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Analysis of Instrinsic Factors Affecting Stunting Events of Tools Aged 24-59 Months in the Region of Pulung Village, Ponorogo Regency

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ABSTRACT

Background: The research results of the 2019 Indonesian toddler nutritional status study (SSGBI) noted that the number of stunting toddlers in Indonesia currently reaches 27.67 percent. Toddlers who experience stunting increase the risk of declining intellectual abilities, inhibiting motor skills, productivity, and increasing the risk of degenerative diseases in the future.
Objective: To analyze the intrinsic factors of stunting in toddlers aged 24-59 months in the Pulung Village area, Ponorogo.
Methods: Quantitative research using a cross sectional approach. Samples were collected by means of purposive sampling technique, as many as 162 mothers of toddlers aged 24-59 months in the pulung area.
Results: The most influential intrinsic factor on the incidence of stunting in toddlers aged 24-59 months. Based on the beta value and p value, it was found that the KEK history variable had a value < i.e. 0.000 and a beta value of -.280, then the most dominant variable was the history of SEZ.
Conclusion: The most influential factor is the mother's history of KEK. In this case, it is necessary to hold socialization about the importance of maternal nutrition in an effort to prevent the occurrence of SEZ pregnant women to the catin class.

Keywords: History of ANC, History of nutritional status, History of anemia, History of LBW, History of exclusive breastfeeding

INTRODUCTION

Stunting is a chronic malnutrition condition characterized by short stature in children under 5 years old. Children who experience stunting will be seen at the age of 2 years. A child is said to be stunted if his height and body length are minus 2 from the Multicentre Growth Reference Study standard or the median standard deviation of the WHO child growth standard. (Ni'mah, 2015: 13).

The impact that occurs when a child is malnourished is an increase in morbidity (illness), mortality (death) and disability. This is a short term impact. While the long-term impact is in the form

of not achieving potential as an adult, short stature, affecting the immune system, decreasing intelligence, increasing the risk of various other diseases in adulthood (hypertension, heart disease, malignancy and other degenerative diseases). (Ministry of Health RI, 2019).

The incidence of short toddlers or commonly called stunting is an event that is being experienced by toddlers in the world today. The research results of the 2019 Indonesian toddler nutritional status study (SSGBI) noted that the number of stunting toddlers in Indonesia currently reaches 27.67 percent. This means that 6.3 million out of a population of 23 million children under five in Indonesia suffer from stunting. The number that has exceeded the maximum standard value of the World Health Organization (WHO) is 20 percent or one-fifth of the total number of children under five in a country.

Several factors that are suspected to be the cause of stunting are the mother's pregnancy history which includes the mother's posture (short), the distance between pregnancies is too close, the number of births is too many, the mother's age when pregnant is too old, the mother's age when pregnant is too young (under 20 years). risk of giving birth to babies with low birth weight, as well as lack of nutritional intake during pregnancy. Other factors are the failure to implement Early Breastfeeding Initiation (IMD), the failure of exclusive breastfeeding and the early weaning process. In addition to these several factors, socio-economic conditions and sanitation are also related to stunting (Kemenkes RI 2018). Poor parenting, especially in the behavior and practice of feeding children, is also the cause of stunting when the mother does not provide adequate and good nutritional intake. (Ministry of Health RI 2018)

To prevent this, eat more nutritious foods that come from local fruits and vegetables from the time you are in the womb. Then the nutritional adequacy of adolescent girls is also needed so that when she is pregnant as an adult she is not malnourished. In addition, it requires attention to the environment to create access to sanitation and clean water.

The purpose of this study was to analyze the history of maternal ANC, history of nutritional status, history of maternal anemia during pregnancy, history of birth weight, history of exclusive breastfeeding, history of complementary feeding and intrinsic factors that most influence the incidence of stunting in toddlers aged 24-59. month.

METHODS

The type of research used in this research is an analytical survey research with a quantitative approach using a cross sectional approach. The independent variables of this study were the history of ANC, maternal nutritional status, history of anemia, low birth weight, exclusive breastfeeding, complementary feeding and the dependent variable of this study was the incidence of stunting. The population used in this study were all mothers of toddlers aged 24-59 months, namely 271 in September 2020 at 4 posyandu the sample size in this study was 162 mothers of toddlers aged 24-59 months. Sampling used a purposive sampling technique. This research was conducted in the working area of Pulung village, Pulung sub-district, Ponorogo district from March to April 2021. The instruments used were questionnaires and the MCH Handbook. Data analysis used logistic regression test.

RESULT

Univariate Analysis

Table 1 Frequency Distribution of Intrinsic Factors Affecting Stunting Incidence in Pulung Village, Ponorogo 2021

Variable	Frequency Variable (n)	Percent (%)
Gender		
Woman	77	47,5
man	85	52,5
LBW history		
LBW	19	11,7
Not LBW	143	88,3
ANC History		
appropriate ANC	149	92
ANC does not match	13	8
KEK history		
KEK	39	24,1
No KEK	123	75,9
History of ANEMIA		
Anemia	25	15,4
No Anemia	137	84,6
Types of solid food		
In accordance	132	81,5
It is not in accordance with	30	18,5
Complementary Frequency		
In accordance	128	79
It is not in accordance with	34	21
Number of complementary foods	128	79
In accordance	34	21
It is not in accordance with		
Stunting		
Stunting	12	7,4
No Stunting	150	92,6

The table shows that the gender of children under five is more male or 52.5%, and has a history of LBW as much as 11.7%. Most of the respondents had a history of giving complementary foods in terms of type (81.5%), frequency (79%), and the number of complementary foods 79%) at the age before 24 months. The toddlers studied were 7.4% stunted or 12 toddlers. From mothers of children under five years old, the majority of ANC history was appropriate (92 %), which showed a history of KEK as many as 24.1% and those who showed a history of anemia were 15.4%.

Bivariate Analysis

From the results of statistical tests, it was found that the p value < 0.05 was the frequency of complementary feeding (0.000), the number of complementary foods (0.000), history of exclusive breastfeeding (0.046), history of low birth weight (0.037), history of KEK (0.000), so it can be concluded that there is an influence on the incidence of stunting in children under five aged 24-59 months in the Pulung village area.

Based on the statistical test, it was obtained that the p value of history of anemia was (0.564) and history of ANC (0.779) then Ho was accepted which means it did not affect the incidence of stunting in children under five aged 24-59 months in the Pulung village area.

Based on research conducted by Sholikin (2015), states that the quality of ANC is lacking and ANC visits are at risk of having a significant relationship with the incidence of low birth weight babies

(LBW). Poor ANC quality and ANC visits are at risk of having a 6 times greater risk of giving birth to low birth weight babies because LBW is a factor that plays a role in the incidence of stunting.

Prevention of stunting should be carried out since the preconception period and during pregnancy to prevent undernutrition status during pregnancy and preconception. ANC visits that are carried out regularly can detect early pregnancy risks that exist in a mother, especially those related to nutritional problems. In this study, it was found that mothers who visited ANC had no effect on the incidence of stunting. Non-standard ANC visits were seen from the fact that there were still mothers who came to check their pregnancy with health workers after four months and seven months of pregnancy. The types of ANC services at non-standard visits that the mother did not get during pregnancy were height checks and blood tests (hemoglobin).

Chronic lack of energy can make pregnant women do not have adequate reserves of nutrients according to physiological needs during pregnancy. Mothers who experience nutritional disorders during pregnancy will make blood volume decrease and cause inadequate cardiac output. So that blood flow to the placenta decreases and makes the size of the placenta smaller than usual. A smaller placenta will reduce the supply of nutrients from the mother to the fetus which in turn results in stunted fetal growth (Soetjiningsih & Ranuh, 2013) although basically the genes in fetal cells have the potential to grow normally.

The growth of the child has started since in the womb, the nutrition of pregnant women, especially in the final trimester of pregnancy will determine the growth of the fetus. The incidence of CED in pregnant women illustrates the lack of energy and protein in the daily diet, which is followed by a lack of other nutrients, including iron (Darlina, 2013). Pregnant women with poor nutritional status will be at risk of suffering from anemia 3 times than pregnant women with good nutritional status (Marlapan et al., 2013).

In this study, there were 14 toddlers with a history of low birth weight but not stunting (9.3%), this could be because it was possible during the critical window period for children to get optimal nutrition so that they could boost their growth. The windows critical period is a period of brain development or intelligence and rapid body growth in children, optimal nutritional intake is a direct factor of nutritional problems in children, a child will grow well if given adequate intake according to his needs (Johnson & Brookstone, 2012)

Ideally a child who is exclusively breastfed until the age of 6 months. After the age of 6 months and over, children begin to receive complementary foods (MP-ASI) and begin to increase their gross motor development so that children need more nutrients. However, some problems that arise are that toddlers find it difficult to eat accompanied by the quality and quantity of breast milk which decreases with increasing age, so that up to 24 months of age can be considered as a period of adaptation to be able to consume foods that are in accordance with nutrients. After toddlers are weaned, at the age of 24 months and over toddlers will begin to be able to adapt to consuming more food than before weaning. Therefore, nutritional problems including stunting are not experienced by many children aged more than 24 months (Setyawati VAV, 2018).

Toddlers who received monotonous complementary foods (MPASI) were 3.2 times more likely to experience stunting compared to toddlers who received varied complementary foods. The variety of food in question is the variety of food ingredients given to toddlers. Food diversity is one of the principles of balanced nutrition to meet the nutritional needs of toddlers which will later be needed to optimize the growth and development of toddlers. The variety of types of food provided can also help increase appetite. The variety of types intended can be in the form of rice, side dishes, vegetables, fruit and milk given to toddlers. This type of food is rich in nutrients that play an important role in growth (Depkes, 2011).

The problem of malnutrition in pregnant women that is still the focus of attention, one of which is KEK pregnant women. Lack of energy and protein during pregnancy is a result of a lack of intake of macronutrients (carbohydrates, protein and fat) and micronutrients (vitamin A, vitamin D, folic acid, iron, zinc, calcium, and iodine) since before puberty. pregnancy to pregnancy (Kemenkes RI, 2017).

CONCLUSION

Factors that cause stunting are not only maternal factors but also toddler and environmental factors. Several factors that are suspected to be the cause of stunting are the mother's pregnancy history

which includes the mother's posture (short), the distance between pregnancies is too close, the number of births is too many, the mother's age when pregnant is too old, the mother's age when pregnant is too young (under 20 years). risk of giving birth to babies with low birth weight, as well as lack of nutritional intake during pregnancy. Other factors are the failure to implement Early Breastfeeding Initiation (IMD), the failure of exclusive breastfeeding and the early weaning process. In addition to these several factors, socio-economic conditions and sanitation are also related to stunting (Kemenkes RI 2018). Poor parenting, especially in the behavior and practice of feeding children, is also the cause of stunting when the mother does not provide adequate and good nutritional intake.

To prevent this, eat more nutritious foods that come from local fruits and vegetables from the time you are in the womb. Then the nutritional adequacy of adolescent girls is also needed so that when she is pregnant as an adult she is not malnourished. In addition, it requires attention to the environment to create access to sanitation and clean water.

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