the use of purposive sampling that is not representative of the population. External factors such as poverty, access to health services, and the environment also influence the results. Furthermore, the logic model used does not encompass all external variables, so the program's long-term impact is not fully depicted. This study excels because it uses a qualitative case study approach that explores SFP implementation in depth, complemented by a logic model to systematically map the relationship between inputs and outcomes. Furthermore, the study considers multisectoral factors, making the results relevant for strengthening stunting prevention policies and practices and offering novelty compared to studies that focus solely on prevalence rates.

Research Implications

This study emphasizes the need for synchronized policies, budgets, and supervision of stunting programs to ensure equitable implementation of SFP. Success is influenced by communication, SFP variation, and family involvement, supported by nutrition education, innovation, and the role of cadres and the community. These findings provide the basis for an evidence-based policy evaluation to accelerate stunting reduction in densely populated areas like Cilincing.

CONCLUSION

This study shows that the Supplementary Feeding Program (SFP) at the Cilincing Community Health Center has been well implemented in terms of inputs (human resources, facilities, funding), processes (staff task allocation, growth monitoring, nutrition counseling), and outputs (family compliance, routine SFP provision). However, the effectiveness of SFP in reducing the risk of stunting remains limited, especially among toddlers from families with limited economic resources and low education. Field findings indicate that SFP product variation, family compliance, and cross-sectoral coordination are the main inhibiting factors.

Qualitative interviews indicate that the success of the SFP program depends on nutrition education, family support, and the active role of Posyandu (Integrated Service Post) cadres, not just the provision of supplementary food. Despite good program coordination and structure, gaps in understanding and practice at home remain. Therefore, innovative strategies that emphasize cross-sector synergy, strengthened education, and family empowerment are needed. This study recommends increasing the capacity of health workers and ongoing evaluation to strengthen the effectiveness of stunting prevention in Cilincing.

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