

Case Report



Lived Experiences of Adolescent Mothers Caring for Children with Stunting: A Qualitative Case Study

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Abstract

Background: Stunting in toddlers is closely associated with maternal nutrition during pregnancy and at birth, with early-age pregnancy (under 20 years) serving as a major risk factor. The prevalence of stunting increased by 1.2% from 2007 to 2013. Many young mothers experience undernutrition due to body image concerns and lack of education, leading to inadequate weight gain during pregnancy and an increased risk of preterm birth, an important determinant of stunting. Moreover, early marriage exposes women to biological and social risks that impact child health. Accordingly, this study aimed to explore the lived experiences of adolescent mothers caring for stunted children, using a qualitative approach to deepen understanding of their caregiving practices.

Methods: This qualitative study utilized a case study design, applying Colaizzi's seven-step method for data analysis on two respondents. Data collection was conducted in June 2023 among adolescent mothers aged less than 20 years, each caring for children aged 0-60 months with anthropometric measurements indicating stunting (Height/Age < -3 SD). Data were collected through 15 semi-structured interview questions, audio recordings, and observation sheets covering assessments, medical history, and physical examinations.

Results: Data analysis yielded ten subcategories and four categories. The first category, *incorrect implementation of complementary feeding*, encompassed providing instant or fortified food and engaging in negative habits during mealtime. The second category, *inability to provide exclusive breastfeeding*, included *difficulty with milk production* and incomplete adherence to exclusive breastfeeding. The third category, *health risk behaviors*, and the fourth, *inadequate weight gain*, were also identified as key themes.

Conclusion: To improve the quality of care for adolescent mothers of children with stunting, healthcare professionals must increase their educational efforts. Equipping inexperienced adolescent mothers and their families with knowledge and support will foster better caregiving practices, ultimately reducing adverse prognosis and improving child health outcomes.

Keywords: Adolescent mothers, Stunting, Lived experiences

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Introduction

The prevalence of stunting among children under five in developing countries is estimated to be around 22-25%, although this varies by region (1). Data from global statistics highlight a truly alarming figure of 149 million children suffering from malnutrition, with 45% of child deaths worldwide linked to this condition (2). One of the factors contributing to stunting is childbirth occurring at a young age, specifically under 20 (3,4). Adolescent mothers face unique challenges, including physiological immaturity, limited parenting knowledge, lack of education, and poor household conditions, which can negatively impact child health outcomes (5,6).

In Indonesia, the prevalence of stunting among children under five reached 21.6% in 2022 (7), corresponding with data reporting that 10.35% of girls in Indonesia marry before the age of 18 (8). This rate places Indonesia among

the top ten countries with the highest child marriage rates, ranking eighth globally. The persistence of this practice is driven by traditional perceptions that marriage protects girls from premarital sex and serves as a solution to poverty, despite the legal age for marriage being 19 years. These cultural norms continue to facilitate early marriage practices (9). Research has shown that children born to adolescent mothers are at a higher risk of stunting, largely due to factors such as poor maternal nutrition, inadequate childcare practices, and limited access to healthcare services (10,14). Furthermore, repeated pregnancies in adolescence can exacerbate stunting risks related to maternal nutritional depletion and insufficient caregiving resources (11).

The role of mothers during this critical developmental period is vital in preventing stunting in children. However, most pregnant adolescent mothers have an



underweight Body Mass Index (BMI), often attributable to limited nutritional intake driven by concerns about body image, lack of education about nutrition (12), and emotional or mental disorders (13). These factors contribute to low maternal weight gain during pregnancy, which subsequently increases the number of babies born prematurely, an important factor in the occurrence of stunting in toddlers (14).

Stunting is linked to poor maternal health and inadequate childcare practices (15). Studies indicate that adolescent mothers often lack adequate knowledge or skills related to proper feeding practices, such as exclusive breastfeeding and complementary feeding (16) (17). While there is extensive research on stunting and adolescent motherhood separately, few studies have explored the intersection of these two issues, particularly from the perspective of adolescent mothers (10). Most studies on stunting are quantitative, focusing on prevalence and risk factors. There is a need for qualitative studies that capture the lived experiences, emotions, and coping strategies of adolescent mothers caring for children with stunting (16). Besides, the cultural and contextual factors influencing adolescent mothers are often overlooked. There is also limited understanding of how these mothers perceive support systems and interventions for stunting, as well as the long-term emotional, social, and economic impacts of caring for a stunted child. Addressing these gaps can inform the development of more effective, mother-centered programs. Therefore, this study explores the lived experiences of adolescent mothers caring for stunted children, using a qualitative approach to deepen understanding of their caregiving practices.

Methods

This study was conducted using a qualitative case study method to explore several holistic issues related to the in-depth experiences of adolescent mothers caring for children with stunting at home. Purposive sampling was used, based on data collected from community health centers. Data collection was carried out in June 2023.

Inclusion criteria were mothers who married before the age of 20 and had children aged 0 to 60 months diagnosed with stunting, defined as an anthropometric measurement of height/age less than -3 SD according to the WHO Child Growth Standards (18). The exclusion criterion was mothers with mental limitations.

The research instruments consisted of a tape recorder, observation sheets (covering assessments, medical history, and physical examination), and interview guides. Interview questions were formulated coherently to address various aspects of caregiving, for example: “How do you fulfill your child’s nutritional needs?”, “How do you give breast milk to your child?”, and “Until what age does your child receive breast milk?” In addition, questions were designed to elicit respondents’ experiences, such

as: “What feelings do you have about having this child?”, “What concerns occupy your mind regarding your child?”, “What experiences have you had while caring for your child?”, and “How have support systems assisted you?”

Interviews were recorded using a mobile phone. Each session lasted approximately 60 minutes, with the time and place of interviews predetermined in consultation with participants and conducted upon their consent. The number of facilitators involved in in-depth interviews was determined by the researcher to ensure thorough exploration. Data were analyzed using the seven-step method proposed by Colaizzi (19): first, re-reading the transcripts; second, extracting statements related to phenomena; third, formulating codes from meaningful words; fourth, clustering meaningful words into themes; fifth, developing a comprehensive structured description; sixth, reporting the results; and seventh, validating the findings.

Two participants were identified and contacted (Table 1), and a formal agreement to participate was established via informed consent. Interview documents were preserved as reference material until manuscript publication. To ensure objectivity of the data, participants reviewed interview transcripts, reflecting their voices and conditions during data collection, to minimize researcher bias, motivation, or perspective influence (20). To enhance the credibility and dependability of the findings, after analyzing each interview, the content was returned to participants for confirmation, allowing for verification and necessary revisions. By adhering to Colaizzi’s structured approach and incorporating reflexivity, audit trails, triangulation, peer debriefing, and member checking, this study ensured that the findings were confirmable and credible, while minimizing researcher bias.

This study was approved by the Health Research Ethics Committee, Institute of Nursing Science PPNI, West Java, Indonesia, with approval number: IV/018/KEPKSLE/STIKEP/PPNI/JABAR/VI/2023. The study was conducted following ethical standards outlined in the 7th version of the WHO guidelines (2011).

Results

Category 1: Incorrect Implementation of Complementary Feeding

Subcategory 1: Providing Instant or Fortified Food Continually

In this study, adolescent mothers continually provided instant food to their children, aiming to stimulate appetite as conveyed in the following statements:

“There is a phase when a one-year-old baby doesn’t want to eat at all. So, I try the food he likes. Sometimes we buy porridge, sometimes snacks like that” (P1).

“Now, there are a lot of snacks. I like to be forced to eat a little...” (P2).

Subcategory 2: Negative Habits During Mealtime

Adolescent mothers often engaged in disruptive behaviors during mealtime, such as walking, playing, or watching television while feeding. This was emphasized through these comments:

"If my child prefers to go for a walk, he will want to eat rather than stay still" (P1).

"It happens so often when eating, he spills it out. Every time during the meal" (P1).

"I prefer to feed the baby while carrying him, so the little one wants to eat" (P2).

"I often give complementary feeding forcefully, little by little" (P2).

Category 2: Inability to Provide Exclusive Breastfeeding

Subcategory 1: Difficulty with Milk Production

Participants expressed difficulties in producing sufficient breast milk:

"While waiting for the breast milk to come out, I hope it will... but it still doesn't. In the end, we just give it, we have enough milk" (P1).

"I tried again, but it's still not there. I tried again, but it's still not there" (P1).

"I give baby breast milk when I'm at home, before leaving for work and after coming back" (P2)

Subcategory 2: Incomplete Adherence to Exclusive Breastfeeding

Exclusive breastfeeding was often not completely adhered to by participants in this study due to occupation-related constraints, leading to formula feeding:

"...I breastfed from birth until about five months because I had to work. So, they were given formula ..." (P2).

"I only gave breast milk for two days" (P1).

Category 3: Health Risk Behaviors

Subcategory 1: Poor Environmental Sanitation

Environmental sanitation issues pose risks for infectious diseases in children. Participants in this study mentioned inappropriate sanitary conditions:

"The septic tank is for water disposal, and the water source is a well. Sometimes, the water is not used as it is cloudy, and there are lots of cockroaches" (P1).

Subcategory 2: Exposure to Secondhand Smoke

Exposure to smoke by family members worsened health outcomes, as expressed in the following sentences:

"Once my child had bronchitis. The doctor explained that he was exposed to cigarette smoke from his father... after one year, it relapsed, again from his father's cigarette smoke" (P1).

"My father, brother, and husband all smoke, sometimes indoors or outdoors" (P2).

Subcategory 3: Recurrent Infectious Diseases

Recurrent infectious diseases experienced since infancy impaired children's growth, as they needed a lot of energy to fight the disease. In this study, adolescent mothers mentioned that their children became sick repeatedly:

"He was sick from 0 to 6 months. I found out when he was 7 months old. A week later, he recovered and then coughed again. It looked like there were spots. Treatment lasted a year. A year later, the illness returned" (P1).

"It's usually things like coughs, runny noses, and fevers" (P2).

Category 4: Inadequate Weight Gain

Subcategory 1: Weight Faltering

In this study, children's weight increased but remained below the WHO child growth standards:

"My child's weight is low. Every month he gains only one ounce. he drinks a lot of milk" (P1).

"Yesterday, the midwife said he was underweight" (P2).

Subcategory 2: Insufficient Knowledge

Adolescent mothers showed limited knowledge about complementary feeding practices, as apparent in the following statements:

"Baby should be given more animal protein? I didn't know that; this is the first time I've heard about it" (P1).

"Maybe it's because of the father's genes, so the baby's body is small" (P1).

"But he looks chubby or fat. They said it's okay" (P1).

Subcategory 3: Nutritional Deficit

Children experienced nutritional deficits, as expressed:

"From something very liquid to semi-solid" (P1).

"Usually, Nestle or I like to buy sweet rice porridge or chicken porridge" (P2).

"As long as there is food, he swallows" (P1).

"I like to feed eggs, tofu, and tempeh" (P2).

Discussion

Stunting, a chronic condition characterized by impaired growth and development in children, is strongly influenced by complementary feeding practices. According to the World Health Organization (WHO) (21), early introduction of fortified food does not adequately prevent iron deficiency anemia and is closely related to the incidence of stunting. Iron is vital for skeletal growth, as it plays a role in collagen formation and vitamin D metabolism, which are required for osteogenesis (22). Providing instant foods, which lack dietary diversity, an indicator of micronutrient sufficiency, is linked to poor child growth. In this study, young mothers often relied on instant or fortified foods due to convenience and because their children preferred these options, which may contribute to inadequate dietary diversity (Table 1). Furthermore, they had to discontinue their education

due to pregnancy and their roles as mothers and wives, reflecting lower maternal education levels. Previous studies revealed that this relationship is significantly associated with their nutrient intake during the critical 1,000-day period, which influences child growth and development (23).

In Indonesia, the practice of responsive feeding remains low, with only $\leq 30\%$ of mothers implementing it properly (24,25). Negative habits during mealtime, such as feeding while the child is engaged in other activities like playing, being carried, walking, or being overly active, can reduce mothers' patience during feeding (26). Prior research has indicated that responsive feeding is associated with higher rates of stunting among children (27). Young mothers in this study used persuasive feeding practices that ignored the child's hunger and fullness cues (Table 2). Addressing stunting through optimal complementary feeding is not only a public health priority but also an investment in human capital, as stunting has long-term consequences on cognitive development, educational attainment, and economic productivity (28). Therefore, promoting timely, adequate, and diverse complementary feeding, as recommended by WHO guidelines, is essential for breaking the cycle of malnutrition and ensuring healthy growth and development in children.

Breast milk provides well-documented benefits for both mothers and infants. To successfully implement exclusive breastfeeding, initiation should occur as early as possible. However, young mothers in this study encountered difficulties in breastfeeding, often receiving limited support from family or healthcare professionals and possessing insufficient knowledge about breastfeeding practices (Table 1). Although early initiation, preferably within the first hour post-birth, is recommended, mothers only breastfed for less than six months, consistent with other research findings (3,17). Caregivers' knowledge, attitudes, beliefs, support from healthcare workers, and social media

influence play crucial roles in exclusive breastfeeding (29). Inability to provide exclusive breastfeeding increases the likelihood of infants contracting infectious diseases such as respiratory infections and diarrhea, and impairs the immune system (30)

Infectious diseases among stunted children, especially those cared for by adolescent mothers, are related to sanitary conditions, recurrent infections, and exposure to tobacco smoke. This study is in line with previous studies (31), indicating that repeated infections can affect nutritional status, which in turn exacerbates susceptibility to further illness. Infections can inhibit growth by suppressing appetite, decreasing nutrient absorption, increasing mineral loss, and preventing children from meeting their nutritional needs. Several countries consistently identified poor sanitation, diarrhea, and maternal short stature as key determinants of stunting, as reflected in height-for-age (HAZ) measures (32). In this study, sanitary conditions, such as insect infestations in bathrooms and cloudy well water, were poor (Table 1). The prevalence of stunting exceeds 35% among children in impoverished or rural areas with inadequate sanitation (5).

This study found that inadequate weight gain was caused by weight faltering, insufficient knowledge (Table 1), and nutritional deficit, all of which are closely associated with the risk of stunting (15). Weight faltering, characterized by slower-than-expected growth, may stem from inadequate breastfeeding, improper complementary feeding, or frequent infections that hinder proper nutrient absorption (33). Moreover, limited awareness of optimal infant feeding practices among young mothers can lead to inappropriate dietary choices, exacerbating nutritional deficiencies and contributing to poor growth outcomes (34). Addressing these issues through targeted interventions, such as maternal education and improved access to nutrient-rich foods, is crucial for preventing stunting and ensuring healthy child development (10)

Conclusion

Stunting in children is a multifaceted issue that is strongly influenced by the lived experiences of mothers, including incorrect implementation of complementary feeding,

Table 1. Demographic characteristics of participants

Code	Age (year)	Education	Occupation	Number of Children
P1	23	Senior High School	Housewife	2
P2	17	Junior High School	Housewife	1

Table 2. Main Categories

Subcategory		Category
Lived Experiences of Adolescent Mothers	Providing instant or fortified food continually	Incorrect implementation of complementary feeding
	Negative habits during mealtime	
	Difficulty with milk production	Inability to provide exclusive breastfeeding
	Incomplete adherence to exclusive breastfeeding	
	Poor Environmental Sanitation	Health risk behaviors
	Exposure to Secondhand Smoke	
	Recurrent infectious diseases	
	Weight faltering	Inadequate weight gain
	Insufficient knowledge	
	Nutritional deficit	

inability to provide exclusive breastfeeding, health risk behaviors, and inadequate weight gain. Addressing stunting requires a comprehensive approach that promotes timely, diverse, and adequate complementary feeding, improves maternal education, enhances breastfeeding support, and ensures access to proper sanitation and healthcare services. These interventions are essential for breaking the cycle of malnutrition, thereby improving child health outcomes and fostering long-term cognitive and economic development. Public health efforts must prioritize these strategies to prevent early marriage to combat stunting effectively and ensure the well-being of future generations. To provide quality care for adolescent mothers of children with stunting, the role of healthcare providers must be intensified through targeted education and support, ensuring that inexperienced adolescent mothers and their families are ready to care effectively for their children. Such efforts can significantly reduce adverse prognoses and promote healthier growth trajectories for vulnerable children.

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Authors' Contribution

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Competing Interests

The authors declare no competing financial interests or personal relationships that could have influenced the results reported in this study.

Ethical Approval

This study was approved by the Health Research Ethics Committee of the Institute of Nursing Science PPNI, West Java, with approval number: IV/018/KEPKSLE/STIKEP/PPNI/JABAR/VI/202.

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