

## THE RELATIONSHIP BETWEEN EXCLUSIVE BREASTFEEDING AND THE INCIDENCE OF STUNTING IN TODDLERS

Dita Hasni\*<sup>1</sup>, Natasya Syifa Anugrah<sup>2</sup>, Zilhadi Al Asri<sup>3</sup>, Sri Nani Jelmila<sup>4</sup>

<sup>\*1,2,3</sup>Universitas Baiturrahmah, Indonesia

\*Correspondence Author: [ditahasni@fk.unbrah.ac.id](mailto:ditahasni@fk.unbrah.ac.id)

### **Abstract**

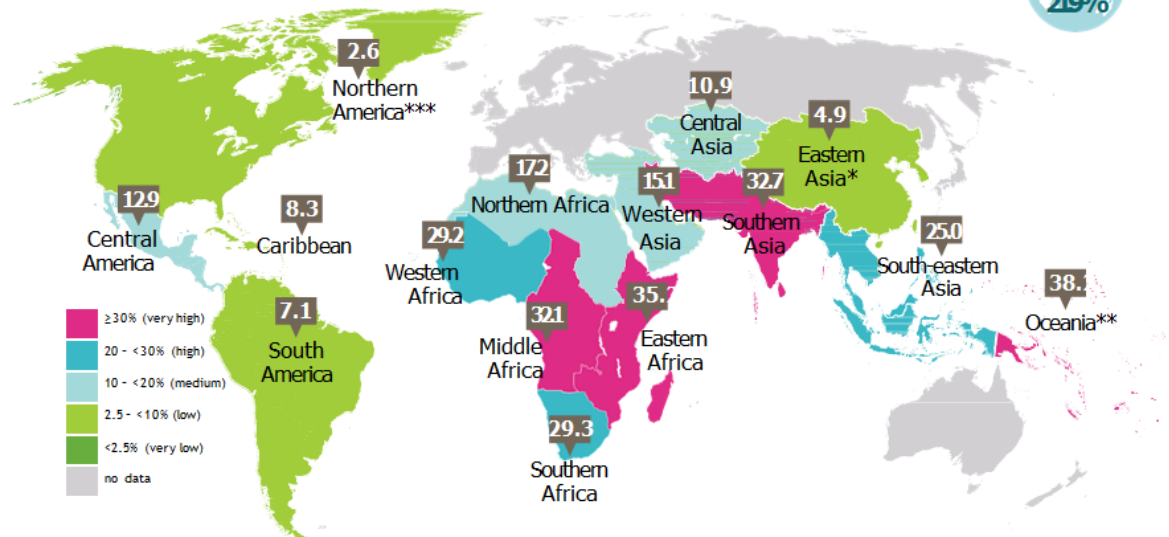
*Motivation/Background.* Stunting represents a prevalent health issue, particularly in lower to middle-income countries, including Indonesia. Occurring predominantly among infants, stunting is influenced by various factors such as genetics and nutritional status, primarily derived from direct dietary intake like breastfeeding. Additionally, socioeconomic factors, including household income, economic status, and food security, also contribute to stunting in young children. The adverse effects of stunting manifest in compromised growth and intellectual development, potentially impeding productivity, elevating the incidence of low birth weight, and increasing the risk of degenerative diseases. These consequences may subsequently heighten the risk of future poverty. This study aims to explore the relationship between exclusive breastfeeding and the incidence of stunting in infants. *Method:* The research adopts a (narrative/systematic) review methodology, guided by the PRISMA 2020 framework. Data was gathered through searches on Google Scholar and PubMed, focusing on publications from 2019 to 2023. The search keywords included "Relationship between Exclusive Breastfeeding and Stunting," "Exclusive Breastfeeding," and "Stunting." Out of 100 results from Google Scholar and 756 from PubMed, five studies were selected for inclusion in this review. *Results:* The review indicates that the incidence of stunting is significantly associated with the lack of exclusive breastfeeding during the first six months of life. *Conclusions:* There is a significant correlation between exclusive breastfeeding and the incidence of stunting in infants, underlining the importance of promoting and supporting exclusive breastfeeding to mitigate the risk of stunting and its long-term consequences. *Keywords:* exclusive Breastfeeding, infant, stunting, toodler

### **INTRODUCTION**

Stunting is a nutritional problem in toddlers in the world. In 2022, there are 148.1 million children under the age of 5 who are too short compared to their age (stunting), 45.0 million children are too thin compared to their height (wasting), and 37.0 million children are too heavy compared to their height (overweight). (WHO). Stunting is crucial because it has an impact on human resource development, child health, and even the risk of death. Data from the Indonesian Toddler Nutrition Status Survey (SSGBI) shows a decrease in stunting rates by 27.67% in 2019.

Data shows that around 21.9% of children under five are stunted, or around 149 million children worldwide in 2018. Data shows that nationally the prevalence of stunting has increased from 35.6% in 2010 to 37.2% in 2013, but then decreased to 30.8% in 2018, as recorded in Ministry of Health data in 2018.(KEMENKES 2018). Here is an epidemiological overview.

In 7 sub-regions, at least one in every four children under 5 is stunted



Source: UNICEF, WHO, World Bank Group joint malnutrition estimates, 2019 edition. Note: \*Eastern Asia excluding Japan; \*\*Oceania excluding Australia and New Zealand; \*\*\*Northern America sub-regional average based on United States data. There is no estimate available for the sub-regions of Europe or Australia and New Zealand due to insufficient population coverage. These maps are stylized and not to scale and do not reflect a position by UNICEF, WHO or World Bank Group on the legal status of any country or territory or the delimitation of any frontiers.

Gambar 1. <sup>1</sup>

Based on data from the Indonesian Toddler Nutrition Status Survey (SSGI), there was a decrease in stunting rates from 24.4% in 2021 to 21.6% in 2022 based on sources from the Indonesian Ministry of Health. In 2007 the stunting rate was 36.8%; in 2010 35.6%; in 2013 37.2%; in 2016 34%; in 2018 30.8%; in 2019 27.7%; the year 2020 was not detected; in 2021 24.4%; in 2022 21.6%; in 2023 17.8%; and the target stunting rate in Indonesia in 2024 is 14%.<sup>2</sup>

Data in West Sumatra Province shows the incidence of stunting per age group in 2021-2022 according to the Indonesian Ministry of Health. In the age group less than one month, it was 17.31% in 2021 and there was an increase to 21.15% in 2022. In the Age group of 0-5 months in 2021 it was 8.93%; and rose to 11.66% in 2022. In the age group of 6-11 months, PDI in 2021 was 25.99%; In 2022, it decreased to 24.48%. In the age group of 24-35 months in 2021 it was 25.31%; and in 2022 it rose dramatically to 33.19%. In the Age group of 36-47 months in 2021 25.21%; In 2022, it rose to 26.83%. In the Age group of 48-59 months in 2021 27.40%; In 2022, it fell to 26.89%.<sup>2</sup>

Based on the prevalence of stunting in toddlers (height according to age) in West Sumatra Province by district/city, SSGI 2022 data shows the following figures: West Pasaman Regency 35.5%; Mentawai Islands Regency 32%; South Solok Regency 31.7%; Sijunjung Regency 30%; South Coastal District 29.8%; Pasaman Regency 28.9%; Padang Pariaman District 25%; Dharmasraya District 24.6%; Agam District 24.6%; Fifty City District 24.3%; Solok Regency 24.2%; Padang City 19.5%; Tanah Datar District 18.9%; Pariaman City 18.4%; Solok City 18.1%; Payakumbuh City 17.8%; Padang Panjang City 16.8%; Bukittinggi City 16.8%; Sawahlunto City 13.7%. Based on the data, overall, the prevalence of stunting in West Sumatra Province reached 25.2%.<sup>2</sup>

Stunting is a health obstacle that can occur in toddlers in today's world. Stunting is the most common form of child malnutrition and is identified by

measuring a child's length/height (lying length for <2 years old and standing height for 2 years old).  $\geq 2$  years). Stunting is defined as length/height according to age, by sex, below  $-2$  standard deviations (SD) from the median WHO child growth standard referred to as the LfA-z-score, meaning that a child's length/height is too low for their child's growth.<sup>3</sup>

Often stunting is not realized by the community, where short stature is common so it is considered normal.<sup>4</sup> Based on World Health Organization (WHO) data on the prevalence of stunting in the Southeast Asia region in 2005-2017, it shows that Indonesia ranks third for the highest stunting prevalence with an average prevalence of 36.4% (WHO, 2018).

The impact of stunting in toddlers is a level of intelligence that is not optimal, susceptible to disease, and at risk of decreased future productivity levels. Therefore, it is important to provide exclusive breastfeeding to infants at least in the first 6 months of life to meet nutritional needs and prevent stunting. Breast milk contains various components that play an important role in supporting early human growth and development. The first 6 months of exclusive breastfeeding can reduce mortality from infectious diseases by 88% and lower the likelihood of death compared to partial breastfeeding as a dose-dependent effect.<sup>5</sup>

Serious nutritional conditions in Indonesia are manifested in an increase in cases of undernutrition in children under five and those entering school age, both men and women. Malnutrition includes the impact of nutritional status in both the short and long term. Stunting, as a form of malnutrition, is closely linked to a lack of nutritional intake in the past, making it a chronic nutritional problem. Stunting assessment involves measuring the height or length, age, and sex of toddlers. Not measuring the height/length of children in the community is a bad habit and can make it difficult to realize the incidence of stunting. Therefore, stunting is one of the main focuses in efforts to improve global nutrition until 2025.<sup>6</sup>

Based on data from UNICEF 2022, it is known that the success of Exclusive Breastfeeding in South Asia 60%, East & South Africa 58%, Latin America & Caribbean 43%, East Asia & Pacific 41%, West & Central Africa 40%, Eastern Europe and Central Asia 36%, Middle East and North Africa 35%, Based on data on the prevalence of infants <6 months in Indonesia, 69.7% of the target of 45% (percentage of performance achievement of 154.9%) who received exclusive breastfeeding intake was achieved.<sup>7</sup> Meanwhile, the realization of coverage for infants <6 months in West Sumatra Province who received exclusive breastfeeding intake in 2020 has exceeded the set target of 77.6% of the target of 53%, with a percentage of achievement of 145%.<sup>8</sup>

From a molecular biology perspective, there are four risk factors for stunting: Hereditary factors contribute as much as 80%, while the rest involve hormonal signals, malnutrition, and environmental factors (including socioeconomic aspects, poor health care, low birth weight, and various other factors). Short familial stature (FSS) was the most common type, reaching 37%, followed by constitutional growth delay at 27%. Endocrine and paracrine factors account for 17%, and systemic, endocrine, and idiopathic short stature account for the same percentage. There is also the influence of THRB and THRA gene mutations that play a role in hormone signaling in hypothyroidism and thyroid hormone resistance, which can affect the development of short stature in children. The role of protein, zinc, vitamin A, and iron is also involved in the structure of



the growth plate, and therefore, these macro- and micronutrients can also regulate the expression of genes involved in bone formation, as explained by nutrigenetics.<sup>9</sup>

## **MATERIALS AND METHODS**

This research was conducted using the method of literature review / *journal review* by collecting various existing research. Information is obtained from a variety of sources and references, including PubMed and Google Scholar. In the reference search, the author uses keywords such as Exclusive Breastfeeding, Child Nutritional Needs, and Stunting. The goal is to help authors find sources relevant to the focus of the study. The data collected covers a five-year period, i.e. from 2019 to 2023. This study refers to the *Preferred Reporting Items for Systematic Review and Meta-Analysis* (PRISMA) diagram to guide the process of selecting suitable references.

### ***Study Search And Selection Strategy***

The strategy for writing this article is to use literature reviews by searching journals on Google Scholar and PubMed with keywords: (1) Exclusive Breastfeeding (2) Child Nutritional Needs (3) Stunting.

### ***Research Inclusion Criteria***

The inclusion criteria of this study are considered appropriate to conduct a systematic review are: (1) Target group: Toddlers, (2) Results: The relationship between exclusive breastfeeding and the incidence of stunting in toddlers, (3) Research Methods: Literature Review, (4) Studies discussed in Indonesian.

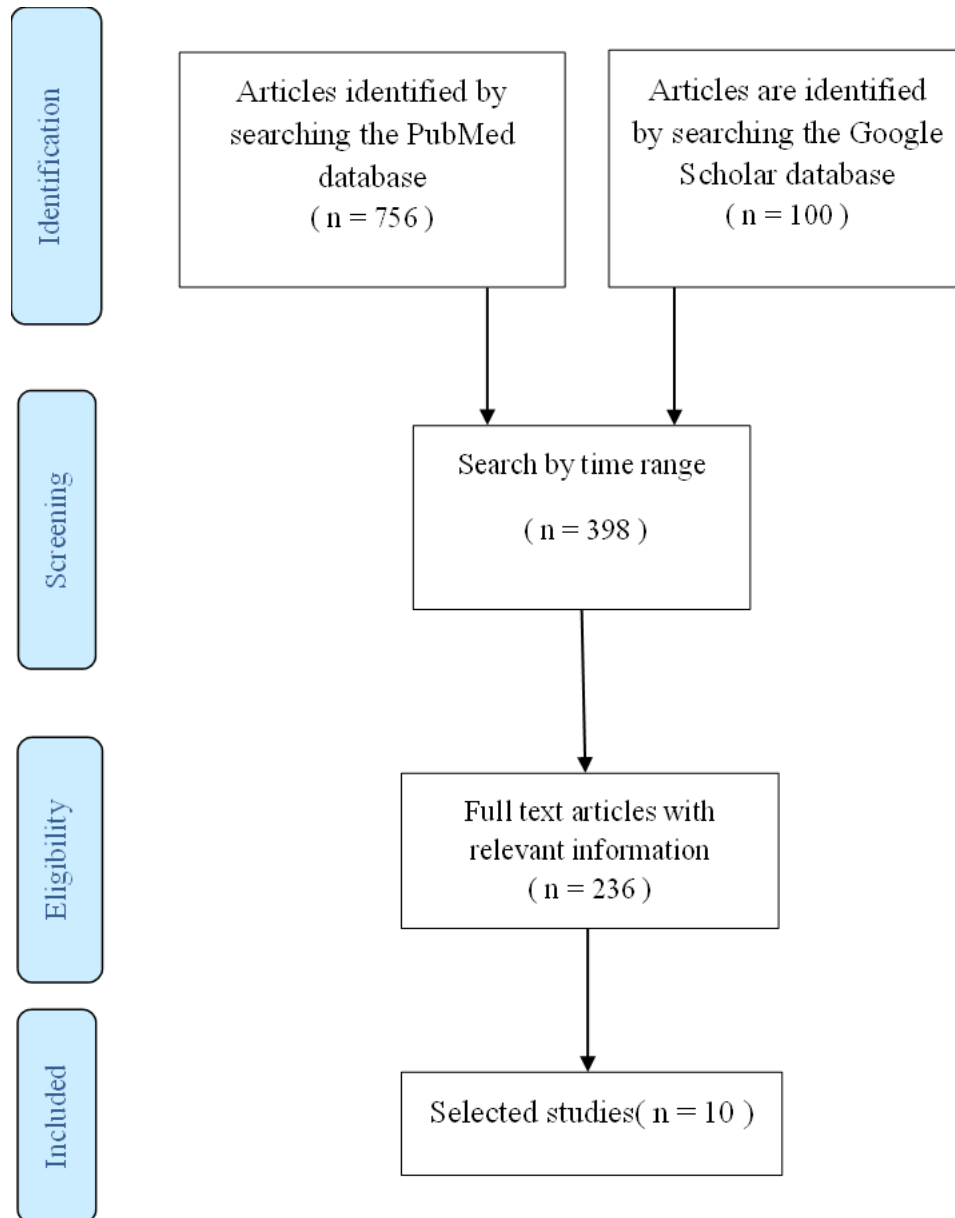
### ***Research Exclusion Criteria***

The author filters out irrelevant research titles and abstracts. The author has a sampling, and a method, if the journal does not discuss the relationship between breastfeeding and the incidence of stunting in toddlers, the document is excluded. The author examines research written in English and Indonesian, with a publication year range of 2019 – 2023.

### ***Data Extraction***

The search for data on references and sources will begin in November 2023. Filtering is done based on relevant titles and abstracts from the full paper.

*Study Selection*



**RESULTS AND DISCUSSIONS**

No.	Author and Title of Research	Research Objectives	Location	Research Methods	Research Results
1	Wijayanti, F., Pramulya S, I. and Saparwati, M. ( 2020 ) “ <b>The relationship between exclusive breastfeeding and the incidence of stunting in toddlers aged 24-60 months</b> ”	To determine the relationship between exclusive breastfeeding and the incidence of stunting in children under the age of 24 - 60 months in the area that is the responsibility of the Selopampang Health Center, Temanggung Regency.	Puskesmas Selopampang, Temanggung	This study used a cross-sectional approach.	A significant relationship was found between exclusive breastfeeding and the incidence of stunting in children under the age of 24-60 months, as revealed in a study conducted in the working area of the Selopampang Health Center, Temanggung Regency, with a p-value reaching 0.0001.
2	Louis, S.L., Mirania, A.N. and Yuniarti, E. (2022) “ <b>The Relationship Between Exclusive Breastfeeding with Stunting on Toddles Children</b> ”	To determine the correlation between exclusive breastfeeding and the incidence of stunting in children under five.	Districts / cities in South Sumatra	analytical surveys and cross sectional approach.	There is a correlation between exclusive breastfeeding and the incidence of stunting in children under five aged 12 - 59 months, with p value = 0.002 (smaller than $\alpha = 0.05$ ).

3	<p>Pratama, M.R. and Irwandi, S. (2021 )  <b>" The relationship between exclusive breastfeeding and stunting at Hinai Kiri Health Center, Secanggang District, Langkat Regency "</b></p>	<p>To investigate the relationship between exclusive breastfeeding and stunting incidents in the area of responsibility of Hinai Kiri Health Center, Secanggang District, Langkat Regency.</p>	<p>Working area of Hinai Kiri Health Center, Secanggang, Langkat.</p>	<p>The observational analytical study used a cross-sectional design with the participation of 60 samples.</p>	<p>There were 13 infants (38.2%) who were stunted and had stopped receiving exclusive breastfeeding in the age range of 4-5 months, while 2 infants (as many as 5.9%) were not stunted.</p>
4	<p>Novayanti, L.H., Armini, N.W. and Mauliku, J. (2021)  <b>" The Relationship of Exclusive Breastfeeding with the Incidence of Stunting in Toddlers Aged 12-59 Months at Banjar I Health Center "</b></p>	<p>to determine the relationship between exclusive breastfeeding and the incidence of stunting in toddlers aged 12-59 months</p>	<p>Puskesmas Banjar I in April</p>	<p>Observational analytics with cross-sectional design</p>	<p>The prevalence of stunting reached 30.91%. Of the 34 stunting cases identified, 26 respondents (88%) did not receive exclusive breastfeeding, while 8 respondents (22%) had a history of exclusive breastfeeding. The results of bivariate analysis using the chi-square test showed a value of <math>p = 0.536</math> (<math>p &gt; 0.05</math>), indicating that there was no significant relationship between exclusive breastfeeding and the incidence of stunting.</p>

5.	Lestari, E.F. and Dwihestie, L.K. (2020) <b>‘ Asi Eksklusif Berhubungan Dengan Kejadian Stunting ’</b>	To assess the correlation between exclusive breastfeeding and stunting incidence in children under five in the Working Area of the Moyudan Sleman Health Center.	Yogyakarta	The case-control method was carried out on the entire under-five population living in Sumberarum and Summersari villages.	Data obtained that 26 toddlers (37.1%) were stunted and did not receive exclusive breastfeeding, while 24 toddlers (34.3%) were not stunted and received exclusive breastfeeding. In this finding, it was also revealed that there were cases of stunting in infants who received exclusive breastfeeding by 12.9%.
6	Campos, A.P., Vilar-Compte, M. and Hawkins, S.S. (2021) <b>“ Association Between Breastfeeding and Child Stunting in Mexico ”</b>	To examine whether or not there is an association between breastfeeding and individual, household, and other regional factors with child stunting in Mexico	Mexico	is a nationally representative cross-sectional survey.	The results of this study showed that 12.3% of children in Mexico were stunted and 71.1% were breastfed for ≥ 6 months.
7.	Betzabe Tello <sup>1,2</sup> , María F. Rivadeneira <sup>3*</sup> , Ana L.Moncayo <sup>4</sup> , Janett Buitron <sup>5</sup> , Fabricio Astudillo <sup>6</sup> , Andrea Estrella <sup>7</sup> dan Ana L. Torres <sup>3</sup> . (2022) <b>“ Breastfeeding, feeding practices and stunting in indigenous Ecuadorians under 2 years of age ”</b>	The aim of this study was to analyze the prevalence of breastfeeding and complementary feeding practices and explore its relationship with stunting in children under the age of two in indigenous Ecuadorian communities.	Ecuador	This research method is a cross-sectional study of secondary data analysis conducted based on the National Health and Nutrition Survey (ENSANNU) conducted by the Ministry of Public Health and the National Statistics and Census Institute (INEC)	The results of this study showed that the prevalence of stunting in children of indigenous Ecuadorians under two years old was 38.4%. In addition, the prevalence of exclusive breastfeeding in children under six months was 37.6%, and the prevalence of complementary feeding in children aged 6 - 23 months was 67.2%. Multivariate analysis showed that factors associated with stunting in Ecuadorian indigenous children were the child's age, area of residence, number of children, economic quintile, and mother's height



8.	Michael Ekholuenetale, Osaretin Christabel Okonji, Chimezie Igwegbe Nzopotam, and Amadou Barrow5. (2022) “ <i>Inequalities in the prevalence of stunting, anemia and exclusive breastfeeding among African children</i> ”	To present estimates of the prevalence of stunting, anemia, and exclusive breastfeeding in African countries.	Africa	The study used secondary data from the Demographic and Health Survey (DHS) in 39 African countries from 2002-2020.	The results of this study show that there are significant differences in the prevalence of stunting, anemia, and exclusive breastfeeding in various African countries. The highest prevalence of stunting occurs in Burundi (56%), Madagascar (50%), and Niger (44%). In addition, Burkina Faso (88%), Mali (82%), Côte d'Ivoire and Guinea (75% each), and Niger (73%) have the highest prevalence of anemia. In addition, Burundi (83%), Rwanda (81%), and Zambia (70%) have the highest amounts of exclusive breast milk.
9	Hadi, H. <i>et al.</i> (2021) ‘ <b>Exclusive breastfeeding protects young children from stunting in a low-income population : A study from eastern indonesia</b> ’	to examine the role of exclusive breastfeeding in reducing the prevalence of stunting among children aged 6 - 24 months caused by low household expenditure in low-income populations in Indonesia.	South Central Timor Regency, East Nusa Tenggara Province, Indonesia.	Sampling Methods, data collection, and data analysis	The study supports the hypothesis that children from poor households could be protected from stunting if they were exclusively breastfed. In poor areas where exclusive breastfeeding is prevalent, exclusive breastfeeding is also associated with reduced stunting rates.
10.	Harahap, K. and Sari, M.T. (2023) ‘ <b>Hubungan Status Gizi, Panjang Badan Lahir Dan Pemberian Asi Eksklusif Dengan Kejadian Stunting Pada Anak Usia 24 - 59 Bulan Di Kecamatan Medan Belawan</b> ’	To determine whether there is a relationship between nutritional status, body length at birth and exclusive breastfeeding with the incidence of stunting in children aged 24-59 months in MedanBelawan District 2023.	working area of Puskesmas Medan Belawan District	Using observational study research methods with a cross-sectional design approach carried out in the working area of the KecMedan Belawan Health Center.	There is a significant relationship between nutritional status, birth length and exclusive breastfeeding with the incidence of stunting in children aged 24-59 months in Medan Belawan District in 2023.

Based on the journals studied, there are several research results that found a significant relationship between exclusive breastfeeding and the incidence of stunting in toddlers. Exclusive breastfeeding can be useful to support the growth of babies, especially height, if babies do not get enough breastfeeding then they tend to have poor nutritional intake and can cause malnutrition, one of which can cause stunting.

Stunting is a chronic nutritional problem caused by lack of food intake in the long term due to a diet that does not meet needs. Stunting can be prevented by exclusive breastfeeding up to 6 months of age, nutritious diet, clean and healthy lifestyle, physical activity, and gradual monitoring of children's growth and development.

Based on the findings of the study "The Relationship of Exclusive Breastfeeding with Stunting" conducted at the Hinaikuri Health Center, Sechangan District, Langkat Regency, this study found that there was a significant relationship between exclusive breastfeeding and the incidence of stunting babies. It turns out that there is a connection. Exclusive breastfeeding can protect your baby from stunting by 0.5 times. Therefore, this study provides a deeper understanding of the factors that cause stunting in children and the importance of exclusive breastfeeding in preventing stunting children.<sup>10</sup>

In addition, research in the working area of the Medan-Belawan Sub-District Health Center also found a significant relationship between nutritional status, duration of childbirth, and exclusive breastfeeding with the incidence of stunting in children aged 24 to 59 months in Medan. revealed that there is a relationship. The research conducted in Belawan District in 2023 uses survey methodology. Observational study with a cross-sectional design approach conducted in the working area of the Medan Belawan District Health Center.<sup>11</sup>

Meanwhile, based on the results of research conducted at the Banjar I Health Center in April, it showed that the prevalence of stunting reached 30.91%. Of the 34 stunting cases identified, 26 respondents had never received exclusive breastfeeding (88%), while 8 respondents had a history of exclusive breastfeeding (22%). Bivariate analysis using the chi-square test yielded a value of  $p = 0.536$  ( $p > 0.05$ ), indicating that there was no significant correlation between exclusive breastfeeding and the incidence of stunting.<sup>12</sup>

The occurrence of stunting can be caused by several factors, such as toddlers who have a history of low birth weight (BBLR), have experienced infectious diseases, parental parenting related to nutrition, exclusive breastfeeding, availability of food clothing, parental education level, social, cultural, and economic aspects. In addition, behaviors associated with poor or poor parenting can also specifically cause stunting. This can be explained in more detail, such as the lack of knowledge of mothers in fulfilling nutrition during pregnancy, as well as the preparation of nutrients needed before and after childbirth to increase optimal milk production.

Stunting often appears especially in the First 1000 Days of Life (HPK) as a result of malnutrition. Long-term malnutrition, especially during the first thousand days of life, can result in stunted growth. Children who experience this condition tend to have a shorter height compared to their peers. Poor nutritional conditions during

pregnancy, growth period, and early life of children can also cause stunting. Inadequate nutritional intake starting from pregnancy until the baby is born can contribute to the emergence of health problems in children under five.

In general, the factors causing stunting in children under five can be divided into two categories, namely direct factors such as food intake, infectious diseases, low birth weight, and genetic factors; and indirect factors that include knowledge about nutrition, parental education level, socioeconomic conditions, parenting, food distribution, and family size/number of family members. Low nutritional knowledge in mothers of toddlers and a less supportive attitude towards nutritional awareness causes mothers to give food to toddlers with an amount and frequency that is not optimal, without paying attention to the nutritional quality of food, not providing complete food, and improper feeding methods, so that children do not get adequate intake. This condition can cause malnutrition in children, which can have an impact both acutely and chronically. Children who are acutely malnourished will appear physically weak and experience physical growth retardation, which leads to shorter height (stunting). (Paulina & Maryani, 2019).

Stunting is one of the impacts of a number of multidimensional factors, not solely caused by nutritional problems faced by pregnant women or children under five. Therefore, the most crucial intervention to reduce the prevalence of stunting should be carried out during the First 1,000 Days of Life (HPK) of children under five. Some of the factors that cause stunting involve suboptimal parenting practices, including limited knowledge of mothers about health and nutrition before, during, and after pregnancy. Other obstacles include limited health services, including Ante Natal Care (ANC) services, Post Natal Care, as well as lack of family access to nutritious food and clean water, as well as lack of sanitation facilities. (Saputri, 2019)

Food is one of the essential needs for human survival. Food security refers to the ability of individuals or groups to ensure adequate access to food, both economically and physically, that is safe, nutritious, and can meet the needs of healthy living optimally. Studies show that households facing food insecurity tend to have children under five who are stunted. Health problems in children remain a significant issue in influencing nutritional status in Indonesia. Factors such as insufficient energy and nutrient intake, as well as infectious diseases, play an important role in the emergence of stunting problems.<sup>13</sup>

Giving formula milk to infants <6 months has a 5 times greater risk of experiencing poor growth compared to babies who get breast milk. Breast milk is a nutritional intake that is in accordance with the needs that will help growth and development in children.

Breast milk is a product of human lactation intended for infant consumption, and is the main source of nutrition for infants who cannot digest solid food. Breast milk production is influenced by the hormones prolactin and oxytocin after the birth of the baby. The initial stage of breast milk is called colostrum, which is rich in IgA immunoglobulin that plays an important role in protecting the baby from disease.<sup>5</sup>

The composition of breast milk produced by mothers who give birth prematurely is different from the milk produced by mothers who give birth at normal times. The benefits of breast milk for babies include the provision of nutrients such as

protein, fat, carbohydrates, salt, minerals, and vitamins that are suitable for the baby's needs. Breast milk also has protective components against infections from various types of germs, protects babies from the risk of diarrhea, does not cause allergies, reduces the risk of tooth loss, and reduces the risk of non-optimal tooth growth. In addition to the health benefits, breastfeeding also provides psychological benefits because it helps build a close bond between the baby and the mother, creates a sense of security, and strengthens trust in the baby.

Exclusively breastfeeding has several advantages because up to 6 months of age, it contains all the nutrients needed by the baby both qualitatively and quantitatively. In addition, the baby's digestive system is able to digest and absorb breast milk efficiently through the baby's intestines. By exclusively breastfeeding, mothers can avoid the risk of dilution errors that may occur in formula, so that the baby will not lack balanced nutrition. The safety of babies is also guaranteed because their digestion is not exposed to germs, which are generally found in formula milk, and avoid additional artificial substances. Guidelines that can be used to assess the adequacy of breast milk for babies are to see if the baby is breastfeeding strongly, the breasts feel soft after breastfeeding, the baby is not fussy, the frequency of urinating the baby about 6 times a day, and the growth of the baby's weight and height according to the growth curve. If the baby meets the guidelines, it means that the baby has received enough milk from the mother.<sup>5</sup>

In addition to providing benefits for the baby, breastfeeding also provides benefits for the mother, including stimulating the uterus to return to its original shape and size, so as to reduce postpartum bleeding. Breastfeeding can also regulate birth spacing, because in mothers who breastfeed exclusively, breast milk has the impact of suppressing fertility, and reducing the risk of developing breast cancer. On the other hand, the benefits of breastfeeding for families involve convenience, because it does not require preparation as required by formula milk, and reducing the financial burden of families by eliminating the cost of purchasing formula milk and reducing medical costs as babies become more resistant to disease.

Exclusive breastfeeding provides many valuable benefits for both the baby and the mother. For infants, exclusive breastfeeding plays a role in preventing disease, supporting brain and physical development, boosting the immune system, and reducing the risk of allergies and chronic diseases. Breast milk is the gold standard source of nutrition at the beginning of life, so it is highly recommended to exclusively breastfeed newborns and during the first 6 months of life. Breast milk involves adequate macro and micronutrients and bioactive molecules, providing benefits for babies to meet their nutritional needs, promote optimal development, and reduce the risk of future infections and allergies. (KEMENKES RI, 2018)

## CONCLUSIONS & RECOMMENDATIONS

Exclusive breastfeeding is important to prevent stunting in children. It is expected that mothers provide adequate nutrition to their babies, especially through exclusive breastfeeding until reaching the age of 6 months, followed by a combination of breast milk and complementary foods (MPASI) until the child reaches the age of 2 years. In addition, it is expected that mothers will also carry out

early detection of stunting by visiting health facilities, such as Puskesmas or the nearest health service.

## REFERENCES

- 1 United Nations-World Health Organization. *UNICEF-WHO-The World Bank: Joint child malnutrition estimates - Levels and trends. Report 2019*; : p.1-15.
- 2 SSGI. *Hasil Survei Status Gizi Indonesia. Kementerian Kesehatan Republik Indonesia 2023*; : 77-77.
- 3 Campos AP, Vilar-Compte M, Hawkins SS. *Association Between Breastfeeding and Child Overweight in Mexico. Food Nutr Bull 2021*; **42**: 414-426.
- 4 de Onis M, Branca F. *Childhood stunting: A global perspective. Matern Child Nutr 2016*; **12**: 12-26.
- 5 Yi DY, Kim SY. *Human breast milk composition and function in human health: From nutritional components to microbiome and micrornas. Nutrients 2021*; **13**. doi:10.3390/nu13093094.
- 6 Boucot A, Poinar Jr. G. *Stunting. Foss Behav Compend 2010*; **5**: 243-243.
- 7 Kemenkes RI. *Laporan Kinerja Kementerian Kesehatan 2021. Kementerian Kesehatan RI 2021*; : 23.
- 8 Dinkes Sumbar DK. *Laporan Akuntabilitas Kinerja Instansi Pemerintah (LAKIP) Dinas Kesehatan Provinsi Sumatera Barat. 2020*; **53**: 1689-1699.
- 9 Suryanis I. *Studi Kejadian Stunting pada Anak yang Ditinjau dari Aspek Biologi Molekuler: Literature Review. HEME Heal Med J 2022*; **4**: 214-219.
- 10 Pratama MR, Irwandi S. *Hubungan Pemberian Asi Eksklusif Dengan Stunting Di Puskesmas Hinai Kiri, Kecamatan Secanggang, Kabupaten Langkat. J Kedokt STM (Sains dan Teknol Med 2021*; **4**: 17-25.
- 11 Harahap K, Sari MT. *Hubungan Status Gizi, Panjang Badan Lahir Dan Pemberian Asi Eksklusif Dengan Kejadian Stunting Pada Anak Usia 24-59 Bulan Di Kecamatan Medan Belawan. J Ris Rumpun Ilmu Kedokt 2023*; **2**: 121-134.
- 12 Novayanti LH, Armini NW, Mauliku J. *Hubungan Pemberian ASI Eksklusif dengan Kejadian Stunting pada Balita Umur 12-59 Bulan di Puskesmas Banjar I Tahun 2021. J Ilm Kebidanan (The J Midwifery) 2021*; **9**: 132-139.
- 13 Nursofiati S, Amaliah L, Nuradhiani A. *Hubungan Pemberian ASI Eksklusif dan Sanitasi Lingkungan dengan Kejadian Stunting pada Balita Usia 24-59 Bulan. J Gizi Kerja dan Produkt 2023*; **4**: 151-159.