

IMPACT OF EXCLUSIVE BREAST MILK AND BIRTH WEIGHT ON INCIDENT STUNTING OF CHILDREN AGED 12-24 MONTHS

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ABSTRAK DAMPAK ASI EKSKLUSIF DAN BERAT LAHIR TERHADAP KEJADIAN STUNTING ANAK USIA 12-24 BULAN

Pendahuluan: Stunting adalah masalah kurang gizi kronis yang disebabkan oleh asupan gizi yang kurang dalam waktu cukup lama akibat pemberian makanan yang tidak sesuai dengan kebutuhan gizi. Salah satu penyebab stunting pada balita yaitu pemberian ASI eksklusif yang tidak diberikan selama 6 bulan. Malnutrisi pada awal kehidupan mengakibatkan gagal tumbuh sehingga bayi tumbuh pendek.

Tujuan: Penelitian ini bertujuan untuk mengetahui hubungan pemberian ASI eksklusif dan ASI non eksklusif terhadap pertumbuhan dan perkembangan anak usia 12-24 bulan.

Metode : Penelitian ini merupakan jenis penelitian analitik dengan desain penelitian cross sectional . Populasi penelitian ini adalah ibu yang memiliki anak usia 12-24 bulan, sampel yang digunakan adalah 30 anak dengan riwayat ASI eksklusif dan ASI non eksklusif serta anak dengan kejadian stunting. Analisa penelitian ini yaitu analisa Univariat dan Bivariat menggunakan uji chi square.

Hasil Penelitian: Hasil studi univariat menunjukkan pendek 63,3%, berat badan lahir normal 62,1% dan riwayat pemberian ASI eksklusif 60%. Hasil penelitian Bivariat menunjukkan bahwa ada hubungan ASI eksklusif dengan stunting anak usia 12-24 bulan ($P = 0,018$), ada hubungan antara berat badan lahir dengan stunting anak usia 12-24 bulan ($P = 0,011$).

Kesimpulan : Pada penelitian ini terlihat bahwa stunting pada anak usia 12-24 bulan masih cukup tinggi, maka perlu dilakukan bimbingan dan penyuluhan kepada orang tua untuk melakukan deteksi dini stunting dengan cara memeriksakan tinggi badannya di pelayanan kesehatan terdekat.

Kata kunci : Asi Eksklusif, Berat Badan Lahir, Stunting

ABSTRACT

Introduction : Stunting is a chronic malnutrition problem caused by nutrient intake that is not in accordance with nutritional needs. One of the causes of stunting in children is exclusive breastfeeding is not given during six months because breast milk is needed during in baby's growth period so that the nutritional needs are fulfilled. Exclusive breastfeeding for infants aged 0-6 months is fundamental because nutrition in breast milk can increase the growth and development of children. The impact of babies who have low birth weight (lbw) will last from generation to generation, children with LBW will have less anthropometric measurements in their development. Malnutrition in early life results in failure to thrive so the baby grows short, as well as impact on cognitive development, infant morbidity and mortality.

Objective : The purpose of this study was to examine the relationship between exclusive breastfeeding and non-exclusive breastfeeding on the growth and development of children aged 12-24 months.

Methods : This research is an analytic research type with a *cross sectional research design* . The population of this study is mothers who have children aged 12-24 months, the samples used are 30 children with a history of exclusive breastfeeding and non-exclusive breastfeeding and the children on incident stunting. The analysis of this research is Univariate and Bivariate analysis using the chi square test.

Results : The results of the Univariate study showed short of stunting of 63.3%, normal birth weight of 62.1% and history of exclusive breastfeeding of 60%. The results of the Bivariate study showed that there was relationship between exclusive breastfeeding and stunting of children aged 12-24 months ($P = 0.018$), there was a relationship between birth weight and the stunting of children aged 12-24 months ($P = 0.011$).

Conclusion : In this study it can be seen that stunting of children aged 12-24 months is still quite high, it is necessary to provide guidance and counseling to parents to carry out early detection of stunting by checking their height at the nearest health service.

Keywords: Exclusive Breastfeeding, Birth Weight, Stunting

INTRODUCTION

Stunted growth reflects a process of failure to reach linear growth potential as a result suboptimal health and/or nutritional conditions (WHO, 2019). Below minimum two standard deviations from median height for age reference population (UNICEF, 2019).

In 2020, 149.2 million children under 5 years of age were too short for their age (stunting), 45.4 million were too thin for their height (wasting) and 38.9 million were too heavy for their height (overweight) (WHO, 2023)

The problem of stunting/shortness of toddlers in Indonesia in 2021 it was 24.4% and in 2022 it was 21.6%, this means that there has been a decrease compared to 2020, but it is not in accordance with the WHO target, the prevalence of stunting must be below 20% (Ministry of Health of RI, 2023)

The factors that cause stunting are mother's education, sanitation, clean water, exclusive breastfeeding, complementary food, immunization, low birth weight (LBW), food intake, health care facilities, family economy (Wiyogowati, 2012).

Individual nutritional requirements vary according to genetic and metabolic differences. However, for infants and young children, the basic goal is satisfactory growth and preventing deficiency states. Good nutrition helps prevent acute and chronic diseases and develop physical and mental abilities; nutrition should also provide reserves for stress. (Richard, et al 2015)

Globally, the rates of breastfeeding remain lower than what is required to protect the health of women and children. In 2013-2018, 48% of newborns initiate breastfeeding within one hour of birth. Only 44% of infants under six months of age are exclusively breastfed. While 68% of women continue to breastfeed their infant for at least one year, by two years of age, breastfeeding rates declines to 44%. The Collective targets for these global rates in 2030 are 70% for initiation in the first hour, 70% for exclusive breastfeeding, 80% at one year, and 60% at two years. Therefore, countries' efforts towards meeting the target rates of breastfeeding must be amplified (WHO, 2021).

According to Basic Health Research Data of Indonesia in 2021 (RISKESDAS), 52.5 percent or only half of the 2.3 million babies aged less than six months are receiving exclusive breastfeeding in

Indonesia, or a decrease of 12 percent from the 2019 rate. The rate of initiation of breastfeeding (IMD) also fell from 58.2 percent in 2019 to 48.6 percent in 2021 (UNICEF, 2022). Of the 33 provinces that reported it, 29 of them (88%) succeeded in achieving the 2015 strategic plan target, while the SDG's (*sustainable Development Goals*) target by 2030 is to end all forms of malnutrition, including achieving the 2025 international target for reducing stunting and wasting in children under five. and address the nutritional needs of adolescent girls, pregnant and lactating women, and the elderly (Ministry of Health of RI, 2016)

Babies who were given exclusive breastfeeding in Province of West Java While the results of exclusive breastfeeding coverage according from 2020 to 2022. In 2020 it was 76,11%, in 2021 it was 76,46% and in 2022 it was 77% (BPS, 2023). Babies who were given exclusive breastfeeding in the province of West Java was in the Bogor City area in 2019 it was 10671, in 2020 it was 7472 the lowest in 2021 it was 7431. we can see from 2019-2021 Babies who are given exclusive breastfeeding have decreased (Open Data Jabar, 2023).

Diseases that occur in toddlers are usually caused by lack of nutrition, therefore breastfeeding needs to be given as the best source of nutrition. Optimal growth and development requires proper and adequate nutritional intake, parenting and stimulus. Nutrition is one of the factors that determine the success of achieving growth and development in infancy. Malnutrition in early life can lead to failure to thrive so that the baby will grow into a child that is shorter than normal. Malnutrition can also affect cognitive development, infant morbidity and mortality (Fikawati, et al, 2015)

If the growth and development of infants and toddlers is disturbed during the golden period (1,000 days of life-2 years), it will cause *irreversible growth and development disorders* and the first thousand days of life, starting from the fetus in the womb until the child is 2 years old. Very rapid growth. This period is a *Window Of Opportunity* which is a golden period of growth. Damage in this period is *irreversible*, meaning that it cannot be repaired in the next phase of life and will affect health outcomes in childhood and adulthood (Fikawati, et al, 2015).

Based on information from the administration of the TPMB T in 2022 shows the achievement of Exclusive Breastfeeding of 30%, and shows the stunting 30 children (Cohort Toddlers).

So it is deemed necessary to conduct research on exclusive breastfeeding, from the several studies mentioned above about the importance of exclusive breastfeeding, the researchers want to see and know about the impact of exclusive breastfeeding and baby low birth weight on the stunting and development of children aged 12-24 months.

RESEARCH METHODS

The aim of this study was to determine the relationship between exclusive breastfeeding and non-exclusive breastfeeding on the stunting of children aged 12-24 months at TPMB T, using cross sectional design.

The population in this study were mothers who had babies aged 12-24 months and the samples in this study were 30 toddlers receiving stunting.

The data obtained in this study are primary data. Primary data were obtained by filling in biodata (child's name, child's age, child's gender, birth weight address, and type of breastfeeding) and assessment of growth of toddlers.

RESEARCH RESULT

Table 1

Distribution of the frequency of stunting, birth weight and exclusive breastfeeding in children aged 12-24 months

Kejadian Stunting	f	%
Severly stunted	11	36,7
Stunted	19	63,3
Berat Badan lahir		
Low Birth Weight	14	46.7
Normal Birth Weight	16	53.3
Exclusive Breastfeeding		
Non- Exclusive Breastfeeding	18	60.0
Exclusive Breastfeeding	12	40.0

Of the 30 children incidence of stunting in toddlers at TPMB T in 2023 it was 63.3%, with mild stunting and it was 36.7% with severe stunting. History of birth weight on the incidence of stunting in toddlers at PMB T in 2023 it was 46.7% were born with LBW it was 53,3% were born normal. The history of exclusive breastfeeding for the incidence of stunting in toddlers at TPMB in 2023 it was 60.0% were not exclusively breastfed and it was 40% were exclusively breastfed.

Table 2
The relationship of Birth Weight to the stunting

Birth Weight	Stunting				Total		P Value
	Severly Stunted		Stunted		F	%	
	F	%	F	%			
Low Birth Weight	9	64,3	5	35,7	14	100,0	0,011
Normal	2	12,5	14	87,5	16	100,0	

Of the 30 children with normal birth weight, there was stunted 87,5%. Meanwhile, of 64,3% with low birth weight severely stunted. The results of the statistical test obtained a value of $P = 0.011 < \alpha$

(α) 0.05, it can be concluded that H_0 is rejected and H_a is accepted, which means that there is a relationship between low birth weight and the stunting of children aged 12-24 months.

Table 3
The relationship of exclusive breastfeeding to the stunting.

Exclusive Breastfeeding	Kejadian Stunting				Total		P Value
	Severly stunted		Stunted		F	%	
	F	%	F	%			
No	10	55,6	8	44,4	18	100,0	0,018
Yes	1	8,3	11	91,7	12	100,0	

Of the 30 children with exclusive breastfeeding, there was an stunted of 91,7%%. While the provision of Non Exclusive Breastfeeding there is a severely stunted to 55,6%. The results of the

statistical test obtained a value of $P = 0.018 < \alpha$ (α) 0.05, it can be concluded that H_0 is rejected and H_a is accepted, which means that there is a

relationship between exclusive breastfeeding and stunting of children aged 12-24 months.

DISCUSSION

The results this studi showed that children 64,3% and have relationship low birth weight with severely stunted ($P=0,011$). This studi same thing was found in a study conducted by Nova Maria, et al (2018) which stated that birth weight was significantly related to the incidence of stunting in toddlers ($P=0,002$).

Birth weight is one indicator that affects toddler nutrition. The baby's birth weight is called low if it is > 2500 grams. P. Christian et al (2013) in their article stated that LBW babies have a 2.5-3.5 times higher risk of wasting, stunting and underweight.

Growth is a change that is quantitative, namely the increase in number, size, dimensions at the level of cells, organs, and individuals. Children not only grow physically, but also the size and structure of the organs of the body and brain. For example, the result of brain growth is that children have a greater capacity to learn, remember, and use their minds. (Soejiningsih, 2013).

The results showed that children who received exclusive breastfeeding with appropriate stunted were 11 children with a presentation of 91,7% and have relationship breastfeeding exclusive with stunted ($P=0.018$). This studi same thing was found in a study conducted by Hidayah (2018) which stated that birth weight was significantly related to the incidence of stunting in toddlers ($P=0,03$).

Stunting can occur as a result of malnutrition, especially during the First 1000 Days of Life (HPK). Poor nutrition during pregnancy, the growth period and the early years of a child's life can cause a child to become stunted. Fulfillment of nutrition that has not been fulfilled properly from the womb until the baby is born can cause health problems in toddlers. One of them is the baby's birth length which describes the baby's linear growth while in the womb. A low linear size usually indicates a poor nutritional state due to the lack of energy and protein suffered by the mother during pregnancy (Ministry of Health of RI, 2018).

CONCLUSION

In accordance with the general objectives stated in the previous chapter that this study was intended to obtain information about the relationship between exclusive breastfeeding and non-exclusive breastfeeding on the stunted of children aged 12-24 months and the low birth weight have relationship with stunted children age 12-24 month.

For children aged 12-24 months, have relationship low birth weight with severely stunted ($P=0,011$) and have relationship breastfeeding exclusive with stunted ($P=0.018$).

Of the 30 children incidence of stunting in toddlers at TPMB T in 2023 it was 63.3%, with mild stunting and it was 36.7% with severe stunting. History of birth weight on the incidence of stunting in toddlers at PMB T in 2023 it was 46.7% were born with LBW it was 53,3% were born normal. The history of exclusive breastfeeding for the incidence of stunting in toddlers at TPMB in 2023 it was 60.0% were not exclusively breastfed and it was 40% were exclusively breastfed

SUGGESTION

Further research is needed to look at other factors that are closely related to children's stunting and qualitative studies to explore other factors that may be more related to children's stunted

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