# The Factor's Affecting with Nutrient State of Child At Public Health Centre Timika Mimika Regency

Apriyanti Situmorang<sup>1</sup>, Yermia Msen<sup>2</sup>, A.L. Rantetampang<sup>3</sup>, Anwar Mallongi<sup>4</sup>

 $^{1}\ \textit{Magister Program of Public Health, Faculty of Public Health, Cenderawasih University, Jayapura}\ .$ 

Abstract-Introduction: The child under five years is a risk nutrient state in group and were is not to handled can be attacking infection diseases so affect the mortality and mother is more important within nutrient state of child under five years.

Method Research: Analytic of observational with sectional cross study design. Research executed on 16 April and 18 May 2018 in Public health centre Timika with population is child and sample counted 86 mother with purposive sampling. Data approach used questionnaire and analyzed used chi square test and logistics binary regression.

Result of research: The factor's is not affecting nutrient state of child at Public Health Centre Timika Mimika Regency is age (p-value 1,000; RP = 11,028; CI95% (0,356–2,964), Study (p-value 0,313; RP=1,613; CI95% (0,774–3,362), Job (p-value 0,580; RP = 0,676; CI95% (0,293–1,559) and infection disease (p-value 0,169; RP = 1,869; CI95% (0,863 – 4,045). The factor's affecting nutrient state of child at Public Health Centre Timika Mimika Regency is family income (p-value 0,043; RP = 2,368; CI95% (1,098–5,106), knowledge (p-value 0,000; RP = 8,750; CI95% (4,230–18,098), attitude (p-value 0,000; RP = 8,816; CI95% (3,969 – 19,581) and role parent (p-value 0,000; RP = 6,596; CI95% (3,266 – 13,320). The role of parent is dominant variable to nutrient status of child and knowledge is interaction variable.

Keyword: Nutrient State, Child, Public Helath Centre Timika, Mimika Regency.

### I. INTRODUCTION

Health development is characterized by health and family welfare. One indicator of health development is the nutritional status of infants / toddlers. If the nutritional status of infants / toddlers in a region is good, due to the welfare in the community (MoH RI, 2015). According to UNICEF and WHO (2016) nutrition is a major factor in child mortality, illness and disability. Factors related to nutrition

contributing about 45% of under-five mortality, including low birth weight, malnutrition, children who are not given breast milk (non breast milk) and unhealthy environment. Malnourished children have a higher risk of death due to infectious diseases, such as diarrhea, pneumonia and measles. Growth inhibition of the fetus accounts for 12% of neonatal deaths, while stunting (shortening) and wasting

(abdominal) accounted for 14% and 20.4% as under-five mortality.

ISSN: 2349-4689

Indonesia faces the problem of double nutrient, namely the problem of malnutrition and nutrition problems more. Nutrition problems are less commonly caused by poverty, lack of food supplies, poor quality of the environment (sanitation), lack of knowledge about nutrition, balanced and health, the less nutrient (iodium) over nutrient caused by economic progress (Almatsier, 2011).

The Ministry of Health in 2017 reported the nutritional status of children under five years old in Indonesia based on age (BB / U) weight in 2015, good nutrition was 83.3% while malnutrition was 3.2%, malnutrition was 11.9% and more nutrition 1.6%. In 2016, good nutrition was 83.6% while malnutrition was recorded at 3.1%, malnutrition was 11.8% and nutrition was over 1.5% (Ministry of Health RI, 2017). This indicates that the state of malnutrition status and less in toddlers did not decrease significantly.

Data on the nutritional status of children under five years in Papua Province, 2015 to 2016 showed a decrease in malnutrition and poor status, where in 2015, malnutrition was recorded 5.7% and less than 12.4%, while in 2016 malnutrition was recorded at 3, 7% and less nutrition 11%. Decreased malnutrition and underweight status in under five have not shown any significant decrease.

Toddlers are included in the group of vulnerable groups and if not addressed very vulnerable to various infectious diseases that can lead to increased infant mortality rate (Badriah, 2013). Factors that cause malnutrition, namely nutrient intake due to low knowledge of maternal nutrition and understanding about foods that are safe to eat, infectious diseases, the environment, access to health care and parenting (Marmi, 2012). The emergence of nutritional problems of children under five is influenced by many interrelated factories. Directly influenced by several things, namely child not enough to get enough food on the age of toddler, the child does not get the nutritional care that enough and children suffering from infectious diseases. Poverty is also one of the causes of the emergence of cases of malnutrition related to the availability and consumption of family food (Ministry of Health, 2015).

<sup>&</sup>lt;sup>2.3</sup>Lecturer of Master Program in Public Health Faculty of Public Health, Cenderawasih University, Jayapura

<sup>&</sup>lt;sup>4</sup> Environmental Health Department, Faculty of Public Health, Hasanuddin University, Makassar

Factors that cause malnutrition, first food and infectious diseases that may be in children's suffering, food security in families, polapengasuhan children, health services and environmental health. The three facts of education, knowledge and skills, there is a possibility of a better level of family food security, childcare patterns, and family use, existing healthcare. Unhealthy healthcare (as far away, unable to pay), can also affect the nutritional status of children (Parii, 2014).

Mothers who act as housewives usually have a better parenting pattern to grow flowers than mothers who have jobs outside the home, mothers can focus more on parenting (Septiana, 2010). According Nabusa (2013), low parenting will lead to low nutritional status of children. A poor parenting pattern is also reflected in some mothers after their 6-month-old baby provides empty porridge alone, in infants aged 6 months without vegetables or anything. This is a culture for mothers in feeding children who consider that food has nothing to do with health.

Fuada, Mulyati and Hidayat (2011) stated that factors related to the nutritional status of children under five in rural areas are socioeconomic status, education, occupation, health service utilization and adequate consumption of protein. Urban living is more dependent on income than the agricultural sector and natural resources. Percentage of urban women who earn more income outside the home while the number of family members less so that childcare is affordable. In addition, urban areas are larger in food availability, housing, health care and information sources that affect mother's knowledge and attitude in caring for her child.

According to Notoatmodjo (2011), people's nutrition problem is not only about health aspect, but other related aspects such as economy, social culture, education, population, knowledge, attitude and so on. Therefore, the handling or improvement of nutrition as an effort not only directed to less nutrition or health alone, but also other fields. Less nutrition will impact on the reduction of the quality of human resources that further may result in the failure of physical growth, mental development, and intelligence, decreased productivity, increased morbidity and mortality.

Mimika regency is one of the regencies in Papua Province with geographical condition of mountainous area and the livelihood of the population is mostly as a farmer dependent on natural resources (forest), either as a source of income or to provide for family needs and some still depend on the nature to meet the needs of life. Based on preliminary studies, the Mimika District Health Office report of 18,808 underweight children, under-fives less than 482 (2.86%) and malnutrition as many as 40 (0.2%) children under five (Mimika District Health Office, 2017). The number of toddlers in Timika Health Center were

7,827 children under five and under five years old with less than 171 (2%) infants and malnutrition as many as 7 (0.1%) infants and malnutrition as much as 20 (0.3%).

ISSN: 2349-4689

The purpose of this study was to find out "Factors Related to Nutritional Status of Under fives at Puskesmas Timika Kabupaten Mimika".

#### II. MATERIALS AND METHODS

This study explains the influence and influence of the variables to be studied. Using cross sectional study approach with taking data is done simultaneously at one time (Sugiyono, 2013). The location of research conducted in PuskesmasTimika Mimika Regency. This research was conducted on 16Aprils until 18 May2018.Populasi in this research is all toddlers at Temasika Health Center which weighing on month of March lot of 615 toddlers aged 1 - 5 years. The number of samples was 86 samples done by purposive sampling. Data were obtained questionnaire and analyzed using chi square test and logistic binary regression.

#### III. RESULTS

### 3.1 Univariate Analysis

Table 1.Distribution of age, education, occupation, income, family, nutrition knowledge, mother attitude, parenting, infectious diseases and or nutrition.

No	Variable	Frequency	) Percentage
		(n)	(%)
1	Age		
	< 25 years	12	14
	$\geq$ 25 years	74	86
2	Education		
	Low	31	36
	High	55	64
3	Occupation		
	Work	15	17,4
	Does not	71	82,6
	work	/1	62,0
4	Family Income		
	Low	35	40,7
	High	51	59,3
5	Knowledge		
	Less	16	18,6
	Good	70	81,4
6	Attitude		
	Less	19	22,1
	Good	67	77,9
7	<b>Foster Patterns</b>		
	Less	17	19,8
	Good	69	80,2
8	Infectious		
	Diseases	40	46,5
	There is	46	53,5

There is no

9	Nutrition Status	S		
	of Toddlers Less Good	21 65	24,4 75,6	
Total		86	100	

Based on Table 1, it shows that the majority of respondents aged> 25 years are 74 people (86%), high education 55 people (64%), not working as many as 71 people (82.6%), high family income, 51 59.3%). Most of the respondents have good knowledge as many as 70 people (81.4%), good attitude as much 67 people (77,9%). Parenting pattern applied by parents in toddlers is mostly in good category as many as 69 people (80.2%) and as many as 46 people (53.5%) have infectious diseases. The nutritional status of toddlers in Timika Health Center in good category as many as 65 people (75.6%).

### 3.2 Bivariate Analysis

a. Maternal age relationship with Nutrition Status of toddler

Table 2. Maternal age relationship with Under five Nutritional Status at Timika Health Center of Mimika Regency Year 2018

No	Age	Tode	ritional dlers	Stati		- n	%
	8-	Less	1	Goo	d		
		n	%	n	%	_	
1	< 25	3	25	9	75	12	100
2	years	18	24,3	56	75,7	74	100
	<u>≥</u> 25						
	years						
Tota	ıl	21	24,4	65	75,6	86	100
p-va	<i>p-value</i> = 1,000; RP = 1,028; CI95% (0,356– 2,964)						

Table 2 shows that out of 12 mothers aged less than 25 years there were 3 (25%) with less nutritional status and 9 (75%) with good nutritional status. Meanwhile, from 74 mothers over 25 years old, there were 18 people (24,3%) with malnutrition and 56 people (74%) with good nutritional status. The result of chi square statistic test at significance value 95% ( $\alpha = 0.05$ ) obtained p-value 1,000 or p>  $\alpha$  (0,05). This means that there is no correlation between maternal age and nutritional status of children under five in Timika District Health Center of Mimika Regency. The result value of RP = 11,028; CI95% (0,356-2,964) with value lower <1, so age is not a significant factor with nutritional status of children.

b. Maternal education relationship with Nutritional status of children under five years old

Table 3.Maternal Education Relationship with Nutritional Status of Toddlers at Puskesmas Timika Kabupaten Mimika Year 2018.

ISSN: 2349-4689

NT.	Election	Nutritional Toddlers		Stat	us of	· n	0/	
No	Education	Less	Less		Good		%	
		n	%	n	%			
1	Low	10	32,3	21	67,7	31	100	
2	High	1	20	44	80	55	100	
Total		21	24,4	65	75,6	86	100	
p-va	<i>p-value</i> = 0,313; RP = 1,613; CI95% (0,774– 3,362)							

Table 3 shows that out of 31 low-educated mothers, there were 10 (32.35%) with low nutritional status and 21 people (67.7%) with good nutritional status. Whereas from 55 high educated mothers from 25 years there is 1 person (20%) with less nutritional status and 44 people (80%) with good nutritional status. The result of chi square statistic test at significance value 95% ( $\alpha = 0.05$ ) obtained p-value 0,313 or p>  $\alpha$  (0,05). This means that there is no correlation between maternal education and nutritional status of children under five years old in PuskesmasTimika of Mimika Regency. The result value of RP = 1,613; CI95% (0.774-3362) with the lower <1, so that education is not a significant factor with the nutritional status of children.

c. Relationship of mother's job with Nutritional Status of toddler

Table 4. Relationship of mother's job with Nutritional Status of Toddlers at Health Center of Timika of Mimika Regency Year 2018

No	Occupation	1 (0.02	Nutritional Toddlers		Status of		%
110	Occupation	Less	S	Goo	d	n	70
		n	%	n	%		
1	Working	5	33,3	10	66,7	15	100
2	Does not work	16	22,5	55	77,5	71	100
Total		21	24,4	65	75,6	86	100
p-va	<i>p-value</i> = 0,580; RP = 0,676; CI95% (0,293– 1,559)						

Table 4 shows that out of 15 working mothers there were 5 people (33.3%) with less nutritional status and 10 people (66.7%) with good nutritional status. Whereas from 71 mothers who did not work there were 16 people (22.5%) with less nutritional status and 55 people (77.5%) with good nutritional status. The result of chi square statistic test on significance value 95% ( $\alpha = 0.05$ ) obtained p-value 0,580 or p>  $\alpha$  (0,05). This means that there is no

relationship of mother's work with nutritional status of children under five at Timika Community Health Center of Mimika Regency. The result value RP = 0.676; CI95% (0.293 - 1.559) with the lower <1, so the work is not a significant factor with the nutritional status of children under five.

d. Relation of mother's family income with Nutritional Status of toddler

Table 5.Relation of family income of mother with Nutritional Status of Toddler at Health Center of Timika of Regency of Mimika Year 2018.

	Family	Nuti five	ritional	Status	Under	n	0/	
No	income	Less	Less		Good		%	
		n	%	n	%	•		
1	Low	13	37,1	22	62,9	35	100	
2	High	8	15,7	43	84,3	51	100	
Tota	1	21	24,4	65	75,6	86	100	
p-va	<i>p-value</i> = 0,043; RP = 2,368; CI95% (1,098–5,106)							

Table 5 shows that out of 35 mothers with low family income there were 13 people (37.1%) with malnutrition and 22 (62.9%) with good nutritional status. While from 51 mothers with high income there were 8 people (15,7%) with less nutritional status and 43 people (84,3%) with good nutrition status. The result of chi square statistic test on significance value 95% ( $\alpha=0,05$ ) obtained p-value 0,043 or p  $<\alpha$  (0,05). This means that there is a relation of mother's family income with nutritional status of children under five at Timika Community Health Center of Mimika Regency. RP value = 2,368; CI95% (1.098- 5,106) interpreted that respondents with low family income at risk for children with underweight nutrition status is less than 2,368 times higher than respondents with high family income.

e. Relationship of knowledge of mother with Nutritional Status of children

Table 6.Relationship of knowledge of mother with Nutritional Status of Toddler at Health Center of Timika of Regency of Mimika Year 2018.

No		Nutritional Under five		Status of		n	%
	Knowledge	Less	Less		Good		
		n	%	n	%		
1	Less	14	87,5	2	12,5	16	100
2	Good	7	10	63	90	70	100
Tota	1	21	24,4	65	75,6	86	100

p-value = 0,000; RP = 8,750; CI95% (4,230–18,098)

ISSN: 2349-4689

Table 6 shows that of 16 mothers with low knowledge, there were 14 people (87,5%) with malnutrition and 2 (12,5%) with good nutritional status. While from 70 mothers with good knowledge there are 7 people (10%) with less nutritional status and 63 people (90%) with good nutritional status. The result of chi square statistic test at significance value 95% ( $\alpha = 0,05$ ) obtained p-value 0,000 or p  $<\alpha$  (0,05). This means that there is a correlation between mother's knowledge with the nutritional status of children under five at Timika District Health Center of Mimika Regency. The result value RP = 8,750; CI95% (4,230-18,098) interpreted that respondents with less risky knowledge with under five nutritional status were less than 8,750 times higher than respondents with good knowledge.

f. Relationship of mother's attitude with Nutritional Status of children

Table 7.Relationship of mother's attitude with Nutritional Status of Toddlers at Health Center of Timika of Mimika Regency Year 2018.

NT.	Aut 1.	Nutritional Toddlers		Statu	Status of		%
No	Attitudes	Less	Less		d	n	%
	•	n	%	n	%		
1	Less	15	78,9	4	21,1	19	100
2	Good	6	9	61	91	67	100
Tota	ıl	21	24,4	65	75,6	86	100
p-va	<i>p-value</i> = 0,000; RP = 8,816; CI95% (3,969 – 19,581)						

Table 7 shows that out of 19 mothers, there were less than 15 people (78.9%) with malnutrition and 4 (21.1%) with good nutritional status. Whereas from 67 mothers with good attitude there were 6 people (9%) with less nutritional status and 61 people (91%) with good nutritional status. The result of chi square statistic test at significance value 95% ( $\alpha=0.05$ ) obtained p-value 0,000 or p  $<\alpha$  (0,05). This means that there is a relationship of mother's attitude with the nutritional status of children under five at Timika District Health Center Mimika. The result value RP = 8,816; CI95% (3,969 - 19,581) interpreted that respondents with less risky attitude with underweight nutrition status less 8,816 times higher than respondents with good attitude.

g. Relationship of mother's parenting with Nutritional Status of toddlers

Table 8.Relationship pattern of mother's care with Nutrition Status of Toddlers at Health Center of Timika of Mimika Regency Year 2018.

	Foster		Nutritional Toddlers		us of	- n	0/2
No	Pattern	Less	Less		d	n	%
		n	%	n	%	_	
1	Less	13	76,5	4	23,5	17	100
2	Good	8	11,6	61	88,4	69	100
Total		21	24,4	65	75,6	86	100
p-va	lue = 0,000;	RP = 6	5,596; CI	95% (3	3,266 – 1	3,320	)

Table 8 shows that out of 17 maternal care women, there were 13 (76.5%) with less nutritional status and 4 (23.5%) with good nutritional status. While from 69 mothers with good parenting there were 8 people (11,6%) with less nutrition status and 61 people (88,4%) with good nutrition status. The result of chi square statistic test at significance value 95% ( $\alpha=0.05$ ) obtained p-value 0,000 or p < $\alpha$  (0,05). This means that there is a relationship of mother's parenting with the nutritional status of children under five in Timika District Health Center Mimika. The result value of RP = 6,596; CI95% (3,266 - 13,320) interpreted that respondents with less risky parenting pattern with under five year nutrition status is less than 6,596 times higher than respondent with good parenting pattern.

h. Infection of maternal infectious diseases with Nutritional Status of infants

Table 9. Infection of maternal infectious diseases with Under five Nutrition Status at Puskesmas Timika Kabupaten Mimika Year 2018

No	Infectious	Tod	rition dlers	Status of Good		n	%
	diseases	Less	S	Goo	od		
		n	%	n	%	-	
1	There is	13	32,5	27	67,5	40	100
2	There is no	8	17,4	38	82,6	46	100
Total		21	24,4	65	75,6	86	100
<i>p-value</i> = 0,169; RP = 1,869; CI95% (0,863 – 4,045)							

Table 9 shows that out of 40 mothers have children with infectious diseases there are 13 people (32.5%) with less nutritional status and 27 people (23.5%) with good nutritional status. Whereas from 46 mothers with children without infectious diseases there are 8 people (17,6%) with less nutrition status and 38 people (82,6%) with good nutrition status. The result of chi square statistic test at significance value 95% ( $\alpha$  = 0,05) obtained p-value 0,169 or p>  $\alpha$  (0,05). This means that there is no correlation of infectious diseases with nutritional status of children under

five at Timika District Health Center of Mimika Regency. The result value of RP = 1.869; CI95% (0.863 - 4,045) with a lower value less than 1, so it is not meaningful.

ISSN: 2349-4689

#### Multivariate Analysis

Multivariate analysis was used to find out which factors influenced the nutritional status of children under five, it is necessary to do bivariate analysis and continued on multivariate test. Bivariate modeling using logistic regression test begins with bivariate modeling where each independent variable is tested against dependent variable gradually with p value <0.25 so that variables included in multivariate test are income, knowledge, attitude, parenting and infectious diseases. From the results of multivariate test can be seen in Table 10.

Table 10. Multiple Logistic Regression Variable Analysis

No	Variable	В	p- value	OR	95% C. (B)	. I. for Exp
					Lower	Upper
1	Knowledge	23,046	0,998	102	0,000	0,000
2	Parenting Pattern	3,012	0,001	20,33	3,339	123,837
	Constant	17,134	0,000	0,000		

Table 10 above, parenting is the dominant variable with nutritional status of toddlers and knowledge is the interaction variable.

### IV. DISCUSSION

# 4.1. The relationship between maternal age and nutritional status of children

The result of the research shows that there is no correlation between maternal age and nutritional status of children under five years old in PuskesmasTimika of Mimika Regency. Most mothers aged or older are more than 25 years old as many as 74 people (86%) and 14% are in adolescence or less than 25 years. Mothers aged as much as 75.7% have children with good nutrition status of children under five and the proportion is not much different in mothers aged less than 25 years or 75%. This shows that the division of age groups are equally at risk of having children with underweight nutrition status.

Age of adolescent and adult mothers in this study showed that age is influenced by mother's knowledge. This does not agree with Fitriani (2013) which reveals that The increasing age will grow also capture power and mindset, so that the knowledge gets gained better. In adulthood,

individuals will play a more active role in society and social life and more to prepare for the success of adjusting to old age, but adults will spend more time reading. The assumption of research that the increasing age of the mother does not necessarily increase the knowledge of a person in caring for children balitanya, otherwise young mothers experienced the same thing. This shows how much information obtained by the mother, because the information obtained greatly affects every act of mother in caring for her toddler.

# 4.2. Relationship of maternal education with Nutritional Status of children

The result of the research shows that there is no correlation between maternal education with nutritional status of children under five years old in PuskesmasTimika of Mimika Regency. Maternal education in PuskesmasTimika mostly had higher education (64%) and a small proportion of women with low education (36%). Mother with high education 80% have children with good nutritional status, while 67,7% children under five with good nutritional status in low-educated mothers. This proportion is not much different and is reinforced by the test of prevalence ratio although there is a risk, but not significant from the lower value less than 1.

Mothers with low education and high are equally likely or at risk with less nutritional status due to education influenced by knowledge. Not always a well-educated mother has good knowledge, because formal education in this case improves the ability of thinking power, so that when the mother is not exposed to information, so in the care of children become less, so that the mothers who are poorly educated and diligently follow posyandu activities directly get additional information from the activities that followed.

### 4.3 Mother's work

The results obtained that there is a relationship of maternal employment with nutritional status of children under five at Timika District Health Center Mimika. The majority of mothers in Timika Health Center did not work as many as 71 people (82.6%), whereas 33.3% of working mothers had under-five children with poor nutrition while in working mothers while in non-working mothers 22.5 % have children with good nutritional status. This suggests that the work of mother - at risk of nutritional status of children. The results of research in line with research conducted by Lewa (2016) revealed that there is no relationship of mother work with nutritional status in infants.

The absence of a working relationship on the nutritional status of children under five is due to a mother who does not work but has financial skills and lack of knowledge can not provide balanced nutritious food intake in her toddler. In contrast, working mothers who have experience and additional financial support can fulfill their child nutrition intake. In addition, working mothers tend to shed or raise their children to families and career who are hired because of the financial ability it has. But found also children under five who have less nutritional status. So that the need for attention by health workers in applying family nutritional care, so that mothers who do not work and have good skill in processing a balanced nutritious food.

ISSN: 2349-4689

# 4.4. The relation of family income of mother with Nutritional Status of toddler

The result of the research shows that there is relation of mother's family income with nutritional status of toddler in PuskesmasTimika of Mimika Regency. Mothers who have a family income of 59.3% have high family income. Mothers with a high income of 15.3% of children under five had a higher nutritional status than mothers with a low family income of 37.1%. This is reinforced by the prevalence ratio test that 2,368 times mothers with low family income have under-five children with less nutritional status.

Mothers with low family income but have a toddler with a good nutrition stability of 62.9% due to the ability of mothers in processing food. In addition, most mothers have a large yard area and have a family that most of the farmers, so the food can be fulfilled. Another case with mothers who have high family income who have children with less nutritional status, due to the management of expenditure management in food needs is not in accordance with the needs of family nutrition.

### 4.5. Relationship of knowledge of mother with Nutritional status of children

The result of the research shows that there is correlation between mother knowledge with nutritional status of children under five years old in Timika District Health Center of Mimika Regency. Most mothers or 81.4% have a good knowledge of nutrition for the family. Research Damaiyanti (2017) revealed the same thing in the working area of Puskesmas Gajahan Surakarta that knowledge related to nutritional status in infants.

Most of the mothers studied came from local origin who had staple food sweet potatoes. good knowledge by mother because mother know some staple food besides sweet potato like rice and bread which generally can be found in store and market. In addition to the food processing most of the mothers know about the selection of good food so that the food is eaten has the content of balanced and appropriate nutrient and mother to know how to processing the uniform and increased nutrition of children under five through breastfeeding and vitamin supplements such as

vitamin A that can be materned at posyandu in February and August.

Mothers who have good knowledge as much as 90% have children under five with good nutritional stages, while mothers with less knowledge as much as 12.5% have children under five with good nutritional status, from the results of prevalence ratio values assumed knowledge less risky with underweight nutritional status 8.750 times higher than the respondents with good knowledge. Based on these risks, health workers can play their role in working with nutrition cadres in posyandu to increase the coverage of nutritious families by providing periodic guidance and counseling at posyandu with information on cooking process how to cook, using demonstration for mothers in posyandu.

# 4.6. Relationship of mother's attitude with Nutritional Status of children

The result of this research shows that there is relationship between mother attitude and nutritional status of children under five years old in PuskesmasTimika of Mimika Regency. Most mothers have an attitude or 77.9% in either category. The results of this study are aligned by Astuti (2017) that the attitudes affect the nutritional status of children under five. The attitude of the mother has a positive impact that the mother understands the importance of health care, including in the provision of nutrient intake on children. In this research is good mother attitude because it uses fresh food and good quality in processing food for children, do not use spices that stimulate and aroma sharp in processing food for children, how to make vegetables for children who washed first before cut-cut and food processing such as putting vegetables in hot oil or boiled water, to cook quickly without causing a chemical reaction from overcooked food. Mother's attitude about the importance of good nutrition of children will have an impact on the pattern of feeding given to children under five so that it affects the nutritional status of children under five. it is in the opinion of Proverawati (2012) that family attitudes and environmental conditions play an important role in feeding children at the age of toddlers.

# 4.7. Relationship of mother's parenting with Nutritional Status of the toddler

The result of the research shows that there is a relationship between mother's parenting with the nutritional status of children under five at Timika Health Center of Mimika Regency. Parenting patterns applied by parents, especially mothers as manager of nutrition in the family mostly in good category (80.2%). Good parenting patterns applied by parents as much as 88.4% of children have good nutrition status of children under five, while in mothers who apply less as much as 23.5% parenting has good nutritional status. The results of the prevalence ratio test

were interpreted that the respondents with less risky parenting pattern with under five nutritional status was less than 6,596 times higher than the respondents with good parenting pattern.

ISSN: 2349-4689

The Nabusa (2013) study obtained similar results that there was a significant correlation between the history of parenting to the incidence of stunting with an OR value or relationship strength of 14.5 times. This means that children who have a history of parenting less have a risk of stunting by 14.5 times than children who have a history of good parenting. Child care patterns are behaviors practiced by caregivers (mother, father, grandmother or others) in providing food, health care, stimulating and emotional support that children need to grow and develop, including the affection and responsibility of parents.

The pattern of parenting is the care given by the mother or other caregivers in the form of attitude, and behavior in terms of proximity to children, feeding, taking care, maintaining cleanliness, giving love, and so on. All are related to the state of the mother in terms of physical health, and mental, nutritional status, general education, knowledge of good parenting, roles in the family, and society and so forth. Parenting is how parents treat children, educate, guide, and discipline children in reaching the process of adulthood to the effort to form norms expected by society in general (Septiari, 2012).

Parenting patterns that parents apply well by giving priority to their children to eat first, always accompany or supervise children eat, give children breakfast and keep food hygiene children while eating by forbidding children eat food that falls on the floor because of the risk of digestive disorders such as diseases diarrhea.

This correct parenting should be further enhanced through the support of health workers in improving nutritional conscious families, because according to Hidayat (2011), the pattern of nursing / feeding is less good than since the child was born which resulted in the child becomes short. The occurrence of short nutritional problems (TB / U) as a result of the long lasting circumstances less appropriate pattern of care (Hidayat, 2011). In addition, it causes malnutrition because of the difference between the amount of nutrients absorbed from food and the amount of nutrients needed by the body (Maxwell, 2011).

# 4.8. The relationship of infectious diseases of mothers with Nutritional Status of infants

The results obtained that there is no correlation of infectious diseases with nutritional status of children under five in Timika District Health Center Mimika. Children suffering from infectious diseases as much as 53.5% and 46.5% did not suffer from infectious diseases. The results

of medical records of infectious diseases suffered by children are malaria and diarrheal diseases and TB disease.

Research conducted Sholiah (2017) revealed that infectious climates such as diarrhea, respiratory infection and tuberculosis have a relationship with nutritional status in children under five. In addition, research conducted Limanto (2010), revealed that malaria disease suffered by children at risk of nutritional status of children.

The results of the prevalence ratio have the risk of infectious disease but not significant due to the first child follower of the first that diarrhea suffered by children under five is an acute diarrhea or diarrhea that occurs for 2-3 days so as not to maximize the decrease in nutritional status of children under five, while in children who suffer from respiratory infection is a mild respiratory infection rather than a respiratory infection pneumonia and malaria disease experienced by children 4-5 days during childhood. While chronic infectious diseases suffered by children is a disease of pulmonary TB. But in this study, the absence of relationships caused by parenting applied by parents to children is very good in maintaining the nutritional intake of their children. In addition, the child has a good appetite, so the status of children gzi awake.

This is in accordance with the theory proposed by Moehyi (2009), that the interaction of infection disease to nutritional status is related to the decreasing appetite of chronic diarrhea that causes the absorption of nutrients from food is also disturbed, so that overall encourages the occurrence of malnutrition and is aggravated with the duration disease so that the energy reserves are absorbed because of the energy needed by the body.

### 4.9. Dominant factors

The results obtained that the pattern of care is the dominant variable with nutritional status of toddlers and knowledge is the interaction variable in PuskesmasTimika. The results of this study are in line with Belthiny (2017) research that the dominant factor on the nutrition statistics of children under five is influenced by the consumption of food given by people related to the pattern of care.

Parenting parenting is how parents treat children, educate, guide, and discipline children in reaching the process of adulthood to the effort of forming norms expected by society in general (Septiari, 2012). A good parenting pattern in toddlers at Timika Health Center has a dominant influence because parenting is a direct action that influences in the selection and processing of foodstuffs as well as supervising children in eating to prevent the occurrence of infectious diseases such as diarrhea, ARI and other infectious diseases. A good parenting pattern requires good knowledge by the mother, so the child's nutritional status is well preserved.

#### V. CONCLUSION

ISSN: 2349-4689

Based on the results of the discussion can be summarized as follows:

- There is no correlation between maternal age and nutritional status of children under five years old in Puskesmas Timika Kabupaten Mimika (p-value 1,000; RP = 11,028; CI95% (0,356-2,964).
- There is no correlation between maternal education with nutritional status of children under five years old at Puskesmas Timika of Mimika Regency (p-value 0,313; RP = 1,613; CI95% (0,774-3,362).
- 3. No maternal working relationship with nutritional status of children under five years old in Puskesmas Timika Kabupaten Mimika (p-value 0,580; RP = 0,676; CI95% (0,293- 1,559).
- 4. There is a relation between mother's family income and nutritional status of children under five years old at Puskesmas Timika of Mimika Regency (p-value 0,043; RP = 2,368; CI95% (1,098-5,106).
- 5. There is a correlation between mother's knowledge with nutritional status of children under five years old at Puskesmas Timika of Mimika Regency (p-value 0,000; RP = 8,750; CI95% (4,230- 18,098).
- 6. There is a relationship of mother's attitude with the nutritional status of children under five years old in Puskesmas Timika of Mimika Regency (p-value 0,000; RP = 8,816; CI95% (3,969 19,581)
- 7. There is a relationship of mother's parenting pattern with nutritional status of children under five years old in Puskesmas Timika Kabupaten Mimika (p-value 0,000; RP = 6,596; CI95% (3,266 13,320).
- 8. There is no correlation between infectious diseases and nutritional status of children under five years old in Puskesmas Timika Kabupaten Mimika (p-value 0,169; RP = 1,869; CI95% (0,863 4,045).
- 9. Foster pattern is the dominant variable with nutritional status of toddlers and knowledge is the interaction variable in Puskesmas Timika.

### REFERENCES

- [1] AL Rantetampang, A Mallongi, 2014 Environmental Risks Assessment Of Total Mercury Accumulation At Sentani Lake Papua, Indonesia Int J Sci Tech Res 3 (3), 157-163
- [2] Almatsier S, (2011). Prinsip Dasar Ilmu Gizi. PT.Gramedya Pustaka Utama, Jakarta
- [3] Anisa P (2012). Faktor Faktor Yang Berhubungan DenganKejadian Stunting Pada Balita Usia 25 60 BulanDi Kelurahan Kalibaru Depok Tahun 2012. http://www.fk\_ui.co.id. Diakses pada 6 Maret 2018.
- [4] Arisman, (2011). Gizi Dalam Daur Kehidupan. EGC, Jakarta.

- [5] Astuti PA (2017). Status Gizi Balita Di Posyandu Melati Desa Sendangadi Melati Sleman Yogyakarta. JurnalPermata Indonesia Halaman 18-23 Volume 8, Nomor 1, Mei 2017ISSN 2086-9185.
- [6] Badriah D. L (2013). Gizi Dalam Kesehatan Reproduksi. Refika Aditama, Jakarta.
- [7] Belthiny P (2017). Analisis Faktor-Faktor Yang Mempengaruhi Status Gizi Pada Balita Di Desa Ngentak Pondokrejo Sleman Yogyakarta. Universitas 'AisyiyahYogyakarta.
- [8] Citerawati, 2012. Aspek Sosiobudaya Berhubungan Dengan Perilaku Kesehatan. www.google.co.id. Diakses pada tanggal 20 Februari 2018.------Dinkes Provinsi Papua, 2017. Profil Kesehatan Papua.
- [9] Ferdous, (2013), Severity Of Diarrhea And Malnutrition Among Under Five-YearOld Children In Rural Bangladesh. American Journal Of Tropical MedicineAnd Hygiene, 89 (2), 223-228 http://web.ebscohost.com.
- [10] Fuada, N. Muljati, S dan Hidayat, T.S (2011) Karakteristik Anak Balita Dengan StatusGizi Akut Dan Kronis Diperkotaan danPerdesaan di Indonesia Jurnal EkologiKesehatan. 10 (3):174.
- [11] Handayani R (2017). Faktor-Faktor Yang Berhubungan DenganStatus Gizi Pada Anak Balita. Journal Endurance 2(2) June 2017 (217-224)Kopertis Wilayah X 217.
- [12] Hasmi (2016). Metode Penelitian Kesehatan. InMedia, Jakarta
- [13] Hidayat A(2011). Ilmu Keperawatan Anak. Jakarta: Salemba Medika
- [14] Fitriani (2013).*Promosi Kesehatan*. Edisi Pertama, Graha Ilmu, Yogyakarta.
- [15] ------Kemenkes RI, 2011. Buku Panduan kader Posyandu Menuju Keluarga Sadar Gizi. Jakarta.
- [16] ------Kemenkes, 2015. Gizi Lebih Merupakan Ancaman Masa Depan Anak. http://www.kemenkes.go.id. Diakses 18 Februari 2018
- [17] ------Kemenkes RI, 2017. *Profil Kesehatan Indonesia*. www.kemenkes\_ri.go.id. Diakses pada tanggal 10 Februari 2018.
- [18] Khomsan A, 2006. *Pangan dan Gizi untuk Kesehatan*. Jakarta: PT. RajagrafindoPersada.
- [19] Lewa AF (2016). Faktor-Faktor Yang Berhubungan Dengan Status Gizi Pada Balita Usia 6-23 Bulan Dikelurahan Pantoloan Boya Wilayah Kerja Puskesmas Pantoloan. Promotif, Vol.6 No.1, Januari-Juli 2016 Hal 09-16 Artikel II
- [20] Mapandin Wahida (2006). Hubungan Faktor-Faktor Sosial Budaya Dengan Konsumsi Makanan Pokok Rumah Tangga Pada Masyarakat Di Kecamatan Wamena, Kabupaten Jayawijaya Tahun 2005. www.undip.coid. Diakses 25 Februari 2018.
- [21] Masithah T., Soekirman, dan D. Martianto (2005).
  "Hubungan Pola Asuh Makan Dan Kesehatan Dengan Status Gizi Anak Batita Di Desa Mulya Harja".
  Media Gizi Keluarga, 29 (2): 29-39. Diakses pada 19 Januari dari www.repository.ipb.ac.id
- [22] Marmi,(2012). Asuhan Kebidanan Pada Masa Nifas "Peurperium Care" Yogyakarta: Pustaka Belajar
- [23] Maryam S, (2014). Promosi Kesehatan. Jakarta: EGC

[24] Maryunani, (2013). Ilmu Kesehatan Anak Dalam Kebidanan. TIM, Jakarta.

ISSN: 2349-4689

- [25] Moehji S, (2009). Ilmu *Gizi : Pengetahuan Dasar Ilmu Gizi*, Jakarta
- [26] Mubarak W (2011). Promosi Kesehatan Untuk Kebidanan. Salemba Medika, Jakarta.
- [27] Nabusa CD (2013). Hubungan Riwayat Pola Asuh, Pola Makan, Asupan Zat Gizi Terhadap Kejadian Stunting Pada Anak Usia 24 - 59 Bulan Di Kecamatan Biboki Utara Kabupaten Timor Tengah Utara Propinsi Nusa Tenggara Timur. http://www.ugm.co.id. Diakses 6 Maret 2018.
- [28] Notaotmodjo S(2011). Ilmu Kesehatan Masyarakat, Perilaku, Ilmu dan Seni. Cetakan ketiga. Rineka Cipta, Jakarta
- [29] Notoatmodjo S(2012). *Metode Penelitian Kesehatan*. Rineka Cipta, Jakarta.
- [30] Parii, 2014. Penilaian Status Gizi. EGC, Jakarta.
- [31] Proverawati A dan Wati E.K (2011). *Ilmu Gizi Untuk Keperawatan dan Gizi Kesehatan*. Nuha Medika, Yogyakarta.
- [32] Rolfes (2011). Understanding Nutrition USA. Wardsworth. Engage Learning.
- [33] Sediaotemo A. D(2009). Ilmu Gizi Untuk Mahasiswa dan Profesi. Dian Rakyat, Jakarta.
- [34] Septiana, (2010) Hubungan Antara Pola Pemberian Makanan Pendamping ASI (MP-ASI) Dan Status Gizi Balita Usia 6-24 bulan di Wilayah Kerja Puskesmas Gedongtengen, Yogyakarta.
- [35] Septiari Betyu Bea (2012). *Mencetak Balita Cerdasa dan Polas Asuh Orang Tua*. Nuha Medika, Yogyakarta.\
- [36] Sholikah A (2012). Faktor Faktor Yang Berhubungan Dengan Status Gizi Balita Di Pedesaan dan Perkotaan. Public Health Perspective Journal 2 (1) (2017) 9 – 18Public Health Perspective Journalhttp://journal.unnes. ac.id/sju/index.php/php.
- [37] Suhardjo (2009). Pemberian Makanan Pada Bayi dan Anak, Kanisus Jakarta.
- [38] Sujianti (2017). Analisis Faktor Ibu Yang Berhubungan Dengan Status Gizi Balita di Desa Slarang Kecamatan Kesugihan Cilacap Tahun 2017. Program Studi D3 Kebidanan STIKES Al-Irsyad Al-Islamiyyah Cilacap. Prosiding: Seminar Nasional dan Presentasi Hasil-Hasil Penelitian Pengabdian Masyarakat.
- [39] Sulistyoningsih (2011). Gizi Untuk Kesehatan Ibu dan Anak. Graha Ilmu, Yogyakarta.
- [40] Swarjana (2013). Metodologi Penelitian Kesehatan. Andi, Yogyakarta.
- [41] ------SK Gubernur Tentang Upah Minimum RegionalNo. 162 Tahun 2018. www.papua.go.id.(online),http://www.papua.go.id.Diakses2 0 Februari 2018.
- [42] Supariasa I.D.N (2012). Penilaian Status Gizi.EGC, Jakarta.
- [43] Taguri, A. E., et al. 2008. "Risk Factor For Stunting Among Under Five in Libya". Public Health Nutrition, 12 (8), 1141-1149. Diakses pada 27 Januari 2012 dari www.ncbi.nlm.nih.gov
- [44] UNICEF. 2016. *Indonesia Laporan Tahun 2012*. UNICEF: Jakarta.