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Stunting Risk Factors For Children Aged 6 - 36 Months in The Region of Sambirejo Health Center, Langkat, North Sumatera

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Abstract
Background: *Stunting is a chronic malnutrition condition caused by a numeuros of factors, including inadequate maternal nutritional nutrition during pregnancy, inadequate exclusive breastfeeding, and infectious diseases. There are also some indirect factors .**Objective:** The objective of this study was to investigate the risk factors for stunting in children aged 6-36 months in the Sambirejo Health Center area. study. **Method:** This study is an observational analytic study using a cross-sectional approach that gathers data via a questionnaire. Sampling Techniques using the Non- Probability Sampling technique, and the sample size was estimated using the Lemeshow formula. The Prevalence Ratio (PR) was calculated to evaluate the strength of the link between the factors assumed to be linked with stunting. **Result and Discussion:** Of the 65 samples, Four children were stunted, while 6[1] were not. Infants who were not exclusively breastfed, infants with a history of LBW, infants with a history of SBL, and family planning of 2 years both were risk factors for stunting in this study. **Conclusions:** Some variables in this study had no impact on the incidence of stunting. In this study, the risk factors for stunting were LBW, SBL, and infants without exclusive breastfeeding, and child spacing was a neutral factor for the occurrence of stunting in children aged 6-36 months.*

Keywords: ***Distance of Child Birth; Exclusive Breastfeeding; Stunting;***

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Introduction

The problem of toddler nutrition is still a major health problem in Indonesia. The problem of malnutrition can also be seen from the slow growth of children, one of which is in terms of length or height. The condition in which the length or height of a child is not optimal is called stunting (Natasya Putri Audiena, 2021). Stunting is a condition in which the height is below minus two standard deviations (<-2 SD) according to the child growth chart from WHO (World Health Organization). Stunting is an indicator of whether toddlers have growth problems or not, which is measured by calculating the Z-Score for height according to age. Stunted toddlers are at risk in having a low-quality life because stunting occurs in chronic growth and development failure. Stunting toddlers will also has low cognitive abilities metabolic disorders so that they are at risk for various degenerative diseases in later adulthood (Welse, 2018).

Globally, based on data from WHO, approximately 149.2 million children under five or as much as 22% in the world experiencing stunting in 2020. According to data from the Indonesian Nutrition Status Study in 2021, stunting is the highest prevalence (24.4%) compared to other nutritional problems such as malnutrition (7.1%), thin (17.0%), and fat (3.8%) (Kementerian Kesehatan RI, 2020). This number is still higher than the world stunting prevalence, which is targeted by WHO, which is less than 20%. Indonesia is the third country with the highest prevalence of stunting in the Southeast Asian region, with an average prevalence of stunting toddlers in 2005-2017 was 36.4% (Sumartini, 2022)

There are several factors that can affect the incidence of stunting, one of which is inadequate sanitation. There are several community activities that can worsen this sanitation, such as inappropriate drinking water treatment, lack of cleaning of latrines after use, and open defecation. These are associated with an increase of stunting in children under five in Indonesia (Olo et al., 2020). Lack of clean water used in daily life can cause infectious diseases such as diarrhea and worm’s infection. As a result, the baby's weight drops due to impaired absorption of nutrients during the digestive process. Persistent and recurrent infectious diseases can cause growth retardation in toddlers (Kemenkes RI, 2018). Other factors that can be a cause of stunting are nutritional deficiencies during pregnancy, inadequate breastfeeding in the first 6 months, insufficient breastfeeding frequency, complementary feeding in less than 6 months or after 12 months, and the food given does not vary with a frequency and texture that is not appropriate for their age (Anggryni et al., 2021). This condition will of course have a negative impact on the growth and development of children in the future. For example, slow growth during infancy can affect brain intelligence as an adult (Natasya Putri Audiena, 2021).

According to UNICEF, stunting can be caused by two factors, such as direct and indirect factors. Direct factors include poor maternal nutritional intake during pregnancy, inadequate nutritional intake of infants and toddlers, inadequate exclusive breastfeeding, and infectious diseases. In addition, there are indirect factors including environmental factors, educational factors, parents' knowledge and occupations, and family income.

Infection is the dominant factor causing stunting in children under five. Infectious diseases can be caused by inadequate nutritional intake of children and mothers during pregnancy (Maineny et al., 2022). Infectious diseases are also related to hygiene practices, so hygiene and sanitation also need to be considered. Hygiene behavior factors have a big influence on nutritional problems, especially stunting. Toddlers who eat foods with poor hygiene practices are at risk of contracting infectious diseases such as diarrhea and ARI (Acute Respiratory Infections). These two diseases have a direct impact on the nutritional status of children under five years old (Natasya Putri Audiena, 2021).

Method

This research is an observational analytic study with a cross sectional approach using a questionnaire to collect data. This research was conducted for 2 weeks starting from October 10th to October 21st 2022 at the Sambirejo Health Center, Sambirejo District, Lang, North Sumatra. The population in this study were toddlers aged 6-36 months in the area of the Sambirejo Health Center, where the total population was unknown.

The sampling technique used was the Non-probability Sampling technique by Random Sampling. The sample in this study consisted of control samples and matching cases based on gender and age group, such as 6-12 months, 12-24 months, and 24-36 months. To determine the number of samples taken, it can be calculated using the Lemeshow formula. The Lemeshow formula is used to determine the ideal minimum sample size, which is able to realize a normal data distribution in the population in the study. With the data on the stunting prevalence in Medan in 2021, which is 19.9% (20%), then with calculations using the Lemeshow formula, the results of the minimum number of samples needed in this study are 61 respondents, which is mothers of children under five in Sambirejo Health Center.

The inclusion criteria of the sample include: (1) toddlers aged 6-36 months; (2) toddler who lives in the research area; (3) the parent or guardian of the child allows the child to be a sample during the research and is also willing to become a respondent by signing the informed consent. While the exclusion criteria from the samples are: (1) having mental and physical disabilities.

The variables in this study consisted of the dependent variable, which is stunting, and the independent variable consisted of 4 groups, such as child factors, maternal factors, social factors, and environmental factors. Child factors include: history of exclusive breastfeeding, birth weight, and birth length. Maternal factors include: mother's height, mother's age at pregnancy, child birth spacing, and number of children. Social factors include: mother's education level and parents' income. Environmental factors include: the availability of latrines at home and facilities for garbage disposal.

Univariate data analysis was carried out with the aim of finding the frequency distribution of respondents based on stunting risk factors, including: gender, age of toddlers, and stunting status in toddlers. As well as bivariate analysis was carried out with the aim of finding the relationship between risk factors using the Chi square test.

Result and Discussion

Study Characteristics

The number of respondents in this study were 65 mothers and children who had met the inclusion criteria. Demographics of respondents in this study were described based on gender, age of children, stunting status, risk factors for stunting in children, mothers, socio-economics, and the environment. In this study, the demographic distribution can be seen in the following table:

Table 1
Demographics Frequency Distribution Based on Child Gender

Sex	Frequency	Percentage (%)
Male	34	52.3
Female	31	47.7
Total	**65**	**100**

Table 2
Demographics Frequency Distribution Based on Child Age

Age (months)	Frequency	Percentage (%)
6 - 12	15	23.1
12 - 24	32	49.2
24 - 36	18	27.7
Total	**65**	**100**

Table 3
Demographics Frequency Distribution Based on Stunting Status

Stunting Status	Frequency	Percentage (%)
Stunted	4	6.2
Not Stunted	61	93.8
Total	**65**	**100**

Child Risk Factor

Breastfeeding

Table 4

The Relationship between Breastfeeding and the Incidence of Stunting Toddlers in the Working Area of the Sambirejo Health Center

Breastfeeding	Stunting Incident				P-Value	PR (95%CI)
	Stunted	Not Stunted	Total			
	n	n	n	(%)		
At risk	3	5	8	12.3	0.005	21.375 (2.518 - 181.453)
Not at risk	1	56	57	87.7		

The results of the statistical test using Chi Square analysis obtained a P-value of 0.005 (P < 0.05). These results prove that there is a significant relationship between inadequate breastfeeding and stunting. Furthermore, from the results of the analysis of the amount of PR obtained a value of 21.375. This means that children with a history of no exclusive breastfeeding have a 21.375 times greater risk of stunting compared to children who are exclusively breastfed (Table 4).

Birth Weight

Table 5

The Relationship between Birth Weight and the Incidence of Stunting Toddlers in the Working Area of the Sambirejo Health Center

Weight (g)	Stunting Incident				P-Value	PR (95%CI)
	Stunted	Not Stunted	Total			
	n	n	n	(%)		
<2500	3	0	3	4.6	0.0001	62 (8.873-43.,212)
2500	1	61	62	95.4		

The results of the statistical test using Chi Square analysis obtained a P-value of 0.0001 (P < 0.05). These results prove that there is a significant relationship between low birth weight and stunting. Furthermore, from the results of the analysis of the PR value, it was obtained a value of 62. This means that children with a history of low birth weight have a 62 times greater risk of experiencing stunting compared to children with normal birth weight or > 2500 g at birth (Table 5).

Birth Length

Table 6

The Relationship between Birth Lenght and the Incidence of Stunting Toddlers in the Working Area of the Sambirejo Health Center

	Stunting Incident					
Birth Length(cm)	**Stunted**	**Not Stunted**	**Total**		**P-Value**	**PR (95%CI)**
	n	**n**	**n**	**(%)**		
<48	2	6	8	12.3	0.018	7.125 (1.16-43.751)
48	2	55	57	87.7		

The results of the statistical test using Chi Square analysis obtained a P-value of 0.018 (P < 0.05). These results prove that there is a significant relationship between birth length and stunting. Furthermore, from the results of the analysis of the PR value obtained a value of 7.125, this means that children with a history of short birth length have a risk of experiencing stunting by 7.125 times greater than children who have normal birth length at birth (Table 6).

Mother Risk Factor

Mother's Height

Table 7

Relationship between Mother's Height and the Incidence of Stunting Toddlers in the Working Area of the Sambirejo Health Center

	Stunting Incident					
Mother's Height (cm)	**Stunted**	**Not Stunted**	**Total**		**P-Value**	**PR (95%CI)**
	n	**n**	**n**	**(%)**		
<150	0	3	3	4.6	1	1.069 (1.001-1.141)
150	4	58	62	95.4		

The results of the statistical test using Chi Square analysis obtained a P-value of 1 (P > 0.05). These results prove that there is no significant relationship between maternal height and the incidence of stunting in children (Table 7).

Maternal Age

Table 8

The Relationship between Maternal Age and the Incidence of Stunting Toddlers in the Working Area of the Sambirejo Health Center

	Stunting Incident					
Maternal Age	**Stunted**	**Not Stunted**	**Total**		**P-Value**	**PR (95%CI)**
	n	**n**	**n**	**(%)**		
<20 or >35	0	22	22	33.8	0.291	(1.002-1.213)
20 - 35	4	39	43	66.2		

The results of the statistical test using Chi Square analysis obtained a P-value of 0.291 (P > 0.05). These results prove that there is no significant relationship between the age of pregnant women and the incidence of stunting in children (Table 8).

Birth Interval

Table 9

The Relationship between Birth Interval and the Incidence of Stunting Toddlers in the Working Area of the Sambirejo Health Center

	Stunting Incident					
Birth Interval	**Stunted**	**Not Stunted**	**Total**		**P-Value**	**PR (95%CI)**
	n	**n**	**n**	**(%)**		
<2 years	3	9	12	18.5	0.018	0.764 (0.55-1.062)
>2 years	1	52	53	81.5		

The results of the statistical test using Chi Square analysis obtained a P- value of 0.018 (P < 0.05). These results prove that there is a significant relationship between birth interval <2 years with stunting. Furthermore, from the results of the analysis of the amount of PR, a value of 0.764 (0.55-1.062) (95%CI) was obtained, which indicates that the birth interval of children is a neutral factor for the incidence of stunting in children (Table 9).

Number of Children

Table 10

The Relationship between Number of Children and the Incidence of Stunting Toddlers in the Working Area of the Sambirejo Health Center

	Stunting Incident					
Number of Children	**Stunted**	**Not Stunted**	**Total**		**P-Value**	**PR (95%CI)**
	n	**n**	**n**	**(%)**		
>3	0	13	13	20	0.576	1.083 (1.002-1.172)
1-3	4	48	52	80		

The results of the statistical test using Chi Square analysis obtained a P-value of 0.576 (P > 0.05). These results prove that there is no significant relationship between the number of children and stunting (Table 10).

Social and Economic Risk Factor

Mother's Education Level

Table 11

The Relationship between Mother's Education Level and the Incidence of Stunting Toddlers in the Working Area of the Sambirejo Health Center

	Stunting Incident					
Mother' Education	**Stunted**	**Not Stunted**	**Total**		**P-Value**	**PR (95%CI)**
	n	**n**	**n**	**(%)**		
≥Junior High	1	16	17	26.1	1	0.941 (0.101-8.448)
≥High School	3	45	48	73.9		

The results of the statistical test using Chi Square analysis obtained a P- value of 1 (P > 0.05). These results prove that there is no significant relationship between the mother's level of knowledge and her last education. Furthermore, from the results of the analysis of the amount of homework, a value of 0.941 (0.101- 8.448) (95% CI) was obtained, which indicates that mother's education is a neutral factor in the incidence of stunting in children (Table 11).

Parents' Income

Table 12

The Relationship between Parents' Income and the Incidence of Stunting Toddlers in the Working Area of the Sambirejo Health Center

	Stunting Incident					
Parents' Income	**Stunted**	**Not Stunted**	**Total**		**P-Value**	**PR (95%CI)**
	n	**n**	**n**	**(%)**		
<PMW	4	38	42	64.6	0.288	0.905
≥PMW	0	23	23	35,4		(0.82-0.998)

The results of the statistical test using Chi Square analysis obtained a P-value of 0.288 (P > 0.05). These results prove that there is no significant relationship between parental income and stunting (Table 12).

Environment Risk Factor

Availability of latrine

Table 13

The Relationship between the availability of latrine and the Incidence of Stunting Toddlers in the Working Area of the Sambirejo Health Center

Stunting Incident						
Availability of latrine	**Stunted**	**Not Stunted**	**Total**		**P-Value**	**PR (95%CI)**
	n	**n**	**n**	**(%)**		
Available	4	61	65	100	-	-
Unavailable	0	0	0	0		

The results of statistical tests using Chi Square analysis did not obtain a P- value (P < 0.05). These results prove that there is no significant relationship between the availability of latrines at home and stunting, nor is there an analysis of PR obtained. (Table 13).

Availability of Landfills

Table 14

The Relationship between the Availability of Landfills and the Incidence of Stunting Toddlers in the Working Area of the Sambirejo Health Center

Stunting Incident						
Availability of Landfills	**Stunted**	**Not Stunted**	**Total**		**P-Value**	**PR (95%CI)**
	n	**n**	**n**	**(%)**		
Available	3	61	64	98.5	0.062	0.47 (0.016-0.141)
Unavailable	1	0	1	1.5		

The results of statistical tests using Chi Square analysis obtained P-value 0.062 (P < 0.05). These results prove that there is no significant relationship between the availability of landfills and stunting (Table 14).

Discussion

In this study, infants who were not exclusively breastfed had a higher risk of stunting than those who were exclusively breastfed. The results of this study are in line with research conducted by Fatimah et al., 2020 where there is a significant relationship between exclusive breastfeeding and the incidence of stunting in toddlers with a P-value of 0.000 (<0.05) (Fatimah, 2020).

Exclusive breastfeeding that is given properly and appropriately has many benefits for babies, such as complete nutrition, increasing body immune, increasing mental and emotional intelligence and spiritual maturity followed by good social development, easy to digest and absorption of food, fat composition, carbohydrates, calories, protein, and vitamins that are in accordance with the baby's needs, protection from infectious diseases,

protection from allergies because breast milk contains antibodies, stimulates intelligence and nerves, and improves health and intelligence optimally (SJMJ et al., 2020). Exclusive breastfeeding in Indonesia is still far from expectations. Nationally, the infants receiving exclusive breastfeeding in 2017 was 61.33%. However, this figure has not reached the target of exclusive breastfeeding coverage set by the government, which is 80% (Kemenkes RI, 2018).

The success of exclusive breastfeeding can be influenced by factors such as employment status. Mothers who do not work will have a lot of time to take care for their babies, including exclusive breastfeeding (Indrawati, 2016). In addition, other factors that cause the failure of exclusive breastfeeding are the mother's low knowledge of the importance of exclusive breastfeeding, the absence of husband and family support, and the influence of tradition/culture. Some people is still think that colostrum is not important and must be discarded because it is old so it is stale and can cause diarrhea if given to babies (Maswarni and Hildayanti, 2019).

Low birth weight is also a risk factor for stunting in this study. The results of this study are in line with research conducted by multivariate analysis, it is known that children who have a history of LBW are at risk of stunting 3 times compared to children who do not have a history of LBW (OR: 3; CI: 1,2-7,7). Adel El Taguri et al concluded that a history of low birth weight affects the incidence of stunting in children 1-2 years old ($P < 0.05$; OR: 1.58; 95%CI: 1.09-2.29). The incidence of LBW can be caused by several factors, such as families with low incomes, and mothers are unable to protect and maintain a balance of body weight during pregnancy (El Taguri et al., 2009). Children born with low body weight have mothers with low levels of education, and it can also be caused by the mother still not wanting to get pregnant before (Leroy et al., 2014; Nurcahyani and Trihandini, 2013).

Birth weight in general is strongly associated with fetal, neonatal, and post-neonatal mortality, infant morbidity, and long-term disturbance of growth and development. The results of Fikawati et al's research showed that babies born with body weights that did not reach the normal standard were due to the fact that the mother before pregnancy had an eating pattern that did not consume food sourced from animal protein (Fikawati et al., 2012; Rahayu et al., 2015) birth length is also a risk factor for stunting in this study. The results of this study are in line with research conducted by Anugraheni in 2012 which short birth length is a risk factor for stunting in children aged 12-36 months with OR: 2.81 (95% CI: 1.89-4.17). The length of the baby's body at birth describes the linear growth of the baby during the womb. A low linear measure usually indicates an undernourished state due to a lack of energy and protein suffered in the past, which was preceded by a slowdown or retardation of fetal growth. Inadequate maternal nutritional intake before pregnancy causes growth disorders in the fetus so that it can cause babies to be born with short birth lengths (Hana and Martha, 2012).

In this study, maternal height was not a risk factor for stunting. The results of this study are in line with research conducted by Ngaisyah et al., 2016, the prevalence of

stunting in mothers was 29.09% that shows the prevalence of stunting in children under five was 48.2%. It is known that there is no relationship between maternal height and the incidence of stunting P = 0.195 (OR: 2.00, 95% CI: 0.82- 4.36) (Rr dewi Ngaisyah, 2016). However, research by Amin states that children born from short mothers are at risk of becoming stunted 3 times greater (Amin and Julia, 2016).

According to Wahdah's research, women who experience stunting since childhood will experience growth disorders, including reproductive disorders, and complications during pregnancy. Stunting mothers have a greater potential to have stunted children, this is called the intergenerational nutrition cycle. Mother's height describes the previous nutritional and socioeconomic status of the mother, short height can be caused by heredity due to pathological conditions due to hormone deficiency so that it has the opportunity to reduce the tendency of short genes, it could also be due to maternal health factors due to nutritional deficiencies or disease (Amin and Julia, 2016; Wahdah et al., 2016). This difference in results may also be due to the fact that the results of our study showed many limitations in terms of sample limitations, age, parents' last education, and others.

Maternal age during pregnancy also did not have a significant relationship with the incidence of stunting. The results of this study are in line with research conducted by Nurhidayati et al., 2019that maternal age during pregnancy has no effect on the incidence of stunting P = 0.368 (OR: 2.00; 95%CI: 0.82-4.36) (Nurhidayati et al., 2020). However, different results were obtained by Hasandi et al. 2018, which states that pregnant women aged <20 years are a risk factor for stunting (Hasandi et al., 2019). Pregnant women aged <20 years are affected by marriage in their teens. Pregnancy in adolescence is not recommended because it is related to the readiness of the reproductive organs of the prospective mother, also psychological factors that are not ready to accept pregnancy and will affect the baby. Children born to mothers who married in their teens have a higher risk of malnutrition compared to mothers who married at a mature age. This difference in results may also be due to the fact that the results of our study showed many limitations in terms of sample limitations, age, parents' last education, and others.

There is a significant relationship between the birth interval of children under five and their siblings <2 years with stunting. The results of this study are in line with research conducted by Rehman et al. Children who have age interval with their siblings <2 years have a 10.5 times risk of becoming stunted compared to children who have a gap of 2 years or an only child. Research conducted by Rehman et al. concluded that having at least one sibling is a risk factor for stunting in children <3 years (OR 2.00; 95% CI: 1.14-3.51). Close birth interval can cause stunting because pregnancy interval affects parenting patterns for their children. Pregnancy interval of less than 2 years can cause poor fetal growth, prolonged labor, and bleeding at the time of delivery because the uterus has not recovered properly. Being too close causes the mother to have a short time to recover the condition of her uterus so that it can return to its original condition (Rehman et al., 2009). Pregnant women who are too close are at risk of developing anemia in pregnancy. Factors

that influence this are such as lifestyle, not using contraception, and mothers not doing routine checks (Ernawati and Jayanti, 2021).

In this study, the large number of children (> 3 children) did not directly affect stunting. The results of this study are in line with the research conducted by

Karundeng, et al., 2015, with a P-value = 0.90, which means that there is no relationship between the number of children and the nutritional status of children under five (OR 2.00, 95% CI 1.81). The availability of family food is influenced by the number of children in the family. The chances of children experiencing malnutrition are greater in families with low economic status who have many children. Children need attention and food according to their needs, but families with low economic conditions and having many children will find it difficult to meet these needs.[28] This difference in results may also be due to the results of our study showing many limitations in terms of sample limitations, age, parents' last education, and others (Karundeng et al., 2015).

This study states that the level of maternal education is a neutral factor in the incidence of stunting. The results of this study are in line with the research conducted by Karundeng, et al., 2015, the level of maternal education does not directly affect the incidence of stunting (P = 0.784) (Karundeng et al., 2015). The father's high education is considered capable of generating income that can meet the needs of the family and the father is able to carry out a good parenting for the child. Maternal education is associated with the use of iodized salt, administration of vitamin A capsules, immunization of children, and parenting patterns for children.[29] Parents with good education can provide more opportunities to receive information about taking care for children's health and giving the good education to their children's (Soetjiningsih and Gde Ranuh, 2013).

Low family income (<PMW/Province minimum wage) is also not a risk factor for stunting. The results of this study are not in accordance with the research conducted by Nasikhah in 2012 which stated that there was a significant relationship with stunting in toddlers (P = 0.017, p < 0.05). Poverty that lasts for a long time can result in households not being able to meet their food needs in good quantity and quality. The decrease in the quality of household food consumption, which is characterized by the limitation of buying food sources of protein, vitamins and minerals, will result in nutritional deficiencies, both macro and micro nutrients (Nasikhah and Margawati, 2012). This difference in results may also be due to the results of our study showing many limitations in terms of sample limitations, age, parents' last education, and others.

The results of Zahrawani et al. 2022[31] stated that the results of the chi square test between latrines and stunting resulted in a p value = 0.000 (p <0.05) which indicated that there was a significant relationship between latrine conditions and stunting. The latrine is a faecal disposal facility so that the use of unhealthy latrines can pollute the environment such as clean water so that it becomes a source of infection such as diarrhea. Recurrent diarrhea in children can cause enteropathy which interferes with the absorption of nutrients for growth, causing stunting. In

addition, the incidence of infection can also be caused by other factors, such as maternal parenting and hygiene such as washing hands with soap (Vilcins et al., 2018). The difference in the results in this study with other studies may also be due to the results of our study showing many limitations in terms of sample limitations, age, parents' last education, and others.

Landfills that do not meet good requirements are not a risk factor for stunting in this study. The results of this study are not in line with research conducted by a meta-analysis conducted on 71 studies stating that environmental hygiene and health factors influence the incidence of stunting.[32] Included studies show that foodborne microtoxins, lack of adequate sanitation, dirt floors in homes, low-quality cooking fuels, and inadequate local waste disposal are associated with an increased risk of child stunting.

Unfortunately, this study still has some limitations, such as the small number of stunted children, the research time was too narrow, and the lack of variables in this study, such as the mother's level of knowledge about stunting and the history of giving colostrum to children as infants. Future researchers are expected to be able to examine these variables and other variables that are thought to be risk factors for stunting. The Sambirejo Health Center is also expected to increase screening activities for children who have the potential to be stunted later according to the risk factors of stunting itself, especially for children with severe malnutrition and increase health promotion activities to the community about the adverse effects and prevention of stunting.

Connclusion

Based on the results of research conducted on stunted children aged 6–36 months in the working area of the Sambirejo Health Center, it can be concluded that there are factors causing stunting including low birth weight, short birth length, and no exclusive breastfeeding with each P-value. 0.0001 with a PR of 6.2 (95% CI, 0.8873-43.32); P-value 0.018 with PR 7.125 (95% CI, 1.16-43.75); and a P-value of 0.005 with a PR of 21.375 (95% CI, 2.518-181.453), and the birth distance of children with a P-value of 0.018 with a PR of 0.764 (0.55-1.062) being a neutral factor for the occurrence of stunting in children aged 6-36. month at the Sambirejo Health Center, Langkat, North Sumatra.

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