



Exploring Mothers' Perspectives and Experiences on Stunting: Implications for Interventions at Health Center

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ABSTRACT

Background: Stunting is one of prevalent form of malnutrition affecting children worldwide. According to the World Health Organization (WHO), approximately 148.1 million children under the age of five are classified as stunted, meaning their height is below the expected standard for their age. It is suspected that stunting associated with developmental delays in children. Stunting can result from multiple factors, one of which is the lack of maternal knowledge and awareness regarding this condition.

Purpose: This study aims to describe the experiences and understanding of mothers with children diagnosed with stunting.

Methods: This research employs a qualitative descriptive design. The study sample consists of eight mothers with stunted children aged 1–5 years, selected using purposive sampling and snowball sampling. Data analysis was conducted using content analysis.

Results: The findings indicate that most respondents perceive stunting merely as a condition characterized by short stature and low body weight, often attributing it to genetic factors. Their knowledge and understanding of children's dietary patterns and maternal nutrition during pregnancy remain incomplete. Additionally, environmental hygiene practices are limited to basic activities such as sweeping, mopping, and dusting, without considering other hygiene aspects that may impact child health.

Conclusion: Although respondents regularly attend *posyandu* (integrated health service posts) and acknowledge its benefits, and receive information about stunting from multiple sources such as *posyandu*, midwives, and community health volunteers (*kader kesehatan*), the absence of a structured and routine stunting awareness program in the village poses a significant challenge in strengthening maternal understanding and prevention efforts. The information received is lacks depth, resulting in suboptimal application of knowledge in daily practices.

Keywords: *Stunting; Qualitative; Children; Perspectives*

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BACKGROUND

Stunting is one of the most prevalent forms of malnutrition affecting children worldwide. In 2022, the World Health Organization (WHO) reported that 148.1 million children under the age of five experienced stunting (WHO, 2023). In Indonesia, the prevalence of stunting, as reported by the 2022 Indonesian Nutritional Status Survey (*Survei Status Gizi Indonesia—SSGI*), was 21.6%, marking a decline from 24.4% in 2021. In 2023, Lampung Province recorded a stunting rate of 14.9%, making it the third-lowest province in Indonesia in terms of stunting prevalence (Akombi et al., 2017).

Stunting has detrimental effects on a child's growth and development, including cognitive impairment, metabolic disorders, and an increased risk of chronic diseases in adulthood, ultimately leading to reduced economic productivity (Ministry of Health In Indonesia., 2021). One of the contributing factors to stunting is limited maternal knowledge about this condition. A lack of understanding among mothers can influence parenting practices, participation in *posyandu* (integrated health service posts), and the provision of complementary feeding (*makanan pendamping ASI*). Moreover, misconceptions that stunting is solely caused by genetic factors further exacerbate this issue (Weatherspoon et al., 2019).

Parenting practices are shaped by sociocultural factors, including dietary restrictions during pregnancy and exclusive breastfeeding practices. The prevailing societal perception that breast milk alone is insufficient for infants encourages mothers to provide formula milk (Pratiwi et al., 2021). Formula milk is often believed to be more nutritious than breast milk due to its high cost. This misconception is one of the factors contributing to the failure of exclusive breastfeeding (Humphrey et al., 2019; Reverri et al., 2022). Additionally, cultural practices, such as the tradition of giving honey or mashed dates to newborns immediately after birth, have also been identified as influencing breastfeeding practices. In the working area of Candipuro Community Health Center (*Puskesmas Candipuro*), three children were identified as undernourished out of a total of 176 children under five (Ginting & Hadi, 2019). Given the crucial role of mothers in stunting prevention, this study aims to explore maternal understanding and experiences related to stunting in the working area of *Puskesmas Candipuro*.

OBJECTIVE

This study aims to describe the experiences and understanding of mothers with children diagnosed with stunting.

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METHODS

This study employs a qualitative approach to describe the concept of stunting and the experiences of mothers with stunted children in the working area of Puskesmas Rawat Inap Candipuro. Data collection was conducted between August to September 2024, the research involved purposive sampling to select participants who met specific inclusion criteria as well as snowballing sampling. The study population consisted of mothers with stunted children aged 1–5 years (based on Puskesmas Candipuro records) as well as women that were recruited based on information from participants; women who were able to communicate effectively and voluntarily agreed to participate as informants. Primary data were collected through in-depth interviews with 8 participants, while secondary data were obtained from Puskesmas Candipuro records on stunted children.

The collected data were analyzed using content analysis techniques to identify key themes related to maternal understanding and experiences of stunting. This approach allowed for an in-depth examination of the factors influencing maternal perceptions, behaviors, and responses to stunting. By analyzing both firsthand accounts and recorded health data, the study aims to provide valuable insights for developing more effective interventions to address stunting in the community.

RESULTS

This study identifies four themes derived from ten categories, as presented in the table below.

Table 1. The development of themes

Categories	Themes
Definition of stunting	Mothers' knowledge of stunting
Causes of stunting	
Knowledge of nutritious food for children's growth	Utilization of Posyandu in stunting management
Mothers' experiences with Posyandu for children	
Mothers' knowledge of Posyandu benefits	
Meeting nutritional needs during pregnancy	Mothers' perceptions and practices in supporting child health within the household
Environmental hygiene practices	
Feeding habits for children	
Sources of information on stunting	

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Socialization activities on stunting

Dissemination of information and education on stunting in the community

1. Maternal Knowledge of Stunting

The study findings indicate that mothers of young children in the *Puskesmas Rawat Inap Candipuro* area have limited understanding of stunting. Most informants define stunting solely based on physical characteristics, such as short stature and thin body size, without recognizing its long-term impact on cognitive development and child health. Statements such as "*Stunting means the child is small, short, and thin*" (If2) and "*Stunting seems to be when a child is small-bodied and short*" (If4) reflect a superficial understanding.

In reality, stunting encompasses broader developmental issues, including cognitive impairment, motor skill delays, and an increased risk of chronic diseases in the future. These findings align with research which found that mothers generally recognize stunting but lack awareness of its prevention and management. Therefore, comprehensive education on stunting is crucial to enhancing maternal understanding of the importance of adequate nutrition during the *First 1,000 Days of Life (HPK)*.

The majority of informants held misconceptions about the causes of stunting, believing it to be primarily hereditary. Statements such as "*In my opinion, it is due to genetic factors*" (If5) illustrate this inaccurate belief. It is believed that stunting is caused by interplay between heredity and environmental factors. However, genetic factors contribute only about 15% to stunting, while the primary causes are inadequate nutritional intake, recurrent infections, and suboptimal environmental sanitation (Aguayo & Menon, 2016; Kwami et al., 2019).

This incorrect perception results in a lack of proactive efforts by mothers to improve their children's dietary patterns. Similar findings were reported which emphasizing that nutritional quality significantly influences early childhood growth (Oktorina, 2018). Community-based education initiatives are necessary to shift the perception that stunting is a "genetic fate," thereby encouraging mothers to take an active role in preventing and addressing stunting through proper nutrition and appropriate childcare practices (Eka Arum Cahyaning Putri Hakim et al., 2024; Stewart et al., 2013).

Interview results reveal that most informants associate nutritious food primarily with physical appearance, such as making a child "chubby" or "plump." For example, statements like "*Yes, it has an effect; the child can become fat*" (If6) and "*Yes, it makes*

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the child chubby" (If7) reflect this perception. This view indicates a limited understanding of the role of nutrition in supporting bone growth, muscle development, and brain function. Study emphasizes that prolonged deficiencies in macro- and micronutrients can lead to nutritional disorders, including stunting. Mothers need to recognize that nutritious food is not solely intended to increase body weight but also to ensure optimal physical and cognitive development in children.

2. Utilization of Posyandu in Stunting Management

The majority of mothers reported positive experiences and actively participated in Posyandu activities. Informants stated that they regularly attended these sessions every month (If2: "I attend regularly"; If3: "Every month regularly"). Despite high participation rates, a significant number of children remained stunted. Mothers' understanding of stunting was largely limited to its physical characteristics, such as short stature and thinness, without comprehending its underlying causes or preventive measures. The information provided during Posyandu sessions was not fully understood or effectively applied. Posyandu activities primarily focused on measuring weight and height, with limited emphasis on educating mothers about balanced nutrition, parenting practices, and environmental hygiene (Bliznashka et al., 2021; Krishna et al., 2018; Said-Mohamed et al., 2015).

Key contributors to stunting, including inadequate nutritional intake, recurrent infections, and poor sanitation conditions, were often not addressed despite mothers' active participation in Posyandu. This finding underscores the limitations of Posyandu interventions in delivering integrated services for stunting prevention.

Most informants acknowledged the benefits of Posyandu in monitoring child growth through weight measurement, height assessment, and immunization provision (If1: "It has many benefits; besides receiving immunization, my child is also weighed and measured for height"). However, the primary focus of Posyandu remains on curative services, such as immunization and vitamin supplementation, with limited emphasis on stunting prevention education. Informants generally lacked awareness of the relationship between stunting and factors such as balanced nutrition, environmental hygiene, and proper dietary management.

Economic constraints and limited access to diverse nutritious foods were also identified as major barriers to implementing the information provided at Posyandu. Suboptimal feeding practices and poor sanitation further exacerbated the risk of stunting. While Posyandu plays a crucial role in monitoring child growth, existing interventions have not been fully effective in addressing the multifaceted causes of stunting. A more

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comprehensive approach is required, incorporating in-depth education on stunting prevention, targeted support for at-risk families, and improved service quality within Posyandu programs.

3. Mothers' Perceptions and Practices in Household Health and Environment

Interviews revealed that most informants perceived that they had adequately met their nutritional needs during pregnancy. As described by the second informant: *"I think I have, I consume vegetables, fish, tofu, tempeh, meat, and eggs"* (If2). Findings indicate that the majority of informants believed they had fulfilled their dietary requirements during pregnancy by consuming tempeh, tofu, vegetables, eggs, fish, and occasionally chicken and meat. Most informants acknowledged the importance of nutritional intake for fetal growth and reported efforts to ensure adequate consumption of these food items. However, their understanding tended to focus on food quantity rather than the balance and diversity of essential nutrients required during pregnancy (Abdulahi M, Fretheim A, Argaw A, 2021; Cotelo et al., 2018).

The study found that most informants maintained household cleanliness by sweeping, mopping, and disposing of waste regularly to prevent dust accumulation. Additionally, they reported the habit of washing hands before and after meals as a personal hygiene measure. The first informant (If1) stated: *"Sweeping, mopping, cleaning the house, washing hands before and after meals."* Most informants demonstrated a high awareness of the importance of maintaining a clean home environment to promote children's health. However, this awareness was not always linked to stunting prevention. Many mothers were unaware that environmental hygiene plays a critical role in preventing infections such as diarrhea and intestinal worms, which can impair nutrient absorption in children.

The majority of mothers provided their toddlers with three meals per day, with daily diets predominantly consisting of tempeh, fish, tofu, and vegetables. The fifth informant (If5) stated: *"I think I have, I consume vegetables, fish, tofu, tempeh, and occasionally meat"*. Some mothers also reported difficulties in managing children who refused to eat. A common solution was allowing children to consume snacks, even though these snacks were often low in nutrients and high in sugar, salt, or preservatives. This practice may contribute to poor nutritional status among children, highlighting the need for improved education on nutritious alternatives that are appealing to young children.

4. Dissemination of Information and Education on Stunting in the Community

The study findings indicate that most mothers of young children have received information about stunting from various sources, including *posyandu* (integrated health

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posts), midwives, healthcare workers, and community health cadres. The following excerpt from an interview illustrates these sources, the first informant stated: *"From the midwife during the posyandu session" (If1)*. The information received about stunting generally covers its definition, causes, and long-term effects on children's physical growth and development. However, mothers' understanding of stunting varies. Some mothers recognize it as a chronic nutritional issue affecting children's height and cognitive abilities, while others perceive it merely as a condition characterized by short stature in children (Bliznashka et al., 2021; UNICEF/WHO/WORLD BANK, 2021).

The study found that most informants reported the implementation of stunting awareness programs in their villages. However, these programs lack a regular schedule. The fifth informant (If5) stated: *"Not necessarily, sometimes once a month, sometimes twice a year from the community health center staff."* The absence of a regular schedule for stunting awareness programs in villages poses a significant challenge in improving mothers' understanding of stunting prevention. Information about stunting is often obtained sporadically, such as through informal conversations with health cadres or during unscheduled healthcare visits (Gosdin et al., 2018; Goudet et al., 2019).

DISCUSSION

Stunting remains a significant public health issue, with a range of factors influencing its prevalence in different communities. In many communities, mothers often perceive stunting as being caused by genetic factors, leading them to believe that there is little they can do to prevent or address it (Rahmawati et al., 2020). This misconception can result in a lack of proactive measures to ensure proper nutrition and healthcare for their children. When stunting is attributed to genetics, mothers may feel that it is an inevitable condition and may not prioritize practices such as exclusive breastfeeding or providing nutritious foods (Nurliyana et al., 2016). Such beliefs contribute to a passive attitude toward child health and can hinder the effectiveness of interventions aimed at preventing stunting. It is essential to address these misconceptions and provide mothers with the knowledge that stunting is influenced by various factors, including nutrition, healthcare, and environmental conditions, and that early interventions can have a significant impact on a child's growth and development.

The role of community-based health services, such as Posyandu (Integrated Health Post), is crucial in addressing stunting (Juarez et al., 2021). Mothers' awareness of the benefits of Posyandu, including its role in monitoring child growth and providing nutritional guidance, can significantly improve the uptake of services aimed at preventing stunting. A study showed that children who visit Posyandu irregularly or never attend have a 7.2 times higher risk of experiencing stunting. The level of participation in Posyandu

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programs varies, with some mothers not fully utilizing these services despite their potential benefits (Wemakor et al., 2018). Moreover, a study indicates that the utilization of Posyandu is not associated with stunting. One key factor influencing this is the level of engagement from health professionals. Ensuring that Posyandu functions effectively and is widely accessible can play a pivotal role in stunting prevention, especially in rural and underserved areas.

Cultural beliefs and practices, combined with a lack of comprehensive education on nutrition and stunting, further hinder efforts to reduce the prevalence of stunting. In this study, mothers assumed that they had provided nutritious food for their children. However, it remains unclear whether the quantity and diversity of the food provided were sufficient. A study revealed that dietary diversity is one of factors associated with stunting (Kang et al., 2017; Mekonnen et al., 2021). In the context of Indonesia, there is a need for widespread education and socialization activities to raise awareness about the importance of adequate nutrition, early childhood care, and the prevention of stunting. Public health campaigns aimed at dispelling myths about infant feeding and promoting proper practices, such as exclusive breastfeeding and balanced diets, are essential. Furthermore, enhancing access to information about stunting prevention through community-based initiatives can empower mothers and families to make informed decisions about child health (Martorell & Zongrone, 2012; Shinde et al., 2021). Ultimately, a multifaceted approach, combining healthcare, education, and community support, is critical in addressing the root causes of stunting and improving child health outcomes.

CONCLUSION

Based on in-depth interviews with seven informants, this study provides valuable insights into the knowledge and experiences of mothers of young children regarding stunting. The findings suggest that informants primarily perceive stunting as a condition characterized by short and thin stature, often attributing it to hereditary factors. Knowledge of maternal nutrition during pregnancy remains incomplete, while understanding of infant and toddler feeding practices lacks specificity and detail.

Furthermore, environmental hygiene practices are limited to basic activities such as sweeping, mopping, and dusting, without sufficient consideration of other hygiene aspects that could impact child health. Although informants regularly attend *posyandu* and recognize its benefits, and receive information about stunting from various sources such as *posyandu*, midwives, and health cadres, the lack of a structured and routine stunting awareness program in villages remains a major barrier. As a result, the

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information received tends to be sporadic and superficial, leading to suboptimal application of knowledge in daily life.

To effectively address stunting, a comprehensive approach combining education, healthcare, and community support is essential. Community-based education programs should dispel misconceptions that stunting is purely genetic and emphasize the role of nutrition, healthcare, and environmental factors. Strengthening Posyandu services by improving outreach, training health professionals, and addressing participation barriers can enhance child growth monitoring. Promoting proper infant and young child feeding practices and adequate dietary diversity are crucial. Additionally, ensuring healthcare accessibility, supporting food security initiatives, and integrating stunting prevention into maternal and child health programs will help create sustainable improvements in child health outcomes.

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