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Exclusive breastfeeding in preventing stunting in toddlers

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ABSTRACT

Introduction exclusive breastfeeding during the first six months of a baby's life has been shown to have many health benefits, and one of them is that it can help prevent stunting in toddlers. Stunting is when a child's physical growth and brain development are hampered due to chronic malnutrition, especially protein, energy, and other essential nutrients.

Objective know the role of exclusive breastfeeding in preventing stunting in toddlers.

Methods type of quantitative analytical research with a case-control design using a retrospective approach. The population in this study was mothers who had toddlers aged 12-60 months, while the determination of subjects was based on simple random sampling techniques. The inclusion criteria were mothers with stunting toddlers aged 12-60 months and mothers willing to be respondents. The exclusion criteria are toddlers who suffer from chronic diseases and have a history of premature birth. The subjects in this study were 70 toddlers, consisting of 35 stunting toddlers as an intervention group and 35 non-stunting toddlers as controls.

Results showed that toddlers who were exclusively breastfed and stunted were 15 toddlers (42.9%), while toddlers who were not exclusively breastfed and stunted were 20 toddlers (57.1%). Bivariate analysis showed an association between exclusive breastfeeding and the incidence of stunting (p-value 0.030).

Conclusion exclusive breastfeeding can prevent stunting in toddlers. Exclusive breastfeeding can make a significant contribution to stunting prevention; other factors such as public health, sanitation, and access to nutrition also play an important role. Therefore, a holistic approach must be applied to support children's growth and development.

Keywords: *exclusive breastfeeding, stunting, toddlers.*

INTRODUCTION

Providing exclusive breast milk is a crucial step in preventing stunting in toddlers. Breast milk has several benefits that are very important for the growth and development of children. Exclusive breastfeeding is recommended by global health organizations, including the World Health Organization (WHO) and UNICEF, during the first six months of a baby's life. After that, breastfeeding can be continued along with complementary foods for up to two years or more, according to the needs and readiness of the child. Providing social support and good information to mothers about the benefits of exclusive breastfeeding can be an essential step in preventing stunting in toddlers (Osendarp and Roche, 2016). The practice of exclusive breastfeeding is an investment in the long-term health of both the baby and the mother. However, it must be borne in mind that each individual and health situation can be different, and consultation with a health worker is essential to ensure that the feeding options are appropriate to each family's specific needs and conditions (Butarbutar *et al.*, 2019). Exclusive breastfeeding is giving breast milk as the only food source for babies during the first six months of life, without providing additional food or other drinks, including water. Support mothers in exclusive breastfeeding practices by giving correct information and emotional support (Theodorah and Mc'Deline, 2021). Health facilities, health workers, and families can also play an essential role in ensuring the success of this practice. In certain situations, if there are health or lactation problems, consult a healthcare professional for appropriate support and advice (Herlianty *et al.*, 2023). Mothers need enough support from family, health workers, or the surrounding community. Exclusive breastfeeding also requires understanding and support from the surrounding environment so that mothers can carry it out comfortably and successfully. Good health care, emotional support, and accurate information are essential factors in ensuring the success of exclusive breastfeeding practices (Nurwahyuni *et al.*, 2023).

Stunting is when a child's physical growth and brain development are stunted or permanently stopped due to malnutrition in the early days of life, especially in the first 1,000 days (from pregnancy to the first two years after birth) (Rilyani, 2021). Stunting occurs when a child is chronically malnourished, which can be caused by a lack of adequate nutrition, repeated infections, and an unhealthy environment (Ali, 2021). Stunting has serious consequences, including adversely affecting a child's physical and cognitive development, lowering productivity in adulthood, and increasing the risk of chronic disease (Nurjazuli *et al.*, 2023). Therefore, stunting prevention involves nutrition promotion, sanitation improvement, health education, and supporting pregnant and lactating mothers. Exclusive breastfeeding during the first six months of a baby's life is also considered one of the effective ways to prevent stunting (Sari, 2022). These efforts often require cooperation across sectors, including health, education, economy, and environment, to achieve optimal results in addressing the problem of stunting. These conditions can impact a child's health and development in the long term, including health problems, cognitive limitations, and low productivity in adulthood (Hadi *et al.*, 2021). Factors that can cause stunting involve a combination of poor nutrition, infectious diseases, limited access to health services, poor sanitation, and an environment that does not support optimal growth (Suprapto, 2022).

Exclusive breastfeeding plays a crucial role in preventing stunting in toddlers. Stunting is often associated with inadequate nutrition during the early years of life, and exclusive breastfeeding is one of the most effective ways to provide optimal nutrition to infants (Saleh *et al.*, 2021). Breast milk is a complete and perfect source of nutrition for

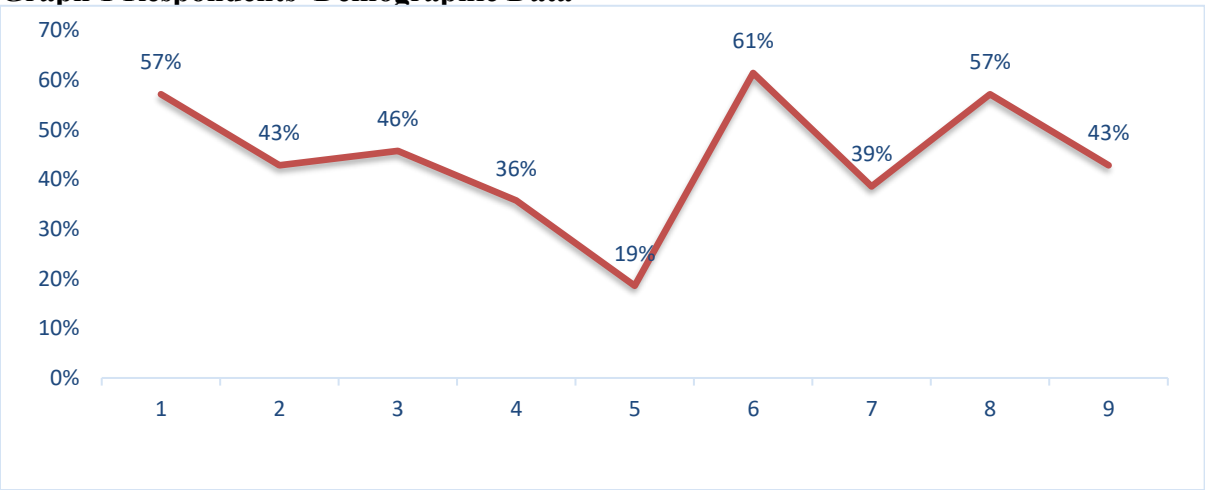
infants, containing the right balance of carbohydrates, proteins, fats, vitamins, and minerals needed for healthy growth and development (Sánchez *et al.*, 2021). Breast milk's nutritional content adjusts to the growing baby's changing needs. Promoting exclusive breastfeeding and proper maternal nutrition and healthcare creates a strong foundation for preventing stunting and supporting optimal growth and development in toddlers (Widayati, Putra and Dewi, 2021). Healthcare providers and communities must help educate mothers about the importance of exclusive breastfeeding during the first six months of life and continued breastfeeding afterwards (Talbert *et al.*, 2020). Breastfeeding introduces toddlers to different tastes through the varying flavours of breast milk, which may positively influence their acceptance of diverse foods during the weaning process (Forestell, 2020). Mothers and caregivers must practice exclusive breastfeeding for the first six months of a child's life, gradually introducing complementary foods while breastfeeding for up to two years or beyond. This comprehensive approach helps ensure that toddlers receive the necessary nutrients for optimal growth, reducing the risk of stunting and supporting their overall health and development. This study aims to find out Exclusive breastfeeding in preventing stunting in toddlers. These findings provide a foundation for health policymakers to develop and support programs that encourage and facilitate the practice of exclusive breastfeeding. Public health policies can focus on raising awareness and accessibility of support.

MATERIALS AND METHODS

This research is quantitative research with a case-control design and retrospective approach. The population in this study was mothers who had toddlers aged 12-60 months, as many as 1,795 toddlers, while the determination of subjects was based on simple random sampling techniques. The inclusion criteria are mothers with stunting toddlers aged 12-60 months and mothers willing to be respondents. The exclusion criteria are toddlers who suffer from chronic diseases and have a history of premature birth. Univariate data analysis to see an overview of frequency distribution and the proportion of each variable to be presented. After that, a bivariate analysis was carried out using the chi-square test to see the relationship between exclusive breastfeeding and the incidence of stunting in toddlers aged 12-60 months with a meaning level of $\alpha = 0.05$.

RESULTS

Graph 1 Respondents' Demographic Data



These data show that most respondents are in the age range of 21-25 years, as much as 57%, IRT work 46%, male toddler sex 61%, and exclusive breastfeeding 57%.

Table 1 Analysis of exclusive breastfeeding with the incidence of stunting

Exclusive breastfeeding	Stunting		Non-Stunting		Sum		*p-value*
	N	%	n	%	n	%	
Yes	22	15	42.9	25	71.4	40	0.030
No	1	20	57.1	10	28.6	30	

The test results statistically chi-square obtained p = 0.030. It can be concluded that there is a significant relationship between exclusive breastfeeding and the incidence of stunting (p = <0.05). Exclusive breastfeeding properly in the first six months of a baby's life can prevent stunting in stunting conditions in children under five.

DISCUSSION

Researchers revealed that exclusive breastfeeding properly in the first six months of a baby's life can prevent stunting and failure to thrive in children under five. The practice of exclusive breastfeeding has been recognized as one of the main strategies to prevent stunting in children. The first six months of life are critical for a child's development, and exclusive breastfeeding can provide significant protection (Forestell, 2020). Complete breastfeeding practices that are carried out properly during the first six months of a baby's life can positively prevent stunting, which is a condition of failure to thrive in children under five (Mkhize and Sibanda, 2020). The statement aligns with the findings and recommendations of many studies and world health organizations. Practising exclusive breastfeeding during the first six months of a baby's life has been shown to have several benefits in preventing stunting, a condition of failure to thrive that can affect a child's physical growth and brain development (Saddki *et al.*, 2022). Breast milk is the best source of nutrition for babies, containing essential nutrients such as proteins, fats, vitamins, and minerals necessary for optimal growth. Breast milk contains antibodies and immune factors that help protect babies from infection and disease. Infections often associated with stunting can be minimized through the immunity provided by breast milk. Breast milk provides nutrients in the right proportions and is easily digested, helping to maintain a balanced growth rate without the risk of being overweight (Lyons *et al.*, 2020).

Optimal nutrition for exclusive breast milk growth provides optimal nutrition that suits the baby's growth and development needs. Breast milk's complete and easily absorbed nutritional content can help ensure healthy physical and cognitive growth. The fact that exclusive breastfeeding practices can prevent stunting demonstrates the critical role of breastfeeding in protecting children from failure to thrive, which can have a long-term impact on their health and development (Sirajuddin *et al.*, 2020). Immunological and health components of the child Breast milk provides nutrients and contains immune factors that support the child's health. By protecting against infection and disease, breast milk helps prevent factors that can trigger stunting. The focus on the first six months of a baby's life as a critical period emphasizes the importance of exclusively breastfeeding within this crucial time to maximize its benefits to growth and development—the need for education and support for mothers and families in carrying out exclusive breastfeeding practices (Rana *et al.*, 2020). Efforts to raise public awareness about the benefits of exclusive breastfeeding and provide appropriate health care support are vital in realizing this practice. Encouraging exclusive breastfeeding during the first six months of a baby's life can be considered an effective strategy in stunting prevention and ensuring optimal growth early in a child's life. A holistic approach that involves mothers, families, and communities in supporting exclusive breastfeeding practices is essential to achieve

optimal results in preventing failure to thrive in children under five.

The analysis of the statement underscores the importance of good exclusive breastfeeding practices in the first six months of an infant's life as a strategy to prevent stunting or failure to thrive in children under five. Good complete breastfeeding practices during the first six months of an infant's life play a significant role in stunting prevention and establishing an optimal health baseline. Public support and understanding of the importance of exclusive breastfeeding must be continuously improved through educational approaches and public health support. Optimal nutrition: Breast milk is the best source of nutrition for babies, providing complete and balanced food (Chipojola *et al.*, 2020). During the first six months of life, children get essential nutrients for the growth and development of the brain, bones, and immune system. Protection from exclusive breastfeeding infection helps protect babies from infection and disease, which can be a significant risk factor for stunting. Breast milk's antibodies and other immune substances support this protection (Azad *et al.*, 2021). Growth and development factors: Breast milk provides essential nutrients and contains growth and development factors that support all aspects of a child's growth, including physical and cognitive. Exclusive breastfeeding properly during the first six months of a baby's life can play a significant role in preventing stunting, which is a condition of failure to thrive in children under five (Hauck, Bradfield and Kuliukas, 2021). Education and support for mothers and families are vital in ensuring successful exclusive breastfeeding practices. Raising public awareness about the benefits of exclusive breastfeeding is also an important component. Good, complete breastfeeding practices are essential as an effective strategy for reducing the risk of stunting and supporting optimal growth in children under five. Joint efforts between health services, community education, and family support will help achieve the success of exclusive breastfeeding practices and positively impact future generations' health.

CONCLUSIONS

Exclusive breastfeeding well in the first six months of a baby's life can prevent stunting in failure to thrive in children under five. These results can provide a basis for policymakers in developing and supporting public health programs that encourage and support exclusive breastfeeding practices. Effective exclusive breastfeeding practices in the first six months of a baby's life not only provide nutritional benefits, but also have important implications in preventing stunting and promoting overall child health. Therefore, efforts to increase the level of compliance and support for exclusive breastfeeding practices can be an effective strategy in reducing the incidence of stunting in children under five.

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