

## The Relationship Of Exclusive Asi Status With The Stunting Events In Ages 24-36 Months In The Belawan Village

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### ABSTRACT

In infancy, the problem of stunting can be a serious problem if it's not treated properly. Impacts that can be caused by stunting problems are metabolic disorders, decreased immunity, decreased cognitive abilities, impaired physical growth, and uncompetitive quality of work. Exclusive breastfeeding is one of the factors that can influence the prevalence of stunting because the nutrients contained in breast milk are one of the important factors that determine the period of development of children. **Objective:** This study aims to determine the relationship of exclusive breastfeeding with the incidence of stunting in toddlers aged 24-36 months in Belawan village. **Methods:** This type of research is a descriptive correlational study that is quantitative with a cross sectional approach. Sampling using a purposive sampling technique with a total of 44 respondents. This research instrument uses a questionnaire and microtoise/tape measure. **Results:** Bivariate analysis using the chi square test. The history of exclusive breastfeeding in this study reached 56.8% or 25 children, and the majority of children in this study tended not to experience stunting. Children who get exclusive breastfeeding tend to experience stunting of 23 children (52.3%). The results of the chi square test obtained a value of  $p = 0,000$  ( $p$  value  $< 0.05$ ) and  $r$  value = 0.609. **Conclusion:** The conclusion is that there is a relationship between exclusive breastfeeding and the incidence of stunting in toddlers aged 24-36 months in the Belawan village.

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### INTRODUCTION

The problem of stunting in toddlers in Indonesia in 2018 has decreased, namely reaching (30.8%) compared to 2013, namely (37.2%), where the Province which has the highest stunting rate is Aceh (37.9), and the lowest is North Sumatra (28.1%) was then followed by DKI Jakarta (27.2%) (RI Ministry of Health, 2018). Even though the stunting percentage rate in North Sumatra is still the lowest in Indonesia, this condition is quite worrying. This is because there are still several areas in North Sumatra which have a fairly high prevalence of stunting under five. The biggest prevalence of short toddlers is in the city of Belawan.

The problem of stunting in toddlers in Belawan City is still a concern. Based on data obtained from the North Sumatra District Health Office, it was found that the highest prevalence rate of stunting problems in toddlers from 30 Puskesmas in Belawan City was at Puskesmas II. There were 346 toddlers (35.6%) who experienced stunting, consisting of 160 toddlers (32.59%) who were male and 186 toddlers (38.67%) who were female. Then followed by the Rongkop Health Center (33.48%) and Health Center 1 (31.29%) (Health Office 1, 2018). The working area of Puskesmas II consists of four villages, the highest stunting prevalence in Puskesmas II includes villages (29.94%).

The problem of stunting can be a fatal problem for children if not handled properly. According to Fikawati (2017), the impact that can arise from the problem of stunting is metabolic disorders in the body. From the research results of Sari's research (2016), the average energy in stunted children is lower than in children who are not stunted. Decreased immunity so that children get sick easily. From the results of Lift's research (2018), it showed that the stunting group had ARI (83.0%) and only (17.0%) stunted children did not have ARI. In addition, as many as (37.7%) of stunted children

suffered from diarrhea while only 18.9% of children with normal nutritional status (18.9%) suffered from diarrhea. Decreased cognitive abilities, the results of research conducted by Rahmaningrum (2017), showed that out of 12 stunted people, 11 people had less cognitive abilities and 1 person with good cognitive abilities and from the results of the statistical analysis of the chi-square test it was stated that children with stunting were at risk of having cognitive abilities. less cognitive 18.333 times greater than those who are not stunted. Disruption to physical growth, as well as uncompetitive work quality which results in low economic productivity, from the results of research conducted by Renyoet (2016), shows that the potential for national economic losses due to low productivity in stunting toddlers ranges from IDR 3,057 billion to IDR 13,758 billion or 0.04% - 0.16% of the total (GDP) of Indonesia's Gross Domestic Product. In addition, stunting can also have an impact on vulnerability to chronic diseases such as diabetes, heart disease, and cancer as well as maternal reproductive disorders in adulthood. From the results of Rianti's research (2017), it shows that the prevalence of stunting in patients with diabetes mellitus is still quite high, namely 35%, most of which occur in women, namely 62%

Stunting is influenced by several factors, including prenatal factors such as maternal nutrition during pregnancy and postnatal factors such as exclusive breastfeeding, child nutrition during the growth period, infectious diseases, socio-economic, health services, and various other factors that collaborate at the level and certain level so that it ultimately causes failure of linear growth (Fikrina, 2017). One of the causes of stunting is the result of delays in Early Breastfeeding Initiation (IMD), and non-exclusive breastfeeding (Stewart CP et al, in Permadi et al., 2016).

Even though exclusive breastfeeding is very strongly associated with a reduced risk of stunting, this has not completely changed people's perceptions regarding the importance of exclusive breastfeeding for the first 6 months of life (Victor C et al, in Paramashanti et al., 2015). This is indicated by the low percentage of babies who are breastfed in Indonesia. Nationally, the coverage of exclusive breastfeeding in Indonesia was only 41.9% in 2015 (Ministry of Health Republic of Indonesia, 2016). And in 2016, the percentage of babies receiving breast milk aged 0-5 months based on age group was 54%. Whereas in 2017, babies received exclusive breastfeeding according to their age by 46.7% (Ministry of Health Republic of Indonesia, 2018). The purpose of this study was to determine the relationship between exclusive breastfeeding status and the incidence of stunting in toddlers aged 24-36 months in Belawan City, North Sumatra.

## METHOD

The research conducted was a quantitative study with a non-experimental design. This type of research is a correlational descriptive study using a cross sectional approach. This research was conducted in March 2022.

The population taken in this study were mothers and children aged 24-36 months, totaling 63 people who were in the city of Belawan, North Sumatra. The sample used was respondents who met the inclusion criteria, totaling 44 people. While 19 other respondents were not used as samples because they were not included in the inclusion criteria used by the researcher. The sampling method used in this study was purposive sampling.

The independent variable in this study was exclusive breastfeeding and the dependent variable in this study was the incidence of stunting in toddlers aged 24-36 months. Exclusive breastfeeding was measured using a questionnaire on exclusive breastfeeding and stunting was measured using anthropometric and microtoise observation sheets.

Univariate analysis aims to explain or describe the characteristics of respondents such as mother's age, mother's height, mother's last education, mother's occupation, family income, child's age, child's sex, child's height, child's birth length, and child's birth weight. Meanwhile, bivariate analysis uses Chi square with a significance value of 0.05 ( $\alpha = 5\%$ ).

Researchers protect the rights of respondents by upholding research ethics including: informed consent, anonymity, confidentiality, beneficency and justice.

## RESULTS AND DISCUSSION

### Characteristics of Mother Respondents

**Table 1.** Frequency distribution of maternal characteristics based on sociodemographic data in Belawan City March 2022

Karakteristik	Frekuensi(f)	Persentase(%)
<b>Umur ibu</b>		
21-30 Tahun	28	63,6
31-40 Tahun	14	31,8
41-50 Tahun	2	4,5
<b>Tinggi Badanibu</b>		
>150 cm	28	63,6
<150 cm	16	36,4
<b>Pendidikan ibu</b>		
SD	17	38,6
sederaat SMP	13	29,5
sederaat SMA	12	27,3
sederaat S1/Diploma	2	4,5
<b>Pekerjaan ibu</b>		
IRT	13	29,5
Tani	19	43,2
Wiraswasta	10	22,7
PNS/TNI	2	4,5
<b>Pendapatan keluarga</b>		
Rp. <1.571.000Rp.	25	56,8
≥1.571.000	19	43,2
<b>Total</b>	<b>44</b>	<b>100</b>

Distribution of exclusive breastfeeding in Belawan City March 2019

**Table 2.** Distribution of exclusive breastfeeding in Belawan City March 2019

Variabel	Frekuensi(f)	Persentase(%)
<b>Pemberian ASI eksklusif</b>		
Eksklusif	25	56,8
Tidak eksklusif	19	43,2
<b>Total</b>	<b>44</b>	<b>100</b>

**Table 3.** Nutritional status based on the height of children aged 24-36 months in Belawan City March 2022

Variabel	Frekuensi(f)	Persentase(%)
<b>Status gizi Berdasarkan panjang badan</b>		
<i>Stunting</i>	18	43,2
Tidak <i>stunting</i>	26	56,8
<b>Total</b>	<b>44</b>	<b>100</b>

**Table 4.** The Relationship between Exclusive Breastfeeding and Stunting Incidents in Belawan City March 2022

Status gizi berdasarkan Pemberian ASI eksklusif	Stunting		Tidak Stunting		Total		Nilai r	Nilai p
	F	%	F	%	F	%		
Eksklusif	2	4,5	23	52,3	25	56,8	,609	,000
Tidak eksklusif	16	36,4	3	6,8	19	43,2		
Total	<b>18</b>	<b>40,9</b>	<b>26</b>	<b>59,1</b>	<b>44</b>	<b>100</b>		

#### Exclusive breastfeeding in the city of Belawan

Based on data on the characteristics of the mother's age, the data obtained showed that mothers who gave more exclusive breastfeeding were mothers aged 21-30 years as many as 19 mothers (67.9%). This is in accordance with research which says that if the age of less than 20 years is considered still not ready physically, mentally and psychologically in dealing with pregnancy, childbirth and breastfeeding a child by giving it exclusively breast milk, at the age of 35 years or more it is considered dangerous because of the reproductive organs and the mother's physical strength has been greatly reduced and decreased, besides that there can be congenital risks to the baby and can increase complications in pregnancy, childbirth and postpartum (Rahmawati et al., 2013). Age that is too young during pregnancy can cause physiological and psychological conditions that are not ready to become a mother, this can affect pregnancy and childcare (Hurlock, 1995 in Jannah, 2016).

This statement is not in line with research conducted by Rahayu (2014), that there is no relationship between maternal age and exclusive breastfeeding. Most mothers with physically ill conditions stop fully breastfeeding their babies on the grounds that little or no milk comes out or because they feel pain due to the mother's illness. Thus, knowledge and attitudes towards health are one of the predisposing factors that influence behavior. If a pregnant woman has never received information or counseling about exclusive breastfeeding, it can affect exclusive breastfeeding to her baby in the future.

Furthermore, when viewed from the educational data, the mothers who gave the most exclusive breastfeeding were mothers with the last education from high school or equivalent as many as 9 mothers (75.5%) and S1/Diploma as many as 2 mothers (100%). This shows that the level of education of the mother affects the attitude of the mother in choosing exclusive breastfeeding as food for children at the age of the first 6 months. High education is expected to make it easier for someone to receive positive things and tend to have good thoughts in improving the health and development of children (Fatmawati & Handdasari, 2015 and Susanto et al., 2015). Many mothers with sufficient knowledge mostly give full breastfeeding and longer than mothers who have less knowledge. Many factors influence a mother's decision to fully breastfeed her baby for quite a long time. Sufficient knowledge about breastfeeding a good baby can encourage mothers to fully breastfeed. Breastfeeding counseling is very important in the first few months to achieve the desired target of long-term breastfeeding (Puspitasari, 2012 and Abdulloh et al., 2013). A high level of formal education can indeed form progressive values in a person, especially in accepting new things, including the importance of exclusive breastfeeding for babies. However, most mothers with higher education work outside the home, the children will be left at home under the care of grandmothers, in-laws or other people who may still inherit old values in feeding babies. Thus, according to Suyanto (2000) in Jannah (2016), a fairly high level of education for women in rural areas is not a guarantee that they will abandon the wrong traditions or habits in feeding babies, as long as the social environment at home does not support childbearing. that direction.

Likewise work and family income, from the data obtained it shows that the majority of mothers who provide exclusive breastfeeding are mothers who work as farmers as many as 10

mothers (52.6%). Furthermore, data on family income with exclusive breastfeeding shows the opposite, the majority of mothers who give exclusive breastfeeding are mothers who have a family income of Rp. 1,571,000 as many as 14 mothers (73.7%). This is contrary to research which says that not working or as a housewife can take care of their children themselves and have more time with the family, so that children get more attention from their mothers to provide optimal exclusive breastfeeding compared to working mothers (Fatmawati & Handasari, 2015 and Hidajaturrokhmah, 2015). Another study was also conducted by Kusmiyati (2014) in Koba (2019), showing that mothers who do not work give exclusive breastfeeding more than working mothers. In addition, according to Fatmawati (2013), those with a low economy have a greater chance of exclusive breastfeeding, because formula milk is expensive, causing most of the family's income to only buy milk. So that it does not meet other needs, compared to mothers with high economies.

Based on theory and facts, researchers assume that age can affect a person's way of thinking, acting and emotions, a more mature age generally has more stable emotions compared to a younger age. In addition, mothers who are well educated will make decisions that will improve the nutrition and health of their children, as well as the importance of breastfeeding for the growth and development of children. In addition to higher education, mothers must be active and responsive in seeking information about child nutrition from the mass media and health workers. Increased family income or high socioeconomic status and employment for women and not matched with good knowledge tend to make parents think about replacing their breast milk with formula milk.

### **Stunting in Toddlers Aged 34-36 Months in the city of Belawan**

From the data obtained, the majority of mothers who have children who are stunted are mothers who are <150 cm tall, with 12 children (27.3%). This is in line with research conducted by Fitriahadi (2018), which shows that maternal height has a significant relationship to the incidence of stunting. The results of his research are in line with research conducted by Zottarelli (2014) in Fitriahadi (2018), that mothers who are <150 cm tall are more at risk of having stunted children than mothers with height > 150 cm. In addition, according to Naik & Smith (2015) in Fitriahadi (2018), that women who have been stunted since childhood, will grow up with various kinds of growth disorders including reproductive disorders, complications during pregnancy, difficulties in childbirth, even perinatal death. Mothers with stunting have the potential to give birth to children who will experience stunting and this is known as the cycle of malnutrition between generations. Parents' height is related to the child's physical growth. Short mothers are one of the factors related to stunting (Zottarelli, 2014 in Fitriahadi, 2018). Another study conducted by Kartikawati (2011) in Fitriahadi (2018), also stated that genetic factors in the mother, namely height, affect the incidence of stunting in toddlers. However, this does not apply if the parental shortness is due to nutritional or pathological problems experienced by the parents. So, it will not affect the child's height.

Based on theory and facts, researchers assume that a stunted woman will give birth to smaller children, this is due to the interaction between genetic factors and maternal environmental conditions, especially during pregnancy. Furthermore, the growth of boys is easily hampered because of psychological conditions, in addition to a warm, loving and responsive environment which is very important for the psychological development of children. In addition, children who experience growth disorders from an early age are at risk for further developmental disorders. However, if given adequate nutritional intake, the normal growth pattern will be overtaken.

### **Relationship Between Exclusive Breastfeeding and Stunting Incidence in Toddlers Aged 24-36 Months in Belawan City**

The results of the chi square test obtained a p value of 0.000 with an  $\alpha$  value of 0.05 and a value of  $r = 0.609$ . Because the p value <0.05, there is a relationship between exclusive breastfeeding and

the incidence of stunting in toddlers aged 24-36 months in Belawan City, North Sumatra. The contingency coefficient value (r value) of 0.609 is included in the coefficient interval of 0.600-0.799 in the "strong" category so that it can be stated that the degree of closeness of the relationship between exclusive breastfeeding and the incidence of stunting in toddlers aged 24-36 months in Belawan City has a strong relationship.

The results of this study are also in accordance with the theory which says that the effect of exclusive breastfeeding on changes in short nutritional status is caused by the function of breast milk as an anti-infection because it contains immunoglobulin (Anugraheni, 2012). Babies who are exclusively breastfed for 6 months can improve intelligence, immunity and child development, besides that it can prevent infection and reduce the risk of nutritional problems (Nirwana, 2014). Breast milk is the best food for babies because it contains all nutrients in an ideal ratio and contains immune power (Nugroho, 2014).

The results of this study indicate that most children who are exclusively breastfed have normal nutritional status compared to children who are not exclusively breastfed. Although there are still children who are exclusively breastfed, they have a stunting nutritional status of 11.1%. So that the assessment is that children with exclusive and non-exclusive breastfeeding both have stunting nutritional status.

Based on theory and facts, researchers assume that breast milk is a nutritional intake that is in accordance with the needs that will help the growth and development of children. Children who do not get enough breast milk mean they have poor nutritional intake and can cause malnutrition. One of them can cause stunting. The benefits of exclusive breastfeeding are to support children's growth, especially height, because breast milk calcium is absorbed more efficiently than formula milk. Nutrition in breast milk that is suitable for child growth can ensure that the child's needs are met, and the child's nutritional status becomes normal both in height and weight.

## CONCLUSION

History of exclusive breastfeeding in this study reached 56.8% or 25 children, and the majority of children in this study tended not to experience stunting. Children who are exclusively breastfed tend not to experience stunting as many as 23 children (52.3%). The results of the chi square test obtained a value of  $p = 0.000$  ( $p$  value  $< 0.05$ ) and a value of  $r = 0.609$ . In conclusion, there is a relationship between exclusive breastfeeding and the incidence of stunting in toddlers aged 24-36 months in Belawan City.

Based on the results and discussion, the researchers suggest that the promotion of exclusive breastfeeding needs to be increased again to overcome the problem of stunting toddlers in Belawan City. The results of this study can be used as a basis for conducting further research in the form of intervention research in order to increase knowledge, attitudes and behavior of exclusive breastfeeding.

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