

## The Relationship Between Mother's Knowledge And Nutritional Status With Toddlers' Growth In The Working Area Of Jagong Puskesmas Central Aceh District, 2020

**Juliana Munthe**

STIKes Mitra Husada Medan, Indonesia

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### ABSTRACT

Based on the results of Riskesdas (2018), it can be seen that from 82,661 toddlers who were weighed nationally, there was a prevalence of underweight as much as 19.6%. The working area of the Jagong Health Center, Central Aceh Regency, was used as the research location, referring to the data at the Puskesmas and it was recorded that 87 toddlers (35.7%) had nutritional status below the red line. This type of research is observational with a cross sectional approach. The population in this study were all toddlers in the Jagong Health Center Work Area, Central Aceh Regency in 2021, which were 284 people. Samples were taken by simple random sampling method as many as 48 people, analysis technique using chi square. The proportion of toddlers whose growth and development is not normal is 30 people (62.5%) more than toddlers whose growth and development is normal, which is 18 people (37.5%). There is a significant relationship between mother's knowledge and nutritional. It is recommended to health workers at the Jagong Health Center to hold an outreach program for mothers who have toddlers about the importance of efforts to improve nutrition for families, especially toddlers.

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#### **E-mail:**

[munthejuliana1986@gmail.com](mailto:munthejuliana1986@gmail.com)

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## 1. Introduction

Toddlers are the period when children start walking and are the greatest period in growth and development, namely at the age of 1-5 years. This period is an important period for the development of intelligence and intellectual growth. Toddlers are divided into two, namely toddlers and toddlers, toddlers are children aged one to three years and toddlers are children aged three to five years (Anita, 2019). Republic of Indonesia Minister of Health Regulation No 24 of 2018 concerning Child Health Efforts Article 1 where toddlers are children aged 12 months to 59 months or ages 1 to 5 years.

At this time toddlers (under five years) as the nation's next generation who are expected to become quality human resources in the future require special attention. Age under five years is the age of formation of human resources both in terms of physical growth and intelligence (Handayani, 2018).

Measuring body weight and height/length as part of monitoring toddler growth is an important activity in supporting efforts to improve nutrition, detect interventions for growth disorders, and as an educational tool. So far, the problem of the quality of Posyandu weighing data has often been questioned because the data is very limited (Indriaty, 2017). Every parent certainly wants their child to experience an optimal growth and development period, where the achievement of the best growth and development is in accordance with the genetic potential that exists in the child. This can be achieved if the basic needs of children (sharpening, caring, fostering) are met. The basic needs of children that must be met include faith and piety, attention, affection, nutrition, health, respect, care, a sense of security/protection, participation, simulation, and education. These basic needs must be met early, even from the time the baby is in the womb (Nursalam, 2015).

Aceh Province is one of the provinces with a high prevalence of malnutrition in Indonesia. It is estimated that malnutrition is 7.8%, while undernutrition is 13.5% so that the total malnutrition and undernutrition is 21.4%. It is targeted to reduce nutritional problems by 6% during the 2011-2015 period to be able to achieve the 2015 MDGs target of 15.5%. For this reason, hard efforts and synergy are needed with all stakeholders and all levels of society to work hand in hand to overcome nutritional problems in North Sumatra Province (North Sumatra Health Office, 2016).

The results of the 2015 MDGs achievement report show that the most important causes of infant and under-five mortality are neonatal problems (asphyxia, low birth weight, and neonatal infections), infectious diseases (diarrhea and pneumonia), and nutritional status problems (malnutrition and malnutrition). not enough). Nutritional problems, especially in toddlers, are a big problem because they are closely related to general health indicators such as high morbidity and mortality rates of infants and toddlers. The problem of malnutrition is very common in children, especially toddlers, because toddlers are experiencing a very rapid growth process so that they require relatively large quantities of nutrients and higher quality. The toddler group is also a nutritionally vulnerable group, namely the community group that is most prone to suffering from nutritional disorders when a community lacks food supplies (Soediaoteama, 2019). The aspect of growth and development in toddlers today is one aspect that is seriously considered by health experts, because it is an aspect that explains the process of forming a person, both physically and psychosocially.

Growth is an increase in physical size (anatomy) and body structure. While development is the increase in the ability and structure / function of the body which is more complex in an orderly pattern. To find out how a child's growth and development pattern is, their height must be measured regularly at least once a year. For the Puskesmas or Posyandu it is expected that not only weigh the child's weight, but also measure it to assess whether growth is normal. That way parents who encounter irregularities can immediately consult a doctor (Erfandi, 2019).

Based on the World Health Organization (WHO) prevalence of undernutrition grouping, Indonesia in 2004 was classified as a country with a high malnutrition status because 5,119,935 of 17,983,244 Indonesian toddlers (28.47%) belonged to the undernourished and severe malnutrition group. The state of malnutrition in Central Java is increasing from year to year. In 2005 it was 1.03% of the total population, in 2006 there were 9163 toddlers and in 2007 there was an increase of 15,980 toddlers or 2.10%. According to the Food and Nutrition Alert System Team (SKPG) revealed that 80 children under five in Central Aceh District are vulnerable to suffering from malnutrition. Tatik Suyarti stated that the weight of the 80 children under five was below normal or often referred to as below the red line (BGM). He also revealed that of the 93,124 toddlers in Central Aceh District, 776 of them or 0.64% of their body weight were below the red line. Out of 776 toddlers, 80 of them are most vulnerable to suffering from malnutrition with indications that their weight is far from average (Joyomartono, 2015).

Based on the results of Riskesdas (2018) it can be seen that of the 82,661 children under five who were weighed nationally, there was a prevalence of underweight of 19.6%, consisting of 5.7% malnutrition and 13.9% malnutrition. This data is still far from the expectations of the 2018 SDGs for the prevalence of malnutrition - undernutrition, which is 17%. In Indonesia, it is recorded that there are 18 provinces that have a prevalence of malnutrition - less than 21.2% - 33.1%, some of which are NTT, North Sumatra, Aceh and Jambi (Ministry of Health RI, 2017).

It is estimated that more than 200 million children under five in developing countries fail to reach their optimal development potential due to problems of poverty, malnutrition or an unsupportive environment, thus affecting children's cognitive, motoric, emotional and social development. With the number of toddlers reaching 10% of Indonesia's population, monitoring the growth and development of preschool children is very important to note because it involves the quality of the nation's future generation. The life of children, under the age of five, is a very important part. This age is the cornerstone that shapes the future of children's health, happiness, growth, development and learning outcomes in schools, families, communities and life in general. The coverage of health service indicators for children under five in Indonesia in 2019 was 70.12%, which had not met the Strategic Plan target for 2019 of 83%. The achievement of this indicator has also decreased compared to 2018 which amounted to 73.52% (Ministry of Health RI, 2020)

The Ministry of Health's Strategic Plan (Renstra, 2015-2019) states that apart from weighing, growth is also seen by measuring the length of a toddler's body. The nutritional status of the

measurement of body length usually shows the problem of poverty or parenting in toddlers, causing toddlers to be short (stunting). In Plans The development of the 2010-2014 National Medium Guarantee (RPJMN) said that the priority for improving community nutrition was to reduce the stunting rate to 32%, but the results of Riskesdas (2018) found that the stunting rate reached 37.2%, of which 18.0% was in the category very short and 19.2% in the short category (Ministry of Health, 2020).

Every child born carries a number of potentials. This potential will be able to develop optimally if it is developed early through fulfilling health needs, adequate nutrition, appropriate parenting services (Zaviera, 2018). Children as individuals may not be able to develop without the help of others. And a child's life can go on, if he is with other people. It is proven that children can enter the outside world if children are brought or entered by and together with other humans. That is why knowledge is needed about the growth and development of toddlers from the child's family (Kartono, 2017). The first social environment known to children is the family. In this case parents are the most important people for children besides siblings, grandparents, and playmates. That's why everything that is experienced and taught to the family becomes the basis for the formation of children (Paley, 2013).

The working area of the Jagong Health Center in Central Aceh Regency was used as a research location, referring to the existing data at the Puskesmas and it was recorded that 87 toddlers (35.7%) had nutritional status below the red line (BGM). From the records of each Posyandu, the 87 toddlers then received nutritional assistance in the form of milk and food (biscuits) from BKM (Community Welfare Assistance) "Puspa Sejahtera". Assistance in the form of nutritional intake, milk and food (biscuits) is considered very helpful for mothers whose economic level is classified as low, as well as anticipating that the nutritional status of toddlers does not get worse.

Detection of growth and development begins by measuring and using a standard growth curve. It is hoped that, by assessing growth and development patterns and carrying out certain analyzes and examinations, it can be distinguished whether growth and development disorders are pathological or not. The ups and downs of the number of children under five who suffer from growth retardation in an area can be immediately seen in a short period of time (months) and can be investigated further why and plans are made to take countermeasures as soon as possible (Soetjiningsih, 2015).

An initial survey conducted in the working area of the Jagong Health Center in Central Aceh District on 10 mothers with toddlers found that 7 people (70%) had insufficient knowledge about the growth and development of their toddlers and 3 people (30%) had poor nutritional status so that this may be what causes the growth and development of the toddler to be disrupted, so it is necessary to conduct research entitled The Relationship between Mother's Knowledge and Nutritional Status with the Growth and Development of Toddlers in the Work Area of the Jagong Health Center, Central Aceh District in 2021

## 2. Method

This type of research is observational because experiments are not carried out. Research design is a strategy to create the expected research objectives and acts as a research guide or role model throughout the research process. The research design used is correlational analysis with a cross-sectional approach to find out the relationship between maternal knowledge and nutritional status with the growth and development of toddlers in the working area of the Jagong Health Center, Central Aceh Regency in 2021. The population is a generalized area consisting of objects or subjects that have certain quantities and characteristics determined by researchers and studied and then drawn conclusions (Hidayat, 2017). The sample is part of the number and characteristics possessed by the population. The sample in this study were some toddlers in the Work Area of the Jagong Health Center, Central Aceh District in 2021. The samples were taken using the simple random sampling method by fulfilling the inclusion and exclusion criteria, namely 48 people. Bivariate analysis was carried out to find out whether there is a relationship or correlation between the two variables ( Notoatmodjo, 2017).

Bivariate analysis in this study is to determine the relationship between the two variables which include the independent variable and the dependent variable. In this study, the bivariate

analysis used was the Chi Square test.

### 3. Result and Discussions

#### 3.1 Univariate analysis

The research entitled *The Relationship between Mother's Knowledge and Nutritional Status with the Growth and Development of Toddlers in the Work Area of the Jagong Health Center in Central Aceh District in 2021* took a sample of 48 people. The description of the research results for each variable includes a history of the nutritional status of the toddler, the level of knowledge of the mother about nutrition and the growth and development of the toddler.

#### 3.2 Mother's knowledge level about nutrition

The distribution and frequency of the level of knowledge of parents of toddlers in the Working Area of the Jagong Health Center in Central Aceh Regency can be seen in the following table:

**Table 1.**  
Frequency Distribution of Knowledge Levels of Parents of Toddlers in the Work Area of the Jagong Health Center in Central Aceh District in 2021

No.	Knowledge	Amount (n)	Persentase (%)
1.	False	28	58,3
2.	Right	20	41,7
	Total	48	100,0

Based on the table above, it can be seen that the proportion of toddlers whose parents have a low level of knowledge is 28 people (58.3%) more than toddlers whose parents have a low level of knowledge, namely 20 people (41.7%).

#### 3.3 Nutritional Status of Toddlers

The distribution and frequency of the characteristics of toddlers based on their nutritional status are categorized into the first, malnutrition status, the second, normal nutrition, and the third, poor nutritional status.

**Table 2.**  
Distribution of the Frequency of Nutritional Status of Toddlers in the Work Area of the Jagong Health Center in Central Aceh District in 2021

No.	Nutrition	Amount (n)	Persentase (%)
1.	Normal	20	41,7
2.	False	28	58,3
3.	Right	0	0
	Total	48	100,0

Based on the table above, it can be seen that the proportion of children under five with poor nutritional status was 28 people (58.3%) more than those with normal nutritional status (41.7%) and severe nutritional status (58.3%).

#### 3.4 Growing Toddlers

The distribution and frequency of growth and development of toddlers in the Working Area of the Jagong Health Center in Central Aceh Regency in 2021 can be seen in the following table.

**Table 3**  
Distribution of the Frequency of Growth and Development of Toddlers in the Work Area of the Jagong Health Center in Central Aceh Regency in 2021

No.	Growt Developmment Toddler	Amount (n)	Persentase (%)
1.	Upnormal	30	62,5
2.	Normal	18	37,5
	Total	48	100,0

Based on the table above, it can be seen that the proportion of toddlers whose growth and development is not normal, namely as many as 30 people (62.5%), is more compared to toddlers who have normal growth and development, namely as many as 18 people (37.5%).

### 3.5 Bivariate Analysis

The bivariate test in this study used the Chi Square Kumus, where the test is used to determine the relationship between knowledge and nutritional status with the growth and development of toddlers in the Jagong Health Center Work Area, Central Aceh District in 2021.

- a. Relationship between mother's level of knowledge and growth and development Jagong Toddlers in Central Aceh District in 2021

**Table 4.**  
Relationship between Knowledge Level and Toddler Development in the Working Area of the Jagong Health Center

Knowledge	Growt Developmment Toddler				Amount		p-value
	Upnormal		Normal		N	%	
	n	%	n	%			
False	26	92,9	2	7,1	28	100	0,000
Right	4	20,0	16	80,0	20	100	
Amount	30	62,5	18	37,5	48	100	

From the table above it can be seen that the growth and development of abnormal toddlers is more in toddlers who have mothers with less knowledge, namely 26 people (92.9%) compared to toddlers who have mothers with good knowledge, namely 4 people (20, 0%). While normal growth and development are more common in toddlers who have mothers with a good level of knowledge, namely 16 people (80.0%) compared to toddlers who have mothers with less knowledge, namely 2 people (7.1%).

From the results of the chi-square statistical test, it obtained a value of  $p = 0.000$  ( $p < 0.05$ ), so it can be concluded that there is a significant relationship between mother's knowledge and toddler growth and development in the working area of the Jagong Health Center, Central Aceh District in 2021.

- b. Relationship between Nutritional Status and Growth and Development of Toddlers

**Table 5.**  
Relationship between Nutritional Status and Growth and Development of Toddlers in the Work Area of the Jagong Health Center

Nutrition	Growt Developmment Toddler				Amount		p-value
	Upnormal		Normal		n	%	
	n	%	n	%			
False	27	96,4	1	3,6	28	100	0,000
Right	3	15,0	17	85,0	20	100	
Amount	30	62,5	18	37,5	48	100	

From the table above it can be seen that the growth and development of children with abnormal nutritional status is more common in toddlers who have less nutritional status, namely 27 people (96.4%) compared to children with normal nutritional status, namely 3 people (15.0%). Meanwhile, normal growth and development were more common in toddlers who had normal nutritional status, namely 17 people (85.0%) compared to toddler mothers with poor nutritional status, namely 1 person (3.6%). From the results of the chi-square statistical test, it obtained a value of  $p = 0.000$  ( $p < 0.05$ ), so it can be concluded that there is a significant relationship between nutritional status and the growth and development of toddlers in the working area of the Jagong Health Center, Central Aceh District in 2021.

### 3.6 Discussion

From the results of the study it was found that the growth and development of abnormal toddlers was more in toddlers who had mothers with less knowledge, namely 26 people (92.9%) compared to toddlers who had mothers with good knowledge, namely 4 people (20.0%) ). Meanwhile, normal growth and development were more common in toddlers who had mothers with good knowledge, namely 16 people (80.0%), compared to toddlers who had mothers with less knowledge, namely 2 people (7.1%).

Analysis of the relationship between mother's knowledge and toddler's growth, obtained a p value  $<0.05$ , which is 0.000. This proves that mother's knowledge is related to toddler growth. Mother's knowledge level is lacking due to the absence of clear information regarding nutritional needs for health. Mothers are not clear about what staple food ingredients can be replaced with other food ingredients that have the same nutritional value. This replacement for food is adjusted to the income (money) they receive from their husband's income. So when they serve food with a makeshift menu without understanding its nutritional value.

This is in accordance with the opinion of Akhmad Djaeni (2017) that good knowledge will cause a person to be able to prepare a good menu for consumption. The more knowledge a person has, the more he will take into account the type and amount of food obtained for consumption and the nutrients consumed will affect a person's growth.

From the results of the study it was found that the growth and development of abnormal toddlers was more in toddlers who had poor nutritional status, namely 27 people (96.4%) compared to children with normal nutritional status, namely 3 people (15.0%). While normal growth and development are more common in toddlers who have normal nutritional status, namely 17 people (85.0%) compared to toddler mothers with poor nutritional status, namely 1 person (3.6%)

Analysis of the relationship between the history of nutritional status and the growth of children under five obtained a p value  $<0.05$ , namely 0.000. This proves that a history of nutritional status is related to the growth of children under five. From the results of observations in the field, the nutritional status of children under five is in the less nutritious category. Feeding toddlers follows the pattern of family food consumption, where the pattern of feeding toddlers must be varied and contain enough nutrients to support their growth. In accordance with the theory that nutritional status is one of the factors that determine the quality of human resources and quality of life. Therefore the nutritional status program aims to improve the nutritional quality of food consumption in order to improve the nutritional status of the community (Deddy Moechtadi, 2015).

According to the Ministry of Health (2018) in a state of good nutrition and healthy (balanced) a child's growth will be normal. Conversely, if the child is in a nutritionally unbalanced state, then the child's growth will be disrupted, such as the child will be thin, short or fat. Nutrition is a very important part of growth and development. This is as revealed by Soetjningsih (2015), that one of the factors that influence the growth and development of children is a biological factor where one of them is nutrition.

The rapid growth of brain tissue in children occurs at the age of the baby up to 2 years. At the age of 2 years the child's brain size reaches 80% of the size of an adult's brain. Furthermore, the brain will develop with slower development. Brains that do not develop optimally will affect cognitive development in children. Cognitive development includes the child's ability to understand the world through his senses, motor skills and logical and abstract thinking processes. Good nutrition is needed during the growth and development of the brain, so that the brain can develop optimally, so that children have optimal cognitive development (Soetjningsih and Ranuh, 2017).

Children who suffer from malnutrition after reaching adulthood will not be as tall as they should be, as well as underdeveloped muscle and cognitive tissues (Sutarta, 2018). Therefore, the nutritional status in toddlers needs to get serious attention from parents, because malnutrition at this time will cause irreversible damage and can have an impact on brain development.

#### **4 Conclusion**

The proportion of toddlers whose parents have a low level of knowledge is 28 people (58.3%) more compared to toddlers whose parents have a low level of knowledge, namely 20 people (41.7%) The proportion of toddlers with malnutrition status is 28 people (58.3%) more compared to normal nutritional status (41.7%) and severe nutritional status (58.3%). The proportion of children under five whose growth and development is not normal is as many as 30 people (62.5%) more than with toddlers with normal growth and development, namely as many as 18 people (37.5%). It is suggested to health workers at the Jagoong Health Center to hold an counseling program for mothers who have toddlers regarding the importance of efforts to improve nutrition for families, especially toddlers. Mothers who have toddlers are expected to actively participate in weighing activities at the Posyandu so that the growth and development of toddlers can be

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monitored every month. Collaboration of all parties (Government, Health Center cadres, Posyandu cadres, mothers with toddlers, and the community) is further enhanced to support each other in improving the health status of toddlers.

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