

Determine The Effect of Exclusive Breastfeeding (ASI) and Utilizing Posyandu Services With Stunting Events in Age 6 - 24 Months In The Working Area of Air Dingin Primary Health Care

Erni Maywita¹, Novia Wirna Putri²
{ ernimaywita@fkm.unbrah.ac.id¹, noviawirna.skm@gmail.com², }

Faculty of Health, Baiturrahmah University, Padang, Indonesia¹,
Faculty of Health, Andalas University, Padang, Indonesia²,

Abstract. Stunting is a chronic nutritional problem caused by a lack of nutrition in a long time, which is now Indonesia's main health problem. The research focuses on the effect of exclusive breastfeeding and utilization of Public Health Care services to the incidence of stunting in infants aged 6-24 months in Air Dingin Primary Health Care. This research is a quantitative study with a case-control design. Determination of the sample is done by the formula of case-control studies in pairs by classifying case groups and control groups are taken based on a ratio of 1: 1 with controls with the results of the calculation is 130 cases and 130 controls. Data were analyzed by statistical tests with categorical data (Chi-Square test). This study shows that 33.5% of respondents were not given exclusive breastfeeding, and 15.0% of respondents did not use Public Health services. Chi-square test results show that exclusive breastfeeding affects the incidence of stunting in infants aged 6-24 months (OR = 1.9). It indicates that Public Health Care services do not affect the stunting problems in infants aged 6-24 months. It is expected that mothers prioritize exclusive breastfeeding for their children, especially at the age of 0-6 months.

Keywords: giving ASI, Posyandu Services Stunting

1 Introduction

Stunting is a condition of failure to thrive in children under five (babies under five years old) as a result of chronic malnutrition so that the child is too short for his age. Malnutrition occurs since the baby is in the womb and in the early period after the baby is born. However, the condition of stunting only appears after the baby is two years old. Stunted and severely stunted toddlers are toddlers with body length (PB / U) or height (TB / U) according to their age compared to the standard WHO-MGRS (Multicentre Growth Reference Study) 2006. While the definition of stunting, according to the Ministry of Health (Ministry of Health), is a toddler with a z-score of less than -2SD / standard deviation (stunted) and less than - 3SD (severely stunted) [7].

In 2017, 22.2% or around 150.8 million children under five in the world experienced stunting. However, this figure has decreased when compared with the stunting rate in 2000, which was 32.6%. In 2017, more than half the stunting toddlers in the world came from Asia

(55%), while more than a third (39%) lived in Africa [7]. Of the 83.6 million stunting children in Asia, the most significant proportion came from South Asia (58.7%) and the lowest percentage in Central Asia (0.9%) [7]. The prevalence of short toddlers has increased from 2016, which is 27.5% to 29.6% in 2017. The prevalence of short toddlers in Indonesia tends to be static. The results of the Basic Health Research (Riskesdas) in 2007 showed the prevalence of short toddlers in Indonesia at 36.8%. In 2010, there was a slight decline to 35.6%. However, the prevalence of short toddlers increased again in 2013 to 37.2% [7].

The prevalence of stunting in West Sumatra in 2010 amounted to 33.1%, increasing to 40.0% in 2013, which ranks 17th [6]. Based on reports from the Padang City Health Office the prevalence of stunting in children under five experienced an increase from 2011 to 2013, recorded in 2011 the prevalence of stunting by 17.38% increased to 27.93% in 2012 and experienced an increase again in 2013 which amounted to 28.3% prevalence of stunting. In 2015-2017 the prevalence of stunting in the city of Padang 22.6% had decreased, but it is still above the maximum tolerance for stunting set by WHO, which is equal to 20% [5].

Nutrition obtained since the baby is born certainly very influential on its growth, including the risk of stunting. The inception of early breastfeeding (IMD), the failure of exclusive breastfeeding, and the process of early weaning can be a factor in stunting [7].

In addition, the Public Health Care services are also a risk factor for stunting. Public Health Center is the front guard for infant and toddler health services in the community. It has a role to prevent stunting in Indonesia. Public Health Care is a resource-based health agent that belongs to the community and integrated with the daily life and culture of the community. Besides community empowerment in transferring information and skills from officers to the community, Public Health Care can provide basic health services mainly related to the reduction of MMR, IMR, and AKBA [10]. Monitoring the growth and development of infants and toddlers in Posyandu can detect early growth problems in infants and toddlers.

The study aims to determine the effect of exclusive breastfeeding and the use of Public Health Care to reduce stunting rate of infants aged 6-24 months in Air Dingin Primary Health Care.

2 Method

Types of analytical research using a case-control design. This research was conducted for six months in 2019 in the working area of Air Dingin Primary Health Care, which covers three villages, namely Lubuk Minturun, Balai Gadang, and Aie Pacah. The population in this study are mothers who have toddlers aged 6-24 months. Determination of the sample is done by the formula of case-control studies in pairs by classifying case groups and control groups were taken based on a ratio of 1: 1 with the results of the case calculation of 130 people and control of 130 people.

A proportional random sampling technique did sampling. Primary data collection is done by interview using a questionnaire. Data analysis included univariate and bivariate analysis to test the effect, history of exclusive breastfeeding, utilization of Public Health Care services with stunting in the working area of Air Dingin Primary Health Care using chi-square test at 95% confidence level ($p < 0.05$), and multivariate analysis using Logistic regression test to determine the effect of independent variables together so that it is known which variable is the most dominant influence the incidence of stunting.

3 Result

Table 1. is the result of a bivariate analysis using the chi-square test to see the effect of breastfeeding and the use of Public Health Care service to the incidence of stunting in infants aged 6-24 months. The results of the study can be seen that 60.9% of respondents who were not exclusively breastfed were stunting higher than those who were exclusively breastfed at 44.5% who were stunted. Based on the statistical test results obtained p-value <0.05, it can be concluded that there is a significant relationship between breastfeeding and the incidence of stunting. The OR value is 1.9, which means that mothers who do not exclusively breastfeed their babies have a risk of stunting 1.9 times.

Table 1. Results of an analysis of the relationship between exclusive breastfeeding and utilization of Posyandu services and the incidence of stunting

Variables	Stunting						P-value	OR	95% CI	
	Uncontrolled		Controlled		Total				lower	Upper
	n	%	n	%	n	%				
ASI Exclusive										
Non-Exclusive	53	60,9	34	39.1	87	100,0	0.018	1.9	1,150	3,285
Eksklusif	77	44,5	96	55.6	173	100,0				
Utilization of Posyandu										
don't utilize	21	53.8	18	46.2	39	100,0	0.728			
utilize	109	49.3	112	50.7	221	100,0				

In Table 1 it can be seen that respondents who did not use Public Health Care services, 53.8% suffered from higher stunting compared to respondents who used Public Health Care services (49.3%). Based on the statistical test results obtained p value > 0.05, it can be concluded that there is no meaningful relationship between the use of Public Health Care services with stunting events.

4. Discussion

4.1. Exclusive ASI

Based on the results of the chi-square statistical test, a p-value of 0.018 was obtained, which means that there was a significant relationship between breastfeeding and the incidence of stunting. The OR value is 1.9, which means that a respondent who is not exclusively breastfed has a 1.9 times greater chance of being stunted.

The results of this study are in line with the results of research conducted by Maywita (2016) in toddlers aged 12-59 months, which states that there is a meaningful relationship between exclusive breastfeeding and the incidence of stunting.

Exclusive breastfeeding, according to Government Regulation of the Republic of Indonesia Number 33 of 2012 concerning Exclusive Breastfeeding, is the provision of Breast Milk (ASI) without adding and or replacing with other food or drinks given to infants since being born for six months [8]. Prasetyo stated exclusive breastfeeding provides various benefits for mothers and babies where breast milk is a natural food that is good for babies, practical, cheap, easy to digest. It is an ideal nutritional composition according to the needs and digestive abilities of babies, and breast milk supports the growth of infants, especially high the body, because calcium ASI is more efficiently absorbed than milk substitutes for ASI [9].

4.2. Utilization of Posyandu Services

Based on the results of the chi-square statistical test, a p-value of 0.062 was obtained, which means that there was no significant relationship between the use of Public Health Care services and the occurrence of stunting.

The results of this study are not in line with research conducted by Yogiswara (2011). The results of this study shows there was a relationship between the level of maternal participation in Public Health Care and the nutritional status of children under five through statistical analysis of the Chi-square test (p-value = 0.007). Hidayat & Jahari (2011) reported that there was a relationship between the use of Public Health Care behavior with nutritional status and toddlers' morbidity through statistical analysis of the chi-square test (p-value = 0.001) [1].

The use of Public Health Care is very important to monitor the development and health condition of children under five. It has a profound effect on the nutritional status of children under five, so the family needs to visit Public Health Care regularly. Besides, Public Health Care can provide several other health services for both mothers or toddlers.

5. Conclusion

Exclusive breastfeeding is a very important risk factor in stunting. Exclusive breastfeeding can cause a 1.9 times greater risk of stunting in infants.

Although the use of Public Health Care services in this research does not have a significant relationship to the occurrence of stunting, it has an important role in early detection of growth and development problems in infants and toddlers.

For this reason, mothers are expected to breastfeed their babies to avoid stunting exclusively. Cadres should further enhance the role of the class of pregnant women to provide education about the importance of exclusive breastfeeding to prevent the occurrence of stunting in children through various methods such as counseling, counseling, focus group discussion.

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