



## EXCLUSIVE BREAST FEEDING RELATIONSHIP WITH INCIDENCE OF STUNTING IN CHILDREN AGED 2-3 YEARS

Zahrotun Nisa' Setyoputri<sup>1</sup>  
<sup>1</sup>*Sekolah Tinggi Ilmu Kesehatan Brebes*

Corresponding author : Zahrotun Nisa' Setyoputri  
Email : [zahrotunnisasetyoputri@gmail.com](mailto:zahrotunnisasetyoputri@gmail.com)

### ABSTRACT

The 2020 Basic Health Research noted that the national stunting prevalence reached 37.2 percent, an increase from 2018 (35.6%). Stunting also tends to be more susceptible to infectious diseases, so they are at risk of experiencing a decrease in the quality of learning at school and are at risk of being absent more often. Stunting also increases the risk of obesity, which continues for a long time and will increase the risk of degenerative diseases. Several factors that are thought to be the risk of stunting in children, one of which is exclusive breastfeeding. Reports at Pamaran Health Center in 2020 of 979 toddlers (61.5%) in the short and very short categories 53 toddlers (5.41%). The purpose of this study was to determine the relationship between exclusive breastfeeding and the incidence of stunting in children aged 2-3 years. Quantitative research method, time approach using cross sectional method. The population in this study were all mothers of toddlers and children aged 2-3 years who experienced stunting totaling 44 toddlers, the sample was taken by proportionate stratified random sampling. The results of the study are Children age 2-3 years mostly given exclusive breastfeeding. Toddler 2-3 years most of the respondents are in the short category. There is a relationship between exclusive breastfeeding and the incidence of stunting in children 2-3 years.

Keywords : Exclusive breastfeeding; stunting

### Introduction

Nutrition is one of the health problems in Indonesia. One of the nutritional problems is stunting. Stunting is a chronic malnutrition problem caused by inadequate nutritional intake for a long time due to feeding that is not in accordance with nutritional needs. Stunting occurs when the fetus is still in the womb and only appears when the child is two years old. Malnutrition at an early age increases infant and child mortality, causes sufferers to get sick easily and have poor posture as adults. The cognitive abilities of the sufferers are also reduced, resulting in long-term economic losses for Indonesia.<sup>1</sup>

Stunting Children under five need special attention because it can hamper the physical and mental development of children. Stunting is associated with an increased risk of illness and death as well as stunted growth

of motor and mental abilities. Toddlers who experience stunting have a risk of decreased intellectual ability, productivity, and an increased risk of degenerative diseases in the future. This is because stunting children also tend to be more susceptible to infectious diseases, so they are at risk of experiencing a decrease in the quality of learning at school and are at risk of being absent more often. Stunting also increases the risk of obesity, because people with short bodies have a low ideal body weight. An increase in weight of just a few kilograms can make the person's Body Mass Index (BMI) rise beyond the normal limit. The state of overweight and obesity that continues for a long time will increase the risk of degenerative diseases.<sup>2</sup>

The results of research conducted by Picauly (2013:3) with the title Analysis of the

determinants and effects of stunting on the learning achievement of school children in Kupang City and East Sumba, East Nusa Tenggara Province revealed that there are indications that stunting affects children's learning achievement. More stunting students have poor learning achievements, while non-stunted students have more good learning achievements.<sup>3</sup>

Based on the results of the 2013 Basic Health Research (Riskesdas), the prevalence of stunting nationally in 2013 was 37.2%, which means an increase compared to 2010 (35.6%) and 2007 (36.8%).<sup>4</sup> Based on the results of Riskesdas Central Java in 2013 the incidence of stunting in Central Java Province was 16.8%.

The tool to determine whether toddlers are stunted or not is the WHO (*World Health Organization*) table based on the WHO-NCHS (*World Health Organization-National Center for Health Statistics*) table and how to assess nutritional status by using the Z-score rule listed in the Decree of the Minister of Health, Republic of Indonesia Number : 1995/MENKES/SK/XII/2010 concerning Anthropometric Standards for Assessment of Children's Nutritional Status.<sup>5</sup>

Global policies (WHO and UNICEF) and national policies recommend exclusive breastfeeding from birth to 6 months of age, then complementary feeding (MP-ASI) from 6 months of age and continuing breastfeeding for 2 years. Indonesia has a commitment to implement the 1990 "Innocenti Declaration" which states that every country is required to provide protection and encouragement to mothers, in order to be successful in providing exclusive breastfeeding to their babies.<sup>6</sup>

Breast milk is milk produced by the mother and contains the nutrients needed by the baby for the needs and development of the baby. Babies are only given breast milk, without the addition of other fluids such as formula milk, orange juice, honey, tea water, water and without the addition of solid foods such as bananas, papaya, milk porridge,

biscuits, rice porridge and team, for 6 months.<sup>7</sup>

Zaenal Arifin's research (2012), states that the risk factors are the incidence of stunting in children aged 6 to 59 months, birth weight, nutritional intake of toddlers, breastfeeding, history of infectious diseases, knowledge of maternal nutrition, family income, and birth spacing.<sup>8</sup>

Birth weight is closely related to the long-term growth and development of children under five. Babies born with low birth weight (LBW) are babies born with a weight of less than 2500 grams, babies with low birth weight will experience obstacles in their growth and development as well as the possibility of a decline in intellectual function hypothermia occurs.<sup>9</sup>

The provision of MP-ASI is a transition process starting with the provision of special foods other than breast milk gradually in type, amount, frequency as well as texture and consistency until all children's nutritional needs are met by family food. There are two types of MP-ASI, namely MP-ASI which is specially made either by household or factory-made and ordinary food eaten by families which is modified to be easily eaten by babies. The right MP-ASI is given gradually according to the age of the child, both in type and number. The risk of getting infectious diseases due to giving complementary foods too early is caused by the intestines that are not ready to accept food and poor hygiene.<sup>10</sup>

## Methods

Quantitative research method, time approach using cross sectional method. The population in this study were all mothers of toddlers and children aged 2-3 years who experienced stunting totaling 44 toddlers, the sample was taken by proportionate stratified random sampling, namely the technique of taking samples from members of the population randomly and with comparable strata. In this study, it was determined based on the village where the toddler was located. Data analysis

is univariate and bivariate analysis using chi square.

## Results and Discussion

### 1. Univariate Analysis

#### a. Exclusive breastfeeding for toddlers

Table 1 Exclusive breastfeeding frequency distribution

exclusive breastfeeding	Frequency (f)	Percentage (%)
No Exclusive Breastfeeding	14	31.8
Exclusive breastfeeding	30	68.2
Total	44	100.0

Based on table 1 above, it can be seen that most of the respondents in providing exclusive breastfeeding, namely 30 respondents (68.2%), and a total of 14 respondents (31.8%) did not give exclusive breastfeeding.

Table 2 Frequency distribution number of stunting events

Stunting Incident	Frequency (f)	Percentage (%)
Very short	7	15.9
Short	37	84.1
Total	44	100

Based on table 2 above, it can be seen that most of the respondents were in the short category, namely 37 respondents (84.1%), 7 respondents (15.9%) were in the very short category.

### 2. Bivariate Analysis

The relationship between exclusive breastfeeding and the incidence of stunting in toddlers 2-3 years can be seen in the following table :

Table 3 The relationship between exclusive breastfeeding and the incidence of stunting in toddlers 2-3 years

Stunting	Exclusive breastfeeding				Total		ρ - value
	No Exclusive Breastfeeding		Exclusive breastfeeding		N	%	
	n	%	n	%			
Very short	6	85.7	1	14.3	7	100	0.002
Short	8	21.6	29	78.4	37	100	
Total	14	31.8	30	68.2	44	100	

The cross table above can explain that most of the respondents in the very short category did not receive exclusive breastfeeding, namely 6 respondents (85.7%). Respondents in the short category mostly received exclusive breastfeeding, namely 29 respondents (78.4%).

The relationship between exclusive breastfeeding and the incidence of stunting in toddlers 2-3 years. The results of the bivariate analysis showed that it did not meet the chi square requirements so that data analysis was carried out using the Fisher's Exact Test. Where obtained r-value = 0.002 with a significance level of 5% r-value (0.002 < 0.05). Then the alternative hypothesis or working hypothesis can be accepted. It can be concluded that there is a relationship between exclusive breastfeeding and the incidence of stunting in children 2-3 years old.

## Conclusion

### 1. Exclusive breastfeeding for toddlers

The results showed that most of the respondents gave exclusive breastfeeding. This shows that the achievement of exclusive breastfeeding at the research site is less than the expected national target of 80% (DepKes RI, 2015). Exclusive breastfeeding according to Government Regulation of

the Republic of Indonesia Number 33 of 2012 concerning Exclusive Breastfeeding is the provision of Mother's Milk (ASI) without adding and or replacing with other food or drinks given to babies since they were just born for 6 months.<sup>4</sup>

Exclusive breastfeeding provides various benefits for mothers and babies where breast milk is a natural food that is good for babies, practical, economical, easy to digest, has an ideal composition of nutrients according to the needs and digestive abilities of babies and breast milk supports baby growth, especially height due to calcium. Breast milk is more efficiently absorbed than breast milk substitutes.<sup>11</sup>

This result is also supported by Arifin's research (2012) which examines the most obvious factor causing the failure of exclusive breastfeeding is the knowledge factor, the reason why mothers do not give exclusive breastfeeding to their babies is mostly 51.35% because mothers do not know about exclusive breastfeeding, 18.92% because the mother works, 16.22% because the breast milk does not come out and 13.51% the mother feels that her baby is not full if only given breast milk.<sup>8</sup>

## 2. Number of stunting incidents

The results of this study indicate that most of the respondents are in the short category. Nutritional status is a manifestation of the state of the body that reflects the results of each food consumed. Food intake that does not meet the adequacy for a long time will result in malnutrition which has an impact on children's growth. In this study, nutritional status with index TB/U. Normal height is a condition where the height is in accordance with the age of the toddler. Height is an important parameter to determine the state of growth and development, especially toddlers.<sup>12</sup>

Toddlers who have short height can be influenced by several factors such as the nutritional adequacy of toddlers. The nutritional adequacy of children is strongly influenced by the economic status of the family, families with less economic status tend not to be able to meet their nutritional needs properly and cannot provide more variety of food for children. This study shows that the majority of respondents who have an income less than the minimum wage.

## 3. The relationship between exclusive breastfeeding and the incidence of stunting in toddlers 2-3 years.

The relationship between exclusive breastfeeding and the incidence of stunting in children 2-3 years. The results of the study concluded that there was a relationship between exclusive breastfeeding and the incidence of stunting in children 2-3 years old. The results showed that most of the respondents who received exclusive breastfeeding were in the short category. Breast milk is a nutritional intake that is in accordance with the needs that will help the growth and development of children. Babies who do not get enough breast milk have poor nutritional intake and can cause malnutrition, one of which can cause stunting. In accordance with the The theory is that one of the benefits of exclusive breastfeeding is that it supports infant growth, especially height, because breast milk calcium is more efficiently absorbed than breast milk substitutes or formula milk. So that babies who are given exclusive breastfeeding tend to have a higher height and fit the growth curve compared to babies who are given formula milk. Breast milk contains more calcium and can be absorbed by the body properly so that it can maximize growth, especially height and can avoid the risk of stunting.<sup>11</sup>

Respondents who are in the very short category do not get exclusive

breastfeeding because the respondents do not get the benefits of breastfeeding. Theories suggest that breast milk has lower levels of calcium, phosphorus, sodium, and potassium than formula, while higher levels of copper, cobalt, and selenium are present. The content of breast milk is in accordance with the needs of the baby so that it can maximize the baby's growth including height. Based on this, it can be ascertained that the baby's needs are met, and the nutritional status of the baby will be normal in both height and weight if the baby is exclusively breastfed.

Research also shows that there are still respondents with very short and short height who receive exclusive breastfeeding, where it is very dependent on the intake of other foods besides breast milk obtained after the child is 6 months old, where the theory reveals that adequate nutritional intake is necessary for growth and development. toddler body. This critical period is a time when toddlers will experience growth and development and growth. Toddlers who previously experienced malnutrition can still be improved with good intake so that they can grow and catch up in accordance with their development. However, if the intervention is late, the toddler will not be able to catch up with the growth delay which is called failure to thrive. Likewise with normal toddlers, growth disorders may occur if the intake received is not sufficient.<sup>13</sup>

## References

1. Millenium Challenge Account. Stunting dan Masa Depan Indonesia. *Millenn Chall Acc - Indones*. 2013;2010:2-5. [www.mca-indonesia.go.id](http://www.mca-indonesia.go.id)
2. Widiastuti S, Lisangan MM, Wambrauw LT. Analisis Kasus Stunting dan Faktor-faktor yang Berhubungan di Kampung Arowi Distrik Manokwari Timur. *Cassowary*. 2021;4(2):159-171. doi:10.30862/cassowary.cs.v4.i2.97
3. Picauly I, Sarci D, Toy M, Gizi J, Masyarakat K. Analisis Determinan Dan Pengaruh Stunting Terhadap Prestasi Belajar Anak Sekolah Di Kupang Dan Sumba Timur, Ntt (The Determinant Analysis and the Impact of Stunting for School Children School Performance in Kupang and Sumba Timur, NTT). 2013;8(72):55-62.
4. Kementrian Kesehatan. *Profil Kesehatan Indonesia Tahun 2013*; 2014. doi:351.770.212 Ind P
5. BAPPENAS. Rencana Aksi Nasional Pangan dan Gizi (RAN-PG) Tahun 2011-2015. *Jakarta*. Published online 2011:1-86. <https://www.bappenas.go.id/files/4613/5228/2360/ran-pg-2011-2015.pdf>
6. Maryunani A. ASI Eks, IMD dan Manajmen Laktasi. Published online 2012.
7. Anita sampe, rindani toban M anung. Hubungan Pemberian ASI Eksklusif Dengan Kejadian Stunting Pada Balita Relationship between Exclusive Breastfeeding and Stunting in Toddlers. *Juni*. 2020;11(1):448-455. doi:10.35816/jiskh.v10i2.314
8. Arifin DZ, Irdasari SY, Sukandar H. Analisis Sebaran dan Faktor Risiko Stunting pada Balita di Kabupaten Purwakarta. *Progr Stud Magister Ilmu Kesehat Masyarakat, Fak Kedokt Univ padjajaran Bandung*. Published online 2012:1-9.
9. Hestuningtyas TR, Noer ER. Pengaruh konseling gizi terhadap pengetahuan, sikap, praktik ibu dalam pemberian makan anak, dan asupan zat gizi anak stunting usia 1-2 tahun di kecamatan Semarang timur. *Journal of Nutrition College*, Volume 3, Nomor 1, Tahun 2014, Halaman 12-25. <http://ejou. J Nutr Coll>. 2014;3(2):17-25.
10. Meilyasari F, Isnawati M. Risk Factors for Stunting in Infants Aged 12

- Months in Purwokerto Village, Patebon District, Kendal District. *J Nutr Coll.* 2017;3(2):26-32. <https://media.neliti.com/media/publications/185456-ID-faktor-risiko-kejadian-stunting-pada-bal.pdf>
11. Rachmayanti RD. Peningkatan Pengetahuan Ibu Balita Melalui Pengenalan Program Kadarzi Di Kelurahan Wonokusumo Surabaya. *Media Gizi Indones.* 2018;13(2):176. doi:10.20473/mgi.v13i2.176-182
  12. Fachruddin F. PENILAIAN STATUS GIZI Saptawati Bardosono. Published online 2017.
  13. The I, Of G, Under C, Ages F. Influence the Growth of Children Under Five Ages. 2017;4(2):9-17.