

Factors Related to the Wasting in Child Under-Five Years in the the Sungai Bilu Public Health Center Working Area 2019

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Abstract

Sungai Bilu Public Health Center report in 2018 noted that there were 24 people who received complementary feeding packages from 78 wasting cases recorded in the E-PPGBM report. The children under-five years who got this complementary feeding were indicated to experience wasting nutritional status (Z-score <-3SD) which was 30.77%. This study aims to analyze the risk factors associated with the incidence of wasting in child under-five in the Sungai Bilu Public Health Center in 2019. The design of this study was observational analytic, using a case control study research design. This research was conducted in the Sungai Bilu Public Health Center working area. The total sample in the study was 72 people. Primary Data using the 2016 Ministry of Health Nutrition Monitoring Questionnaire. The factors associated with the incidence of wasting in children under-five in Sungai Bilu Public Health Center are age, mother's education level, history of exclusive breastfeeding, history of complementary feeding and number of children. The sex factor is not related to the incidence of wasting in children under-five of Sungai Bilu Public Health Center working area. Mother's education level are the factors that most influence on the incidence of wasting in children under-five in the Sungai Bilu Public Health Center working area.

Keywords: age, mother's education level, history of exclusive breastfeeding, history of giving complementary feeding, number of children, wasting

Introduction

Children under-five years from poor families have the potential for greater malnutrition, it is estimated that more than one third of under-five deaths are due to malnutrition.¹ In 2011, around 52 million (8%) children around the world suffered from wasting, more than half of them living in South Asia.² The prevalence of wasting in South Asia is above 15%, meaning that the wasting has become a critical public health problem. According to the 2014 Global Nutrition Report (GNR) shows that Indonesia is included in 17 countries among 117

countries that have high nutritional problems in infants, one of which is wasting 12.1%.³

The Local Government has a community nutrition improvement program in Banjarmasin City where wasting children under-five years receiving additional food in 2018 have reached 100% of the target of 838 people more than in 2017 (252 people). This shows the increasing cases of wasting in the city of Banjarmasin. The children under-five years who got this complementary food were indicated to experience very thin nutritional status (Z-score <-3SD) which was 30.77%. Waluyo's research (2017) shows that the age of giving MP-ASI that is not good <6 months has a 1.35 times chance of wasting compared to the age of giving MP-ASI good at age 6 months.⁴ According to data from the annual report from Sungai Bilu health centers 2018 show that low educational level is still there which is about 34.7%.⁵ The average number of people in a family

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in Sungai Bilu Sub-District is 3.44% out of 2805 Family Heads.⁶ According to the 2018 Sungai Bilu Public Health Center Annual Report shows that there are still 34.7% of families with more than 2 children.

Materials and Method

The design of this study was observational analytic, using a case control study research design. This research was conducted in the Sungai Bilu Public Health Center Working Area. The population is all wasting children under-five years that are found in the EPPGBM data December 2019 who are domiciled in the working area of the Sungai Bilu Public Health Center who lived at the

time of the interview with 508 people. Samples taken from the existing population determined by purposive sampling. Case group are mothers with children under-five and wasting. Control was determined based on cases for one control (1:1) with the provisions of data on mothers with children under-five with normal nutritional status based on the body weight/height index with age 659 months, then matching with the closest address to the case or still in one neighborhood association area. The total sample in the study was 72 people. Primary data using the 2016 Ministry of Health Nutrition Monitoring Questionnaire. Data were analyzed using chi-square test and multiple logistic regression tests.

Findings and Discussion

Table 1. Characteristics of Respondent

Variable	Case		Control	
	F	%	F	%
Children under-five years Age				
High risk	28	77.8	11	30.6
Low risk	8	22.2	25	69.4
Gender				
High risk (male)	15	41.7	16	44.4
Low risk (female)	21	58.3	20	55.6
Mother's education level				
Low	27	75	8	22.2
High	9	25	28	77.8
History of exclusive breastfeeding				
No	23	63.9	9	25
Yes	13	36.1	27	75
History of complementary feeding administration				
Risky	24	66.7	13	36.1
No risk	12	33.3	23	63.9
Number of children				
Risky	24	66.7	9	25
No risk	12	33.3	27	75

Table 2. Bivariate Analysis Results

Independent Variable	Children under-five year wasting status						P value	OR
	Wasting		Good nutrition		Total			
	F	%	F	%	F	%		
Children under-five year age								
High risk	28	71.8	11	28.2	39	100	0.0001	7.955
Low risk	8	24.2	25	75.8	33	100		
Children under-five year Sex								
High risk (male)	15	48.4	16	51.6	31	100	1.000	.893
Low risk (female)	21	51.2	20	48.8	41	100		
Mother's education level								
Low	27	77.1	8	22.9	35	100	0.0001	10.500
High	9	24.3	28	75.7	37	100		
History of exclusive breastfeeding								
No	23	71.9	9	28.1	32	100	0.002	5.308
Yes	13	32.5	27	67.5	40	100		
History of complementary feeding administration								
Risky	24	64.9	13	35.1	37	100	0.018	3.538
No risk	12	34.3	23	65.7	35	100		
Number of children								
Risky	24	72.7	9	27.3	33	100	.001	6.000
No risk	12	30.8	27	69.2	39	100		

Relationship between age of children under-five years with wasting

Based on the results of the study, there was a relationship between the age of the child with the incidence of wasting in children under-five years in the Sungai Bilu Public Health Center. The results of this study are similar to studies conducted by Mgongo et al (2017) which states that children under-five year age is associated with wasting events (p -value = 0.0001).⁷ Devitasari's research (2018) shows that children under-five years with poor nutritional status and psychomotor development that are not in accordance with their developmental age because of the mother's ignorance of the importance of consuming nutritious food to achieve psychomotor development that is appropriate to the age of development and providing stimulation and monitoring of development that not do by old.⁸

The age groups most vulnerable to malnutrition are children who are growing up. As a child gets older the more the body needs the nutrients needed by the body to support the increasing and increasingly diverse physical activities.⁹

Relationship between the sex of children under-five with the incidence of wasting

Based on the results of the study, there was no relationship between the sex of children with the incidence of wasting in children under-five years in the Sungai Bilu Public Health Center. The results of this study are in line with research conducted by Putri (2013) which shows that there was no significant relationship between sex and wasting status, but the proportion of child wasting is slightly greater in the group of boys (15.7%) compared to the group of female children (14.8%).¹⁰ Lestari (2016) shows that the analysis of the relationship between sex and wasting shows that there was no significant relationship between sex and nutritional status of children (p value = 0.528).¹¹

Gender is related to values towards a child. Gender inequality occurs when there are different assessments between boys and girls in a community that cause boys and girls to get different treatment, different health care, and different accessibility of resources. The lack of correlation in this study can be caused due to no existence of differences in view of the value of the adopted family to the presence of a child male and female of this region, so that treatment of the family in terms of patterns of parenting, giving meal, the opportunity to

access sources of health is equal to boys and girls.

Relationship of mother's education level with the incidence of wasting in children under-five years

Based on the results of the study, there was a relationship between the level of maternal education with the incidence of wasting in children under-five years in the Sungai Bilu Public Health Center. This study is in line with Khikmah's research (2014) which states that there was a relationship between maternal education and nutritional status of children.¹² Mothers who are highly educated are more likely to make decisions to improve nutrition and health in children, besides that mothers are also the primary caregivers for children so that the level of mother's education influences the incidence of stunting in children under-five years.¹³

Relationship history of exclusive breastfeeding with the incidence of wasting in children under-five years

Based on the results of the study, there was a relationship between the history of exclusive breastfeeding with the incidence of wasting in children under-five years in the Sungai Bilu Public Health Center working area. The results of this study are in line with research conducted by Rochmawati (2016) which shows that there was a significant relationship between exclusive breastfeeding and the incidence of underweight nutrition in the work area of the Saigon and Perumnas II Public Health Center (p -value = 0.021).¹⁴ Children who get exclusive or predominant ASI have better nutritional status than partial breastfeeding or who are given additional food/drink <6 months and who have never been breastfed.¹⁵

Relationship of complementary feeding giving history with the incidence of wasting in infants

Based on the results of the study, there was a relationship between a history of breastfeeding with the incidence of wasting in children under-five years in Sungai Bilu Public Health Center. This is in accordance with research conducted by Hariani et al. (2016), that the pattern of complementary feeding, is associated with infant growth. The better the pattern of complementary feeding, the better the children under-five years growth chart.¹⁶

Food plays an important role in the growth and development of children. Because children are

growing, their needs for food are different from those of adults. Lack of nutritious food will cause growth retardation of children, so that it can cause an increase in child morbidity and mortality.¹⁷ Complementary feeding for children under-five years is nutritional supplementation in the form of complementary foods with special formulations and fortified with vitamins and minerals targeted at children under-five years group for recovery or fulfillment of nutritional status.¹⁸

The relationship between the number of children and the incidence of wasting in children under-five years

Based on the results of the study, there was a relationship between the number of children with the incidence of wasting in children under-five years in Sungai Bilu Public Health Center. The number of children under-five years in the family will affect parenting because the time and attention of the mother to the child is divided, which in turn will affect the nutritional status of the child. The number of children in families with sufficient socioeconomic conditions will result in reduced attention and affection received by children, especially if the child is too close. As for families with poor socioeconomic conditions, the large number of children will result in a lack of affection and attention to children, as well as primary needs such as food, clothing and even housing not being met. The birth distance between two babies that is too close causes the inability of the family to care for the children properly. In order for mothers to breastfeed their children during this time, an effort must be made at least 18 months to two years between the birth of one baby and the subsequent pregnancy.⁹

The most influential factor with the incidence of wasting in infants

Based on the results of the study, maternal education is the most influential factor on the incidence of wasting in children under-five years in the Sungai Bilu Public Health Center working area (Exp. B = 31.919). The results of this study are in line with Rahayu's research (2018) which shows that there was a significant relationship between maternal education and nutritional status of children (OR = 2.36). Children under-five years with less nutritional status coming from groups of mothers with less education than with a group of highly educated mothers.¹⁹

The level of education affects a person in receiving information. People with better levels of education will be easier to receive information than people with less education levels. This information is used as a provision for mothers to care for their children under-five years in their daily lives. Perception itself can be interpreted as a person's perspective on something after gaining knowledge both directly and indirectly.²⁰

Conclusion

The factors associated with the incidence of wasting in children under-five in the Sungai Bilu Public Health Center are age, mother's education level, history of exclusive breastfeeding, history of complementary feeding and number of children. The sex factor is not related to the incidence of wasting in children under-five years in the Sungai Bilu Public Health Center working area. Education mother factors are the factors that most influence on the incidence of wasting in children under-five years in the Sungai Bilu Public Health Center working area.

Ethical Clearance: Before conducting the data retrieval, the researchers conducted a decent test of ethics conducted at the Faculty of Medicine, Lambung Mangkurat University to determine that this study has met the feasibility. Information on an ethical test that the study is eligible to continue. The feasibility of the research was conducted to protect the human rights and security of research subjects.

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Conflict of Interest: The authors declare that they have no conflict interests.

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