

# **FAMILY CHARACTERISTICS, EATING PARENTING AND TYPES OF DISEASES WITH TODDLER NUTRITIONAL STATUS (HEALTH STUDY AT DEWANTARA HEALTH CENTER OF NORTH ACEH REGENCY)**

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**Keywords:** Parenting, Types of Diseases, Toddlers and Nutritional Status.

**Abstract:** This study discusses the relationship of family characteristics, parenting and types of diseases with the nutritional status of toddlers in the Dewantara Health Center of North Aceh Regency. The purpose of this study was to find out the relationship of maternal characteristics, parenting and types of diseases with the nutritional status of toddler patients in the Dewantara Health Center of North Aceh Regency in 2017. This study uses a quantitative approach with this type of observational research with a *cross sectional* design with the entire population of toddlers who came during the study at Dewantara Health Center. Sampling technique using *clusters* where data collection uses kuesioner and analyzed using chi square test. The results showed that among the variables related to nutritional status were obtained variables of family characteristics (maternal knowledge, toddler work, family income), parenting and types of diseases. The results of the multivariate test for the most dominant variable related to the nutritional status of toddlers in the multivariate analysis were family income variables ( $p=0.002$  Exp ( $\beta$ )=6,380 95%CI 2,009-20,257) where family income <Rp.2,500,000 was 6 times more likely to experience less nutritional status than family income >Rp.2,500,000.

## **1 INTRODUCTION**

Nutritional status is the state of the body as a result of food consumption and the use of nutrients that are distinguished from poor, less, good, and more nutritional status. Classically the word nutrition is only associated with the health of the body, namely to provide energy, build, and maintain body tissues, and regulate the processes of life in the body. Currently the word nutrition has a broader understanding in addition to health, nutrition is associated with a person's economic potential, because nutrition is related to brain development, learning ability and work productivity. The country of Indonesia is now building, nutritional factors in addition to other factors are considered important to spur development, especially related to the development of quality human resources (Almatsier, 2011).

Nutritional problems are essentially public health problems, but the response cannot be done with

medical approaches and health services alone. The cause of the onset of nutritional problems is multifactor, therefore the countermeasures approach must involve various related sectors. Nutritional problems arise due to food security problems at the household level, namely the ability of households to obtain food for all its members (Supriasa *et.al* 2012).

Malnutrition is measured based on children developing with poverty, which is an important indicator for monitoring health and nutritional status in society. In 2013, 17% or 98 million children under five years of age in developing countries were malnourished (low weight by age based on WHO standards). The highest prevalence was in South Asia at 30%, followed by West Africa at 21%, Oceania and East Africa at 19%, Southeast and Central Africa at 16%, and South Africa at 12% (WHO, 2014).

Although the overall proportion of malnutrition in Asia is close to the MDG's target figure, the average incidence of malnutrition continues and



becomes very high in South Asia by 30%. This is related to a large population, which means the most malnourished is in toddlers living in South Asia (53 million in 2013). According to WHO data (2014) countries in the South Asian region that have the highest incidence of malnutrition are India 43.5% (2006), followed by countries such as Bangladesh 36.8% (2011), Afghanistan 32.9% (2011), Pakistan 31.6% (2013). For countries in Africa with a high proportion of which are Niger 37.9% (2012), Nigeria 31% (2013), Chad 30.3% (2010).

Public health problems are taken seriously when the prevalence of malnutrition is less between 20.0-29.0%, and is considered a very high prevalence when  $\geq 30\%$ . In 2013, the prevalence of malnutrition-less in children under five nationally was 19.6%, meaning the severe-less nutritional problem in Indonesia is still a near-high prevalence of public health. Among the 33 provinces in Indonesia, 18 provinces have a prevalence of malnutrition-less than the national prevalence rate which ranges from 21.2% to 33.1%. The province with a very high prevalence is NTT 33.1% followed by West Papua 32%. While Aceh Province is the seventh province for the prevalence of malnutrition-less by 26.3% (Risksdas, 2013).

One of the health problems in Indonesia is the death of children under the age of five years (toddlers). The death rate of toddlers in developing countries, especially Indonesia, is still quite high. One of the prominent causes is due to poor nutritional conditions (WHO, 2011). Undernutrition is one of the nutritional problems in Indonesia caused by several factors including the amount of quality food intake, environmental factors, education level, socioeconomics, and the presence of infectious factors (diseases) (Renstra Kemenkes, 2015-2019).

The direct causes of malnutrition are unbalanced food intake and infectious diseases. As for indirect causes including insufficient food supplies, inadequate child care, inadequate sanitation / basic health services. This is due to poverty, income, lack of education, knowledge and skills. While the root cause of malnutrition is the economic, political and social crisis (UNICEF, 1998 in Baliwati 2010). Nutritional status that is influenced by the input of nutrients is indirectly influenced by several factors, including family characteristics. Family characteristics, especially mothers, are related to the growth and development of children. The characteristics of the mother also determine the nutritional condition of the child including the age of the mother, education, the status of the mother's

work and the mother's parity (Ministry of Health, 2000).

Nutritional deficiencies in toddlers usually occur due to several factors, including lack of the amount of nutrients consumed, due to a disease so that the nutrients consumed fail to be absorbed and used by the body. Poor parenting patterns, and inadequate health environmental conditions (Asydhad, et al, 2006). According to Herman Sudiman (2004) in Zumroti (2010) the intake and nutritional state of toddlers are influenced by family parenting patterns, because in toddlers are still dependent on getting food.

Cases of undernutrition need to be of particular concern because they can hinder a child's physical and mental development. Undernourished toddlers have a reduced risk of intellectual ability, productivity and an increased risk of degenerative diseases in the future. This is because children under five with less nutrition also tend to be more susceptible to infectious diseases, as well as children who experience infection are susceptible to nutritionally underprivileged status (BPPK, 2013). Socioeconomic conditions are one of the important factors that affect nutritional status. If socioeconomic conditions are good then nutritional status is expected to be better. The nutritional status of children under five will be closely related to the socio-economic conditions of the family (parents), including parental education, parental work, number of children of parents, knowledge and parenting of the mother and conditions of the economy of the elderly as a whole (Supariasa, 2012).

Based on the results of uswatun hasanah research (2013) parenting is the most dominant factor in the nutritional status of toddlers with a younger maternal age which means mothers with poor eating less well. They are 27 times more likely to be undernourished in their toddlers than mothers who do good parenting. While mothers who have good nutritional status of toddlers are generally mothers with advanced education levels and good nutritional knowledge. According to data from the Monitoring of Nutritional Status (PSG) reported cases of toddlers with malnutrition who received treatment as many as 308, where men 167 people and women 141 people. In North Aceh Regency, of the reported number of toddlers as many as 56,405, only 52,636 toddlers were weighed. Reported cases of toddlers with malnutrition who received treatment amounted to 104, where men 59 people and women 45 people (Aceh Health Profile, 2015).



Dewantara district is one of the districts in North Aceh province. This district is a sub-district with a percentage of the population mostly livelihoods of farmers / fishermen (60%), traders (12%), workers (10%), and others. Because of the characteristics of the family, one of which is family income and wrong eating patterns in toddlers, this will have a relationship with the nutritional status of toddlers, which are commonly obtained nutritional status of toddlers less. Which will easily affect the toddler with the disease. Infectious diseases will be easily infected in toddlers with nutritional status.

The results of sari 2010 research, in North Aceh itself, in addition to mothers, grandmothers also play a role in providing food to toddlers. Toddler feeding habits and improper and unnoticed parenting such as lack of nutritious feeding and early feeding in toddlers. This is due to the lack of knowledge from the mother of the toddler. Feeding too early can cause digestive disorders such as diarrhea, vomiting, and difficulty defecating that can affect the nutritional status of the baby (Hayati, 2009).

According to the results of the preliminary survey, data obtained data on the Nutritional Status of Puskesmas Dewantara in December 2016, obtained toddlers with nutritional status of less than 32 people. And in January 2017 to 31 toddlers with nutritionally undernourished status. In December 2016 there were the most cases of undernourished toddlers in Bangka Jaya village with 10 people, followed by Uteun Geulinggang village with 5 people. While in January 2017 also the most cases of undernourished toddlers in Bangka Jaya village and Uteun Geulinggang village as many as 7 people. Most of the residents of Bangka Jaya village livelihoods, namely farmers and villagers of Uteun Geulinggang, are engaged in services. Based on the data above, researchers are interested in conducting research on family characteristics, parenting and types of diseases with the nutritional status of toddlers in the Dewantara North Aceh Health Center in 2017.

## 2 RESEARCH METHODS

This type of research is survey research. This study uses a quantitative approach with a type of *observational* research with *across sectional study* design where independent variables and dependent variables are measured at the same time. The location of this study was carried out at the North Aceh Regency Council Health Center in 2017. The selection of places was carried out with consideration in The Dewantara Health Center is

one of the Health Centers in North Aceh Regency which has the most cases, namely as many as 31 undernutrition toddlers in January 2017. The study was conducted from January to June 2017.

For the population in this study are all toddlers who came to weigh in the North Aceh Regency Council Health Center in January 2017 as many as 577 people. Samples in this study as many as 82 people with *cluster* techniques that are sampling by group, to get a representative sample then taken samples from each village by *cluster* or group, from 15 villages then selected randomly into 3 groups of villages namely Bangka Jaya village, Uteun Geulinggang and Paloh Pepper. In each village, 38 toddlers were randomly taken to be sampled in the study.

For the method of data collection itself is primary data and secondary data. Primary data is obtained by conducting in-person interviews with questions in the form of family characteristics, parenting and feeding practices, types of diseases, and nutritional status of toddlers. While secondary data obtained from related agencies, namely data that includes population numbers and an overview of research places taken from the North Aceh Regency Council Health Center includes various socio-economic data of the population and other supporting literature. In addition, before primary data collection, first test validity and reliability.

Furthermore, there are also free variables, namely family characteristics (maternal age, maternal knowledge, maternal education level, maternal work and family income), parenting and types of infectious diseases with variables tied to it is nutritional status in children. toddler. Then, the data analysis method used is a univariate analysis that describes family characteristics (maternal age, maternal knowledge, maternal education level, maternal work, and family income) and parenting and types of diseases with undernutrition toddlers in the form of frequency distribution. As well as bivariate analysis linking family characteristics (maternal age, maternal knowledge, maternal education level, maternal work, and family income) with parenting and disease types, and an analysis linking parenting and disease types with undernutrition toddlers using *chi-square* tests. at a confidence level of 95% ( $p < 0.05$ ). For a multivariate analysis of family characteristics (maternal age, maternal knowledge, maternal education level, maternal work, and family income), parenting and types of diseases associated with undernutrition toddlers using tests *multiple logistical regression*.



### 3 RESULTS AND DISCUSSIONS

This research was conducted at the Dewantara Health Center of North Aceh Regency. Obtained the results of the nutritional status of toddlers are lacking in the Puskesmas Dewantara North Aceh Regency amounting to 49 toddlers (59.8%) and the nutritional status of toddlers both in the Puskesmas Dewantara North Aceh Regency amounted to 33 toddlers (40.2%). This is enough to prove that the nutritional status in the North Aceh Regency Council Health Center still has toddlers who are undernourished, if this is allowed to interfere with the growth and development of toddlers. This research will focus on several factors.

First seen from the relationship of family characteristics with the nutritional status of toddlers which includes the age of the toddler mother, the knowledge of the toddler mother, the education of the toddler mother, the work of the toddler's mother, and family income. Maternal knowledge affects in providing food intake with balanced nutrition in toddlers in providing proper food intake and in accordance with the nutritional needs of toddlers so that toddlers can grow and develop according to their age. The causes of nutritional problems are nutritional parenting, birth distance that is too tight, environmental sanitation, health services and household stability economic, educational and socio-cultural problems, all of which are sourced from the family. Based on the results of this study shows family characteristics related to the nutritional status of toddlers, namely showing that the variables of maternal knowledge of toddlers, maternal work, family income, parenting and types of diseases have a value of  $p < 0.25$ .

The second is seen from the relationship of the age of the toddler's mother with the nutritional status of the toddler. From the results of the study showed that of 27 mothers of toddlers aged 30-40 years there were 15 people (55.6%) toddlers who experienced nutritionally undernourished status and 12 people (44.4%) who experienced good nutritional status, out of 39 people. Mothers of toddlers aged 20-29 years there were 22 people (56.4%) toddlers who experienced nutritional status underprivileged and 17 people (43.6%) who experienced good nutritional status. While of the 16 mothers of toddlers aged < 20 years there were 12 people (75.0%) toddlers who experienced undernutrition status and 4 people (25.2%) who experienced good nutritional status. Statistical test results obtained  $p \text{ value} = 0.364$  and  $\alpha \text{ value} = 0.05$ . So  $p \text{ value} > \alpha \text{ value}$ , so it can be said that there is

no relationship between the age of the toddler mother and the nutritional status of the toddler. While based on the results of research on the relationship of the mother of a toddler with the nutritional status of a toddler according to the TB / U indicator, there is also no relationship between the age of the toddler's mother and the nutritional status of the toddler. Of the 27 mothers of toddlers aged 30-40 years there were 12 people (44.4%) toddlers who experienced nutritional status and 15 people (55.6%) who experienced good nutritional status, out of 39 mothers of toddlers aged 20-29 years there were 15 people (38.6%) toddlers who were 24 people (61.5%) experienced good nutritional status. While of the 16 mothers of toddlers aged <20 years there were 11 people (68.8%) toddlers who experienced nutritional status undernourished and 5 people (31.2%) who experienced good nutritional status. Statistical test results obtained  $p \text{ value} = 0.120$  and  $\alpha \text{ value} = 0.05$ . So  $p \text{ value} > \alpha \text{ value}$ , so it can be said that there is also no relationship of the age of the toddler's mother with the nutritional status of the toddler. Then there is no relationship between the age of the mother and the nutritional status of the toddler.

Third, judging from the relationship of education of toddler mothers with nutritional status of toddlers. Arif's research (2006) states that the level of education is one of the social indicators in society because through education human behavior attitudes can increase and change their social image. Based on the results of the study found that there is no relationship between maternal education and toddler nutritional status according to BB / U. This shows that of 43 low-educated mothers of toddlers there are 28 people (65.1%) toddlers who experience underprivileged toddler nutritional status and 15 people (34.9%) toddlers who are less young, experiencing good nutritional status. While of the 39 mothers of toddlers who are highly educated there are 21 people (53.8%) toddlers who experience nutritional status is undernourished and 18 people (46.2%) who experience good nutritional status. Statistical test results obtained  $p \text{ value} = 0.416$  and  $\alpha \text{ value} = 0.05$ . So  $p \text{ value} > \alpha \text{ value}$ , so it can be said that there is no relationship between the education of the mother of toddlers and the nutritional status of toddlers. While based on the results of research on the relationship of maternal toddler education with toddler nutritional status according to TB / U indicators obtained there is also no relationship between the education of toddler mothers and the nutritional status of toddlers.

Fourth, judging from the relationship of knowledge of toddler mothers with the nutritional



status of toddlers. Based on the results of the study found that there is a relationship between maternal knowledge and nutritional status of toddlers (BB / U and TB / U). This shows that of the 44 mothers of toddlers who are knowledgeable is not good there are 35 people (79.5%) toddlers who experience nutritional status is undernourished and 9 people (20.5%) who experience good nutritional status. While of the 38 well-informed mothers of toddlers there were 14 people (36.8%) toddlers who experienced nutritional status is undernourished and 24 people (63.2%) who experience good nutritional status. Statistical test results obtained  $p\text{ value} = < 0.001$  and  $\alpha\text{ value} = 0.05$ . So  $p\text{ value} < \alpha\text{ value}$ , meaning that there is a relationship between the knowledge of the toddler's mother and the nutritional status of the toddler based on the BB / U indicator. From the results of the analysis obtained also the value of  $RP = 1,940$  means that toddlers who have mothers who are knowledgeable in poor nutrition have a 1 times greater chance of experiencing less nutritional status compared to toddlers who have well-informed mothers.

While based on the results of research on the relationship of maternal knowledge of toddlers with nutritional status of toddlers according to TB / U indicators, there is also a relationship between the knowledge of toddler mothers and toddler nutritional status. Of the 44 mothers of toddlers who are knowledgeable is not good there are 26 people (59.1%) toddlers who experience nutritional status is undernourished and 18 people (40.9%) who experience good nutritional status. While of the 38 well-informed mothers of toddlers there were 12 people (31.6%) toddlers who experienced nutritional status undernourishment and 26 people (68.4%) who experienced good nutritional status. Statistical test results obtained  $p\text{ value} = 0.023$  and  $\alpha\text{ value} = 0.05$ . So  $p\text{ value} < \alpha\text{ value}$ , so it can be said that there is a relationship between the education of the mother of a toddler and the nutritional status of a toddler based on tb / U indicators. From the results of the analysis obtained also the value of  $RP = 2,171$  means that toddlers who have mothers who are not well-informed of nutrition have a 2 times greater chance of experiencing less nutritional status compared to toddlers who have well-informed mothers where maternal knowledge has an influence on maternal parenting. against the toddler.

Fifth, judging from the work relationship of the toddler's mother with the nutritional status of the toddler. Based on the results of the study showed that of 51 mothers of toddlers who did not work there were 40 people (78.9%) toddlers who experienced

nutritional status under and 11 people (21.6%) who experienced good nutritional status. While of the 31 working mothers of toddlers there were 9 people (29.0%) toddlers who experienced undernutrition status and 22 people (71.0%) who experienced good nutritional status. Statistical test results obtained  $p\text{ value} = < 0.001$  and  $\alpha\text{ value} = 0.05$ . So  $p\text{ value} < \alpha\text{ value}$ , meaning that there is a relationship between the work of the toddler mother and the nutritional status of the toddler (BB / U). From the results of the analysis obtained also the value of  $RP = 2,813$  means that toddlers who have mothers who do not work have a 2 times greater risk of experiencing less nutritional status compared to toddlers who have working mothers. While based on the results of research on the employment relationship of toddler mothers with toddler nutritional status according to TB / U indicators, there is also a relationship between the work of toddler mothers and toddler nutritional status. Of the 51 mothers of toddlers who did not work there were 31 people (60.8%) toddlers who experienced nutritional status undernourishment and 20 people (39.2%) who experienced good nutritional status. While of the 31 working mothers of toddlers there were 7 people (22.6%) toddlers who experienced nutritional status underprivileged and 24 (77.4%) who experienced good nutritional status. Statistical test results obtained  $p\text{ value} = 0.002$  and  $\alpha\text{ value} = 0.05$ . So  $p\text{ value} < \alpha\text{ value}$ , meaning that there is a relationship between the work of the toddler mother and the nutritional status of the toddler (TB / U). From the results of the analysis obtained also the value of  $RP = 3,622$  means that toddlers who have mothers who do not work have a 3 times greater chance of experiencing less nutritional status compared to toddlers who have working mothers.

The results of this study were obtained by most working mothers, but the nutritional status of toddlers belongs to good / normal nutritional status. This can be due to other factors that support working mothers have children with good nutritional status, namely family income. With the working mother, it can increase family income so that it affects the purchasing power of the family in meeting the nutritional needs of children and other family members.

Sixth, judging from the income relationship of toddler mothers with toddler nutritional status Based on the results of this study which is assessed from the relationship of family income with nutritional status according to bb / U indicators showed that of 48 mothers of toddlers who Having a family income of  $\leq \text{Rp.}2.500.000$  there are 38 people (79.2%) toddlers who experience nutritional status



is undernourished and 10 people (20.8%) who experience good nutritional status. While of the 34 mothers of toddlers who have a family income of >Rp.2,500,000 there are 11 people (32.4%) toddlers who experience nutritionally undernourished status and 23 people (67.6%) Who have good nutritional status. Statistical test results obtained  $p\text{ value} = <0.001$  and  $\alpha\text{ value} = 0.05$ . So  $p\text{ value} < \alpha\text{ value}$ , meaning that there is a relationship between the income of the toddler's mother and the nutritional status of the toddler (BB / U). From the results of the analysis obtained also the value of  $RP = 2,399$  means that toddlers who have parents with incomes <Rp.2,500,000 have a 2 times greater risk chance. Experiencing less nutritional status compared to toddlers who have parents with incomes >Rp.2.500.000.

The nutritional status of toddlers based on TB / U, of the 48 mothers of toddlers who have income  $\leq$  Rp.2,500 .000 obtained 31 people (64.6%) toddlers who experience nutritional status is undernourished and 17 people (35.4%) who experience good nutritional status. While of the 34 mothers of toddlers who have income >Rp.2,500,000 there are 7 people (20.6%) toddlers who experience nutritional status is undernourished and 27 people (79.4%) who experience good nutritional status. Statistical test results obtained  $p\text{ value} = 0.000$  and  $\alpha\text{ value} = 0.05$ . So  $p\text{ value} < \alpha\text{ value}$ , meaning that there is a relationship of the income of the mother of the toddler with the nutritional status of the toddler (TB / U). From the results of the analysis obtained also the value of  $RP = 3,975$  means that toddlers who have parents with incomes <Rp.2,500,000 have a 3 times greater chance of experiencing less nutritional status compared to toddlers who have parents with income >Rp.2,500,000. family with nutritional status of toddlers. The main reason for undernutrition in children under five is low family income. If the income is low then the food consumed does not consider the nutritional value. Based on interviews with respondents, it can be concluded that respondents with low family incomes are only enough to meet daily needs and prefer cheap foods with fewer food variations. This indicates that family income is related to the nutritional status of the toddler because it determines the quantity and quality of food.

Seventh, judging from the relationship of parenting eating with the nutritional status of toddlers. Based on the results of this study assessed from the relationship of parenting with nutritional status according to bb /U indicators showed that of 50 mothers of toddlers who have poor eating patterns

there are 36 people (72.0%) toddlers who experience nutritional status and 14 people (28.0%) toddlers who are less well fed. experiencing good nutritional status. While of the 32 mothers of toddlers who have good eating patterns there are 13 people (40.6%) toddlers who experience nutritional status is undernourished and 19 people (59.4%) who experience good nutritional status. Statistical test results obtained  $p\text{ value} = 0.009$  and  $\alpha\text{ value} = 0.05$ . So  $p\text{ value} < \alpha\text{ value}$ , meaning that there is a relationship between parenting and the nutritional status of toddlers. From the results of the analysis obtained also the value of  $RP = 1,807$  means that toddlers who have poor eating patterns have a 1 times greater chance of experiencing less nutritional status compared to toddlers who have good eating parenting.

The nutritional status of toddlers based on TB / U, showed that of the 50 mothers of toddlers who had poor eating patterns there were 28 people (56.0%) toddlers who experienced undernutrition status and 22 people (44%) toddlers who experienced good nutritional status. While of the 32 mothers of toddlers who have good eating patterns there are 10 people (31.2%) toddlers who experience nutritional status is undernourished and 22 people (68.8%) who experience good nutritional status. Statistical test results obtained  $p\text{ value} = 0.049$  and  $\alpha\text{ value} = 0.05$ . So  $p\text{ value} < \alpha\text{ value}$ , meaning that there is a relationship between parenting and toddler nutritional status (TB / U). From the results of the analysis obtained also the value of  $RP = 2,358$  means that toddlers who have poor eating patterns have a 2 times greater chance of experiencing less nutritional status compared to toddlers. Who have a good diet. Based on observations in the field at the time of the study, showing the adequacy and diversity of foodstuffs that can be provided for consumption by family members is very limited.

Eighth, judging from the relationship of this type of disease with the nutritional status of toddlers. Based on the results of this study showed that of 47 toddlers who have infectious diseases there are 34 people (72.3%) toddlers who experience nutritional status is undernourished and 13 people (27.7%) who experience good nutritional status. While of the 35 toddlers who have non-infectious diseases there are 15 people (42.9%) toddlers who experience undernutrient status and 20 people (57.1%) who experience good nutritional status. Statistical test results obtained  $p\text{ value} = 0.014$  and  $\alpha\text{ value} = 0.05$ . So  $p\text{ value} < \alpha\text{ value}$ , meaning that there is a relationship between infectious diseases and nutritional status of toddlers (BB / U). From the



results of the analysis obtained also the value of  $RP = 1,619$  means that toddlers who have infectious diseases have a 1 times greater chance of experiencing less nutritional status compared to toddlers who have non-infectious diseases. Nutritional status of toddlers based on TB / U, of the 47 toddlers who have infectious diseases there are 27 people (57.4%) toddlers who experience nutritional status is undernourished and 20 people (42.6%) who experience good nutritional status. While of the 35 toddlers who have non-infectious diseases there are 11 people (31.4%) toddlers who experience nutritional status is undernourished and 24 people (68.6%) who experience good nutritional status. Statistical test results obtained  $p\text{ value} = 0.035$  and  $\alpha\text{ value} = 0.05$ . So  $p\text{ value} < \alpha\text{ value}$ , meaning that there is a relationship between infectious diseases and nutritional status of toddlers (TB / U). From the results of the analysis obtained also the value of  $RP = 2,261$  means that toddlers who have infectious diseases have a 2 times greater chance of experiencing less nutritional status compared to toddlers who have non-infectious diseases.

In addition, there is also the most dominant variable related to the nutritional status of toddlers after the logistic regression test on multivariate analysis is the income variable ( $p = 0.002$ ; Exp ( $\beta$ )=6,380 95%CI 2,009-20,257) which means that family income  $\leq \text{Rp.}2,500,000$  is 6 times more likely to be at risk of under-fives experiencing less nutritional status than family income  $> \text{Rp.}2,500,000$ . Causal factors, including direct causes, indirect causes, root problems and problem points. Direct causative factors are food and infectious diseases that may be suffered by children. Indirect causes include food security in the family, parenting patterns, health services and environmental health (Istiono, Suryadi, Haris, Irnizarifka, Tahitoe, Hasdianda, Fitria & Sidabutar, 2009). Poor nutritional status reflects imbalances in food intake and/or infectious diseases. It is influenced by environmental and socioeconomic factors, such as household economic status, maternal education, household hygiene, and access to health services (Pongou, Ezzati, & Salomon, 2006).

## 4 Conclusion

Based on what was found in the field, the relationship between family characteristics, eating patterns and types of disease with the nutritional status of children under five had a relationship with cultural factors at the Dewantara Public Health

Center, North Aceh Regency. The cultural factor is through the mother's lack of knowledge in feeding her toddler. There are still mothers who feed based on the feeding habits they received when they were small. Like giving bananas to babies who are not yet 6 months old. In addition, there is also the provision of food like adults to babies over 8 months old. Whereas feeding like this can interfere with the baby's digestive system so that it has an impact on his growth and development that is not optimal. As a result, the baby suffers from malnutrition. Cultural factors like this must be accompanied by knowledge from mothers so that their babies do not experience malnutrition.

## REFERENCES

- Almatsier.; Sunita.; Sutardjo, S.; Moerijanti., 2011. Gizi Seimbang dalam Daur Kehidupan. Jakarta: PT.Gramedia Pustaka Utama: 1-13.
- Asydhad, L. A., dan Mardiah., 2006. Makanan Tepat Untuk Balita. Jakarta : Kawan Pustaka.
- Baliwati, Y.F., Khomsan, A., dan Dwiriani, C.M., 2010. Pengantar Pangan dan Gizi. Jakarta: Penebar Swadaya.
- Departemen Kesehatan RI., 2000. Pemantauan Pertumbuhan Balita, Jakarta: Direktorat Gizi Masyarakat, Jakarta : Ditjen Bina Kesehatan Masyarakat.
- Foster, Anderson, 2006. Antropologi Kesehatan (Terjemahan Mutia & Suryadarma, P.P), Universitas Indonesia, Jakarta.
- Supariasa, Nyoman, I.D.; Bakri, B.; dan Fajar, I., 2012. Penilaian Status Gizi. EGC.Jakarta.
- Supariasa, I.D., 2013. Penilaian Status Gizi (Edisi Revisi). Jakarta: Penerbit Buku Kedokteran EGC.
- WHO., 2014. Nutrition. Available from : <http://www.who.int/topics/nutrition/en/>. diakses pada: 2014.
- Zumroti., 2010. Hubungan antara Pola Asuh Gizi, Karakteristik Keluarga, dan Budaya Pantang Makan dengan Status Gizi Anak Usia 2-3 Tahun di Kecamatan Ciputat Timur Kota Tangerang Selatan, [Skripsi]. Program Studi Kesehatan Masyarakat Universitas Islam Negeri Syarif Hidayatullah, Jakarta.