

# Relationship Between Pregnant Women's Diet With The Event Of Chronic Energy Lack

Novi Indrayani<sup>1</sup>, Siska Puspita Sari<sup>2</sup>, Vio Nita<sup>3</sup>, Karl Heinrich Papua Rumagesan<sup>4</sup>

<sup>1,2,3,4</sup>Undergraduate Nutrition Study Program, Health Sciences, Respati University Yogyakarta, Tajem Highway 1.5 Kilometers, Depok Sub-District, Sleman District, Special Region Of Yogyakarta, Indonesia 55282

## ARTICLE INFO

### Keywords:

Dietary Habit,  
Pregnant mother,  
Chronic Energy Deficiency

## ABSTRACT

Based on a report from the Lany Jaya District Health Office in December 2020, there were 161 pregnant women, 9 of whom experienced SEZ with 1 stillbirth. SEZs in Lanny Jaya Regency can be seen based on the patterns of people's daily lives. The people of Lanny Jaya consume sweet potatoes as their main source of carbohydrates, while most of the protein is obtained from vegetables. The purpose of the study was to determine the relationship between the diet of pregnant women and the incidence of chronic energy deficiency. Methods This research uses quantitative with cross sectional design, observational approach, or data collection. The research subjects are pregnant women with chronic energy deficiency and normal pregnant women. The results of this study are that there is a relationship between diet and the incidence of chronic energy deficiency pregnant women in Tiom District, Lanny Jaya, Papua with a p value of 0.03. The conclusion is that there is a significant relationship between diet and the incidence of chronic energy deficiency in pregnant women.

### E-mail:

[novi.indrayani@respati.ac.id](mailto:novi.indrayani@respati.ac.id)

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## 1. Introduction

According to WHO, about 40% of maternal deaths in developing countries are related to anemia in pregnancy and most anemia in pregnancy is caused by acute bleeding and poor nutritional status. Pregnant women with poor nutritional status can cause chronic energy deficiency (Aminin, Wulandari, & Lestari, 2014). Malnutrition in mother and baby has accounted for at least 3.5 million deaths annually and accounts for 11% of global disease in the world (Prawita, Susanti, & Sari, 2017).

Insufficient energy and protein intake in pregnant women can cause chronic energy deficiency. Based on Nutrition Status Monitoring in 2016, 53.9% of pregnant women experienced an energy deficit (<70% Energy Adequacy Rate) and 13.1% experienced a mild deficit (70-90% Energy Adequacy Rate). For protein adequacy, 51.9% of pregnant women have a protein deficit (80-99% Protein Adequacy Rate) (KemenkesRI, 2018).

The prevalence of chronic energy deficiency in pregnant women in 2013 nationally was 24.2% and decreased to 17.3% in 2018. The prevalence rate of CED risk in women of childbearing age in Indonesia is 13.6%. Meanwhile, based on the Indonesian health map, the prevalence of pregnant women with Chronic Energy Deficiency is 16.8% (KemenKesRI, Hasil Utama RISKESDAS 2018, 2018).

Based on the report from the Lany Jaya District Health Office last month December 2020 there were 161 pregnant women of whom experienced Chronic Energy Deficiency with Upper Arm Circumference < 23 cm with 1 stillbirth. Meanwhile, in November 2020 there were 38 pregnant women experiencing Chronic Energy Deficiency with Upper Arm Circumference <23cm (KemenKesRI, Riskesdas 2018: Laporan Provinsi Papua, 2020).

## 2. Method

### 2.1 Sample

This study involved 50 respondents in Lanny Jaya Regency, Papua. The sampling technique is stratified random sampling

### 2.2 Design

The research design is descriptive research. In this research design, there are two groups that will be used, namely pregnant women with chronic energy deficiency and a group of normal pregnant women

### 2.3 Procedure

The initial stage of this research is to prepare licensing administration to carry out research and prepare research equipment. The next stage is to make a visit to the house of pregnant women who will be respondents and ask for their willingness to provide some answers to the questionnaire that the researcher gave

### 2.4 Instrument

The research instrument used by the researcher is a questionnaire with 20 questions

### 2.5 Analysis techniques

Respondents' answers collected were processed by descriptive statistics and presented in the form of a frequency distribution table. To determine the relationship between variables, the chi-square statistical test was used

## 3. Results And Discussion

### 3.1 Univariate Analysis

**Tabel 1.**  
Distribution of the frequency of respondents

Variable	(f)	(%)
Age		
19-29	33	66,0
30-49	17	34,0
Gestational Age		
Trimester I	50	100,0
Trimester II		
Education		
Not in School	9	18,0
Elementary	21	42,0
SMP	10	20,0
SMA	8	16,0
D3	1	2,0
S1	1	2,0
Proffesion		
Work	9	18
Housewife	41	82
Total	50	100%

Based on the table above, it was found that the characteristics of the female respondents were 50. mostly there are 66% pregnant women aged 19-29 years, most of the mother's gestational age is in the first trimester. Most 54% are pregnant with their second child. most of the respondents' education is not in school, namely 82%. Most pregnant women work as housewives

### 3.2 Bivariate Analysis

**Table 2.**  
Relationship between the diet of pregnant women and the incidence of chronic energy deficiency

Dietary habit	Upper Arm Circumference				p.value
	Chronic Energy Deficiency		Normal Pregnancy		
	f	%	f	%	
Minus	20	80.0	13	52.0	0.03
Normal	5	20.0	12	48.0	

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It is known from the table above that of the 50 pregnant women who became respondents, 80% of them had a poor diet and 20% had a good diet in chronic energy deficiency pregnant women. While on pregnant women with normal pregnancy conditions

## 3.3 Discussion

### a. Univariate

Maternal age is one of the things that has a direct impact on pregnancy. Age that is too young and too old will provide a great risk of harm during pregnancy. Prevention of pregnancy at a young age and too old will reduce the risk of harm during pregnancy. The age of pregnant women can also affect a person's SEZ status, as in several studies it is stated that a young age will cause the incidence of SEZ in pregnant women (Heryuditasari, Nufus, & Prasetyaningati, 2018)

Age is related to the incidence of Chronic Energy Deficiency in pregnant women in the Sumanda Health Center Work Area. The age of the mother describes the maturity of the reproductive organs. Pregnant women who are less than 20 years old have immature reproduction so that the body still needs growth. In addition, adolescents generally do not understand proper nutrition so they often suffer from malnutrition. If you are pregnant at the age of <20 years, you will be at risk of malnutrition, including Chronic Energy Deficiency. This is also at the age of > 35 years where the reproductive organs are old and physically not as strong as before and cause the body to lack nutrition. When pregnant will cause the risk of Chronic Energy Deficiency (Wahyuni, Rohani, & Fara, 2020)

In this study, the age of most pregnant women was 19-29. Based on this data, the risk of Chronic Energy Deficiency in pregnant women should be smaller. The age of pregnant women who are considered sufficient is expected to have a positive impact on their nutritional intake so that they do not experience Chronic Energy Deficiency

Education is one of the efforts to increase one's knowledge. Pregnant women who have adequate education will help them understand and take action to fulfill nutrition for their pregnancy. Education is a process that includes three dimensions, the individual, society or national community of the individual, and the entire content of reality, both material and spiritual, which plays a role in determining the nature, destiny, form of humans and society. Education is also an activity that has a specific purpose or goal that is directed at developing the potential of humans both as humans and as a society to the fullest (Nurkholis, 2013)

This study shows that pregnant women have the most elementary education, if it is understood further that someone's knowledge at the elementary level is only limited to basic knowledge of science, someone has not been taught about nutrition or good intake for the body while at the elementary school level. Work is one of the physical activities of a person that will take some of the time and energy of a mother. Pregnant women who work will have difficulty providing nutritious food for themselves and their families, besides that most of the energy obtained from the nutrients consumed will be depleted due to physical activity (Mayasari, 2014)

In this study, pregnant women stated that they were the most common housewives, but sometimes they also took the role of going to the garden looking for food sources such as vegetables, tubers and sometimes they were even involved in growing them themselves

### b. Bivariate

An unbalanced diet causes an imbalance of nutrients that enter the body and can cause malnutrition. Low income causes people to be unable to buy food in the required amount. So that the high and low income influence the purchasing power of the family towards everyday (Rahayu & Sagita, 2019).

A good diet will be sufficient to provide the nutrients needed for a healthy pregnancy, and reduce the risk of birth defects. Based on the results of previous studies indicate that there is a significant relationship between the diet of pregnant women with the incidence of Chronic Energy Deficiency (CED). The results showed that most of the pregnant women who had a good diet did not experience CED, but there were also pregnant women who had less CED eating patterns (Hikmah, W, & Istioningsih, 2020).

Mothers belonging to CED are mothers who experiencing a lack of internal energy a long time, even since before gestation period. Inadequate nutritional intake adequate during embryo implantation can be fatal to development fetus in the next trimester. Whereas, before and during pregnancy, mother need optimal nutrition to prepare and support fetal growth and development,

if the mother is malnourished then nutritional intake for the fetus will also be difficult to fulfill, as a result fetal growth restriction and low birth weight baby (Fatimah & Yuliani<sup>2</sup>, 2019)

The results of research conducted by Wijayanti show that there is a significant relationship between pattern eating pregnant women with the incidence of CED obtained *p value is 0.000*.  
Results

research shows that most pregnant women who have a good diet do not experiencing KEK, but there is also a mother pregnant with a poor diet KEK, this is caused by pregnant women not paying attention to the fulfillment aspect the food itself will have an impact on nutritional status of pregnant women. In this study, it was found that mothers pregnant who do not experience KEK but the pattern eat less. Conditions like this are necessary be noticed by pregnant women because it will impact on the health of the mother and fetus. Mothers whose diet is less able indicated that the mother is not fulfilled nutritional needs so that the opportunity have poor nutritional status. If this habit If it lasts a long time then pregnant women will be at risk experiencing SEZ, even though at the time of the study the condition of pregnant women is categorized as not experiencing KEK (Wijayanti, 2019)

In this study, researchers found that there was a significant relationship between diet and the incidence of CED in pregnant women. Pregnant women who have a poor diet will tend to experience CED during pregnancy. The impact of CED on pregnant women and their fetuses is so great that this issue must be the focus of the local government, considering that there are so many cases of infant mortality and childbirth complications that the community becomes very vulnerable to the risk of pregnancy. If we look further, several cases of infant mortality with complications and low birth weight in Lanny Jaya Regency of course have something to do with the condition of the mother during pregnancy, especially on the adequacy of nutrition. The results of this study are supported by previous research, namely the relationship between diet (protein intake) and Chronic Energy Deficiency (Anggoro, 2020)

Eating behavior is one form of disease prevention behavior, namely a response to disease prevention and efforts to maintain and improve their health, such as in the context of preventing SEZ in pregnant women. Needs during pregnancy are different for each individual and are also influenced by health history and previous nutritional status. Lack of intake of one substance will result in the need for a nutrient being disturbed and nutritional needs are not constant during pregnancy (Wahyuni e., 2019).

The diet of pregnant women in Lanny Jaya Regency is also strongly influenced by the geographical conditions of the area. The mountainous area makes access in and out of people and goods very limited. The limited access is felt in the district capital, and the cut off/difficult access is felt in areas far from the district capital, and this is not a small number, almost half of the district is still difficult to reach even the medical personnel themselves by vehicle are still very difficult. In addition, the purchasing power of the people also greatly affects the process of fulfilling the nutrition of pregnant women, although there are various foodstuffs available, however, when they cannot afford it, they will only eat food that is at home. Even though Papua is a region with special autonomy whose people must be prosperous and known as a rich community, it can only be seen on the surface, there are still many people who are in very economic difficulties, especially those who do not have jobs, forest communities are far from the capital, they still live in poverty. . This of course will force them to consume the nutrients that are around them. In addition, it is also very important in the diet of the community which is an important influence that is applied to the diet of pregnant women themselves. Their culture or daily eating habits will be difficult to change, especially to introduce new types of nutritional sources in the community.

The fulfillment of nutrition for pregnancy poses serious challenges for all health workers, because the fulfillment of these nutrients does not only affect pregnant women and their babies but all communities in Lanny Jaya Regency. Many cases of serious diseases such as cancer, tumors are found in the community and basically can be caused by the consumption pattern of the community  
It self

#### **4. Conclusion**

There is a relationship between diet and the incidence of chronic energy deficiency (KEK) pregnant women in Tiom District, Lanny Jaya, Papua

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