RELATIONSHIP BETWEEN THE PROVISION OF LOCAL MPASI, FREQUENCY OF INFECTION AND THE STATUS OF KIDS HEALTH AGED 6-24 MONTHS IN PUSKESMAS WAIPARE, SIKKA DISTRICT, EAST NUSA TENGGARA

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ABSTRACT

Background: Nutrition plays a role in the growth of children because nutrition is a source of energy, source of substance for growth and organizing body. Balancing food consumption and substances that goes in the body determines the status of the nutrition that is inside the body. Nutrition status is divided into three categories, which are: Lack of nutrition, normal nutrition, and extra nutrition. In the provinces of East Nusa Tenggara, based on the Riskedas data in the year 2013, it shows that the prevalence of Baduta that lacks nutrition reaches 33.0%, and it consists of 11.5% bad nutrition, and 21.5% malnutrition.

Purpose of the study: Knowing the relationship between the provision of MPASI with the nutrition status of children aged 6-24 months in Puskesmas Waipare, Sikka District, East Nusa Tenggara.

Method: Research using the research design of Pearson Correlation and the rank of Spearman that studies the relationships between two or more variables.

Result: There is a correlation between the consumption of energy and nutrition status (pValue=0,0001), There is a correlation between the consumption of carbohydrate and nutrition status (pValue=0,049), there is a correlation between the consumption of protein and nutrition status (pValue=0,027), there is a correlation between the consumption of fat and nutrition status (pValue=0,021) is a correlation between the consumption of calcium and nutrition status (pValue=0,049), there is a correlation between the consumption of vitamin c and nutrition status (pValue=0,04), there is a correlation between the portion of consumption with nutrition status (pValue=0,028), there is a correlation between the frequency of infective disease and nutrition status (pValue=0,048).

Keywords: *consumption frequency. MPASI provision frequency. nutrition, nutrition status.*

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BACKGROUND

Nutrition are necessary for a very important in the process of growth and development of infants and children. Considering the benefits of nutrition in the body can help the growth and development children , and prevent the various disease resulting from malnutrition (Almatsier, 2009) .

Nutrition could also help in activities daily because nutrition as the resources , a source of substance builders and officers in the body (hidayat, 2005). Food intake and infectious disease is one of the factors that could affect the body index (suhardjo, 2003) .These two factors had links synergistically where the nutrients less can cause endurance low that vulnerable to infection , but infectious disease can cause malnutrition (soekirman , 2000) .Infectious disease can be diarrhea and tract . Diarrhea occurred because of allergy, malabsorbsi on food one of them in granting mpasi, food poisoning and lain-lain (indonesian dept of health, 2008), while ispa is a cause of disease in the most important (pore, 2010).

The results of health research base (riskesdas) 2013 , the prevalence of child nutrition status based on weight according to age (BB/U) 2013 in indonesia is 19.6 % , consisting of 5.7 % malnutrition and 13.9 % malnutrition Provincial east nusa tengga (NTT) based on data Riskedas 2013 shows the results of the prevalence of baduta that experienced malnutrition worth 33.0 % , consisting of malnutrition 11.5 % and undernourished 21,5 % .Based on secondary data taken from puskesmas waipare district sikka , shows the prevalence of baduta based on weight according to age (BB/U) 2015 worth 26,69%.

There are generally two types of mpasi namely the processing plant or called mpasi factory, and processed at home called mpasi lokal.makanan mentors breastfeeding (mpasi local) is one type of the food made with food cheap and easily in be and affordable in local daereh (ministry of finance,) 2006.

Information from above, note that intake eat and infectious disease can affect the body of children index.Hence, this study done so that it can be seen the local mpasi relations, the frequency of infectious diseases the body and the children 6-24 months at community Waipare, NTT district Sikka.

METHOD

This research was conducted in Puskesmas Waipare Sikka Regency of East Nusa Tenggara. The sample of this research is children aged 6-24 months. Its population is entire inpatients that add up to 50 respondents. Data obtained using proportional random sampling techniques. This type of research using the crossectional design research. The data of the variables were analyzed using pearson Correlation test and rank spearman. Data capture techniques using semi-permanent FFQ and interviews.

RESULT

From table 1 under note that average age mother 33 years , while average children aged 16 months , for intake of energy average 986 g / day , intake kh average the consume 167 g / day , average protein intake 31,8 g / day , while for intake of fat average 44,4 g / day , for intake of calcium rata-rata the consuming 129 mg / day , average consumption intake of iron 9,6 mg / day , for intake of vitamn c average 79,2 mg / day , average vitamin a 156 mg / day , and to bmi consume -0,91

Tabel 1. Analisis Univariat

Variabel	Mean	Std	Min	Max
Mother Age	33	31	19	55
Children Age	16	15,5	6	24
Energy	986	598	350	2500
Charbohydrate	167	118	500	850
Protein	31,8	30,9	5,5	100,5
Fat	44,4	27,1	14,5	100
Calsium	129	1,8	50	650
Iron	9,6	3,4	5,5	25,5
Vitamin C	79,2	45,1	35,5	198,2
Vitamin A	156,4	142,9	10,5	650
Nutrition Status	-0,91	-0,90	-2,50	1,30

From table 2 under known that the majority of mother educated high

school (40%), in level of income dominated by respondents with income as much as rp.500.000-1.000.000 (70%), than 50 respondents 29 respondents male sex and 21 respondents as kelmin women, at the frequency of eat 33 respondents own frequency of meals 2 times a day and 17 respondents other having frequency of meals 4 times a day, to infected disease respondents who rarely illness infection were 47 respondents (64 %) and the often illness infection were 3 respondents (6 %).

Tabel 2. Analisis Univariat

Variabel	n	%
Study		
Primary School	14	28
Junior High School	13	26
Senior High School	20	40
Collage	3	6
Income		
≤ Rp.500.000	6	12
Rp.500.000-1.000.000	35	70
Rp. 1.000.000-2.000.000	9	18
Gender		
Man	29	58
Woman	21	42
FoodFrequency		
2 times a day	33	64
4 times a day	17	34
Disease Infection		
1 month, < 3 days	47	94
1 month, > 3 days	3	6

DISCUSSION
There Is Correlations Between The Consumption Of Energy And Nutrition Status

Statistically employing correlation pearson obtained value p Value = 0,000 which would mean there are powerful relationship between energy with the intake the body that is the nutrition status the more well the body index children 6-24 dipuskesmas waipare month.

Food consumption affect on nutritional status of someone . The nutritional status good or optimal happens when the body obtain

From table 3 under known that there is the relationship between intake of energy with bmi (p = 0,0001), on intake kh there is also a significant relation (p = 0,013), to protein intake ang there is a significant (p = 0,027), intake of fat there are also siginikan relations with the (p = 0,021), calcium own intake there is also a signifkan (p = 0,049), for intake of iron there is also a significant relation (p = 0,049), vitamin c also significant links where the value of (p = 0,028), vitamin a also significant links to (bmi p = 0,048), at the frequency of but there is also a significant relation (p = 0,018), and to infectious diseases that there is also a significant relations with the (p = 0,010).

Tabel 3. Analisis Bivariat

Variabel	Sig	r
Energy Intake	0,0001	0,604
Carbohydrate Intake	0,013	0,351
Protein Intake	0,027	0,313
Fat Intake	0,021	0,325
Calcium Intake	0,049	0,289
Iron Intake	0,049	0,279
Vit.C Intake	0,028	0,311
Vit.A Intake	0,048	0,281
FoodFrequency	0,018	0,332
Disease Infection	0,010	0,363

nutritional substances that enough used efficiently , allowing physical growth , brain development and health in general on a level as high as possible (almatsier, 2006) .The body needs a supply of energy or calories continuous .Without the energy , bodily functions that are important could not run.

The result showed as many as 50 respondents average child has the intake enough energy on normal nutrition .Based on it , it appears that children who have intake enough energy great chance to have index the normal body .Intake of energy children in puskesmas waipare is

based on meet standard Nutritional Adequacy Rate 2013.

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There Is Correlations Between The Consumption Of Carbohydrate And Nutrition Status

Statistically employing correlation pearson obtained value p value = 0,049 which means is no link between carbohydrates with the intake the body that is the high arbohydrate intake the more well the nutrition status children 6-24 dipuskesmas waipare month.

The research was conducted by researchers using spring ffq that 50 respondents intake carbohydrates have good and the body index good Relations in terms of this research is because the fulfillment intake carbohydrates on children 6-24 months at community waipare .

This research in line with research conducted by Romalia Helmi (2012) about factors dealing with nutrition status in toddlers at community margototo, the results show analisi bivariat statistically significant worth p value = 0,004 which means is no link between intake meaningful carbohydrates on gzi

There Is Correlations Between The Consumption Of Protein And Nutrition Status

Statistically employing correlation pearson obtained value p

value = 0,027 which means is no link between protein intake the body with the means the higher protein intake so nutrition status of children will be getting better. In the research also protein intake consumed by children at community waipare have been properly in accordance with akg 2013.

According to the research conducted by researchers got that 50 respondents own protein intake good and the body index good .Based on it , it appears that children who have protein intake enough to be having the body index good .There are several factors that can affect protein intake enough , one is from parents or family.

This research in line with research conducted by dewi (2012) about the relationship between intake of energy and nutrient macro with the status of nutrition for children aged 1-5 years in jakarta province , analisi bivariat results show statistically significant with p value value = 0.02 which means there is a relationship between that meaningful protein intake with nutritional status .In addition the opinion of (suhardjo , 2003) also in line stating bring the nutritional status or level food consumption is the most important part of the status of health of a person .

There Is Correlations Between The Consumption Of Fat And Nutrition Status

Statistically employing correlation pearson obtained value p value = 0,021 which means is no link between intake of fat with the means intake the body fat enough to increase the body index good .

According to the research conducted by researchers got that 50 respondents children 6-24 the

months having intake of fat good and index the normal body.Intake of fat in daily children at community waipare is considered to be good if compared with akg 2013, where intake of fat children at community waipare obtained from processing the food eaten every day.

This research in line with research conducted by gemili (2011) stating that is no link between intake carbohydrates , protein and fat on child nutrition toddler in urban asemrowo , analisi bivariat show statistically significant worth p value = 0,021 which means is no link between intake of fat by nutrition status .

There Is Correlations Between The Consumption Of Calcium And Nutrition Status

Based on the results of statistical tests employing correlation pearson obtained value p value = 0,049 which would mean there are the relationship between intake calcium with an nutrition status it means intake calcium that good enough to be increase the index the body good.

Consumption of calcium no more than a day 2500 mg still to be tolerated by the body, by means of out through sweat, urine and feces, calcium and consumption should not more than 2500 mg a day.Excess calcium can cause a kidney stone or kidney disorders.Besides can cause constipation (difficult defecate).Excess calcium happen when using a supplement calcium (almatsier, 2004).

This research in line with research conducted by beautiful latifah (2015) about the relationship intake of calcium with status of nutrition in the grade 1 , the results show analisi bivariat statistically significant worth p value = 0,03 which means is no link between intake of calcium on nutrition .

There Is Correlations Between The Consumption Of Iron And Nutrition Status

Based on the results of statistical tests employing correlation pearson obtained value p value = 0.04 which would mean there are the relationship between intake iron with an nutrition status it means intake iron enough can increase the index the body good .

The results of research conducted by researchers got that the average 50 respondents consume intake iron with good and having the index the body good .In this study , intake iron the most mostly consumed obtained from food is and easily in be at the region , for example vegetable spinach , convolvulus , leaves cassava , leaves katuk , leaves marungga , egg yolk and nuts .

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This research in line with research conducted by rismiati (2016) about the relationship intake mikronutrien and nutritional status of children aged 2 to 5 years diwilayah posyandu gonilan, the results of analysis of bivariat show statistically

significant with the p value = 0.02 which means there are the relationship between intake iron with the status of nutrition.

There Is Correlations Between The Consumption Of Vitamin C And Nutrition Status

Based on the results of statistical tests employing correlation pearson obtained value p value = 0,028 which would mean there are the relationship between intake of vitamin c with an nutrition status it means intake of vitamin c good enough to be increase the index the body good.

Based on the results of research conducted by researchers used spring ffq there that 50 respondents the average having intake of vitamin c good and also index the body good .Intake of vitamin c consumed by children aged 6-24 months in puskesmas waipare not only of vegetables but also of fruits edible .Vegetables and fruits often consumed in the area tomatoes , spinach , citrus fruit , fruit of the papaw , cashew .

The body can hold up to 1500 mg vitamin c if consumed reached 100 mg per day .Status vitamin c in the body determined by signs clinic and measurement of levels of vitamin C in the blood .Signs clinic among others , bleeding gums and capillary hemorrhage under the skin .Early signs scurvy it can be seen when levels of vitamin c blood under 0.20 mg / dl (Sunita , 2004) .

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There Is Correlations Between The Consumption Of Vitamin A And Nutrition Status

Based on the results of statistical tests employing correlation pearson obtained value p value = 0,048 which would mean there are the relationship between intake of vitamin a with an nutrition status it means intake of vitamin a high can increase the index the body good **.**

Based on the results of research conducted by researchers known that 50 respondents having the average intake of vitamin a sufficient and the status of good nutrition .This is in line with the importance of the role of vitamin a in the function of the system as well as immunity congenital the acquisition and maintain integration (berdanier mucous , 2009) , also required in the expression of a gene in cellular both at the level of a transcription and a transition (Harland , 2005) .

This research in line with research conducted by roswita (2015) about the relationship intake the nutrients micro about the status of nutrition children aged 5-1 years in the work area of puskesmas pabelan , the results of analysis of bivariat show statistically significant with the p value = 0,023 which means there are the relationship between intake of vitamin A about the status of nutrition .

There Is Correlations Between The Consumption Of Frequency Of Eating And Nutrition Status

Frequency of meals uses concerned with the status of nutrition , where frequency of meals good will raise the status of nutrition , in contrast frequency of meals that is not good will reduce nutritional status of (soekirman , 2000) .The frequency of the provision of a meal is the frequency of how many times per day the provision of eat , how many times in a week , how many times a month , after it is made average daily (Widajanti , 2009) .

His study shows the results of statistical tests analysis rank the spearman got that frequency of meals with an index the body significant links the frequency of meals good will increase indkes the body .Variable presentation frequency of meals and an index the body had links who is strong enough on value koefisian the positive correlation namely value $p = 0,018$.

To research conducted in children aged 6-24 months in puskesmas waipare the average child has frequency of meals different , some have frequency of meals twice a day and some of them having frequencies eat 4 times a day .To research is revealed that the child who is having frequency of meals twice a day which children was given an interlude in the form of milk and also other food a companion for example the tubers of which are in use the way in fried and broiled .

This research in line with peelitian done by geiby waladow (2013) about the relationship food consumption pattern with the status of nutrition in children aged 3 to 5 years in the work area of puskesmas tompaso , the results of analysis of bivariat shows that statistically significant with the $p = 0,000$ which would mean there are meaningful relations between food consumption pattern with the status of nutrition .

There Is Correlations Between The Consumption Of Frequency Of Infectious Diseases And Nutrition Status

Based on the results of statistical tests use rank the spearman obtained value p value $= 0.010$ which would mean there are the relationship between the frequency of infectious disease with an index the body it means less and less children affected by the disease infection the more good index the the body of the child .

The emergence of infectious disease caused by two things that is transmission direct and indirect transmission.Indirect transmission is transmission of directly by microbes pathogenic to door suit of host. One example is the touch, the bite, kiss, and the droplet muclei when sneezing, cough, speaking or when blood transfusion with blood contaminated microbes pathogenic.Indirect transmission is transmission of microbes pathogens need media intermediaries in the form of both goods and material, water, air, food / drink. Based on the results of research conducted by researchers in get that than 50 respondents who often affected infectious disease were 3 respondents and infrequently exposed to infectious disease respondents were 47 . Based on he , infectious disease there are also suffered by continent normal nutrition , this is the that do was replaced the so that there is child with infectious disease for example cough , rheum , diarrhea , fever , because by that time toddlers very

range affected by the disease infection .

The research is in line with research conducted by dwi ety (2009) about factors relating to a growth 2-4 fourteen years at the salaman of 48 respondents the statistical tests p value = 0,003 which means is no link between infectious disease and the toddler.

CONCLUSIONS AND RECOMMEDATIONS

There are relationships between intake siginfikan energy , intake carbohydrates , protein intake , intake fat , intake calcium , intake iron , intake vitamin c , intake of vitamin a , frequency of meals and frequency of infectious disease with an nutrition status of the child age 6-24 months in puskesmas waipare .

The research researchers want to the mothers let more attention to are sprouting his son so that the children aged 6-24 months can be spared of matters of an unexpected and mother also need to pay attention of food consumed his family every day not just a eat but also more attention to the womb nutrition so energy needs , carbohydrates , protein , fat , vitamins and minerals could be met well and can maintain the status child nutrition .

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