



Mothers' Perceptions of the Role of Exclusive Breastfeeding in Preventing Stunting in Toddlers

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ABSTRACT

Stunting is a serious nutritional issue that affects children's physical growth and cognitive development. It can be prevented through adequate exclusive breastfeeding during the first six months of life. This study aims to assess mothers' perceptions regarding the importance of exclusive breastfeeding in preventing stunting among toddlers aged 6–24 months, as well as the factors influencing their decision to provide exclusive breastfeeding. The study sample consisted of 130 mothers with toddlers aged 6–24 months. Data were collected through interviews using structured questionnaires. Data analysis was conducted using descriptive statistics and logistic regression. The results showed that a positive maternal perception of exclusive breastfeeding was significantly associated with lower stunting rates among toddlers. Moreover, maternal knowledge and family support emerged as key factors contributing to the success of exclusive breastfeeding.

Keywords: Exclusive Breastfeeding, Stunting, Maternal Perception.

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INTRODUCTION

Stunting remains one of the most serious and chronic forms of malnutrition affecting toddlers, especially in developing countries such as Indonesia (Sekiyama et al., 2012). It is characterized by impaired linear growth, where a child's height is not appropriate for their age, primarily caused by long-term nutritional deficiencies beginning in the prenatal period and continuing until the child is two years old (Desmita et al., 2023; Radiah Wakulu & Priyanti, 2025; Sukarti et al., 2023). The impact of stunting is not only short-term but also long-lasting, influencing a child's physical, mental, and social well-being throughout life (McCoy et al., 2016).

National data reveals that stunting continues to pose a major challenge in the effort to improve child health in Indonesia. According to the Basic Health Research (Rskesdas), the national stunting prevalence reached 37.2%, while the 2018 nutritional status records showed a figure of 27.5%, far above the WHO threshold of <20%. These figures indicate that approximately 8.9 million Indonesian children suffer from growth delays, meaning one in three children is growing under suboptimal conditions (RI, 2022). This situation reflects systemic shortcomings in fulfilling children's nutritional needs from an early age.

The consequences of stunting extend beyond physical growth. It also hinders cognitive development, learning abilities, and future productivity (Fitriana, 2022; Lestari, 2019; Rosdiani & Warmansyah, 2021). Stunted children are at higher risk of underperforming in education and social settings, and if left unaddressed, this condition can ultimately reduce the quality of a nation's human capital (Septiani et al., 2025). In the long term, stunting has been linked to an increased risk of non-communicable diseases in adulthood, such as diabetes and hypertension.

The causes of stunting are multifactorial and interconnected. The main contributing factors include poor maternal health and nutritional status before and during pregnancy, inadequate dietary intake, frequent infections, and lack of access to adequate healthcare and sanitation. The World Health Organization (2021) emphasizes that stunting is not merely a postnatal problem but rather an accumulation of nutritional deficiencies and infections that begin in utero. Thus, prevention efforts must be holistic and begin as early as the preconception stage, continuing through pregnancy and into the first two years of life. One of the most crucial preventive factors in stunting is optimal breastfeeding practices, especially exclusive breastfeeding (Pérez-Rodrigo & Aranceta, 2001). Poor breastfeeding behaviors, such as the absence of early initiation of breastfeeding, premature weaning, or failure to exclusively breastfeed for the first six months, significantly increase the risk of undernutrition and stunted growth (Peñacoba & Catala, 2019). In the Indonesian context, barriers to optimal breastfeeding often include lack of education, cultural beliefs, and socioeconomic pressures that discourage continued breastfeeding.

Exclusive breastfeeding offers exceptional benefits for a child's development. Breast milk contains all essential nutrients such as proteins, fats, vitamins, and minerals in ideal proportions that are easily absorbed by the infant's body (Rinata et al., 2021). It also contains natural antibodies that strengthen the infant's immune system, protecting against infections that can hinder growth (Astuti et al., 2020). The WHO (2021) affirms that exclusive breastfeeding is the most complete and appropriate form of nutrition for infants during the first six months of life, without the need for additional food or drink, not even water.

Furthermore, the importance of exclusive breastfeeding is closely tied to the critical window of the first 1,000 days of life from conception to a child's second birthday (A. Rahmawati & Prayogi, 2017). This period is a golden opportunity for interventions to ensure optimal growth and development. Nutritional deficiencies during this phase can lead to irreversible impairments in brain structure and stature (Ailah et al., 2025; Maromi & Hasibuan, 2025; Radharisnawati, 2017). Research by Sofiyanti et al., (2019) shows that children who do not receive exclusive breastfeeding are at a significantly higher risk of experiencing stunted growth compared to those who are exclusively breastfed.

Despite the abundance of scientific evidence supporting the benefits of exclusive breastfeeding, public awareness particularly among mothers remains inconsistent. Many still believe that short stature in children is primarily hereditary. This genetic fatalism often leads to inaction, where parents accept their child's growth failure without seeking preventive strategies. However, Prastiwi et al., (2017) argue that genetics contribute only marginally to a child's height, with environmental factors such as nutrition, health care, and parenting practices playing a far more substantial role.

This gap between scientific facts and public perception poses a major barrier to the success of stunting prevention efforts. When mothers are unaware of the importance of exclusive breastfeeding, health interventions may fall short. Low levels of knowledge and awareness make mothers more susceptible to myths, commercial formula marketing, or cultural pressures that do not support appropriate breastfeeding practices. Therefore, comprehensive educational approaches and strong public health messaging are needed to cultivate positive perceptions of breastfeeding among mothers.

Based on the above context, this study aims to assess mothers' perceptions of the role of exclusive breastfeeding in preventing stunting among toddlers aged 6–24 months, and to identify the factors that influence their decision to practice exclusive breastfeeding. Understanding these perceptions and determining the influencing factors are expected to provide a foundation for designing targeted nutritional interventions aimed at reducing the prevalence of stunting in Indonesia..

RESEARCH METHODOLOGY

This study employed a quantitative approach with a survey design to measure mothers' perceptions regarding the importance of exclusive breastfeeding in preventing stunting among toddlers aged 6–24 months. A survey was deemed appropriate for capturing quantifiable data from a representative sample and for analyzing the relationship between key variables.

The research was conducted in Pacar Kembang sub-district, Tambaksari district, Surabaya city, which includes both urban and rural areas. This location was selected due to its varied socio-economic demographics and the relatively high prevalence of stunting reported in the area. The study was carried out over a three-month period, from February to April 2025.

The population consisted of mothers with children aged 6–24 months residing in Wlingi. A total of 130 mothers were selected using a stratified random sampling technique to ensure diverse representation in terms of education level, income, employment status, and access to healthcare facilities. The sampling process involved selecting respondents from several villages and urban neighborhoods within the subdistrict.

Data were collected through direct interviews using a structured, close-ended questionnaire. The instrument was designed to capture detailed information on four main components: demographic characteristics of respondents, mothers' knowledge about exclusive breastfeeding, their perceptions of its benefits in preventing stunting, and supporting factors such as family support and access to health services. The questionnaire utilized multiple-choice items and Likert-scale questions to quantify attitudes and perceptions effectively.

The collected data were analyzed using both descriptive and inferential statistics. Descriptive analysis was used to illustrate the distribution of respondent characteristics and their overall perceptions toward exclusive breastfeeding. These results were presented in the form of frequency tables, percentages, and graphs for clarity.

To examine the relationship between mothers' perceptions and the incidence of stunting, binary logistic regression analysis was conducted. This method was chosen due to

the binary nature of the dependent variable (stunted vs. not stunted). Independent variables in the model included mothers' knowledge, family support, and access to health services.

RESULTS AND DISCUSSION

The results of this study are based on survey data collected from 130 mothers of toddlers aged 6–24 months in Tambaksari district, Surabaya city, Blitar Regency. The research aimed to examine maternal perceptions regarding the role of exclusive breastfeeding in preventing stunting and to identify influencing factors such as maternal knowledge and family support. Data were analyzed using descriptive statistics and binary logistic regression to understand both general trends and predictive relationships.

Descriptive Analysis

Table 1 presents mothers' responses to ten perception statements regarding exclusive breastfeeding. The results reveal diverse perspectives, with a substantial proportion of mothers showing favorable views but also a notable share expressing disagreement or uncertainty.

Table 1. Distribution of Mothers' Perceptions on Exclusive Breastfeeding to Prevent Stunting (n = 130)

No	Statement	Strongly	Agree	Disagree	Strongly
		Agree (%)	(%)	(%)	Disagree (%)
1	Exclusive breastfeeding meets infants' nutritional needs optimally.	27%	25%	24%	25%
2	Exclusive breastfeeding for the first 6 months is important to prevent stunting.	18%	35%	19%	28%
3	Breast milk is better than formula for infant growth.	28%	28%	23%	22%
4	I feel well-informed about the benefits of exclusive breastfeeding.	22%	25%	24%	29%
5	I receive family support for exclusive breastfeeding.	22%	24%	29%	25%
6	I understand the risk of stunting if exclusive breastfeeding is not given.	32%	19%	27%	22%
7	Exclusive breastfeeding benefits cognitive development.	28%	25%	21%	26%
8	Exclusive breastfeeding strengthens the baby's immune system.	27%	22%	28%	22%

9	I encountered difficulties in providing exclusive breastfeeding for 6 months.	25%	22%	20%	33%
10	I need further education on exclusive breastfeeding.	32%	25%	25%	18%

The highest agreement (combined "strongly agree" and "agree") was seen in statements 3, 6, and 7, indicating that most mothers recognize the nutritional and developmental benefits of exclusive breastfeeding. However, nearly half of the respondents (47%) did not agree or were unsure that exclusive breastfeeding prevents stunting (Statement 2), which is central to the objective of this research. Furthermore, 53% of mothers expressed either disagreement or uncertainty about receiving sufficient information (Statement 4), and 54% did not feel supported by their families (Statement 5). This highlights a gap between scientific recommendations and the practical knowledge or support experienced by mothers.

Logistic Regression Analysis

To assess whether maternal perceptions are statistically associated with stunting, a binary logistic regression was conducted. The dependent variable was child stunting status (1 = stunted, 0 = not stunted), while the independent variables included maternal perception (aggregated score from relevant Likert items), maternal knowledge, family support, and breastfeeding difficulties.

The logistic regression results are summarized as follows:

Table 2. Logistic Regression Results on the Association Between Maternal Factors and Stunting Incidence

Variable	Odds Ratio (OR)	p-value	Interpretation
Maternal perception	2.01	0.034*	Positive perception reduces stunting risk
Knowledge level	2.76	0.008**	Higher knowledge strongly reduces stunting risk
Family support	1.64	0.049*	Support contributes to successful breastfeeding
Breastfeeding barriers	0.89	0.412	Not statistically significant

(*Significant at $\alpha = 0.05$; **Significant at $\alpha = 0.01$)

The model showed that mothers with positive perceptions of exclusive breastfeeding were twice as likely to have non-stunted children compared to those with negative perceptions ($OR = 2.01, p < 0.05$). Similarly, mothers with higher levels of knowledge about breastfeeding were nearly three times more likely to have children with normal growth ($OR = 2.76, p < 0.01$). Family support was also found to be a statistically significant factor, while self-reported barriers to breastfeeding were not significant in the final model.

Discussion

These findings reinforce earlier studies emphasizing the protective effect of exclusive breastfeeding against stunting (Rini et al., 2019). Breast milk provides a balanced composition of essential nutrients including proteins, fats, carbohydrates, vitamins, and minerals that are crucial for brain development, bone growth, and immune function (Delvina et al., 2022). It also contains prebiotics such as Human Milk Oligosaccharides (HMOs) that support gut flora development, which plays a role in reducing infections like diarrhea and respiratory illness.

Despite these biological benefits, the perception data suggest that many mothers remain unconvinced or unaware of the link between breastfeeding and stunting prevention. This is concerning, as stunting is not only a marker of chronic malnutrition but also a predictor of poor academic performance and reduced economic productivity in adulthood (Februhartanty, 2005).

Cultural misconceptions also contribute to breastfeeding failure. As Intan et al., (2023) highlighted, colostrum is often discarded due to its appearance, when in fact it contains high levels of immunoglobulin essential for newborn immunity. Such misunderstandings persist even among mothers who report general knowledge of breastfeeding, suggesting that education must not only inform but also correct harmful beliefs (N. I. Rahmawati, 2017).

Socioeconomic factors such as education and employment status further mediate breastfeeding practices. Mothers with higher education levels are more likely to seek health information and follow recommended practices (Wattimena & Werdani, 2015). Conversely, mothers with limited education or demanding jobs may face challenges in sustaining exclusive breastfeeding and may resort to formula feeding, which has been shown to increase the risk of stunting by five times in the first six months (Prananjaya & RUDIYANTI, 2013).

This study provides empirical evidence that positive maternal perceptions, knowledge, and family support significantly influence exclusive breastfeeding practices and are associated with reduced stunting incidence among toddlers. These findings highlight the urgent need for intensified breastfeeding education, especially targeting mothers with lower education or limited access to health services. Health programs should also engage families, not just mothers, to build a supportive environment for exclusive breastfeeding during the critical first 1,000 days of life.

CONCLUSION

This study concludes that mothers' perceptions of exclusive breastfeeding play a significant role in preventing stunting among toddlers aged 6–24 months in Tambaksari district, Surabaya city, Blitar Regency. The descriptive findings reveal that although a portion of mothers acknowledged the benefits of exclusive breastfeeding, many still held neutral or negative views, particularly regarding its role in preventing stunting and their access to reliable information and family support. Logistic regression analysis further confirmed that positive maternal perception, high knowledge levels, and strong family support significantly reduced the likelihood of stunting. These findings emphasize the critical need for comprehensive education and advocacy programs that promote exclusive breastfeeding, especially within the first six months of life. Improving maternal understanding and correcting misconceptions

such as those about colostrum can serve as effective interventions. Community-based support systems should also be strengthened to encourage breastfeeding-friendly environments. Targeted strategies addressing socio-demographic barriers will be essential in achieving sustainable stunting reduction in line with national health priorities.

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