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RESEARCH ARTICLE

Family Experiences in Caring for Children with Stunting in Timor, East Nusa Tenggara, Indonesia: A Family-Centered Nursing Approach

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Abstract

Stunting is a critical global issue, particularly in developing countries such as Indonesia, where it significantly impacts children's health and development. This study aimed to explore the experiences of families in caring for children with stunting in Timor, Nusa Tenggara Timur, Indonesia. A qualitative phenomenological approach was employed, and nine families were selected through purposive sampling. Data were collected using in-depth interviews and observations over one month. Thematic analysis, supported by NVivo 14, was used to identify recurring themes. The study's findings are framed by the Family-Centered Nursing (FCN) theory, focusing on five key tasks: recognizing the problem, decision-making, caregiving capacity, modifying the environment, and utilizing healthcare services. Results indicated that while families recognized the issue of stunting, many attributed it to genetic factors. However, after guidance from healthcare workers, families engaged in available interventions, including attending Posyandu and participating in the government's Supplementary Feeding Program. Families also expressed the need for educational reinforcement about stunting, particularly regarding its environmental and nutritional causes. Practical implications suggest the necessity of empowering families with skills to prepare complementary feeding using local resources and encouraging greater involvement of fathers in caregiving roles. Multisectoral approaches that involve healthcare, education, and social support are essential to effectively address stunting prevention.

Keywords: Stunting, Family, Posyandu, Complementary Feeding, Supplementary Feeding Program

Abstrak: Stunting adalah masalah global yang krusial, terutama di negara berkembang seperti Indonesia, di mana hal ini memiliki dampak signifikan terhadap kesehatan dan perkembangan anak. Penelitian ini bertujuan untuk mengeksplorasi pengalaman keluarga dalam merawat anak dengan stunting di Timor, Nusa Tenggara Timur, Indonesia. Pendekatan fenomenologi kualitatif digunakan, dan sembilan keluarga dipilih melalui purposive sampling. Data dikumpulkan melalui wawancara mendalam dan observasi selama satu bulan. Analisis tematik, dengan dukungan NVivo 14, digunakan untuk mengidentifikasi tema yang berulang. Temuan penelitian ini dibingkai oleh teori Family-Centered Nursing (FCN), dengan fokus pada lima tugas utama: mengenali masalah, pengambilan keputusan, kapasitas perawatan, memodifikasi lingkungan, dan memanfaatkan layanan kesehatan. Hasil menunjukkan bahwa meskipun keluarga mengenali masalah stunting, banyak yang mengaitkannya dengan faktor genetik. Namun, setelah mendapatkan bimbingan dari tenaga kesehatan, keluarga terlibat dalam intervensi yang tersedia, termasuk menghadiri Posyandu dan berpartisipasi dalam Program Makanan Tambahan pemerintah. Keluarga juga menyatakan perlunya penguatan edukasi tentang stunting, terutama terkait dengan penyebab lingkungan dan gizi. Implikasi praktis menunjukkan perlunya memberdayakan keluarga dengan keterampilan untuk menyiapkan makanan pendamping ASI menggunakan sumber daya lokal dan mendorong keterlibatan yang lebih besar dari ayah dalam peran pengasuhan. Pendekatan multisektoral yang melibatkan kesehatan, pendidikan, dan dukungan sosial sangat penting untuk secara efektif menangani pencegahan stunting.

Kata Kunci: Stunting, Keluarga, Posyandu, Makanan Pendamping ASI, Program Makanan Tambahan

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INTRODUCTION

Stunting is a global issue that remains a priority in developing countries like Indonesia due to its significant impact on children's health and development (Galasso, Weber, Stewart, Ratsifandrihamanana, & Fernald, 2019). Although the prevalence of stunting in Indonesia has generally decreased (Badan Pusat Statistik, 2019), Nusa Tenggara Timur (NTT) province continues to have the highest stunting prevalence in the country (Sudikno et al., 2019). Geographic and socio-cultural factors in NTT contribute to this situation, where limited access to healthcare services, poor sanitation, and low economic conditions are the main obstacles to reducing stunting prevalence in the region (Annur, 2023).

Stunting is a global health problem influenced not only by nutritional factors but also by environmental, social, and behavioral factors. One of the main challenges in addressing stunting in the community is the knowledge gap regarding the causes of stunting, particularly the misconception about the role of genetic factors. Many still believe that short stature, a key feature of stunting, is caused by hereditary or genetic factors. However, many studies have shown that stunting is more closely related to chronic malnutrition from early childhood and unfavorable environmental conditions (Candra, 2020; Prendergast & Humphrey, 2014).

This misconception can hinder the health interventions implemented by the government and healthcare workers, as families may not feel the need to change their dietary or environmental practices, assuming that their children's condition is unchangeable due to genetics. Studies have demonstrated that while genetic factors do play a role in determining height, the impact of these factors is relatively small compared to environmental influences, particularly parenting practices, nutritional intake, and environmental health (Subramanian et al., 2016; Victora et al., 2021). Therefore, proper education is crucial to correct this misunderstanding and encourage the implementation of effective interventions (Suhardin et al., 2020).

Family-Centered Nursing (FCN) emphasizes the crucial role of the family in managing health, particularly in the context of chronic illnesses and health conditions that require long-term care, such as stunting. FCN stresses that the family has a central role in maintaining the health of its members, including decision-making related to healthcare, providing adequate and nutritious food, and creating a supportive environment (Bell, Johnson, Desai, & McLeod, 2022).

In the context of stunting management, the FCN theory is relevant because addressing stunting requires not only medical interventions but also the sustained support of the family in implementing proper dietary practices and utilizing healthcare services like posyandu (community health centers). The tasks identified in this theory, such as recognizing children's health issues, making appropriate decisions, and modifying the physical and psychological environment, are essential in the management of stunting (Efendi & Makhfudli, 2009). Families are expected to take preventive measures by providing appropriate supplementary feeding and utilizing healthcare facilities such as posyandu, which plays a role in the regular monitoring of children's growth and development (World Health Organization, 2018).

Other research supports the importance of family-based approaches in addressing stunting, particularly in encouraging behavioral changes related to nutritional intake and environmental hygiene. Active family involvement in providing supplementary foods, especially those rich in micronutrients such as iron, vitamin A, and protein, has been proven effective in preventing stunting (Black et al., 2013; Dewey & Adu-Afarwuah, 2008). Additionally, educating families on the importance of clean water, sanitation, and hygiene (WASH) is also a crucial component in stunting management (Humphrey, 2009).

Posyandu, as one of the community healthcare services in Indonesia, plays an important role in the early detection and intervention of stunting. Through posyandu, families can regularly monitor their children's development and receive early interventions if signs of stunting are detected (Fentiana et al., 2022). However, studies show that despite the availability of posyandu, active community participation still needs improvement, particularly in remote areas (Santos et al., 2021). Continuous education for families on the importance of utilizing these services can help improve participation and the effectiveness of stunting management programs.

Although numerous studies have been conducted on stunting interventions, qualitative studies exploring in-depth the experiences of families in caring for stunted children are still very limited, especially in areas with high stunting prevalence such as Nusa Tenggara Timur (NTT). Previous research has focused on quantitative interventions evaluating the impact of nutritional programs or supplementary feeding on children's growth. However, qualitative studies that delve into how families cope with the daily challenges of managing stunted children, such as understanding the condition, making decisions, and caregiving practices, remain scarce (Juarez et al, 2021).

Qualitative studies offer the advantage of providing a deeper understanding of the perceptions and socio-cultural dynamics that influence family behaviors in the context of stunting. For instance, in some communities, stunting is often viewed as an inevitable fate or seen as a part of a genetic condition that cannot be intervened upon (Suhardin et al., 2020). This knowledge gap is one of the biggest obstacles to the success of intervention programs. With a better understanding of how families perceive stunting and how they respond to government programs, interventions can be designed to better suit the needs and realities of the local community.

This study is expected to provide new insights that not only strengthen health policies but also support family empowerment in addressing stunting. In this context, family empowerment refers to strengthening families' ability to recognize, respond to, and care for children with stunting, including aspects of nutrition, hygiene, and access to healthcare services (Black et al., 2013). Empowerment is crucial because families are the frontline in child care. Those who have knowledge and access to adequate resources are more likely to take the necessary steps to address stunting (Aubel, 2012).

Community-based interventions, such as those carried out through posyandu, are also important strategies that must be strengthened. Posyandu not only serves as a place to monitor children's growth but also as a means to educate families on the importance of nutrition, sanitation, and other healthy living practices (Fentiana et al., 2022). Posyandu often serves as the frontline in detecting stunting in children, particularly in remote areas where access to healthcare facilities is more limited. By enhancing the role of posyandu and engaging families more actively in the programs offered, stunting prevention efforts can be more effective (Nurdin et al., 2022).

The main contribution of this study to stunting prevention in Indonesia is encouraging the increased role of families in understanding and addressing stunting, as

well as strengthening community-based interventions. By conducting in-depth studies on family experiences, the government and stakeholders can gain a better understanding of the real challenges faced by families in caring for children with stunting. This knowledge is crucial for developing more responsive policies and interventions tailored to local contexts.

One practical contribution of this study is in designing educational programs that are more aligned with family needs. For example, educational programs at posyandu can focus on correcting misconceptions about the causes of stunting, such as correcting the view that stunting is caused by genetic factors, so that families are more motivated to change their parenting and nutritional practices (Leroy et al., 2014). Additionally, this study can serve as the basis for developing more holistic interventions that not only focus on nutrition but also take into account other factors such as environmental hygiene, parental education, and access to clean water (Humphrey, 2009). Thus, stunting prevention programs can be more targeted and able to meet the specific needs of communities in NTT and other regions facing similar challenges.

METHOD

Study Design

This study utilized a qualitative design with a phenomenological approach to explore the lived experiences of families caring for children with stunting. The choice of a hermeneutic phenomenological approach was particularly relevant for this research because it focuses on interpreting the meaning of participants' lived experiences (Smith & Osborn, 2015). This method allows for a deeper understanding of the subjective experiences of families in the context of stunting, which aligns with the study's aim to uncover how cultural, social, and environmental factors influence their caregiving practices.

Participant Selection and Sampling

Participants were selected using purposive sampling, ensuring that only families with children diagnosed with stunting were included. The inclusion criteria consisted of families residing in Timor, Nusa Tenggara Timur (NTT), with at least one child under five years diagnosed with stunting by healthcare professionals at the local posyandu (community health post). The exclusion criteria involved families without consistent access to posyandu services, ensuring that the sample reflected those actively engaged in stunting interventions. The decision to include mothers as primary participants stems from their critical role in caregiving, as previous studies highlight that mothers are often the main providers of nutrition and healthcare for children in low-resource settings (WHO, 2018; Subramanian et al., 2016).

Data Collection Procedures

Data collection was conducted over a period of one month, during September 2023. In-depth interviews and field observations were used to gather data. The interview guidelines were developed based on the Family-Centered Nursing (FCN) theoretical framework, which identifies family roles in healthcare management, decision-making, and caregiving (Bell et al., 2022). The interviews lasted between 60 and 90 minutes and took place in participants' homes to ensure comfort and openness during discussions. The interviews were complemented by field notes, capturing non-verbal cues, environmental conditions, and daily caregiving routines observed during visits. This triangulation of data sources strengthens the credibility of the findings (Creswell & Poth, 2017).

Data Saturation

Data saturation was achieved after interviewing nine participants, as no new information emerged beyond this point. This determination was based on the repetition of themes and experiences shared by the participants, which aligns with guidelines on achieving data saturation in qualitative research (Guest, Bunce, & Johnson, 2006). The decision to stop at nine participants was supported by the methodological framework, which emphasizes depth over breadth in phenomenological studies (Smith & Osborn, 2015).

Data Analysis

Data were analyzed using the hermeneutic phenomenological method. The analysis involved thematic coding of the interview transcripts and observational data. Thematic analysis followed a structured process of repeated reading, coding, and thematic grouping, supported by the NVivo 14 software. The use of NVivo facilitated the organization of large volumes of qualitative data, enabling the researcher to systematically identify patterns and themes (Bazeley & Jackson, 2013). Codes were assigned to phrases and sections of the text, reflecting core meanings related to the family's understanding of stunting, caregiving practices, and interactions with healthcare services. Themes and sub-themes were derived from this coding process, which was reviewed multiple times to ensure consistency and accuracy.

Validity and Reliability

To ensure the validity of the findings, several strategies were employed, including member checking, where participants were given the opportunity to review and validate the accuracy of their interview transcripts. Triangulation was achieved through the use of both interviews and observations, ensuring a comprehensive understanding of the family caregiving experience (Denzin & Lincoln, 2018). Peer debriefing was conducted with another researcher experienced in qualitative methods to further enhance the reliability of the analysis and the interpretation of findings.

Ethical Considerations

Ethical approval for this study was obtained from the Health Research Ethics Committee of the Faculty of Nursing, Universitas Airlangga (approval number: 2959-KEPK). Participants were informed of their rights, including the right to withdraw from the study at any time without consequence. Informed consent was obtained from all participants prior to data collection.

RESULTS OF STUDY

The number of participants involved in this study was 9 families. A general overview of the participants' characteristics can be seen in Table 1.

Table 1.
Characteristics of Study Participants

Participant	Gender	Age (Years)	Education	Occupation	Relationship to Child	Ethnicity
P1	Female	38	Junior High School	Homemaker	Mother	Timor
P2	Female	25	Senior High School	Homemaker	Mother	Timor
P3	Female	38	Elementary School	Homemaker	Mother	Timor
P4	Female	31	Senior High School	Homemaker	Mother	Timor
P5	Female	27	Junior High School	Homemaker	Mother	Timor
P6	Female	35	Senior High School	Teacher	Mother	Timor
P7	Female	38	Elementary School	Homemaker	Mother	Timor
P8	Female	32	Junior High School	Homemaker	Mother	Timor
P9	Female	33	Elementary School	Homemaker	Mother	Timor

Table 1 shows that all participants were female and were the mothers of children with stunting. All participants were adults, ranging in age from 25 to 38 years. The majority of participants were homemakers and had received formal education at the primary and secondary levels. All participants were from the Timor ethnic group, in line with the research objectives.

Themes Overview

The researcher analyzed the results of this study by repeatedly reading the interview transcripts until the meanings could be formulated into categories, sub-themes, and themes. In addition to directly reading the interview transcripts, the researcher also utilized the "Word Frequency" feature in N-Vivo 14 to estimate the words most frequently mentioned by the participants. The results can be seen in the Figure 1.

Figure 1. "Word Frequency" Analysis Results

The Word Frequency analysis results above helped the researcher gain a general overview of the data from the participants' interviews. The researcher then proceeded to thoroughly read the interview transcripts, one by one. The researcher identified five general themes based on the interviews and observations. The themes and sub-themes were derived from the participants' shared experiences as well as observations around their living areas. The overview of the identified themes and sub-themes is illustrated in the Table 2.

This study identified five main themes related to family health tasks based on the Family-Centered Nursing (FCN) theory: recognizing the problem, decision-making, caregiving capacity, environmental modification, and utilizing healthcare services. Families generally learned about stunting through healthcare workers at posyandu, though many still mistakenly associate it with genetic factors. Further education is needed to correct this understanding so that they can focus on the importance of nutrition. After being informed about their child's stunting condition, families tend to accept it and follow the healthcare recommendations, although their understanding of the causes still needs to be clarified. Families should be encouraged to take a more proactive role in decision-making regarding nutrition and healthcare services.

Table 2. Research Themes and Sub-themes

Research Theme	Sub-theme
Identifying Problems	Source of Information
	Family Knowledge
Making Decisions	Family Response
	Family Perspective
Ability to Provide Care	-
Modifying the Environment	-
Using Health Facilities	Posyandu (Community Health)
	PMT (Supplementary Feeding) Support
	Service Quality
	Expectations

In terms of caregiving capacity, some families rely on the Supplementary Feeding Program (PMT), highlighting the need to improve their skills in preparing nutritious local foods for MP-ASI. Environmental modifications, such as growing moringa plants, have been implemented by some families, but involvement from other family members, particularly fathers, in caregiving remains limited. All families in this study utilized posyandu and PMT programs, but continuous education is needed to ensure they optimize the use of available services.

Interpretation of Research Results

The themes of this research are based on the five family health tasks outlined in the Family-Centered Nursing (FCN) theory–an underlying nursing theory used by the researcher in this study. These themes include: recognizing problems, making decisions, caregiving ability, modifying the environment, and utilizing healthcare facilities. Some themes have sub-themes, while others do not.

1. Identifying the Problem

The first family health task is recognizing health problems. Based on the analysis results, this theme consists

of two sub-themes: sources of information and family knowledge.

a. Sources of Information

All participants reported that information about their children's stunting status was obtained from health workers at the Posyandu (integrated health post). They routinely monitor their children's growth and development at the Posyandu every month. Health workers then classify children as stunted or not based on anthropometric measurements. This sub-theme is illustrated by the following participant statements:

"The midwife said..." (P1, P7, and P8)
"When the child is said to be stunted or malnourished, as parents, we definitely try to ask the health workers," (P3)
"At that time, the midwife and cadres said..." (P4 and P9)

b. Family Knowledge

The family's or participants' knowledge about stunting is generally obtained from health workers and cadres during Posyandu activities. Participants reported that health workers explained what stunting is. Participants also actively asked about information they did not understand. When confirmed by the researcher, participants generally described stunting as a condition where the body height does not match the age. However, some participants considered stunting as a disproportion between weight and height. This sub-theme is illustrated by the following participant statements:

"His height and age are not matching..." (P1, P5)
"Weight does not match the height..." (P2)
"Not tall enough..." (P3)
"Stunting means short..." (P4)
"Weight and height do not match the age." (P6, P7, and P8)

2. Making Decisions

The second family health task is the ability to make decisions regarding the health issues faced. The participants' ability to make decisions is reflected through the following two sub-themes: family response and family perspective.

a. Family Response

Participants or families with children experiencing stunting were generally shocked when they first received information from health workers. Participants felt that stunting was not an issue for them. However, once explained by the health workers, participants ultimately accepted and resigned themselves to their children's condition. This sub-theme is illustrated by the following participant statements:

"I wanted to do something, but it seems like it's just how it is, so I accepted it..." (P1)
"I was surprised... if the health workers or authorities diagnose our child with stunting, what else can we say..." (P2)
"As a mother, it feels... it feels inadequate." (P3)
"When it's like that, what can we do? (resigned). We just take care of it." (P4)
"At that time, it felt like, oh, why did it get to stunting? Well, maybe that's how it is. Just accept it." (P6)
"I was shocked... didn't know what to say..." (P7)
"Also shocked...., but what can we do..." (P9)

b. Family Perspective

The researcher identified a contradictory perspective among most participants. Generally, participants said they could accept their child's stunting status and follow the treatment program provided by health workers. However, on the other hand, when the researcher probed further, participants also believed that their children's short stature was due to the parents or previous generations also being short. This sub-theme is illustrated by the following participant statements:

"We think it might be due to hereditary factors, just look at his mother, she is short... indeed, his parents are short too; his mother is also short." (P1)
"If we say here, it's a hereditary factor..." (P2)
"Sometimes we think it's because of his father or his uncle who also have short legs..." (P3)
"...his father is also short. Siblings are also short..." (P4)
"Maybe it's because of hereditary factors, because we are not very tall either..." (P6)

3. Caregiving Ability

The third family health task is the ability to care for sick family members, in this context, caring for a child with stunting. Generally, participants explained that they focus on providing and giving nutritious food and drinks. Participants make efforts to prepare porridge or Complementary Foods, and provide milk and vitamins if possible. Some participants also pay attention to the child's cleanliness and rest time. Participants also mentioned that they feel supported by government assistance in the form of Supplementary Feeding Program managed by the local village government. This theme is illustrated by the following participant statements:

"We feed him as usual; give him milk..." (P1)
"As parents, we have to provide a proper diet for the child and ensure they also get enough rest..." (P2)
"Cook and give vegetables, buy tempeh and tofu, mix and make soup to feed him... also give milk according to health recommendations. Maintain his cleanliness; he should also rest twice a day..." (P3)
"He eats porridge with vegetables... after eating, we give him milk and vitamins... we also get food aid from the village..." (P4)
"Just give milk and food as usual." (P5)
"Give milk, porridge, and ensure sufficient rest. Mix vegetables into porridge or make soup." (P6)
"Follow the advice from the cadres. They provide food every day, but I rarely pick it up because it's far... but I still give milk and water..." (P8)
"...recently, the child only wants to drink milk..." (P9)

4. Modifying the Environment

The fourth family health task is the ability to modify the environment. Environmental modifications refer to changes in the physical, social, and other environments related to managing stunting. Generally, participants reported using their physical surroundings, such as their home garden, to grow vegetables, especially moringa or "marungga," which is frequently recommended by health workers. Some participants have not been able to modify the social environment, so the responsibility of caring for the child largely falls on the mother. This theme is illustrated by the following participant statements:

"Cook and give vegetables, including moringa..." (P3)
"Porridge with moringa leaves..." (P5)
"There are vegetables around the house: spinach, moringa, kangkung, etc." (P6)
"Give a lot of moringa leaves..." (P7)
"Hmmm... he (husband) also helps remind... tells them to eat..." (P7)
"He (husband) doesn't really get involved..." (P8)
"If the child has a cough, I ask him to take them to the health center, but for other child-related matters, I handle it myself... he's not very involved." (P9)

5. Utilizing Healthcare Facilities

The fifth family health task is the use of healthcare facilities (Faskes) to address health issues. All participants have utilized healthcare facilities to find solutions to their health problems. This information is also reflected in the first theme. This theme will be elaborated in more detail through the following sub-themes: Posyandu, Supplementary Feeding Program Support, Service Quality, and Hopes.

a. Posyandu

Integrated Service Posts, commonly known as Posyandu, are one of the most frequently used healthcare facilities by participants, especially for monitoring and addressing child growth and development. All participants reported regularly attending Posyandu activities every month. This sub-theme is illustrated by the following participant statements:

"...attend Posyandu every month..." (P1, P2, P3, P4, P5, P6, P7, P8, and P9)

b. Supplementary Feeding Program Support

In addition to receiving healthcare services at Posyandu, participants also reported receiving support through the Supplementary Feeding Program. According to participants, this program is managed by the village government. Every day, children classified as stunted receive free lunch through the Supplementary Feeding Program, which reportedly lasts for three months. This sub-theme is illustrated by the following participant statements:

"...receive supplementary feeding from the village and PKK..." (P1)
"...supplementary feeding at the village office..." (P2)
"...in the village, it's free for three months, we just go pick it up..." (P3)
"We receive food assistance from the village..." (P4)
"During the stunting period, we receive supplementary feeding for 90 days" (P6)

c. Service Quality

Participants assess the quality of services at healthcare facilities as generally good. Participants generally express satisfaction with the healthcare services received. This sub-theme is illustrated by the following participant statements:

"...nothing lacking, we are satisfied..." (P1)
"...everything is good." (P2)
"The government's program is good because it helps us with our children." (P5)
"They are good; the cadres call every day to remind us to pick up the food," (P7)
"They pay attention to our children; there's food from the health center given to the cadres..." (P8)
"If I don't come, the cadre will deliver the food from the health center to our house." (P9)

d. Hopes

In general, participants hope that their children will overcome stunting. Therefore, they continue to make maximal efforts in caregiving. Participants also hope that the government will continue to pay attention to their children's health conditions. This sub-theme is illustrated by the following participant statements:

"...hopefully, in the future, my child will overcome stunting; no longer classified as stunted..." (P1)
"...our hope is that our child will no longer be stunted...we ask for continued support..." (P2)
"...hopefully, we can overcome stunting..." (P3)
"If possible, our child will not be stunted again. If there's assistance from the village, I will accept it." (P4)
"Hopefully, our child will grow and develop well." (P5)
"Hopefully, weight and height will increase. We hope the government will continue to pay attention so that children can overcome stunting." (P6)

DISCUSSION

The discussion of this study's results is organized based on the themes described previously. Below is the discussion of the five themes.

Identifying Problems

Participants in this study reported learning about stunting primarily through healthcare workers and cadres at Posyandu (integrated health posts) or Puskesmas (community health centers). These community health structures play a crucial role in disseminating information about child health, particularly in rural and under-served areas (Harahap et al., 2023; Madyasari et al., 2022). However, despite receiving information from healthcare professionals, many participants continued to attribute their children's stunting to genetic factors. This belief is a common misconception, especially in communities where shorter stature is prevalent due to familial traits (Wu et al., 2021).

The Family-Centered Nursing (FCN) theory underscores the importance of families in recognizing health issues and engaging in effective health management strategies. Knowledge plays a pivotal role in managing conditions like stunting, and families with a better understanding of the causes and effects of stunting are more likely to take preventive actions (Fajar et al., 2023). The study's findings are consistent with prior research, which has demonstrated that community education and family involvement in healthcare decisions significantly impact the outcomes of stunting interventions (Setianingsih et al., 2022).

To address the misconception that genetics is the primary cause of stunting, health workers need to provide evidence-based, clear, and accessible information to families. Although genetic factors may influence a child's height, their impact is relatively minor when compared to environmental factors such as chronic malnutrition and poor sanitation (Prendergast & Humphrey, 2014). Stunting is largely preventable through proper nutrition and adequate healthcare from conception through the first

1,000 days of life, which is a critical window for growth and development (Candra, 2020; Yunianto et al., 2023).

Education programs must emphasize the importance of dietary practices, maternal health during pregnancy, and early childhood nutrition as the key determinants of stunting. For instance, adequate breastfeeding, appropriate Complementary Feeding (MP-ASI), and the utilization of government support programs such as the Supplementary Feeding Program (PMT) can significantly reduce the incidence of stunting (Black et al., 2013). Families should be actively involved in these interventions to ensure their effectiveness.

Furthermore, enhancing the capacity of healthcare workers and community cadres to deliver clear and consistent health messages is essential. A study by Setianingsih et al. (2022) highlights the importance of ongoing training for health workers to better equip them in addressing misconceptions and encouraging community participation in stunting prevention programs. Families must be empowered with the knowledge and resources to understand that stunting is a preventable condition and not an inevitable genetic outcome.

Decision-Making

Upon first learning that their child had stunting, many participants experienced disbelief and shock, reflecting the emotional and psychological burden of such a diagnosis. However, after receiving consultations and advice from healthcare workers, most families accepted the diagnosis and followed the recommended treatments. The Family-Centered Nursing framework supports the idea that informed decision-making is critical in health management, especially in chronic or long-term conditions like stunting (Hockenberry & Wilson, 2018).

The reliance of families on Posyandu services for monitoring their children's growth is well-placed. Posyandu is designed as a primary healthcare facility for early detection and intervention in cases of growth faltering, particularly in under-five children (Fentiana et al., 2022). The regular monitoring provided by Posyandu allows healthcare workers to identify signs of stunting early and implement timely interventions, such as nutritional supplementation and health education, which are essential for preventing further growth delays (Baker-Henningham & López Boo, 2010).

Despite utilizing healthcare services like Posyandu, many families continued to believe that stunting was primarily caused by genetics, a belief that can significantly hinder effective healthcare interventions. Research shows that while genetic predispositions can influence a child's growth, the main determinants of stunting are external factors, including poor diet, inadequate maternal nutrition, and frequent infections (Black et al., 2013). Families who hold firm to the belief that genetics is the sole cause of stunting may be less motivated to participate in nutritional interventions or other preventative measures (Siswati et al., 2022).

Healthcare workers, therefore, need to focus on dispelling myths and providing clear, accurate, and culturally sensitive education to encourage families to engage in stunting prevention efforts. Tailored health education programs that are adapted to the local context and that respect cultural beliefs are essential for changing perceptions and behaviors (Wu et al., 2021). Families should be encouraged to take a proactive role in preventing stunting by leveraging available resources, such as nutritional programs, healthcare services, and educational materials provided by Posyandu and other health facilities (Prendergast & Humphrey, 2014).

In summary, addressing misconceptions about the causes of stunting is vital for the success of any stunting intervention. Families need to be fully informed about the preventable nature of stunting and empowered to make decisions that will improve their children's health outcomes. Healthcare workers play a key role in this process by providing education, support, and continuous follow-up to ensure that families remain engaged in stunting prevention programs.

Ability to Care

Families play a crucial role in the care and nutritional support of their children, particularly those experiencing stunting. In many cases, families demonstrate their ability to care by providing Complementary Foods (MP-ASI) and ensuring their children receive adequate rest and nutrition. However, many families in lower-income areas rely heavily on Supplementary Feeding Programs (PMT) provided by the government to meet the nutritional needs of their children. Research highlights the critical importance of being able to prepare nutritious MP-ASI using locally available resources as a key factor in preventing stunting (Onis et al., 2018).

Educational initiatives should focus on equipping families with practical skills to prepare nutritious and culturally appropriate meals. These programs should not only emphasize the use of local food resources, but also provide hands-on training in creating balanced meals that meet the nutritional standards required to prevent stunting (Morris et al., 2020). By empowering families with the knowledge and skills to prepare nutritious meals independently, communities can move away from reliance on external food aid and build long-term sustainability in nutrition (Lassi et al., 2017).

One promising approach is to integrate nutrition education into existing healthcare frameworks, such as Posyandu (community health posts), where families regularly visit for child growth monitoring and other healthcare services. Families need to be taught how to optimize local food resources and ensure that MP-ASI includes a balance of carbohydrates, proteins, vitamins, and minerals (Nair et al., 2020). Long-term independence and sustainability can be achieved when families are empowered with the skills needed for sustainable nutrition practices.

Modifying the Environment

In addition to improving dietary practices, modifying the local environment to support better nutrition is a vital component of stunting prevention. Many families have begun growing vegetables, such as moringa (kelor), which is widely recognized for its high nutrient content, particularly in protein, vitamins, and minerals. Moringa has been promoted as an effective food in combating malnutrition and preventing stunting in resource-poor settings (Saini et al., 2016). However, caregiving responsibilities in many households still primarily fall on mothers, with limited involvement from other family members, particularly fathers.

Research indicates that children's growth and overall well-being improve significantly when all family members are involved in caregiving, especially fathers. Engaging fathers in stunting prevention has been shown to improve not only nutritional outcomes but also psychological and social well-being within the family unit (Panter-Brick et al.,

2014). Fathers who actively participate in caregiving can help relieve the burden on mothers and provide emotional and logistical support, improving the overall caregiving environment (Sarkadi et al., 2008).

Educational programs should promote a more balanced distribution of caregiving responsibilities within the family. Encouraging collaborative caregiving–where fathers, mothers, and other family members work together–can enhance the effectiveness of stunting management interventions (Britto et al., 2017). By fostering an environment where caregiving is a shared responsibility, the overall care for children with stunting can be significantly improved, contributing to better growth outcomes and long-term well-being (Olney et al., 2021).

Utilizing Healthcare Facilities

All families in this study regularly utilized Posyandu services and benefited from the government's Supplementary Feeding Program (PMT). Participants generally expressed satisfaction with the quality of services provided, citing regular growth monitoring and nutritional support as key factors. Posyandu, as a community-based health service, plays a crucial role in improving maternal and child health outcomes by providing easily accessible services at the grassroots level (Titaley et al., 2021). However, the Family-Centered Nursing (FCN) approach suggests that healthcare interventions should not solely be driven by government initiatives but should also actively involve the community to foster sustainable health behaviors (Becker, 2002).

While Posyandu programs are effective in delivering essential healthcare services, particularly in rural areas, there is a critical need for continuous education and engagement with the community to maximize the benefits of these services. Many families rely heavily on government support through the Supplementary Feeding Program (PMT), but long-term success in addressing stunting requires shifting the focus toward self-reliance. Families should be empowered to use local food sources to prepare Complementary Foods (MP-ASI), ensuring nutritional adequacy without depending entirely on external aid (Rosenthal et al., 2020). Research shows that programs aimed at building local capacity, such as teaching families to prepare MP-ASI from locally available ingredients, are more sustainable and have a greater long-term impact on preventing malnutrition (Bhandari et al., 2016).

In addition to nutritional education, community health workers and Posyandu cadres need ongoing training to enhance their skills in supporting families and fostering health literacy. Evidence suggests that when healthcare providers are equipped with updated knowledge and communication tools, they are more effective in promoting health behaviors that lead to sustainable improvements in child growth and development (Berti et al., 2021). Therefore, a community-based participatory approach, which integrates local knowledge and empowers families to take an active role in health promotion, is essential for the long-term success of programs like Posyandu (Gillespie et al., 2019).

LIMITATION AND PRACTICAL IMPLICATION OF THIS STUDY

This study has several limitations, including the small number of participants, which may not capture the full range of family experiences in broader regions, and the focus solely on internal family perceptions without examining external factors such as government policies and economic conditions. The use of NVivo 14 for data analysis also presents limitations in manual interpretation, and the study was conducted in only one region, Timor, NTT, which may limit the generalizability of the findings to other areas.

The practical implications of this study include the importance of ongoing educational programs to empower families in providing Complementary Foods (MP-ASI) from local food sources, reducing dependence on external assistance, and highlighting the involvement of all family members, including fathers, in the care of stunted children. Additionally, family education needs to be strengthened regarding the causes of stunting to correct misconceptions about genetic factors. The capacity-building of health cadres in Posyandu is also crucial to ensure they can deliver accurate and effective information to families. Finally, multisectoral interventions involving the health, education, and social sectors are necessary to holistically support families in stunting prevention.

CONCLUSIONS AND RECOMMENDATION

Participants in the study have recognized the issue of stunting; however, they generally still believe that the condition of having a short stature is caused by genetic factors. Nevertheless, families have decided to seek solutions from health workers through Posyandu activities. Families are capable of self-managing the care of children with stunting by providing Complementary Foods. Additionally, they benefit from the government's Supplementary Feeding Program. The environmental modification carried out by families is limited to providing ingredients for preparing Complementary Foods. Meanwhile, the involvement of all family members in stunting care has not yet been fully realized. Families are already actively using available healthcare facilities to receive assistance from professional staff.

Families need strengthened education regarding the relationship between genetic factors and the incidence of stunting to gain accurate understanding. Families who receive comprehensive information can make informed decisions. Education is also needed on other methods of environmental modification to support stunting management. Furthermore, families should be trained in processing local ingredients into Complementary Foods, reducing reliance on government-provided Supplementary Feeding Programs.

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