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The Relationship between Exclusive Breastfeeding and The Incidence of Stunting Toddlers

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ABSTRAK

Stunting merupakan suatu kondisi pada saat balita memiliki panjang atau tinggi badan yang kurang dibandingkan anak rerata usianya. Indonesia merupakan negara ketiga dengan prevalensi tertinggi di regional Asia Tenggara yaitu sebanyak 43,8%. Desa Cemara Wetan memiliki prevalensi angka stunting tertinggi yaitu 34,40% dari seluruh desa di kabupaten Indramayu. Salah satu usaha pencegahan *stunting* yaitu dengan pemberian nutrisi adekuat sejak usia dini melalui ASI eksklusif. Penelitian ini bertujuan untuk mengetahui hubungan ASI eksklusif terhadap kejadian balita *stunting* di Desa Cemara Etan Kabupaten Indramayu. Penelitian ini menggunakan metode penelitian kuantitatif dengan desain penelitian observasonal analitik dengan pendekatan *crossectional*. Penelitian ini menggunakan kuesioner ASI pada ibu balita dan data sekunder pengukuran indeks massa tubuh balita. Tekhnik analisisnya menggunakan analisis univariat maupun bivariat menggunakan *chi square test*. Hasil penelitian memperlihatkan bahwa terdapat hubungan signifikan antara pemberian ASI Eksklusif dengan kejadian *stunting* pada balita di Desa Cemara Wetan Kabupaten Indramayu dengan (p=0,012, OR=0,304)

Kata Kunci : Stunting; ASI Eksklusif; Balita.

ABSTRACT

Stunting is a condition when toddlers have a length or height that is less than their average age. Indonesia is the third country with the highest prevalence in the Southeast Asia region, which is 43.8%. Cemara Wetan Village has the highest prevalence of stunting, which is 34.40% of all villages in Indramayu district. One of the efforts to prevent stunting is by providing adequate nutrition from an early age through exclusive breastfeeding. This study aims to determine the relationship between exclusive breastfeeding and the incidence of stunting under five in Cemara Etan Village, Indramayu Regency. This study uses a quantitative research method with an analytical observational research design with a cross-sectional approach. This study used a breastfeeding questionnaire for mothers of toddlers and secondary data for measuring body mass index of toddlers. The analysis technique uses univariate and bivariate analysis using the chi square test. The results showed that there was a significant relationship between exclusive breastfeeding and the incidence of stunting in children under five in Cemara Wetan Village, Indramayu Regency with (p = 0.012, OR = 0.304).

Keywords : Stunting; Exclusive Breastfeeding; Toddlers.

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A. Pendahuluan

Stunting is a condition when toddlers have a length or height that is less than their average age. This can be measured by length or height <-2 standard deviation of the median standard deviation of child growth from WHO [1]. Stunting cases that occur in toddlers are one of the nutritional problems suffered by toddlers in the world today. In 2017, 150.8 (22.2%) million children under five in the world suffered from stunting. Based on these data, the Asian region accounts for more than half of stunting under-fives in the world (55%) [1] Data on the prevalence of stunting under-fives that have been collected by the World Health Organization (WHO), Indonesia is the third country with the highest prevalence in the Southeast Asia/South-East Asia region. East Regional (SEAR) where the prevalence of stunting among children under five in Indonesia is the second largest in the Southeast Asia region, namely 43.8% The average prevalence of stunting in children under five in Indonesia from 2005 to 2017 was 36.4% The stunting rate in West Java reached 29.2% (2017) where this number experienced an increase from 25.1% (2016). In Indramayu Regency itself, according to the results of the calculation of the Toddler Weighing Month (BPB) by the West Java Health Office, in 2018 the percentage of stunting reached 20.5%. There are 4 areas that have the largest percentage of stunting in Indramayu Regency, namely Cemara Wetan Village at 34.40%, Sukadana Village 32.70%, Bojongsari Village 31.17% and Lohbener Village 30.61%. Although the prevalence of stunting in Indramayu Regency is still lower than the national figure, but because Indramayu Regency has a high population, parental knowledge of nutrition for children and pregnant women and the economic level is still low and there are several villages that have a high stunting prevalence rate. high enough, Indramayu Regency is included in the Locus District for Stunting Management [2].

The adverse effects resulting from nutritional problems in the near future can interfere with brain development, intelligence, physical growth disorders, and can disrupt metabolism in toddlers' bodies. Whereas in the future it will have an impact on the lack of cognitive ability and learning achievement, reduced immunity so that later it will be easily exposed to disease, and raises a high risk of diabetes, obesity, heart and blood vessel disease, cancer, stroke, and even can lead to stroke. cause disability in old age, as well as lead to uncompetitive work quality resulting in low economic productivity [3].

One of the efforts to prevent stunting is by providing adequate nutrition from an early age. Nutrition for infants begins at the age of 0-6 months with exclusive breastfeeding. Where breast milk is the best food for toddlers aged 0-6 months because breast milk contains macronutrients and micronutrients, namely carbohydrates, protein, fat, cartinin, vitamin K, vitamin D, vitamin E, vitamin A, folic acid, calcium, magnesium, phosphorus. has a good quantity and of course is easily absorbed by the baby's body when compared to cow's milk [4] Macronutrients and micronutrients in breast milk have a great function in the linear growth of children. These micronutrients and macronutrients can function to prevent stunting, namely vitamin A, zinc, iron and protein. Where vitamin A has a role as protein synthesis which has an impact on cell growth. On the other hand, if the intake of vitamin A in the baby's body is not sufficient, it will cause growth failure and a decrease in body immunity [5]. 1 time [6] In line with the study, according to Muldiasman in 2018, the results were that delay in breastfeeding had a 1.3 times higher risk for toddlers suffering from stunting [7] Meanwhile, according to Anindya et al in 2020 stated that exclusive breastfeeding had no significant effect on the incidence of stunting in toddlers [8].

Based on the background that has been described, the formulation of the problem in this study is as follows: "How is the relationship between exclusive breastfeeding and the incidence of stunting in Cemara Wetan Village, Indramayu Regency?". Furthermore, the objectives of this research are described in the following points (1) Analyzing the history of exclusive breastfeeding for toddlers in Cemara Wetan Village, Indramayu Regency, (2) Analyzing the number of stunting in Cemara Wetan Village, Indramayu Regency, (3) Analyzing the relationship between exclusive breastfeeding and the incidence of stunting in Cemara Wetan Village, Indramayu Regency.

B. Metode Penelitian

Researchers used quantitative research methods with analytical observational research design with a cross-sectional approach. This study uses a breastfeeding questionnaire for mothers of toddlers and secondary

data for measuring body mass index of toddlers. The analysis technique uses univariate and bivariate analysis using the chi square test. The population selected in this study were toddlers aged 2-5 years, totaling 1,145 toddlers.

The sampling technique is purposive sampling. The number of samples are 86 toddlers. Data collection techniques used in this study were questionnaires to mothers of children under five and secondary data from puskesmas. The analysis technique used in this study is univariate and bivariate analysis using the chi square test.

C. Hasil dan Pembahasan

The study was conducted on toddlers aged 2-5 years in Cemara Wetan Village, Indramayu Regency. The subjects in this study were mothers of children under five who were willing to take part in the study by answering all the questionnaire questions that had been given and measuring height and weight for toddlers at the puskesmas had been carried out. There were 86 samples who had filled out the questionnaire and measured height and weight in this study.

Characteristics of stunting toddlers in this study, most of the subjects were male (60.5%). The age that most participated in the study was 2-3 years old (53.5%). The age of mothers under five stunting is more at the age of 30 years - < 40 years (51.2%). Most of the respondents also did not receive exclusive breastfeeding (79.1%). Based on the data, it was also found that the majority of children under five (76.7%) were not breastfed for 2 years and had started complementary feeding for < 6 months (62.8%). The characteristics of the subjects under five were not stunted in this study, the number of subjects was male (51.2%) almost comparable to the female sex (48.8%). The age that most participated in the study was the age of 2-3 years (51.2%). The age of mothers under five who were not stunted was more at the age of 30 years - < 40 years (58.1%). In the history of exclusive breastfeeding, the number of infants who did not receive exclusive breastfeeding (53.5%) was almost the same as that of infants who received exclusive breastfeeding (46.5%). Based on the data, the number of children under five who received and did not receive breast milk for up to 2 years was almost the same (46.5 vs 53.3). At the start of complementary feeding, non-stunted toddlers received more complementary foods for >6 months (58.1) (Table 4.1).

Tabel 1. Toddler's General Characteristic

Variable	Stunting		Not Stunting		Total	
	N	%	N	%	N	%
Age						
2-3 years old	23	53,5	22	51,2	45	52,3
3-4 years old	17	39,5	14	32,6	31	36,0
4-5 years old	3	7,0	7	16,3	10	11,6
Total	43	100	43	100	86	100
Gender						
Male	26	60,5	22	51,2	48	55,8
Female	17	39,5	21	48,8	38	44,2
Total	43	100	43	100	86	100
Mother Age						
20 - <30 years old	19	44,2	16	37,2	35	40,7
30 - <40 years old	22	51,2	25	58,1	47	54,7
40 - <50 years old	2	4,7	2	4,7	4	4,7
Total	43	100	43	100	86	100
Exclusive Breastfeed						
Yes	9	20,9	20	46,5	29	33,7
No	34	79,1	23	53,5	57	66,3
Total	43	100	43	100	86	100

Variable	Stunting		Not Stunting		Total	
	N	%	N	%	N	%
Breastfeed until 2 years old						
Yes	10	23,3	20	46,5	30	**34,9**
No	33	76,7	23	53,5	56	**65,1**
Total	43	100	43	100	86	100
Pemberian MPASI						
<6 Months	27	62,8	18	41,9	45	**52,3**
>6 Months	16	37,2	25	58,1	41	**47,7**
Total	43	100	43	100	86	**100**

Table 4.2 shows that there is a significant relationship (p = 0.012) history of exclusive breastfeeding on the incidence of stunting under five in Cemara Wetan Village, Indramayu Regency with a risk factor of 0.304 times (OR = 0.304).

Tabel 2. Hasil Analisis Bivariat

Exclusive Breastfeed	Stunting		Not Stunting		Total		p-value	OR
	N	%	N	%	N	%		
Yes	9	20,9	20	46,5	29	33,7	0,012	0,304
No	34	79,1	23	53,5	57	66,3		

Based on the results of univariate analysis, the age of toddlers suffering from stunting in this study was mostly 2-3 years old. In line with Kusuma's research, it is stated that toddlers aged 2-3 years need to get close supervision from parents. This is because toddlers at that age experience rapid development in cognitive and motor abilities, but not in growth rates. At that age, there is a tendency for a slower growth rate compared to the age of 0-2 years, so if there are factors that can cause stunting, then at that age there is a greater chance [9]. months are prone to stunting because at that age there is a transition in infant food intake, namely breast milk and complementary foods to pure complementary foods, where if adequate complementary food intake is not provided, the metabolism of toddlers will experience a decline which affects the growth and development of toddlers [10], [11]. In addition, at the age of 2-5 years, a risk factor that is more influential on stunting is the presence of infectious diseases [12].

This study found that stunting was more common in boys than girls. This is contrary to Regma's research, namely the gender of toddlers is not related to the prevalence of stunting [13]. Asfaw et al's research also stated that the gender of male toddlers is one of the risk factors for stunting. The problem that often arises in Indonesia is that parents' perceptions of the gender of toddlers tend to be the same, namely related to parenting patterns and food intake patterns, even though the gender of these toddlers also has a physiological effect on the body's metabolism which will manifest in linear growth which we can see as length/ height [14]. Boys have a higher metabolism than girls, so if there is malnutrition in male toddlers, the manifestations that appear will be more visible than the female gender [15].

The results of this study indicate that stunting is more common among mothers aged 30 years - <40 years. In line with this study, according to Manggala et al in 2018, found that maternal age <20 years or >35 years was significantly related to the incidence of stunting in toddlers [16] According to the Indonesian Ministry of Health in 2013, the age of pregnant women <20 years or >35 years was very high. influence on the incidence of stunting under five where at that age, the tendency of mothers to give birth to children with low birth weight so that it will affect the development of infants in toddlerhood, including experiencing stunting. too old, can have the risk of giving birth with various complications, namely stillbirth, preterm pregnancy, intrauterine growth restriction and various chromosomal abnormalities [17].

The results of the bivariate analysis in this study showed that a history of exclusive breastfeeding was significantly related to the incidence of stunting in children under five in Cemara Wetan Village, Indramayu Regency. In contrast to the results in this study, according to Anindya et al on a sample of 96 toddlers,

suggested that exclusive breastfeeding had no significant effect on the incidence of stunting in toddlers [8]. the incidence of stunting in children under five was caused by non-exclusive breastfeeding with a risk factor of 2.708 times (p = 0.022 and OR = 2.708) [18]. In line with that, according to Sampe et al also gave the result that there was a significant relationship between exclusive breastfeeding and the incidence of stunting in toddlers with a risk factor value of 61 times (p = 0.000, OR = 61) [19] Likewise, research according to Alifariki et al also found that toddlers who did not have a history of exclusive breastfeeding had a significant effect on the incidence of stunting with a risk factor of 3, 1 time (p<0.05, OR=3.1) [6]. Tiwari et al stated that exclusive breastfeeding was not given lucid or MPASI which is a risk factor for stunting due to a lack of quantity and quality of nutritional intake that should be given [20]. Breast milk is an excellent nutrient for optimizing the rate of growth and development of infants compared to formula feeding [21] Breast milk is very necessary for the development of brain function, increasing immunity, accelerating linear growth and development of organ functions of toddlers [22], [23]. Problems that often occur are not giving exclusive breastfeeding, being late in exclusive breastfeeding and breastfeeding too long, which is more than 2 years old. According to Muldiasman, the study found that delays in breastfeeding were 1.3 times higher for toddlers suffering from stunting. born to look for the mother's nipple and train the sucking reflex. This, early on, will establish a better relationship between mother and baby, especially mothers in caring for babies during the golden period [24]. In addition, the IMD carried out will increase the possibility of the baby to suck colostrum from the mother, which is very useful for increasing the baby's immunity effectively. optimally later in life [25]. According to WHO and The United Children's Fund (UNICEF) recommends IMD be performed in the first 1 hour after the birth of the baby, 6 months of exclusive breastfeeding followed by 2 years of complementary feeding [26].

The limitation of this study is that the number of samples is still very small, so it is possible that it is not representative of the general population. In addition, this study did not assess other risk factors other than exclusive breastfeeding that could affect the incidence of stunting.

D. Kesimpulan

Based on the discussion in this study, the researchers concluded several research results as follows (1) The description of exclusive breastfeeding in the research sample in the Cemara Wetan Village area, Indramayu Regency is still quite low (33.7%). (2) The incidence of stunting is still quite high, namely 0.24% of the entire population of toddlers in the Cemara Wetan Village area, Indramayu Regency. (3) There is a significant relationship between exclusive breastfeeding and the incidence of stunting in children under five in Cemara Wetan Village, Indramayu Regency with (p=0.012, OR=0.304).

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