The Factors Affecting of Malnutrient Chronical Energy Protein to Pregnancy at Mappi General Hospital Sub Province Mappi

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Abstract

Mortality mother pregnancy are moment one of the indicator degree of health each every state including in Indonesia and death of mother one of the caused by to malnutrient of chronic energy protein and have been strived in overcoming lacking of chronic energy protein to pregnant mother in Mappi general hospital, but still found by the problem of lacking of chronic energy [at] pregnant mother. The knowing of the factors affecting of malnutrient chronical energy protein to pregnancy at mappi general hospital Sub Province Mappi. The study uses correlation with control case study design. Population all pregnant mother in January - May 2017 with amount of samel counted 32 case and 64 control. Research conducted by Mappi general hospital Sub-Province Mappi in May 2017 using questioner. Data analyzed to use square chi and logistics binary regression. Factors affecting of malnutrient chronically energy protein to pregnancy at Mappi general hospital is ethnic (*p-value* 0,014; OR = 3,824; CI95%; 1,386 – 10,544), state nutrient before pregnancy (*p-value* 0,005;OR = 3,857; CI95%=1,570 – 9,476), history diseased (*p-value* 0,000; OR = 43,105; CI95%= 5,291 – 351,177), eat frequency *p-value* 0,000; OR = 9,127; CI95% =3,359 – 24,802) and knowledge *p-value* 0,000; OR = 14,455; CI95% =5,158 – 40,509).

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However there is not corelation of malnutrient chronical energy protein to preganancy at Mappi general hospital is Age *p-value* 0,589; OR = 1,421; CI95% =0 581– 3,475), education (*p-value* 0,070 OR = 2,436; CI95%; 1,022 – 5,804), far pregnancy (*p-value* 0,7450; OR = 0,632; CI95%= 0,159 – 2,518), parity (*p-value* 0,910; OR = 0,724; CI95%= 0,176 – 2,938), finansial (*p-value* 0,346; OR = 1,656; CI95% = 0,704 – 3,895) and family eat (*p-value* 0,934 OR = 1,174; CI95%= 0,451 – 3,054). As a conclusion we can say that the dominant factor which influence malnutrien chronic energy protein at Mappi general hospital is state nutrient before pregnancy is knowledge about nutrient.

Keywords: Malnutrient Chronic Energy and Protein; Pregnancy Mother.

1. Introduction

Indonesia Health Profile Report 2015, Number of Maternal Mortality Rate 359 / 100.000 per live birth which is highest among Asbacco Countries Of South East Asian Nation (ASEAN) [1,2]. The direct causes of maternal mortality 28% due to haemorrhage, eclampsia (24%), complications of puerperal (8%), abortion (5%), obstructed (5%), trauma obstetric (5%), embolism obstetric (3%) and others Other (11%). In Papua Province, however, the maternal mortality rate was 575 per 100,000 live births [3-5]. Maternal mortality is associated with a variety of nutritional status or with nutritional supplementation (Department of Nutrition and Public Health, 2013) .Empat main nutritional problem in Indonesia was Chronic Energy Deficiency (KEK), Iodine deficiency disorders (IDD), Vitamin A deficiency (VAD), danAnemia Iron nutrition (AGB). One of the nutritional prone classes targeted is pregnant women [6]. Basic National Health Research [7] reported a chronic energy-less prevalence in pregnant women, nationally 24.2%. Prevalence of low chronic energy risk in Bali (10.1%) and highest in East Nusa Tenggara (45.5%). A total of 13 provinces with national chronic energy risk prevalence are North Maluku, West Papua, Riau Islands, Banten, South Kalimantan, East Kalimantan, West Kalimantan, East Java, South Sulawesi, Central Sulawesi, Maluku, Papua and East Nusa Tenggara. The risk of chronic energy loss in pregnant women in Papua is 30.06%. The cause of malnutrition in pregnant women due to the consumption of foods that do not meet the requirements of nutritional fulfillment. Knowledge level. The low cause the mother does not understand the way of fulfillment of that nutrition. Women who are malnourished before pregnancy or during the first weeks of pregnancy have a higher risk of delivering infants with brain and bone marrow damage due to the formation of highly sensitive nervous systems within the first 2-5 weeks. When a woman is malnourished in the last trimester, then tend to give birth to babies with low birth weight (less than 2500 grams), this is because padamasa inijanin will grow very fast and the accumulation of fat tissue [6]. Knowledge plays an important role that affects the attitudes and actions of a person. Adlina research results [8] in pregnant women in Yogyakarta revealed that the relationship of knowledge to nutritional status of pregnant women, where pregnant women who have less knowledge tend to be more with nutritional status of pregnant women is less. But also found pregnant women who have good knowledge, but has a lack of nutritional status. Mappi District General Hospital reported in 2016 based on medical record data, obtained 685 pregnant women, 124 (18.10%) pregnant women experience less chronic energy. In January to March 2017 as many as 147 people and 32 (21.76%) experienced less chronic energy. Efforts made by RSUD Mappi is to provide counseling and encourage pregnant women to pay attention to the food intake and giving tablets added blood. However, it is still found pregnant women with less chronic energy. The objective of the study was to

know "Factors Affecting Chronic Energy Deficiency in Pregnant Women in Mappi District Hospital of Mappi Regency"

2. Materials and Methods

This research is a quantitative research. This study used case control design, ie comparing case groups with control groups based on their exposure status [9] conducted at Mappi District Regional Hospital conducted in May 2017. The population in this study were all pregnant women from January to March 2017 In RSUD Mappi as many as 147 people and 32 (21,76%) experience less chronic energy. Sample size obtained by using the formula two proportions is 1: 2 = n1 + n2 = 32 + 64 = 96, so the number of samples as 96 people. Data collection used use questionnaire and analyzed using chi square with Odds ratio (OR), it is possible to predict the relation of facts studied to KEK. Factor dominant use logistic regression test.

3. Research result

3.1. Univariate Analysis

Table 1 Frequency Distribution by Age, Education, Tribe, Distance of Pregnancy, Parity Nutritional Statistics Before Pregnancy, Complicating Disease, Income, Eating Frequency, Food Abuse, Nutrition Knowledge and Chronic Energy Deficiency at Mappia Hospital 2017.

Based on Table 4.2, shows that pregnant women with risky age, ie age <20 and> 35 years counted 31 people (32.3%), low education of pregnant women 43 people (44,8%). Most of the pregnant women came from the tribe of Papua 60 people (62.5%) with a distance of pregnancy at risk of 12 people (12.5%). The high maternal age of 11 people (11,5%) and pregnant nutritional status suffer from chronic energy deficiency 34 people (35,4%), beside that pregnant woman there is disease accompanying 14 people (14,6%). Family income of pregnant women as much 43 people (44,8%) less and frequency of eating less 43 people (44,8%). Pregnant women who have food abstinence 25 people (26%) and have knowledge giz less 35 people (36.5%).

3.2. Bivariate Analysis

The Effect of Age on Chronic Energy Less

Table 4.3 shows that in mothers aged <20 years and 35 years of age experienced chronic energy deficiency as many as 12 people (37.5%) while pregnant women aged 20-35 years higher experienced chronic energy deficiency as much as 20 people (62.5%). = 0,05) obtained p-value 0,589 or pα

The result of chi square statistic test at significance value 95% (> α (0,05). This means that there is no effect of age with chronic energy deficiency in pregnant women in Mappi District Hospital Mappi. The result of OR = 1,421; CI95% (0581-3,475) with a lower value less than 1, so age is not a risk factor.

Table 1

No	Variable	Frequency (n)	Presentase (%)
1	**Age**		
	< 20 year , > 35 year	31	32,3
	20-35 year	65	67,7
2	**Education**		
	Low	43	44,8
	High	53	55,2
3	**Tribe**		
	Papua	60	62,5
	Non Papua	36	37,5
4	**Pregnancy period**		
	Risk	12	12,5
	Not risk	84	87,5
5	**Parity**		
	High	11	11,5
	Low	85	88,5
6	**Nutrition Status before pregnancy**		
	KEK	34	35,4
	Non KEK	62	64,6
7	**Disease with**		
	Yes	14	14,6
	Non	82	85,4
8	**Family income**		
	Less	43	44,8
	Enough	53	55,2
9	**Eating frequency**		
	Less	43	44,8
	Good	53	55,2
10	**Eating barrier**		
	Yes	25	26
	None	71	74
11	**Nutrition knowledge**		
	Less	35	36,5
	Good	61	63,5
12	**KEK**		
	KEK	32	33,3
	Not KEK	64	66,7
Number		96	100

Table 2: Influence of Age on Chronic Energy Deficiency in Mappi District Hospital of Mappi Regency, Year

2017

No	Age	KEK		Not KEK		n	%
		n	%	N	%		
1	< 20 year , > 35 year	12	37,5	19	29,7	31	32,3
2	20-35 year	20	62,5	45	70,3	65	67,7
Total		32	100	64	100	96	100
p-value = 0,589; OR = 1,421; CI95% (0581– 3,475)							

The Influence of Education Against Chronic Energy

Table 3: Influence of Education on Chronic Energy Deficiency in Mappi District Hospital of Mappi Regency, Year 2017

No	Education	KEK				n	%
		KEK		Not KEK			
		n	%	n	%		
1	Low	19	59,4	24	37,5	43	53,1
2	High	13	40,6	40	62,5	53	46,9
Total		32	100	64	100	96	100
p-value = 0,070; OR = 2,436; CI95% (1,022 – 5,804)							

Table 3 shows that low educated mothers experienced chronic energy deficiency as many as 19 people (59.4%), whereas in high educated pregnant women did not experience chronic energy shortage of 40 people (62.5%). = 0,05) obtained p-value 0,070 or pαThe result of chi square statistic test at significance value 95% (> α (0,05). This means that there is no effect of education with chronic energy deficiency in pregnant women in the Mappi district of Mappi District. When viewed from the value OR = 2,436; CI95% (1.022 - 5,804) which stated that respondents who have low education are at risk of experiencing KEK 2,436 times higher than pregnant women with high education.

The Influence of the Tribe Against Chronic Energy

Table 4: Influence of Tribe on Chronic Energy Deficiency in Mappi District Hospital of Mappi Regency, Year 2017

No	Tribe	KEK				n	%
		KEK		Not KEK			
		n	%	n	%		
1	Papua	26	81,3	34	53,1	60	62,5
2	Non Papua	6	18,8	30	46,9	36	37,5
Total		32	100	64	100	96	100
p-value = 0,014; OR = 3,824; CI95% (1,386 – 10,544)							

Table 4 shows that as many as 26 people (81.3%) of pregnant women with chronic energy deficiency were higher than in non-Papuan pregnant women as many as 6 people (18.8%). = 0,05) obtained p-value 0,014 or pαThe result of chi square statistic test at significance value 95% (<α (0,05). This means that there is a tribal influence with chronic energy deficiency in pregnant women in Mappi District Public Hospital Mappi. When

viewed from the value OR = 3.824; CI95% (1,386 - 10,544) stated that respondents with Papuan tribe at risk experienced SEZ 3,284 times higher than non-papua pregnant women.

The Influence of Gestational Distance To Chronic Energy Less

Table 5: Influence of Gestational Distance on Chronic Energy Deficiency in Mappi District Hospital of Mappi Regency, Year 2017

No	Parity	KEK		Not KEK		n	%
		n	%	n	%		
1	Risk	3	9,4	9	12	12	12,5
2	Not risk	29	90,6	55	84	84	87,5
Total		32	100	64	100	96	100
p-value = 0,745; OR = 0,632; CI95% (0,159 – 2,518)							

Table 5 shows pregnant women with gestational distances risk of chronic energy deficiency as much as 3 people (9.4%) is lower than pregnant women with non-risk pregnancy spacing of 29 people (90.6%). = 0,05) obtained p-value 0,745 or pαThe result of chi square statistic test at significance value 95% (> α (0,05). This means that there is no effect of pregnancy distance with chronic energy deficiency in pregnant women at Mappi District Mappi District Hospital. When viewed from the value OR = 0.632; CI95% (0.159 - 2,518) is less than 1, so pregnancy distance is not a risk factor.

The Effect of Parity on Chronic Energy

Table 6: Influence of Parity on Chronic Energy Deficiency in Mappi District Hospital of Mappi Regency, Year 2017

No	Parity	KEK		Not KEK		n	%
		n	%	N	%		
1	High	3	9,4	8	12,5	11	11,5
2	Low	29	90,6	56	87,5	85	88,5
Total		32	100	64	100	96	100
p-value = 0,910; OR = 0,724; CI95% (0,176 – 2,938)							

Table 6. shows that women who experienced chronic energy deficiency in high parity were 3 people (9.4%) lower than mothers with high parity of 29 people (29.6%). = 0,05) obtained p-value 0,910 or pαThe result of chi square statistic test at significance value 95% (> α (0,05). This means that there is no parity effect with chronic energy deficiency in pregnant women in the Mappi district of Mappi District. When viewed from the

value OR = 0.724; CI95% (0.176 - 2,938) is less than 1, so parity is not a risk factor.

Influence of Nutritional Status Before Pregnant Against Chronic Energy

Table 7: Influence of nutritional status before pregnancy to Chronic Energy Deficiency in Mappi District Hospital of Mappi Regency, Year 2017

No	Nutritional Status Before Pregnancy	KEK				n	%
		KEK		Not KEK			
		n	%	n	%		
1	KEK	18	56,3	16	25	34	35,4
2	Not KEK	14	43,8	48	75	62	64,6
Total		32	100	64	100	96	100
p-value = 0,005; OR = 3,857; CI95% (1,570 – 9,476)							

Table 7 shows that pregnant women who did not experience chronic energy deficiency in nutritional status before pregnancy experienced chronic energy deficiency as much as 16 people (25%) lower than pre-pregnant mother with nutritional status did not experience chronic energy deficiency as many as 48 people (75%) . = 0,05) obtained p-value 0,005 or pαThe result of chi square statistic test at significance value 95% (<α (0,05). This means that there is an influence of nutritional status before pregnancy with chronic energy deficiency in pregnant women in Mappi District Hospital of Mappi Regency. When viewed from the value OR = 3.857; CI95% (1,570 - 9,476) is less than 1, so pregnant women with nutritional status before pregnancy experienced KEK at risk 3,857 times higher than non-KEK mother before pregnant.

Influence of Chronic Illness to Chronic Energy

Table 8: Influence of Complicating Disease on Chronic Energy Deficiency in Mappi District Hospital of Mappi Regency, Year 2017

No	Disease with	KEK				n	%
		KEK		Not KEK			
		n	%	n	%		
1	KEK	13	40,6	1	1,6	14	14,6
2	Not KEK	19	59,4	63	98,4	82	85,4
Total		32	100	64	100	96	100
p-value = 0,000; OR = 43,105; CI95% (5,291 – 351,177)							

Table 8. shows that of 32 individuals with KEK with comorbid disease as many as 13 people (40.6%) and

coexisting disease not KEK as many as 19 people (59.4%). While from 64 people are not KEK with coexisting disease experienced by SEZ as much as 1 person (1,6%) and coexisting disease not KEK as much 63 people (98,4%). = 0,05) obtained p-value 0.000 or pαThe result of chi square statistic test at significance value 95% (<α (0,05). This means that there is an effect of comorbidities with chronic energy deficiency in pregnant women in the Mappi district of Mappi District. When viewed from the value OR = 43.105; CI95% (5,291 - 351,177) stated that the presence of maternal morbidity was 43.015 times higher in SEZ compared to mothers with no comorbidities. The Effect Of Family Income On Chronic Energy Less

Table 9: Effect of Family Income on Chronic Energy Deficiency in Mappi District Hospital of Mappi Regency, Year 2017

No	Family income	KEK		Not KEK		n	%
		n	%	N	%		
1	Less	17	53,1	26	40,6	43	44,8
2	Enough	15	46,9	38	59,4	53	55,2
Total		32	100	64	100	96	100
p-value = 0,346; OR = 1,656; CI95% (0,704 – 3,895)							

Table 9 shows that pregnant women with chronic energy deficiency in family income are less than 17 people (53.1%) and pregnant women with enough family income of 15 people (46.9%). = 0,05) obtained p-value 0,346 or pαThe result of chi square statistic test at significance value 95% (> α (0,05). This means that there is no influence of family income on chronic energy deficiency in pregnant women in Mappi District Public Hospital Mappi. When viewed from the value OR = 1.656; CI95% (0.704 - 3.895) with a lower value less than 1 indicated a non-meaningful income.

The Effect Of Meal Frequency Of Chronic Energy

Table 10: Effect of eating frequency on Chronic Energy Deficiency in Mappi District Hospital of Mappi Regency, Year 2017

No	Food Frequency	KEK		Not KEK		n	%
		n	%	n	%		
1	Less	25	78,1	18	28,1	43	44,8
2	Good	7	21,9	46	71,9	53	55,2
Total		32	100	64	100	96	100
p-value = 0,000; OR = 9,127; CI95% (3,359 – 24,802)							

Table 10 shows that pregnant women with chronic energy deficiency with eating frequency less than 25 people (78.1%) higher than pregnant women who experience chronic energy deficiency with eating frequency as many as 7 people (21.9%). = 0,05) obtained p-value 0.000 or pαThe result of chi square statistic test at significance value 95% (<α (0,05). This means that there is an effect of eating frequency with chronic energy deficiency in pregnant women in Mappi District Hospital Mappi. When viewed from the value OR = 9,127; CI95% (3,359 - 24,802) who expressed mothers who ate less risky 3.359 times higher experienced SEZ compared to mothers who frequent eating well.

Influence Abstinence to Chronic Energy Less

Table 11: Effects of Abstinence on Chronic Energy Deficiency in Mappi District Mappi District, 2017

No	Want eat	KEK		Not KEK		n	%
		n	%	n	%		
1	Yes	9	28,1	16	25	25	26
2	Non	23	71,9	48	75	71	74
Total		32	100	64	100	96	100
p-value = 0,934; OR = 1,174; CI95% (0,451 – 3,054)							

Table 11 shows that pregnant women who experience chronic energy deficiency that there are abstinence of food as much as 9 people (28,1%) lower than pregnant women with no food taboo as many as 23 people (71,9%). = 0,05) obtained p-value 0,934 or pαThe result of chi square statistic test at significance value 95% (> α (0,05). This means that there is no effect of abstinence from eating with chronic energy deficiency in pregnant women in the Mappi district of Mappi District. When viewed from the value OR = 1.174; CI95% (0.451 - 3.054) with less than 1 calilower indicated that abstinence was not risky.

The Effect of Nutritional Knowledge on Chronic Energy Less

Table 12: Effects of Nutritional Knowledge on Chronic Energy Deficiency in Mappi District Mappi District, 2017

No	Nutrition knowledge	KEK		Not KEK		n	%
		n	%	n	%		
1	Less	24	75	11	17,2	35	36,5
2	Good	8	25	53	82,8	61	63,5
Total		32	100	64	100	96	100
p-value = 0,000; OR = 14,455; CI95% (5,158 – 40,509)							

Table 12 shows that pregnant women with chronic energy deficiency with less knowledge about nutrition as many as 24 people (75%) higher than pregnant women who are well knowledge about nutrition as many as 8 people (25%). = 0,05) obtained p-value 0.000 or pαThe result of chi square statistic test at significance value 95% (<α (0,05). This means that there is an influence of nutritional knowledge with chronic energy deficiency in pregnant women in Mappi District Hospital Mappi. When viewed from the value OR = 14,455; CI95% (5,158 - 40,509), which stated that the knowledge of nutrition less risk 1.174 times higher experienced SEZ compared to mother with good nutrition knowledge.

4. Multivariate Analysis

Multivariate analysis was used to find out which factors influenced chronic energy deficiency in pregnant women, bivariate analysis was needed and continued on multivariate test. Bivariate modeling using logistic regression test begins with bivariate modeling with p-value value <0.25 is education, tribe, nutritional status before pregnancy, comorbidities, eating frequency and nutritional knowledge are tested together with the final value of forward method in which each variable Independently tested against the dependent variable gradually can be seen in table 13.

Table 13: Analysis of Multiple Logistic Regression Variables

No	Variables	B	*p-value*	OR	95% C. I. for Exp (B)	
					Lower	Upper
1	Nutrition before pregnan	1.551	0,026	4.718	1.202	18.520
2	Disease with	4.121	0,002	61.640	4.516	841.366
3	Eating frequency	1.598	0,023	4.944	1.241	19.701
4	Nutrition knowledge	2.150	0,001	8.586	2.287	32.229
	Constant	-15,228	0,000	0,000		

Table 13 above, the variable p <0.05 is the nutritional status before pregnancy, comorbidities, eating frequency and nutritional knowledge. The most dominant factor of p-value value is nutritional knowledge of chronic energy deficiency in pregnant women.

5. Discussion

Effect of Age on Chronic Energy Deficiency in Pregnant Women

The result of this research is no effect of age with chronic energy deficiency in pregnant mother in Mappi District of Mappi Regency (p-value 0,589). The results of this study are in line with the research conducted by Handayani [10] at Klaten Central Java Health Center which states that the mother's age is not related to SEZ

occurrence. There are thousands of pregnant women less than 20 years old as much as 18% in the study area. Age less than 20 years is a pregnant mother who at risk and feared supply of protein nutrition especially for less fetus.

The result of the analysis showed that hanil mother with KEK was <20 years old and> 35 years (37,5%) and not KEK (29,7%). This shows a proportion that is not much different, so from the results with lower value less than 1, where age is not a risk factor.

Respondents aged 20-35 years as many as 20 people (62.5%) experienced SEZ and age 20-35 years (70.3%) did not experience KEK. Although not much different, but the proportion is higher in babies aged <20 years and> 35 years. a safe and healthy age in pregnancy is aged 20-35 years when compared with age less than 20 years and over 35 years. The younger (less than 20 years) and older (aged> 35 years) of a pregnant mother, will affect the nutritional needs required. Young age needs more nutritional supplements because in addition to being used for growth and development itself must also share with the fetus that is being conceived. As for the old age need great energy also because the organ function is increasingly weakened and required to work optimally, it requires additional energy enough to support the ongoing pregnancy [11]. The absence of age influences due to other factors in nutritional fulfillment with the level of education leads to an increase in nutritional knowledge. In addition, the factors of comorbidities are experienced, so it is stronger to dominate the incidence of chronic energy shortages of the age variable.

Effect of Education on Chronic Energy Deficiency in Pregnant Women

The result of this research is no effect of education with chronic energy deficiency in pregnant mother in Mappi District of Mappi Regency (p-value 0,070). The results of this study in line with Indriany [12] in District Sedayu revealed that there is no relationship of education to the incidence of chronic energy deficiency in pregnant women.

Education is the process of changing the attitude and behavior of a person or group of people in an effort to mature human beings through the efforts of teaching and training [13]. The respondent in hospitals Mappi most highly educated 53 people (55.8%). The result of the analysis showed that respondents who experienced low educated SEZ were (59,4%) and higher education (40,6%). This can be seen from the different proportions, where the low-educated mothers are more likely to experience SEZ. This is evidenced from the test odds Ratio (OR), that respondents who are low educated risk experienced SEZ 2.436 times higher than high-educated pregnant women.

Education means the guidance that someone gives to others in order to understand something. It can not be denied that the higher a person's education, the easier they will receive information, and ultimately the knowledge they have will be more and more. Conversely, if someone has a low level of education, it will hamper the development of the person's attitude towards the acceptance of newly introduced information and values [14]. Low education in pregnant women (44.8%) due to geographical conditions and the extent of education services in Mappi district, where the location of education services centered on districts / districts and

districts, thus affecting high school interest at least equivalent to high school.

The low level of maternal education has a risk factor for chronic energy deficiency, i.e. high education mother will facilitate the expectant mother to quickly receive a information, including everything related to nutritional status of pregnant mother. High education has knowledge about good nutrition status, thus affecting mother's knowledge about Nutrition and benefits the mother receives in the fulfillment of nutrition in pregnancy. So that education directly affects knowledge as a strong variable to the occurrence of chronic energy deficiency.

Influence of Tribe Against Chronic Energy Deficiency in Pregnant Women

The result showed that there was influence of tribe with chronic energy deficiency in pregnant mother at RSUD Mappi Kabupaten Mappi (p-value 0,014). Production was not exactly much. Supplementary feeding in pregnant women is expected to suppress chronic energy sufferers in Mappi District. Supplementary feeding for pregnant women is done by Community Health Center (Puskesmas), kelurahan / desa and Integrated Service Post (Posyandu) spread in Mappi District. Mappi District Health Office data causes chronic energy deficiency due to various factors, among others, due to limited poverty so that mothers do not receive a good nutritional intake. Mother's knowledge about low nutrition and lack of food supplies, parenting, poor health of mothers and children also become Causes chronic energy deficiency in pregnant women. In addition, the Health Office continues to provide counseling for mothers related to malnutrition and understanding of nutritional intake and provision of good food [5].

Influence of Gestational Distance to Chronic Energy Deficiency in Pregnant Women

The result showed no effect of pregnancy distance with chronic energy deficiency in pregnant mother in Mappi District of Mappi Regency (p-value 0,745). According to MOH RI [3] stated pregnancy that need to watch out is the last labor distance with early pregnancy is now less than 2 years, if the distance is too close, then the womb and mother's health has not recovered well. In these circumstances it is necessary to be aware of the possibility of unfavorable fetal growth, prolonged labor or bleeding. The analysis result obtained that mother with KEK with risk pregnancy distance (9,4%) and pregnancy distance not risk (32%). Although there is a large percentage difference in proportion, pregnancy is not a direct risk factor. This may be due to other factors such as comorbidities and patolongos conditions that can occur in women with a gestational distance of less than two years.

This is in accordance with the opinion of Horton [15], that the distance of pregnancy is too close to affect the health conditions of mothers, because pregnant women who have a gestational distance of less than two years have weak body conditions, causing health problems so that the fulfillment of maternal nutrition is inadequate. The distance of pregnancy at risk <2 years that occurred in society, because the problem of affordability of facilities and infrastructure or health facilities is very influential on the participation in family planning, the difficulty of accessing facilities due to transportation constraints and geographical condition have a negative impact on the use of contraceptives as a regulator of distances pregnancy that implicate to Information on family planning in couples of childbearing age in Mappi District. Limitations are also seen from the service side

where facilities / service places that can accommodate the needs of family planning and reproductive health man / husband is still limited.

Effect of Parity on Chronic Energy Deficiency in Pregnant Women

The results of this study found no parity influence with chronic energy deficiency in pregnant women in Mappi District Hospital Mappi (p-value 0.910). The results of this study in line with research Handayni [10] at Health Center Klaten revealed that there is no parity relationship to the incidence of chronic energy deficiency In pregnant women. Parity extensively includes gravida / number of pregnancies, premature / number of births and abortion / number of miscarriages. Medium in the special sense that the number or number of children born[16]. According to the MOH RI [3] the parity is said to be high if a mother / woman gives birth to four or more children. A woman who already has three children and a pregnancy occurs again the state of health will begin to decline, often experience less blood (anemia), bleeding through the birth canal and the location of breech or transverse baby. The number of children> 4 people need to be aware of the possibility of prolonged labor, because the more children, the mother's uterus becomes weaker.

The analysis results obtained by pregnant women with KEK with high parity (9.4%) and low parity (90.6%). This shows that the unexposed factors exceed the exposure factor to SEZ events, so parity is not a risk factor. This is because the mother who grand multipara or have children more than 4 have normal nutritional status and have experience that has been some birth and mother year how to consume nutritious food and maintain nutrition status during pregnancy trimester I. While primipara mother also have good normal nutritional status, because mother Know how to maintain the condition of body balance when consuming the food used to maintain the survival of the body during the ham.

Effect of Pregnant Nutritional Status on Chronic Energy Deficiency in Pregnant Women

The result showed that there was influence of nutritional status before pregnant with chronic energy deficiency in pregnant mother in Mappi District of Mappi Regency (p-value 0,005). Nutrition status is a body condition that describe energy and protein in the body. Results of the analysis showed that pregnant women who experience KEK nutritional status before pregnancy KEK (56.3%) and nutritional status before pregnancy is not KEK (43.8%). This suggests a large risk in pregnant women who experience KEK before pregnancy. From the OR results, that pregnant women with nutritional status before pregnancy experienced KEK at risk 3,857 times higher than those who were not KEK before pregnant.

Nutritional status of pregnant women is influenced by various factors because in during pregnancy many changes in the body that is Increased energetic metabolism as well as various nutrients is required For the growth and development of the fetus present in its constituents. Women who suffer from malnutrition before pregnancy will have an impact on malnutrition during pregnancy. But this is different, if the knowledge of pregnant women who experienced SEZ before and meet balanced nutritional intake, so it can increase weight gain during pregnancy. It is also influenced by factors of coexisting disease, if the mother does not have comorbidities, pregnant women can meet the nutritional intake during pregnancy.

Efforts to decrease morbidity and mortality of pregnant women in the strategic plan of the Ministry of Health 2015 - 2019, seeking assurances Ante Natal Care (ANC) is integrated, increasing the number of house waiting birth (RTK), increased deliveries in health facilities, organizing counseling Early Initiation of Breastfeeding and family planning post-childbirth And improving the provision and utilization of MCH books.

Effect of Family Income on Chronic Energy Deficiency in Pregnant Women

Results showed no effect of family income to the disadvantaged or chronic fatigue in pregnant women in hospitals Mappi Mappi (p-value 0.346). The results of this study in accordance with the research conducted by Handayni [10] that the family income does not affect the chronic energy shortage.

Revenue is the result or wages earned from the work of money or goods. Adequate revenues are revenues that meet the requirements set by the applicable minimum wage [18] . Socioeconomic conditions affect physical factors, health and education. Women who come from lower economic groups tend to resign and are able to adapt well when experiencing post-menopause. Social status is a right and an obligation a person has in his community. People who have high social status will be placed higher [19]. The results of the analysis found that pregnant women with less family income (53.1%) and enough family income as many as 26 people (46.9%). This shows a much different proportion, so income is not a risk factor. This is evidenced from the value OR = 1.656; CI95% (0.704 - 3,895) with a lower value less than 1, so it is not risky.

Effect of Frequency Of Eating Chronic Energy Deficiency In Pregnant Women

The result of this research shows that there is influence of eating frequency with chronic energy deficiency in pregnant mother in Mappi District of Mappi Regency (p-value 0,000). The results of this study in line Hidayati (2011), that there is influence of eating frequency to chronic energy less in pregnant women. A good diet for someone with a frequency of eating 3 times a day in meeting their needs (Sulityoningsih, 2011). The result of analysis was obtained that the mother with KEK with less eating frequency (78,1%) and good eating frequency was not KEK (21,9%). This indicates that mothers with a higher-risk eating frequency are at risk for SEZ. This is evidenced from the OR test that mothers who eat less risky frequency 3.359 times higher experienced SEZ compared to mothers who frequent eating well.

Frequency of eating is often someone doing eat in day activities either the main food or the rings. The frequency of eating someone who is a habit of eating related Closely with the adequacy of nutrient needs. This is because more and more input of nutrients obtained. While the portion measure or measure of food consumed at each meal (Arisman, 2007). Generally pregnant women especially in the first trimester of pregnancy experienced nausea vomiting is often called morning sickness. This situation causes the mother to experience nausea vomiting in the morning, even occur during the day and night. This condition requires mother's knowledge about how to consume good food, so that food intake can be fulfilled for body.

Influence Abstinence To Chronic Energy Deficiency In Pregnant Women

The result of this research showed that there was no influence of abstinence with chronic energy deficiency in

pregnant mother in Mappi District of Mappi Regency (p-value 0,934). The results of this study are in line Hidayati [20], that there is an effect of abstinence to eat less chronic energy in pregnant women. Food abstinence or abstinence are foods or inputs that cannot be eaten by individuals in society for cultural reasons. Usually the party that is required to challenge has certain characteristics, or is experiencing certain circumstances (eg because of being pregnant or breastfeeding), and because in the local culture there is a certain belief in the foodstuff (for example in relation to the nature of the sacred). Adat abstinence is taught inherited from generation to generation and tends to be obeyed even if the individual who runs it may not be too familiar or convinced of the rationale of the reasons for challenging the food in question, and simply by obedience to the local tradition [21].

The reason pregnant women do not choose certain foods is obtained information that most respondents know the impact and reasons for not choosing a particular food that is good to be challenged. However, there are respondents who do not understand the impact and the reasons for not choosing a particular meal to eat while eating good for pregnant women such as eggs, vegetables and fish. In terms of food, pregnant women usually have an assessment of the type of food so that the food has a different status. In this case the mother plays an important role because of the responsibility for processing, preparing and cooking food. For that, the mother must have knowledge of nutrition in order to distinguish nutrient good food and food that is not good for consumption.

Effect of nutritional knowledge on chronic energy deficiency in pregnant women

The result of this research is the influence of nutritional knowledge with chronic energy deficiency in pregnant mother in Mappi District of Mappi Regency (p-value 0,000). The result of this research is in line with Indryani [12] research in Sedayu Subdistrict of Bantul Regency, that there is influence of nutrient knowledge to less energy Chronic in pregnant women. Knowledge is the result of knowing, and this happens after people have sensed certain objects. Sensation occurs through the five senses, namely the sense of sight, hearing, smell, taste and touch. Much of human knowledge is obtained through the eyes and ears. Knowledge or cognitive is a very important predominant for one's actions [13].

The analysis result showed that pregnant women who experienced SEZ with good nutrition knowledge (75%) and nutritional knowledge were less than 8 people (25%). The results showed that knowledgeable mothers were more or less at risk with SEZ events. This is evidenced from the OR test, that mothers who knowledge less nutritious nutrition 1.174 times higher experienced SEZ compared to mothers with good nutrition knowledge. Similarly, the results of [23] shows that knowledge influences the incidence of chronic energy deficiency, buyers have nutritional knowledge to choose foods that are more nutritious than those that are less nutritious [23]. The knowledge that a mother possesses will influence in decision making and will also have an effect on her behavior. A mother with good nutrition knowledge is likely to provide nutrition that meets her and her baby's needs.

The dominant factor of chronic energy deficiency in pregnant women

The dominant factor of multiple logistic regression test result showed that maternal nutritional status before pregnancy, comorbidities, eating frequency and nutritional knowledge were the factors that influenced chronic energy deficiency and nutritional knowledge was the dominant factor to chronic energy deficiency in pregnant women. This has a linkage that nutritional status of pregnant women who have energy shortages have an impact on nutritional status in pregnancy. In addition, comorbidities directly reduce the nutritional status of pregnant women while being sick and affect the frequency of eating.

Good maternal nutritional knowledge can maintain mother's nutritional status through the frequency of eating due to mother's knowledge of maintaining intake nurtisinya despite experiencing complications such as nausea and vomiting that generally occur in pregnant women such as eating with small portions but often.

General knowledge as well as health and nutrition knowledge is a prominent factor in influencing composition and patterns Food consumption. A pregnant woman who already knows the nutritious food of course pregnant women can choose nutritious foods that are high nutritional value especially energy. In other hand, knowledge less impact on the application of eating form or good eating habits. A good diet will provide enough nutrients needed for health pregnancy, and reduce the risk Birth defects.

6. Conclusion

Based on the results of research and discussion, it is concluded as follows:

1. There is no influence of age with chronic energy deficiency in pregnant mother in Mappi District Hospital of Mappi Regency (p-value 0,589; OR = 1,421; CI95% = 0581- 3,475)

2. There is no effect of education with chronic energy deficiency in pregnant women in Mappi District Hospital of Mappi Regency (p-value 0,070OR = 2,436; CI95%; 1,022 - 5,804).

3. There is influence of tribe with chronic energy deficiency in pregnant mother at Mappi District Hospital of Mappi. When viewed from the value (p-value 0,014; OR = 3,824; CI95%; 1,386 - 10,544).

4. There is no effect of pregnancy distance with chronic energy deficiency in pregnant mother in Mappi District Hospital of Mappi Regency (p-value 0,7450; OR = 0,632; CI95% = 0,159 - 2,518).

5. There is no parity effect with chronic energy deficiency in pregnant mother in Mappi District Hospital of Mappi Regency (p-value 0,910; OR = 0,724; CI95% = 0,176 - 2,938).

6. There is influence of nutritional status before pregnant with chronic energy deficiency in pregnant mother at Mappi District Hospital of Mappi Regency (p-value 0,005; OR = 3,857; CI95% = 1,570 - 9,476).

7. There is influence of comorbidities with chronic energy deficiency in pregnant women in Mappi District Hospital Mappi (p-value 0,000; OR = 43,105; CI95% = 5,291 - 351,177)

8. There is no influence of family income on chronic energy deficiency in pregnant women in Mappi District Hospital of Mappi Regency. When viewed from the value (p-value 0.346; OR = 1.656; CI95% = 0.704 - 3.895).

9. There is an effect of feeding frequency with chronic energy deficiency in pregnant women in Mappi District Hospital Mappi (p-value 0,000; OR = 9,127; CI95% = 3,359 - 24,802)

10. There is no effect of abstinence from eating with chronic energy deficiency in pregnant women in Mappi District Hospital Mappi (p-value 0.934OR = 1.174; CI95% = 0.451 - 3.054).

11. There is an influence of nutritional knowledge with chronic energy deficiency in pregnant women in Mappi District Hospital Mappi. When viewed from the value (p-value 0,000; OR = 14,455; CI95% = 5,158 - 40,509).

12. Nutrition knowledge as the dominant factor to chronic energy deficiency in pregnant women in Mappi District Hospital of Mappi Regency.

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