

Family-Based Child Nutrition Services for Stunting Prevention Among Families with Children Under Five: A Descriptive Study

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ABSTRACT

Introduction: Child nutrition issues remain a significant public health challenge in Indonesia, particularly stunting. Stunting is a condition in which children experience growth failure due to malnutrition, leading to long-term health issues and cognitive development problems. The current prevalence of stunting in Indonesia remains high, still exceeding the national target. This study aimed to describe family-based child nutrition services and family-related factors supporting stunting prevention among families with children under five years.

Methods: This study employed a quantitative descriptive design. The study was conducted among 100 families with children aged 12–59 months in the working area of Karang Pule Community Health Center. Respondents were selected using purposive sampling. Data were collected using a structured questionnaire to assess knowledge, attitudes, family support, the role of health workers, and family-based child nutrition services. Data were analyzed using descriptive statistics and presented as frequencies and percentages.

Results: The findings showed that 60% of respondents had good knowledge, 70% had positive attitudes, 65% reported strong family support, and 55% perceived a good role of health workers. Family-based nutrition services were rated as good by 58% of respondents.

Conclusions: Knowledge, attitudes, family support, and the role of health workers contribute to the successful implementation of family-based child nutrition services. Strengthening family participation and improving nutrition education may enhance efforts to prevent stunting among children under five years of age.

Introduction

Nutritional issues remain a major health problem today that can affect human resources. Stunting is a condition of growth failure caused by chronic malnutrition. Stunting in children can lead to impaired cognitive development, reduced productivity, and increased susceptibility to disease. (Traore et al., 2023).



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According to the Indonesian Nutritional Status Survey (SSGI), the prevalence of stunting in Indonesia has shown a gradual decline over recent years; however, the prevalence remains above the national target and continues to be a major public health challenge (Kemenkes RI, 2023). In addition, Indonesia continues to face a triple burden of malnutrition, including stunting, wasting, and childhood obesity.

In recent years, the prevalence of stunting in Indonesia has decreased, but stunting rates remain above the national target and require sustained intervention. (UNICEF, 2023)(Organization, 2022) In addition, Indonesia faces three major nutrition challenges: stunting, wasting, and childhood obesity. (RI, 2023)(Mohammed et al., 2023)

Stunting develops gradually beginning from inadequate maternal nutrition before and during pregnancy, followed by inappropriate infant and young child feeding practices, recurrent infections, and insufficient environmental sanitation. These conditions contribute to chronic malnutrition that eventually results in impaired linear growth among children under five years of age.

National programs such as the improvement of Posyandu and the First 1,000 Days of Life (HPK) Initiative have been implemented. However, because family involvement is not yet optimal, the results remain limited. Studies show that family circumstances and the social environment significantly influence feeding practices, parenting styles, and access to health services (Bukusuba et al., 2017). Since the family is central to child care and nutrition, a family-based approach to nutrition services holds great promise. There is evidence that involving fathers and other family members can improve nutrition outcomes (Kronik et al., 2022)(Nurastrini & Kartini, 2014). The purpose of this study is to examine the current state of family-based child nutrition services, as well as the factors influencing them at the community level. (Traore et al., 2023).

On the other hand, health workers such as midwives and posyandu cadres play a crucial role in providing education and support to the community. However, the services provided tend to be routine in nature and do not yet fully adopt a family-centered approach. Posyandu activities are often limited to weighing and record-keeping without being followed by comprehensive and participatory nutrition counseling.(Andriani & Nurdiana, 2024).

Along with the evolution of healthcare concepts, the family-centered care approach has increasingly been developed as a strategy to improve the quality of child healthcare services. This approach positions families as active partners in the care process and decision-making regarding children's health. In the context of nutrition, the family-based approach is believed to be more effective because it fosters sustainable behavioral changes at the household level.

However, to date, there remains a limited body of research specifically identifying the potential and readiness of families to support family-based child nutrition services at the community level. Most studies have focused on individual factors, such as maternal knowledge or feeding practices, without comprehensively examining the family's role as a support system.(Suhartini et al., 2024)

Given these challenges, research is needed to identify the potential of family-based child nutrition services and the factors influencing them, including knowledge, attitudes, family



support, and the role of health workers. The findings of this study are expected to serve as a foundation for developing a more effective, sustainable, and practical family-based nutrition service model at the community level, particularly in efforts to accelerate the reduction of stunting. (Kusumaningrum et al., 2022; Lestari, 2022).

Therefore, this study aimed to describe family-based child nutrition services and family-related factors supporting stunting prevention among families with children under five years.

Methods

This study employed a quantitative descriptive design. The study was conducted from June to August 2025 in the working area of Karang Pule Community Health Center, Mataram, Indonesia (Notoatmodjo & M.A., 2018).

The population comprised all families with children aged 12–59 months residing in the working area of the Karang Pule Community Health Center. The inclusion criteria were: (1) parents or primary caregivers of children aged 12–59 months, (2) willing to participate in the study, and (3) able to communicate and complete the questionnaire. Respondents who submitted incomplete questionnaires were excluded from the study. A total of 100 respondents were included in this study. Samples were selected using purposive sampling based on the predetermined inclusion criteria.

Data collection was conducted after obtaining permission from the relevant authorities. Eligible respondents were informed about the objectives of the study and asked to provide informed consent before participating. Respondents then completed the questionnaire under the guidance of the researcher.

The research instrument was a structured questionnaire consisting of five domains: knowledge, attitudes, family support, the role of health workers, and family-based child nutrition services. The questionnaire contained 25 items. Knowledge was measured using 10 questions with a score of 1 for correct answers and 0 for incorrect answers. Attitudes, family support, the role of health workers, and family-based nutrition services were measured using a four-point Likert scale ranging from strongly disagree (1) to strongly agree (4). Higher scores indicated better outcomes in each domain.

The questionnaire was reviewed by experts to ensure content validity and was tested for reliability prior to data collection. The instrument demonstrated acceptable reliability with a Cronbach's Alpha coefficient greater than 0.70.

Data were analyzed using descriptive statistics. The findings are presented as frequencies, percentages, means, and standard deviations to describe respondent characteristics and study variables. This study received ethical approval from the Health Research Ethics Committee of Universitas Islam Al-Azhar with ethical clearance number 051/EC-04/FK-06/UNIZAR/VI/2025. All respondents were informed about the objectives, procedures, benefits, and risks of the study. Written informed consent was obtained from all participants prior to data collection. Confidentiality and anonymity of respondents were maintained throughout the study.

Results



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Respondent Characteristics

Table 1. Distribution of Respondent Characteristics (n=100)

Characteristics	n	%
Mother's Age		
< 20 years	10	10
20-35 years	70	70
> 35 years	20	20
Education		
Elementary School	20	20
Junior High School	30	30
Senior High School	40	40
College	10	10
Employment		
Homemaker	65	65
Employed	35	35
Posyandu Participation		
Active	80	80
Inactive	20	20

The results of the study show that the majority of respondents 70% are in the working-age group (20-35 years old) and 40% have a high school education. Most respondents also actively participate in posyandu activities (80%).

Table 2. Distribution of Research Variables (n=100)

Variables	Category	n	%
Knowledge	Good	60	60
	Fair	25	25
	Poor	15	15
Attitudes	Positive	70	70
	Negative	30	30
Family Support	Good	65	65
	Fair	20	20
	Poor	15	15
Role of Health Workers	Good	55	55
	Fair	30	30
	Poor	15	15
Family-Based Nutrition Services	Good	58	58
	Fair	27	27
	Poor	15	15

In univariate analysis, the majority of respondents demonstrated good knowledge (60%), positive attitudes (70%), and strong family support (65%). The role of health workers was rated as good by 55% of respondents, while family-based nutrition services were rated as good by 58% of respondents.

The findings indicate considerable potential for implementing family-based nutrition services in the study area. More than half of respondents reported good family support, positive attitudes toward child nutrition, and active involvement in Posyandu activities. These findings suggest



that families possess substantial resources and readiness to support nutrition improvement programs at the household level.

Discussion

The study results show that the majority of respondents have a good level of knowledge (60%), but 15% still lack sufficient knowledge. This indicates that although information regarding child nutrition is fairly widespread in the community, there remains a gap in understanding among some families. Knowledge is a critical factor in shaping health behaviors. Families with good knowledge are more likely to understand children's nutritional needs, select appropriate food items, and implement a balanced diet. Conversely, a lack of knowledge can lead to errors in feeding practices, such as providing inappropriate complementary foods or a lack of dietary variety. (Sukma et al., 2024)

These findings are consistent with previous research indicating that mothers' knowledge is closely associated with children's nutritional status and feeding practices. (NMW, 2023) Furthermore, the global literature also confirms that improving nutritional knowledge is a first step in interventions aimed at improving children's nutritional status. (RE & CG, 2023) (Nurdiana & Kartika, 2021; Bhutta et al., 2023). However, high levels of knowledge are not always accompanied by optimal practices. This indicates that knowledge must be supported by other factors such as attitudes, motivation, and environmental support.

Most respondents held positive attitudes toward child nutrition services (70%). This indicates a high level of readiness and acceptance regarding the importance of meeting children's nutritional needs, as well as engagement in posyandu activities. Attitude is a predisposing factor that influences an individual's behavior. A positive attitude reflects an individual's belief and awareness of the importance of a health-related action. In this context, families with positive attitudes tend to be more open to nutrition education and more active in adopting a healthy lifestyle. (Sukma et al., 2024). These findings are supported by health behavior theory, which states that positive attitudes encourage individuals to take actions consistent with their knowledge. Other studies also indicate that mothers' attitudes significantly influence child feeding practices. (Guerra Toro et al., 2024)

However, 30% of respondents still held negative attitudes. This may be influenced by cultural factors, family customs, and inaccurate perceptions regarding child nutrition. Therefore, educational interventions must not only enhance knowledge but also change family attitudes and perceptions. The study results indicate that 65% of respondents have good family support, yet 15% still lack adequate support. Family support in this study includes emotional and financial support, as well as family members' involvement in child-rearing. (Andriani & Nurdiana, 2024)

Family support acts as a reinforcing factor in health behavior change. The involvement of fathers and other family members is crucial in ensuring the sustainability of good feeding practices. For example, a father's support in providing nutritious food or helping to remind the family of posyandu schedules can improve the quality of child care. These findings align with the concept of family-centered care, which emphasizes that the family is the primary unit in child health care. UNICEF also states that child-rearing and feeding practices are strongly influenced by the family and social environment (Organization, 2022; UNICEF, 2023). A lack of family



support can be a barrier to meeting children's nutritional needs, especially if the mother, as the primary caregiver, does not receive assistance from other family members. Therefore, a family-based approach is essential to increase the involvement of all family members. Fifty-five percent of respondents rated the role of health workers as good, but 15% still rated it as inadequate. This indicates that while health services are in place, there is still room for improving service quality.

The role of health workers is crucial in providing education, counseling, and monitoring children's growth and development. Midwives and Posyandu cadres are the frontline providers of health services at the community level; thus, the quality of their interactions with the community is critical to the success of nutrition programs. These findings align with research indicating that community-based interventions involving healthcare workers are effective in improving children's nutritional status. (Andriani & Nurdiana, 2024; Organization, 2020; RI, 2023).

However, services that remain routine (weighing and record-keeping) without comprehensive counseling can reduce the effectiveness of interventions. Therefore, it is necessary to enhance the capacity of health workers in providing family-based education and adopting more participatory communication approaches. Research findings indicate that 58% of respondents have effectively implemented family-based nutrition services, yet 15% remain in the "inadequate" category. This suggests that the potential for developing family-based nutrition services is significant but has not yet been fully optimized. Family-based nutrition services encompass the practice of providing nutritious food, growth monitoring, and the involvement of family members in child care. This approach is considered more effective because it involves the entire child's support system within the family. (Sartika et al., 2023; Status et al., 2016; Suhartini et al., 2024; Ulfa & Naimah, 2020).

These findings are supported by research stating that family-based interventions can significantly improve feeding practices and children's nutritional status. Additionally, this approach is more sustainable as it is based on behavioral changes at the household level. However, the continued presence of families with suboptimal practices indicates that more intensive interventions are needed, particularly in the form of education, guidance, and family empowerment. (Black & Victora, 2023; Jokhu et al., 2024; Siramaneerat, 2024; Wicaksono et al., 2021).

The findings indicate that family-based nutrition services have substantial potential to support stunting prevention efforts. The relatively high proportion of respondents demonstrating positive attitudes, adequate knowledge, and strong family support suggests that communities are receptive to nutrition interventions involving family participation. The success of family-based nutrition services depends not only on maternal knowledge but also on the involvement of fathers, grandparents, and other family members who contribute to child feeding and caregiving practices. Therefore, future nutrition programs should adopt family-centered approaches that actively engage all household members in nutrition education and behavior change activities.

Conclusion

This study identified that knowledge, attitudes, family support, and health worker roles are important factors in supporting family-based child nutrition services. Strengthening family



participation and improving community-based nutrition education may contribute to better nutritional practices and stunting prevention among children under five years of age.

These results emphasise how crucial a family-centered strategy is for treating child nutrition issues, especially stunting. Sustainable results are more likely to emerge from interventions that improve the role of community health workers and involve other family members in addition to mums (Black et al., 2023; Menon et al., 2023).

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