

Determinants Factors of Stunting among Under-Five Children in Aceh Besar, Indonesia: A Cross-Sectional Study

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Abstract. *The prevalence of stunting among under-five children has gradually declined at the national level. However, in Aceh Besar Regency, particularly in the working area of Lampupok Public Health Center, the prevalence of stunting has continued to increase, with 52 cases reported in 2021 and rising to 75 cases in 2023. This increase is primarily attributed to inadequate nutritional intake among children. This study aimed to identify factors associated with stunting among under-five children in the working area of Lampupok Public Health Center, Aceh Besar Regency. This quantitative study employed a cross-sectional design. The study population consisted of all mothers with children aged 24–60 months ($n = 269$). The sample size was determined using the Slovin formula, resulting in 73 respondents. Data collection was conducted from June 3 to June 10, 2024. Data were analyzed using univariate and bivariate analyses, with the chi-square test applied to examine associations between variables. The results showed that exclusive breastfeeding ($p = 0.008$), feeding practices ($p < 0.001$), socioeconomic status ($p = 0.024$), parenting patterns ($p = 0.039$), and maternal knowledge ($p = 0.012$) were significantly associated with stunting among under-five children. In contrast, environmental factors were not significantly associated with stunting ($p = 0.750$). It is recommended that mothers provide exclusive breastfeeding and apply appropriate feeding and parenting practices according to the child's condition. In addition, public health centers are encouraged to conduct health education and promotion programs related to child nutrition, stunting prevention, proper parenting, and appropriate feeding practices.*

Keywords: Exclusive Breastfeeding, Environmental, Knowledge, Parenting Practices, Stunting.

1. Introduction

One of the targets of the Sustainable Development Goals (SDGs) to be achieved by 2030 is the reduction of poverty and the prevalence of malnutrition, particularly through decreasing the incidence of stunting. Stunting is indicated by a height-for-age z-score below the standard threshold established by the World Health Organization (WHO), namely less than -2 standard deviations (SD) (Organization, 2025), (O'Sullivan et al., 2026)

Globally, the prevalence of stunting reaches approximately 22%, meaning that more than 149 million children under five years of age are affected. In the ASEAN region, Indonesia records a stunting prevalence of 21.6%, making it the second highest after Timor-Leste, which reports a prevalence of 47%. According to the UNICEF,

stunting is caused by inadequate nutrition during the first two years of life, maternal undernutrition during pregnancy, and poor sanitation.(Apriliyanti et al., 2025).

Data obtained from the Indonesian Health Survey show that the prevalence of stunting in Indonesia as of March 2024 remains relatively high at 27.6%. Meanwhile, the prevalence of stunting in Aceh Province reached 29.4%, which represents a decline compared to the previous year's figure of 31.2% (Kemenkes, 2020).

In Aceh Besar Regency, the prevalence of stunting among under-five children was reported at 32.4% in 2021, decreased to 27% in 2022, and further declined to 13.4% in 2023 (Dinas Kesehatan Acehbesar, 2024)

However, data from the Aceh Besar District Health Office indicate that the number of stunting cases has continued to increase annually in the working area of Lampupok Public Health Center. In 2023, a total of 75 under-five children were identified as stunted, representing an increase compared to 68 cases in 2022 and 52 cases in 2021(Dinas Kesehatan Acehbesar, 2024).

Preliminary observations conducted by the researcher at Lampupok Public Health Center, Aceh Besar Regency, among mothers of stunted children revealed that 7 out of 10 mothers tended to apply inappropriate feeding practices. These practices included early introduction of complementary foods, provision of foods that did not meet the nutritional requirements of under-five children, and irregular feeding frequency. In addition, many mothers were found not to provide exclusive breastfeeding. Furthermore, when children refused to eat, mothers often used punitive approaches to encourage food intake, and children were not allowed to choose the foods they preferred because meals were pre-determined by their mothers. Inappropriate parenting practices may be attributed to low maternal knowledge regarding child-rearing practices that support optimal growth and development.

Besides low maternal knowledge, most families of stunted children were found to have low socioeconomic status. Poor economic conditions can significantly affect the ability of families to provide adequate nutrition, particularly during critical growth periods. Families with limited economic resources often face difficulties in fulfilling the nutritional needs of under-five children and other household members, thereby increasing the risk of stunting. Therefore, further studies are needed to identify factors associated with stunting among under-five children. Based on this background, the researcher is interested in conducting a study entitled "Determinants Factors of Stunting among Under-Five Children at Lampupok Public Health Center, Indrapuri Subdistrict, Aceh Besar Regency, in 2024"

2. Method

This study employed a quantitative research design with a cross-sectional approach. The independent variables included exclusive breastfeeding, feeding practices, socioeconomic status, environmental factors, parenting practices, and maternal knowledge, while the dependent variable was the incidence of stunting among under-five children in the working area of Lampupok Public Health Center, Indrapuri Subdistrict, Aceh Besar Regency.

The study population consisted of all mothers with children aged 24–60 months in the working area of Lampupok Public Health Center, Indrapuri Subdistrict, Aceh Besar Regency, totaling 269 individuals. The sample size was calculated using the Slovin formula, considering that the population size was known. A total of 73

respondents were included in the study, and participants were selected using purposive sampling. The collected data were analyzed using univariate and bivariate analyses. Bivariate analysis was conducted using the chi-square test with a significance level of $\alpha = 0.05$.

3. Results and Discussions

Demographic data

Based on primary data collection by respondent, below is Table. 1, Respondent characteristics.

Table 1. Respondent Characteristics.

No	Respondent Characteristics	Frequency	Percentage (%)
Mother's Age			
1	Non-High Risk (25–35 years)	47	64.4
	High Risk (< 25 years and > 35 years)	26	35.6
Education Level			
2	High	6	8.2
	Medium	45	61.6
	Low	22	30.1
Occupation			
3	Housewife	57	78.1
	Farmer	5	6.8
	Civil servant	4	5.5
	Self-employed	7	9.6
Total		73	100

The majority of respondents were mothers aged 25–35 years, classified as non-high risk (64.4%), while 35.6% were in the high-risk age group (<25 years and >35 years). In terms of education, most respondents had a medium level of education (61.6%), followed by a low level (30.1%), and only a small proportion had a high level of education (8.2%). Regarding occupation, the majority of respondents were housewives (78.1%), whereas smaller proportions worked as farmers (6.8%), civil servants (5.5%), and self-employed workers (9.6%). Overall, these characteristics indicate that most respondents were in the productive age group, had moderate educational backgrounds, and were not formally employed.

Univariate Analysis

Most households were categorized as having a low socioeconomic status (78.1%). Environmental conditions were generally favorable, with 83.6% of respondents living in environments classified as good. However, maternal knowledge related to child nutrition and health was predominantly poor (58.9%). Concerning parenting style, the permissive parenting style was the most commonly reported (56.2%), followed by authoritarian (23.3%) and democratic styles (20.5%). Overall, these findings indicate that stunting remains prevalent and may be associated with suboptimal feeding practices, low socioeconomic status, limited maternal knowledge, and less effective parenting styles.

Table. 2. Univariate Analysis of Stunting with Related Determinants.

No	Variable	Frequency (n)	Percentage (%)
1	Stunting Status		
	Non-stunted	30	41.1
	Stunted	43	58.9
2	Exclusive Breastfeeding Practice		
	Exclusive breastfeeding	27	37
	Non-exclusive breastfeeding	46	63
3	Infant and Young Child Feeding Practices		
	Adequate	34	46.6
	Inadequate	39	53.4
4	Socioeconomic Status		
	High	16	21.9
	Low	57	78.1
5	Environmental Conditions		
	Favorable	61	83.6
	Unfavorable	12	16.4
6	Maternal Knowledge		
	Good	30	41.1
	Poor	43	58.9
7	Parenting Style		
	Democratic	15	20.5
	Authoritarian	17	23.3
	Permissive	41	56.2
	Total	73	100

Table 2. shows the distribution of stunting status and related factors among respondents. More than half of the children were classified as stunted (58.9%), while 41.1% were not stunted. Regarding infant feeding practices, the majority of mothers did not provide exclusive breastfeeding (63.0%). In terms of complementary feeding, more than half of respondents demonstrated inadequate infant and young child feeding practices (53.4%).

Bivariate analysis

The relationship between exclusive breastfeeding and stunting.

The findings of this study indicate that children who received exclusive breastfeeding were less likely to experience stunting compared to those who were not exclusively breastfed. The chi-square analysis revealed a statistically significant association between exclusive breastfeeding and stunting among under-five children in the working area of Lampupok Public Health Center, Aceh Besar Regency ($p = 0.008$). This result highlights the critical role of exclusive breastfeeding in supporting optimal child growth during early life.

Table. 3. The relationship between exclusive breastfeeding and stunting

Exclusive Breastfeeding	Status						<i>p</i> <i>value</i>	<i>α</i>
	Not Stunted		Stunted		Total			
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%		
Exclusive	17	63	10	37	27	100	0,008	0,05
Non-exclusive	13	28,3	33	71,7	46	100		
Total	30	41.1	43	58.9	73	100		

Bivariate analysis revealed that among the 43 respondents whose children were stunted, a higher proportion did not provide exclusive breastfeeding (33 respondents; 71.7%) compared to those who provided exclusive breastfeeding (10 respondents; 37.0%). The chi-square test showed a statistically significant association between exclusive breastfeeding and stunting ($p = 0.008$) (Table 3).

This finding is consistent with previous theoretical and empirical evidence suggesting that exclusive breastfeeding during the first six months of life can substantially reduce the risk of stunting. Exclusive breastfeeding provides adequate macro- and micronutrients necessary for linear growth, supports immune system development, and protects infants from infections that may impair nutrient absorption. Moreover, children who receive exclusive breastfeeding tend to have better cognitive development and a lower risk of overweight, obesity, and non-communicable diseases later in life.

The results of this study are in line with previous research conducted in Aceh Besar, which demonstrated a significant association between exclusive breastfeeding and stunting among children under two years of age. Similar findings were also reported in other studies, indicating that inadequate understanding of the importance of exclusive breastfeeding among mothers contributes to low breastfeeding practices. Consequently, insufficient nutritional intake during the first six months of life may increase the risk of stunting (Hadi et al., 2021). Based on the findings of this study, it can be assumed that maternal behavior in providing exclusive breastfeeding is strongly influenced by maternal knowledge. Mothers with better knowledge regarding the benefits of exclusive breastfeeding are more likely to practice exclusive breastfeeding for the recommended six-month period without introducing complementary foods prematurely. Maternal knowledge is closely related to educational level, as mothers with higher education tend to have greater access to health information and are more capable of understanding health messages compared to those with lower educational attainment (Umiyah & Hamidiyah, 2020).

Therefore, strengthening maternal knowledge through targeted health education and promotion programs is essential to improve exclusive breastfeeding practices. Health counseling and nutrition education provided by health workers at public health centers should focus on increasing mothers' awareness of the importance of exclusive breastfeeding for optimal child growth and development. Improving maternal knowledge is expected to promote positive behavioral changes, thereby contributing to the reduction of stunting among under-five children (Triana & Haniyah, 2020).

Realationship Between Feeding Practices and Stunting.

The results of this study indicate that respondents who applied poor feeding practices were more likely to have children with stunting compared to those who applied appropriate feeding practices. The chi-square analysis showed a statistically significant association between feeding practices and stunting among under-five children in the working area of Lampupok Public Health Center, Aceh Besar Regency ($p < 0.001$). This finding underscores the importance of appropriate feeding practices in preventing growth faltering during early childhood.

Feeding practices represent parental strategies in regulating the type, quantity, and frequency of foods provided to children in order to maintain health, ensure adequate nutritional status, prevent disease, and support recovery from illness. Appropriate feeding practices are essential to meet children's nutritional requirements needed to

support optimal growth and development and to reduce susceptibility to infections, which are known to contribute to stunting (Novitasari & Wanda, 2020).

Table 4. Realationship Between Feeding Practices and Stunting

Feeding Practices	Status						<i>p</i> <i>value</i>	<i>α</i>
	Not Stunted		Stunted		Total			
	f	%	f	%	f	%		
Good	22	64,7	12	35,3	34	100	0,000	0,05
Poor	8	20,5	31	79,5	39	100		
Status	30	41,1	43	58,9	73	100		

Children aged 1-36 months are considered a nutritionally vulnerable group due to rapid growth and high nutrient requirements. Nutritional problems in this age group often arise from an imbalance between dietary intake and nutritional needs, particularly when feeding practices do not align with age-specific dietary recommendations. Inadequate feeding practices, such as insufficient meal frequency, inappropriate food diversity, and inadequate portion sizes, may lead to chronic nutrient deficiencies that impair linear growth and increase the risk of stunting.

The findings of this study are consistent with previous research demonstrating a significant relationship between feeding practices and stunting. Studies conducted in Aceh Besar and other regions in Indonesia have reported that inappropriate feeding practices are strongly associated with a higher prevalence of stunting among under-five children. Proper feeding practices defined as age-appropriate food types, adequate portion sizes, and regular meal schedules have been shown to promote optimal child growth and reduce the risk of stunting (Mandara et al., 2024) (Astuti et al., 2024).

Based on the findings of this study, it can be inferred that stunting among under-five children in the working area of Lampupok Public Health Center is closely related to suboptimal feeding practices implemented by mothers. Mothers who provide food without considering the nutritional requirements of their children are more likely to have children with poor nutritional status, including stunting. Suboptimal feeding practices may be influenced by limited maternal knowledge regarding child nutrition as well as unfavorable socioeconomic conditions, which can restrict access to nutritious foods.

Therefore, interventions aimed at improving feeding practices should focus on enhancing maternal knowledge and awareness of age-appropriate child nutrition. Nutrition education programs delivered through public health centers should emphasize balanced diets, appropriate meal frequency, food diversity, and portion sizes tailored to the child's developmental stage. Addressing these factors is essential for improving child nutritional status and reducing the burden of stunting.

Relationships between Socioeconomic Status and Stunting

The findings of this study indicate that children from families with low socioeconomic status were more likely to experience stunting compared to those from families with higher socioeconomic status. The chi-square analysis showed a statistically significant association between socioeconomic status and stunting among under-five children in the working area of Lampupok Public Health Center, Aceh Besar Regency ($p = 0.024$). This finding suggests that household socioeconomic conditions play a crucial role in determining children's nutritional status and growth outcomes.

Table 5. Relationships between Socioeconomic Status and Stunting

Socioeconomic	Status						<i>p</i> <i>value</i>	<i>α</i>
	Not Stunted		Stunted		Total			
	f	%	f	%	f	%		
High	11	68,8	5	31,2	16	100	0,024	0,05
Low	19	33,3	38	66,7	57	100		
Total	30	41,1	43	58,9	73	100		

Low socioeconomic status may limit a family's ability to provide adequate and nutritionally balanced food for young children. Families with limited financial resources tend to prioritize food quantity over food quality, resulting in diets that are less diverse and dominated by staple foods with low nutrient density. As a consequence, children may not receive sufficient protein, vitamins, and minerals required for optimal growth, thereby increasing the risk of chronic undernutrition and stunting(Krisnana et al., 2020).

This finding is consistent with previous studies reporting that low socioeconomic status has a significant impact on child growth, including increased risks of underweight and stunting(Fitriani & Sunarsih, 2024). Households with lower income levels often allocate most of their expenditure to staple foods such as cereals, whereas households with higher socioeconomic status are more likely to purchase nutrient-rich foods, including dairy products, animal-source proteins, fruits, and vegetables, which are essential for child growth and development. Increased household income allows for greater dietary diversity and improved nutrient intake, which in turn supports optimal linear growth(Syihab et al., 2021).

Empirical evidence further supports these findings. Previous studies have demonstrated that children from low-income families are at significantly higher risk of stunting compared to those from families with better economic conditions. Some studies have reported that children from households with low socioeconomic status are up to twice as likely to be stunted as those from higher-income households. Similar findings have also been reported in other regions of Aceh, where limited household income restricts access to nutritious foods needed to support children's growth and development(Ernawati et al., 2021). Based on the results of this study, it can be inferred that stunting among under-five children in the working area of Lampupok Public Health Center is closely associated with household socioeconomic conditions. Children from economically disadvantaged families are more likely to experience stunting due to inadequate dietary intake that fails to meet their nutritional requirements, ultimately leading to impaired growth.

Low socioeconomic status may also be influenced by parental employment status and household structure. In families where mothers are not engaged in income-generating activities and household income depends solely on the father, financial constraints may be more pronounced. Furthermore, in households with a large number of family members, limited financial resources may be distributed among more individuals, reducing the quality and adequacy of food available to young children. In such situations, caregivers may focus on providing sufficient food quantity rather than ensuring adequate nutritional quality, thereby increasing the risk of stunting. Therefore, interventions aimed at reducing stunting should not only focus on improving feeding practices and maternal knowledge but also address underlying socioeconomic determinants. Social support programs, income-generating initiatives, and targeted nutrition assistance for low-income families are essential strategies to improve household food security and reduce the burden of stunting among under-five children.

Relationships between Environmental Status and Stunting

The findings of this study indicate that environmental factors were not significantly associated with stunting among under-five children in the working area of Lampupok Public Health Center, Aceh Besar Regency. Although most respondents lived in households with relatively good environmental conditions, cases of stunting were still observed. This suggests that environmental conditions alone may not be the primary determinants of stunting in this setting.

Table 6. Relationships between Environmental Status and Stunting

Environmental	Status						<i>p</i> <i>value</i>	<i>α</i>
	Not Stunted		Stunted		Total			
	f	%	f	%	f	%		
Good	26	42,6	35	57,4	61	100	0,750	0,05
Poor	4	33,3	8	66,7	12	100		
Total	30	41,1	43	58,9	73	100		

Theoretically, household environmental conditions influence child health through pathways such as exposure to infectious diseases, hygiene practices, food safety, and access to clean water and sanitation. Poor environmental conditions may increase the risk of repeated infections, which can impair nutrient absorption and contribute to growth faltering. However, previous studies have suggested that even in relatively clean environments, children may still experience adverse health outcomes if other critical determinants of nutrition and care are inadequate (Ainy et al., 2021). This finding is consistent with previous research indicating that environmental factors are not always directly associated with stunting. Several studies have reported no significant relationship between household environmental conditions and stunting among under-five children, suggesting that the impact of environmental factors may be context-specific or mediated by other variables such as feeding practices, maternal knowledge, and socioeconomic conditions.

Based on the findings of this study, it can be inferred that stunting among under-five children in the working area of Lampupok Public Health Center may be more strongly influenced by factors other than the household environment. Even when environmental conditions are categorized as good, children may still be at risk of stunting if other determinants—such as inadequate maternal knowledge, inappropriate feeding practices, or low household socioeconomic status—are present. For example, mothers with limited knowledge of child nutrition may fail to provide age-appropriate and nutritionally adequate diets, leading to insufficient nutrient intake despite favorable environmental conditions.

These findings highlight the multifactorial nature of stunting and suggest that improvements in environmental conditions alone may be insufficient to prevent stunting without simultaneous interventions targeting behavioral, nutritional, and socioeconomic factors. Therefore, comprehensive stunting prevention strategies should adopt an integrated approach that addresses not only environmental sanitation but also maternal education, optimal feeding practices, and household food security.

Relationship Between Parenting Practices and Stunting.

The findings of this study indicate that permissive parenting practices were more commonly observed among respondents whose children experienced stunting compared to those who applied democratic or authoritarian parenting styles. The chi-square

analysis demonstrated a statistically significant association between parenting practices and stunting among under-five children in the working area of Lampupok Public Health Center, Aceh Besar Regency ($p = 0.039$). This result suggests that parenting style plays an important role in shaping children's nutritional status and growth outcomes.

Table 7. Relationship Between Parenting Practices and Stunting

Parenting	Status						<i>p value</i>	<i>α</i>
	Not stunted		Stunted		Total			
	f	%	f	%	f	%		
Demokratis	7	46,7	8	53,3	15	100	0,039	0,05
Otoriter	11	64,7	6	35,3	17	100		
Permisif	12	29,3	29	70,7	41	100		
Total	30	41,1	43	58,9	73	100		

Parenting practices are a critical component of child care, particularly in early childhood, as mothers largely control food availability, feeding routines, and health-related behaviors within the household. According to previous theoretical frameworks, appropriate parenting practices are associated with better nutritional status among children, whereas suboptimal parenting may increase the risk of undernutrition and stunting. Mothers who apply effective and responsive parenting are more likely to ensure adequate food intake, proper feeding behaviors, and appropriate health care for their children (Krisnana et al., 2020) (Pertiwi et al., 2019).

Permissive parenting, characterized by minimal control and limited guidance over children's behaviors, may contribute to poor dietary habits among young children. In the context of feeding, permissive parenting often allows children to freely choose the types and amounts of food consumed, including foods with low nutritional value. Young children, who require close supervision and guidance in food selection, may therefore fail to meet their nutritional requirements when excessive autonomy is granted. This condition may lead to inadequate nutrient intake and impaired growth, increasing the risk of stunting (Azzahra et al., 2024).

The findings of this study are consistent with previous research demonstrating a significant association between parenting practices and stunting among young children. Studies have reported that poor or inappropriate parenting practices are associated with a higher risk of stunting, while supportive and structured parenting styles are linked to better nutritional outcomes. Democratic parenting, which combines guidance, supervision, and responsiveness to children's needs, has been shown to promote healthier eating behaviors and optimal growth.

Based on the results of this study, it can be inferred that parenting practices are an important determinant of stunting among under-five children in the working area of Lampupok Public Health Center. The predominance of permissive parenting among mothers may contribute to suboptimal feeding behaviors and inadequate nutrient intake among children. Therefore, promoting more balanced parenting approaches, such as democratic parenting, is essential. Democratic parenting allows children to express preferences while ensuring that caregivers provide appropriate guidance, supervision, and control over food choices and eating behaviors.

Health promotion programs targeting mothers should emphasize the importance of appropriate parenting practices in supporting optimal child nutrition and growth. Parenting education interventions delivered through public health centers may help mothers adopt more effective feeding and caregiving strategies, thereby reducing the

risk of stunting among under-five children.

Relationships between Knowledge and Stunting

The findings of this study indicate that respondents with poor maternal knowledge were more likely to have children with stunting compared to those with good knowledge. The chi-square analysis demonstrated a statistically significant association between maternal knowledge and stunting among under-five children in the working area of Lampupok Public Health Center, Aceh Besar Regency ($p = 0.012$). This finding highlights maternal knowledge as a key determinant in the prevention of stunting.

Table 8. Relationships between Knowledge and Stunting

knowledge	Status						<i>p</i> value	<i>α</i>
	Not stunted		Stunted		Total			
	f	%	f	%	f	%		
Good	18	60	12	40	30	100	0,012	0,05
poor	12	27,9	31	72,1	43	100		
Total	30	41,1	43	58,9	73	100		

Maternal knowledge plays a critical role in shaping caregiving behaviors, particularly in relation to food selection, feeding practices, and health-seeking behavior. Adequate knowledge enables mothers to provide appropriate types and quantities of food that meet the nutritional requirements of children, thereby supporting optimal growth and development. Mothers with good nutritional knowledge are also more likely to recognize early signs of growth faltering and take timely preventive or corrective actions. The results of this study are consistent with previous studies demonstrating a significant association between maternal knowledge and stunting. Research conducted in various settings has shown that mothers with limited knowledge regarding child nutrition and stunting prevention are more likely to have stunted children. Poor maternal knowledge is often reflected in misconceptions about normal child growth, inability to distinguish between undernutrition and stunting, and lack of awareness of age-appropriate dietary requirements (Wahyuni et al., 2023).

Empirical evidence further supports this finding, indicating that children of mothers with low knowledge levels are at substantially higher risk of stunting compared to those whose mothers have adequate knowledge. Previous studies have reported that mothers with poor knowledge may have up to five times higher risk of having children with severe stunting. These findings suggest that maternal knowledge not only influences daily feeding practices but also determines the overall quality of child care and nutrition (Indriani & Setiani, 2022).

Based on the findings of this study, it can be inferred that maternal knowledge is a crucial factor associated with stunting among under-five children in the working area of Lampupok Public Health Center. The high proportion of mothers with poor knowledge indicates gaps in understanding of stunting, its causes, and its prevention, which may limit mothers' ability to adopt effective preventive behaviors. Poor maternal knowledge may be influenced by low educational attainment and limited access to health-related information. Mothers with lower education levels may have fewer opportunities to access, interpret, and apply health information, leading to suboptimal caregiving practices. Therefore, strengthening maternal knowledge through structured health education and nutrition counseling is essential. Health education programs focusing on child nutrition, appropriate feeding practices, and early identification of stunting should

be prioritized to enhance mothers' understanding and promote positive behavioral changes that support stunting prevention.

4. Conclusions

This study concludes that factors significantly associated with stunting among under-five children include exclusive breastfeeding, feeding practices, socioeconomic status, parenting practices, and maternal knowledge. In contrast, environmental factors were not found to be significantly associated with stunting among under-five children in the working area of Lampupok Public Health Center, Aceh Besar Regency. It is recommended that mothers and caregivers actively seek information regarding exclusive breastfeeding and appropriate feeding practices to support optimal child growth and development. Improved understanding is expected to encourage the adoption of appropriate parenting and feeding practices that align with children's nutritional needs. For families with limited economic resources, the utilization of locally available food sources—such as Moringa leaves, cassava leaves, and other affordable local foods—should be encouraged, as these foods are accessible, cost-effective, and nutritionally beneficial for child growth and development. Furthermore, it is expected that the Lampupok Public Health Center, including the head of the health center, nutrition officers, and other health professionals, will strengthen health education and promotion activities related to exclusive breastfeeding, child nutritional requirements, stunting prevention, and appropriate feeding practices. The implementation of practical nutrition interventions, such as nutritious menu demonstrations through community-based programs like healthy kitchen initiatives (e.g., DASHAT/“Dapur Sehat”), is strongly recommended to support mothers in preparing diverse and balanced meals for children and their families.

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