

Research Article

Relationship of Economic and Social Culture Status in the First 1000 Days of Life (HPK) Period toward Events of Stunting In Children Ages Of 0-24 Months in Barebbo District Working Area, Bone Regency, 2019

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Abstract: Stunting is a condition of growth failure in children (body and brain growth) due to long-term malnutrition. So, the child is shorter than a normal child his age and has a delay in thinking. According to the 2018 Basic Health Research data, children aged 0-24 months who experienced stunting were around 29.9%. This study aims to determine the risk of economic and socio-cultural status on the incidence of stunting in children aged 0-24 months in the working area of Barebbo Community Health Center, Bone District 2019. This is an analytic observational study with a case control study design. The population in this study were all children aged 0-24 months who lived in the working area of the Barebbo Health Center in Bone Regency in 2019. The sample used in this study was based on the control study formula for testing hypotheses against Odds-Ratio using the Lameshow Formula and the sample size obtained 42 samples with a ratio of 1: 2, which means a large number of cases is 42 and the size of the control is 84 so that the overall sample size of the study to be carried out is 126 samples. Data collection was done using a questionnaire and analysis of the data used was chi-square. The results of this study indicate that economic status is a risk factor for stunting (OR = 4.901 95% CI: 1.330-26,910) and socio-cultural events are risk factors for stunting (OR = 10,234 95% CI: 2,850-54,940). The need to increase knowledge of nutrition such as the community through puskesmas (Community Health Centre) and posyandu (Integrated Service Post) through the program to increase the first 1000 days of life. It is expected that the community and health workers, especially Posyandu cadres, should be able to know earlier the incidence of stunting in children aged 0-24 months.

Keywords: Stunting, Economic Status, Socio Culture.

INTRODUCTION

Stunting is a condition of growth failure in children (body and brain growth) due to long-term malnutrition. So, the child is shorter than a normal child his age and has a delay in thinking (Health Ministry, 2018). The problem of malnutrition that gets a lot of attention lately is the problem of chronic malnutrition, namely in the form of a short child or stunting. Stunting is a measure of chronic malnutrition which is the most common form of malnutrition in children in developing countries (Hagos *et al.*, 2017). The definition of stunting is nutritional status based on Body Length or Height according to Age (PB / U or TB / U) <-2 SD (UNICEF, 2013). WHO assessed the decline in the prevalence of stunting was not satisfactory. In May

2012, WHO launched six world targets to reduce the burden of morbidity caused by early age malnutrition. (Meera Shekar, Jakub Kakiemek, Julia Dayton Eberwein, 2017). The stunting problem has affected most children globally. In 2016 there were 22.9 percent or 154.8 million children under 5 years of age suffering from stunting, while in Asia alone there were 87 million children suffering from stunting (UNICEF, 2017). According to 2018 Basic Health Research data, children aged 0-24 months who experience stunting are around 29.9% (Kemenkes, 2018). Based on Nutritional Status Monitoring (2016) prevalence of stunting toddlers (0-24 months) in Indonesia which is 21.7%, while monitoring nutritional status (2017) stunting toddlers in Indonesia the number of cases is 20.1%. Report on the results of

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Nutrition Status Monitoring 2016 by the South Sulawesi Provincial Health Office number of stunting cases (0-24 months) in South Sulawesi at 26.7% (Health Department of South Sulawesi, 2017), whereas in 2017 stunting cases (0-24 months) in South Sulawesi amounted to 21.8% (Health Department of South Sulawesi, 2018).

Based on data from the South Sulawesi Provincial Health Office, the stunting prevalence in bone districts in 2016 was 35.3% of cases (Health Department of South Sulawesi Province, 2017). Then increased in 2017 by 40.1% of cases (Health Department of South Sulawesi Province, 2018). Bone Regency is a district that is the focus of stunting, where 10 villages are the focus of national stunting for Bone Regency and one of them is located in Barebbo District. Based on data from Bone District Health Office the prevalence of stunting in the working area of Barebbo Health Center in 2016 was 26%, and in 2017 the prevalence of stunting was 20.5%, then in 2018 the prevalence of stunting increased to 27.63% Health Department of Bone Regency, 2019).

Stunting is an irreversible outcome, most of the incidence of stunting is due to inadequate nutrition and repeated infections during the 1000 First Days of Life (HPK) (WHO, 2010). The thousand day period, which is 270 days during pregnancy and 730 days in the first life of the baby born, is a sensitive period because the effects on the baby at this time will be permanent and cannot be corrected for physical, mental, and intelligence growth (Health Ministry, 2012). Specific nutrition intervention efforts in the 1,000 First Days of Life (HPK) group were focused on Pregnant Women, Breastfeeding Mothers, and Children 0-23 months, because the most effective short-term toddler management was carried out at 1,000 HPK, where the adverse effects of nutritional problems on this 1,000 HPK period in the short term is disruption of intelligence, brain development, disruption of physical growth, and metabolic disorders in the body. Whereas in the long run the bad consequences that can arise are decreased cognitive ability and learning achievement, decreased immunity so that it is easily sick, and high risk for the emergence of diabetes, obesity, heart and blood vessel disease, cancer, stroke, and disability in old age, and the quality of work that is not competitive which results in low economic productivity (Health Ministry, 2016).

The family income level has a significant relationship with the incidence of stunting. Low economic status is considered to have a dominant influence on thin and short events in children. Parents with adequate family income will have the ability to provide all the primary and secondary needs of children. Families with good economic status also have access to better health services (Setiawan and Machmud, 2018).

Cultural systems are a part of culture which in Indonesian is more commonly called customs. The form of culture as a complex of ideas, ideas, concepts, values, norms, rules and so on. The ideas and ideas of many people who live together in a society, give life to that community. The ideas are not separated from one another, but always related, into a system, called the cultural system. The function of cultural systems is to organize and strengthen actions and human behavior (Koentjaraningrat, 1990). The purpose of this study was to determine the risk of family economic and socio-cultural risks with the incidence of stunting in children aged 0-24 months in the working area of Barebbo Health Center, Bone Regency in 2019.

METHODOLOGY

Research Design

The method used in this study was observational analytic with a case control study design. The study was conducted in the working area of Barebbo Health Center, Bone Regency, South Sulawesi Province in 2019.

Population and Sampling

The population in this study were all children aged 0-24 months who lived in the working area of the Barebbo Health Center in Bone Regency in 2019. The sample used in this study was based on the control study formula for testing hypotheses against Odds-Ratio using the Lameshow Formula and the sample size obtained 42 samples with a ratio of 1: 2, which means a large number of cases is 42 and the size of the control is 84 so that the overall sample size of the study will be 126 samples.

Data Analysis

Data analysis using STATA version 12.1 with univariate analysis to get a general picture by describing research variables, then using bivariate analysis to see the relationship or correlation between the two dependent variables and independent variables.

RESULTS

Univariate Analysis

Table 1. Distribution of Characteristics of Samples in the Barebbo Health Center Working Area in Bone Regency in 2019.

Characteristics	Study Group			
	Cases (n : 42)		Control (n : 84)	
	n	%	n	%
Sex				
Male	26	61,90	34	40,48
Female	16	38,10	50	59,52
Age (Month)				
0-5	3	7,14	22	26,19
6-11	10	23,81	33	39,29
12-17	9	21,43	15	17,86
18-23	20	47,62	14	16,67
Breastfeeding				
Yes	35	83,33	66	78,57
No	7	16,67	18	21,43
IMD (Early Breastfeeding Initiation)				
Yes	38	90,48	80	95,24
Never	2	4,76	3	3,57
Don't Know/Forget	2	4,76	1	1,19
Birth Body Length				
< 47 cm	4	9,52	8	9,52
≥ 47 cm	38	90,48	76	90,48
Birth Body Weight				
BBLR (Low Birth Weight Babies)	2	4,76	5	5,95
Normal	40	95,24	79	94,05

Source: Primary Data, 2019

Table 1 shows that the case group was 61.90% male and the female control group was 59.52%. The age group with the most stunting was the age of 18-23 months, namely 47.62% and the control group was aged 6-11 months which was 39.29%. Breastfeeding in the case group was 83.33% and breastfeeding in the control group was 78.57%. Those who did IMD in the case

group were 90.48% and in the control group who did IMD 95.24%. Then the birth length in the case group was 90.48% and the control group was 90.48%, respectively ≥47cm. The normal birth weight for the case group was 95.24% and normal birth weight in the control group was 90.48%.

Table 2. Distribution of Characteristics of Samples Based on Food Abstinance When Pregnant in the Barebbo Health Center Working Area in Bone Regency in 2019.

Characteristics	Study Group			
	Cases		Control	
	n	%	n	%
Socio Culture (Eating)				
Squids	28	66,67	24	28,57
Octopus	13	30,95	16	19,05
Shrimps	11	26,19	8	9,52
Pineapple	0	0,00	2	2,38
Crabs	9	21,43	14	16,67
Moringa Leaves	0	0,00	1	1,19
Ducks	0	0,00	1	1,19
Seaweed	18	42,86	13	15,48
Banana Bud	1	2,38	1	1,19
Stingray	1	2,38	0	0,00

Source: Primary Data, 2019

Table 2 shows that based on the distribution of characteristics of the sample based on dietary restrictions during pregnancy, social food culture during pregnancy is another taboo to eat squid, octopus, shrimp, pineapple, crab, Moringa leaf, duck, seaweed, banana heart and stingray. In the case group where there were 66.67% who had squid eating restrictions and in

the control group 28.57% had restrictions on eating squid.

The prohibition on eating squid for pregnant women has a reason that it is feared that hard babies will be born because they will come in and out like

cumulative squid eating taboos namely children born to be black like squid. Abstinance from eating octopus for pregnant women has a reason for the fingers of many children, such as octopus. Then abstinance from eating shrimp for pregnant women has the reason their children are bent like shrimp.

The prohibition on eating pineapple for pregnant women has a reason to cause a miscarriage. Abstinance from eating crabs in pregnant women has a reason that their children's fingers are less like crabs or can be fused. Abstinance from eating Moringa leaves for pregnant women has a reason for their children who are born later wrinkled. Then the taboo eating ducks has the reason that their children's fingers will be like ducks.

The prohibition on eating seaweed for pregnant women has a reason for their mother to become pregnant with wine or hydatidiform mole. The ban on eating the heart of a banana has the reason the fetus will be smaller. Then abstinance from eating stingrays has an unusual form of stingray, so it is feared that it will affect the physical form of the child conceived or the soft bones of the child.

Table 3. Relationship between birth parity and distance with the incidence of prolonged delivery at Permata Hati Makassar Mother and Child Hospital in 2018

Characteristics	Study Group			
	Cases (n : 42)		Control (n : 84)	
	n	%	n	%
Financial Status				
Low	39	92,86	61	72,62
High	3	7,14	23	27,38
Socio Culture (Food)				
High Risk	39	92,86	47	55,95
Low Risk	3	7,14	37	44,05

Source: Primary Data, 2019

The variables of this study are family economic status, and socio-cultural or dietary restrictions during pregnancy. In table 3 shows that the family economic status in the case group includes the low category, namely 92.86% and in the income control group in the low category which is 72.62%. Socio-culture (Food Culture) is included in the high-risk category, which is 92.86% in the case group and 55.95% in the control group.

Bivariate Analysis

Table 4. Distribution of Stunting Risk Factors in Children aged 0-24 Months in the Barebbo Health Center Working Area in Bone Regency in 2019.

Characteristics	Study Group				OR	CI 95%
	Cases (n : 42)		Control (n : 84)			
	n	%	n	%		
Financial Status					4,901	1,330-26,910*
Low	39	92,86	61	72,62		
High	3	7,14	23	27,38		
Socio Culture (Food)					10,234	2,850-54,940*
High Risk	39	92,86	47	55,95		
Low Risk	3	7,14	37	44,05		

Source: Primary Data, 2019

Table 3 shows the results of variable analysis The family economic status variable has the calculation of the Odds Ratio (OR) value 4,901 (95% CI: 1,330-26,910) with a lower limit and upper limit (LL-UL) value does not cover the value 1. This means that the family those who have economic status below the UMR are at risk of having children 4,901 times suffering from stunting compared to families with economic status equal to or above the UMR (Minimum Wage). Because the lower limit and upper limit (LL-UL) value does not cover the value of 1, it means that there is a significant relationship between the economic status of the family and the incidence of stunting in the working area of the Barebbo Health Center.

The results of calculation of social cultural Odds Ratio (OR) or dietary restrictions during pregnancy obtained OR values: 10.234 (CI95%: 2.850-54,940) with lower limit and upper limit values (LL-UL) did not cover the number 1. This indicates that mothers who have socio-culture (food culture) has a risk of 10.234 times stunting compared to mothers who have no dietary restrictions during pregnancy. Because the lower limit and upper limit (LL-UL) value does not include the value 1, it means that there is a meaningful relationship between social culture (food culture) and the incidence of stunting in the working area of Barebbo Health Center.

DISCUSSION

This study found that economic and socio-cultural status is a risk factor for stunting in the working area of Barebbo Health Center, Bone Regency in 2019. The results of this study indicate that factors that play a role in determining a person's health status have implications for the condition of household growth. from: family income, education, work for parents, number of family members, culture, and others. In this study socio-economic indicators can be measured through indicators of education, income, and employment status of family mothers. In this study the family economic status in the working area of Barebbo Health Center is still low where in the case group there are 92.86% of those with low economic status and in the control group there are 72.62% of those with low economic status. Economic status is a risk factor for stunting in the working area of Barebbo Community

Health Center, Bone Regency, with static results OR = 4.901 (95% CI = 1.330-26,910). The low economic status of the family will affect the quality and quantity of food consumed by the family, where the food obtained will usually be less varied and few in number, especially foods that function for child growth such as sources of protein, vitamins and minerals, thus increasing the risk of malnutrition. These economic limitations will increase the risk of stunting in children. The family's socio-economic conditions can also improve education, employment and health services, which will have a positive impact on children's nutritional status. This research is in line with research conducted in the interior area of Silat Hulu District, West Kalimantan where based on the results of statistical tests the value of OR = 24.42 (95% CI = 9,068–65,807) states that low economic status can result in stunting occurrence 4,901 times (Wahdah, Juffrie and Huriyati, 2016).

Nutrition parenting which is also a pattern of behavior is the practice of giving care by parents, grandmothers, caregivers, nurses or even neighbors and toddlers who are related to nutritional status. There are three factors that influence nutritional care, namely socio-cultural, political conditions and economic conditions. Socio-cultural nutrition during pregnancy includes abstinence from eating squid, octopus, shrimp, crabs, seaweed, stingrays, ducks, Moringa leaves, heart of banana. The prohibition on eating squid for pregnant women has a reason that it is feared that hard babies will be born because they will come in and out like cumulators, their children will turn black. Pregnant women who have a taboo belief in the food of octopus squid, shrimp, crabs, seaweed, stingrays, ducks, Moringa leaves, banana hearts will be at risk of experiencing protein deficiency (Illahi and Muniroh, 2018). In this study in the case group there were 66.67% who had dietary restrictions on squid and in the control group 28.57% had restrictions on eating squid during pregnancy. Socio-Culture (Food Culture) is a risk factor for stunting occurrence in the working area of Barebbo Health Center, Bone Regency, with the results of statistical tests obtained OR values = 10.234 (95% CI = 2.850-54,940). Nutritional needs when pregnant women increase so that dietary restrictions can exacerbate malnutrition in pregnant women. The belief that strict dietary restrictions can interfere with fetal growth. Socio-cultural nutrition when breastfeeding is next is there certain dietary restrictions for the mother. There are respondents who have restrictions on breastfeeding, namely eating sago, and chili. Food restrictions on mothers cause maternal nutrition to be less fulfilled. Maternal nutritional intake that is less will affect the health and production of mother's breast milk.

CONCLUSION

In this study it was concluded that economic and socio-cultural status or dietary restrictions during pregnancy were risk factors for stunting in the working area of Barebbo Health Center, Bone Regency in 2019. The need to increase knowledge of nutrition for the community through puskesmas and posyandu through the first 1000 days of life improvement program. It is expected that the community and health workers, especially Posyandu cadres, should be able to know earlier the incidence of stunting in children aged 0-24 months.

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