



## The Relationship of Knowledge and Attitudes of Pregnant Women About Balanced Nutrition to the Fulfilment of Nutrition During Pregnancy

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### ABSTRACT

**Introduction:** In the maintenance and health of the mother, as well as supplies for the lactation period, both for the fetus and the mother (for example, the supply of iron, protein and calcium). The most important thing for pregnant women is not quantity but food quality. Food should be balanced and contain a sufficient amount of all nutrients. This study aims to analyze the relationship between the knowledge and attitudes of pregnant women about balanced nutrition to the fulfilment of nutrition during pregnancy at the Citra Clinic. **Method:** This type of research is a survey that is analytical and descriptive with a cross-sectional approach. The population in this study were pregnant women who came to Citra's primary clinic to check on pregnancy. The study sample was 60 people with total sampling techniques and chi-square data analysis. The results showed that the knowledge and attitudes of pregnant women about balanced nutrition are related to the fulfilment of nutrition during pregnancy. **Result :** From the results of the study, it is known that  $(0.001 < \alpha = 0.05)$  ho, being rejected means that there is a relationship between the knowledge period of pregnancy, the need for nutrients increases to meet the needs of fetal growth and development, and attitudes of pregnant women about balanced nutrition towards the fulfilment of nutrition during pregnancy..

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## 1. INTRODUCTION

In the period of pregnancy, the need for nutrients increases to meet the needs of fetal growth and development, the maintenance and health of the mother, as well as supplies for the lactation period, both for the fetus and the mother (for example, the supply of iron, protein and calcium). The most important thing for pregnant women is not quantity but food quality (Susanti, 2020). Food should be balanced and contain all nutrients in sufficient quantities (Adinda, 2020).

Pregnant women need additional energy and balanced nutrition for the growth and development of the fetus while still paying attention to the mother's nutritional needs. Pregnant women need nutrition; if they experience malnutrition will cause problems for both the mother and the fetus in the womb. Malnutrition can affect the growth of the fetus and can lead to miscarriages, abortions, congenital disabilities and low birth weight (Aesthetica Islamy, 2019).

WHO says the mother's pregnancy must provide nutrients that are important for the growth of the fetus and her. The nutritional needs of pregnant women have received much attention from various committees throughout the country. (Adinda, 2020) Nutrition is not only needed by babies; pregnant women also need nutrients so that their pregnancy is maintained; the nutrients needed by pregnant women are folic acid, calcium, iron, vitamin B6, vitamin D and vitamin B12 (Fatimah, 2020).

Many factors influence the fulfilment of nutritional intake for pregnant women. One of the factors that affect the nutritional intake of pregnant women includes the knowledge factor. There are still many pregnant women with a low level of knowledge about balanced nutrition during pregnancy, even there are still many pregnant women who have wrong opinions about the nutritional intake that must be obtained, for example, the opinion that pregnant women should not consume too much food because it can make the fetus too large, making the delivery process difficult (Subagio, 2019)t.

Maternal knowledge about balanced nutrition during pregnancy has an important role, lack of maternal knowledge about the benefits of balanced nutrition or nutrition during pregnancy can cause the baby to be malnourished (Siregar, 2019). On the other hand, mothers still have many wrong behaviours in choosing food and eating habits in certain types of food without considering the nutrients the body needs.

Based on the initial survey with pregnant women who checked into the Citra clinic in February 2021, of the three pregnant women, 2 of whom did not understand what the fulfilment of balanced nutrition is during pregnancy; they only know the fulfilment of nutrition is like the concept of 4 healthy five perfect.

Based on the background above, the author is interested in examining the relationship between the knowledge and attitudes of pregnant women about nutrition with the fulfilment of balanced nutrition during pregnancy at the Pratama Citra Marindal Clinic

## 2. METHOD

This study used a cross-sectional study design that observed or measured dependent and independent variable data only once a time. Sampling techniques are total sampling. The location of this study was conducted at the Marindal Citra Primary Clinic. The time required for this study is March to May 2021.

The population in this study is the entirety of the study subjects. The population in this study were pregnant women who had their pregnancies checked at the Pratama Citra Marindal Clinic. A sample is a portion or representative of the studied population that can represent the entire population. The sampling in this study was the entire population, namely pregnant women who checked their pregnancy at the Pratama Citra Marindal Clinic with a total sampling technique, namely, the entire population was sampled. The sample in the maternal study was 60 pregnant women. Data collection uses primary data, namely by filling out questionnaires distributed to pregnant women dating to the clinic. Data Analysis using Chi-Square with  $\alpha = 0.05$ .

## 3. RESULT

The chi-square test will be used to see the relationship between the independent and dependent variables.

**Table 1 Frequency Distribution of Respondents By age**

Age (Years )	f	%
< 20 years	15	25
20-35 years	27	45
>35 years	18	30
Total	60	100,0

Source: 2022 primary data

Based on table 1, it is known that among pregnant women at the Marindal Primary Clinic, the majority of them are aged 20-35 years, namely 27 pregnant women (45%) and the minority < 20 years, namely 15 pregnant women (25%).

**Table 2 Frequency Distribution of Respondents By Education**

Education Level	f	%
Primary School	10	16,7
Junior High School	18	30
Senior High School	30	50
Diploma/Bachelor's Degree	2	3,3
Total	60	100,0

Based on table 2, it is known that among pregnant women at the Marindal Primary Clinic, the majority of them have a high school education/equivalent, namely 30 pregnant women (50 %) and a minority with Diploma/Sarjana education, namely two pregnant women (3.3%).

**Table 3 Frequency Distribution of Respondents Based on Weight Gain During Pregnancy**

Weight Gain During Pregnancy	f	%
Thin	20	33,3
Usual	39	65
Obesity	1	1,67
Total	60	100,0

Table 3 shows that in pregnant women at the Marindal Primary Clinic, the majority of normal weight gain was 39 pregnant women (65 %) and a minority of obese pregnant women, one pregnant woman (1.67%).

**Table 4 Distribution of Respondents Based on Upper Arm Circumference During Pregnancy**

Upper Arm Circumference During Pregnancy	f	%
Good	40	67
Less	20	33
Total	60	100,0

Based on table 4, it is known that pregnant women in the Marindal Primary Clinic The majority of LILA sizes are good, 40 pregnant women (67%) and the minority of LILA sizes is less, namely 20 pregnant women (33%).

**Table 5 Distribution of Respondents according to Pregnant Women's Knowledge of Balanced Nutrition Towards Nutritional Fulfillment during Pregnancy**

Knowledge	f	%
Good	15	25
Enough	35	58,3
Less	10	16,7
Total	60	100,0

Table 5 shows that pregnant women at the Marindal Primary Clinic are majority knowledgeable, 35 pregnant women (58.3%), and the knowledgeable minority is less, namely ten pregnant women (16.7%).

**Table 6 Distribution of Respondents' Attitudes of Pregnant Women on Balanced Nutrition towards Nutritional Fulfillment during Pregnancy**

Attitude	f	%
Agree	25	41,7
Disagree	35	58,3
Total	60	100,0

Table 6 shows that pregnant women at the Marindal Primary Clinic disapprove of the majority of 35 pregnant women (58.3%), and the minority agrees, namely 25 pregnant women (41.7%).

**Table 7 Distribution of Respondents for Pregnant Women about the Fulfillment of Balanced Nutrition during Pregnancy**

Fulfillment of Balanced Nutrition During Pregnancy	f	%
Fulfilled	25	41,7
Unfulfilled	35	58,3
Total	60	100,0

Table 7 shows that for pregnant women at the Marindal Primary Clinic, the majority of nutrition fulfilment was not fulfilled, namely 35 pregnant women (58.3%) and the minority of nutritional fulfilment was fulfilled, namely 25 pregnant women (41.7%).

### Bivariate Analysis

**Table 8 Relationship of pregnant women's knowledge of balanced nutrition to nutritional fulfillment during pregnancy**

Knowledge	Fulfillment of nutrition				F	%	P -value
	Fulfilled		Not Fulfilled				
	f	%	f	%			
Good	12	20	3	5	15	25	0,001
Enough	10	16,7	25	41,6	35	58,3	
Less	3	5	7	11,7	10	17	
Total	25	41,7	35	58,4	60	100	

From Table 8, it is known that among 15 respondents who were well informed about balanced nutrition during pregnancy, the majority of nutritional fulfillment was fulfilled by as many as 12 people (20%), while of the ten respondents whose knowledge was lacking about balanced nutrition, the majority of their nutritional fulfillment during pregnancy was not fulfilled as many as seven people (11.7%).

**Table 9 Relationship of attitudes of pregnant women about balanced nutrition to the fulfillment of nutrition during pregnancy**

Attitude	Fulfillment of nutrition				F	%	P -value
	Fulfilled		Not Fulfilled				
	f	%	f	%			
Agree	17	28,3	8	13,4	25	41,7	0,000
Disagree	10	16,7	25	41,6	35	58,3	
Total	27	45	33	55	60	100	

From Table 9, it is known that among 25 respondents who agreed with their attitudes about the fulfillment of balanced nutrition during pregnancy, the majority of nutritional fulfillment was fulfilled by as many as 17 people (28.3%), while of the 35 respondents whose attitudes disagreed about balanced nutrition, the majority of their nutritional fulfillment during pregnancy was not fulfilled as many as 25 people (41.6%).

## 4. DISCUSS

From the study results, the number of respondents The majority of respondents' knowledge is sufficient, as many as 35 people (58.3%), and minorities are knowledgeable less than as many as ten people (16.7%). The respondents' sufficient knowledge of the

fulfilment of nutrition was due to the education of the high school respondents, while the respondents' knowledge was lacking due to the education of the elementary school respondents. According to Sari (2018), maternal knowledge about balanced nutrition during pregnancy has an important role. The mother's lack of knowledge about the benefits of balanced nutrition during pregnancy can lead to the baby being malnourished. On the other hand, mothers still have many wrong behaviours in choosing food and eating habits in certain types of food without considering the nutrients the body needs. In rural communities, there is still a habit of abstaining from food, which can affect mothers' knowledge of meeting nutritional needs. One of the factors is the mother's education, work, customs and age.

According to the assumption of researchers that mothers who have good knowledge are due to their education and age of the mother. So that mothers know about balanced nutrition. From the research results on mothers' education, most are in high school and are 20-35 years old. The education of mothers who graduated from high school has a better nutrition knowledge than that of mothers who graduated from junior high school and elementary school. In comparison, the age of relatively mature mothers has more good knowledge about balanced nutrition than relatively young mothers.

### **Distribution of Respondents based on pregnant women's attitudes about balanced nutrition**

From the study results, the number of respondents, the majority of maternal attitudes disapproved among as many as 35 people (58.3%), and minority attitudes toward pregnant women were 25 people (41.7%). Respondents' attitudes disagreed about balanced nutrition because of the primary school respondents' education, while respondents' attitudes agreed about balanced nutrition because of the high school respondent education and Diploma. According to the theory of Siregar (2020), it can be seen that a person who has a disapproving attitude tends to have a level only limited to accepting and responding, while a person is said to have an affirmative attitude that is not only having a level of accepting and responding but has reached the level of respect or responsibility.

According to the researcher's assumption that the attitude of the mother who agrees because the mother is positive about balanced nutrition has more level of acceptance, response, respect or responsibility, while the mother who disagrees about balanced nutrition is more negative, that is, her attitude is only accepting and responding. The

positive and negative attitudes of mothers influence mothers in knowing balanced nutrition. This means that mothers whose attitudes agree about balanced nutrition think more positively, while mothers who disagree about balanced nutrition think more negatively.

### **Distribution of rseponden based on nutritional fulfillment during pregnancy**

From the study results, the majority of respondents fulfilling nutrition during pregnancy was fulfilled by as many as 25 people (41.6%), and minority nutrition fulfilment was not fulfilled by as many as 35 people (58.3%). Respondents who fulfilled nutrition during pregnancy were fulfilled because the education of high school respondents and the relatively younger age of respondents was around 20 years. Nutrition in pregnant women is a food need that must be met when the mother experiences pregnancy. The nutrition needed by pregnant women is different from the nutritional intake of non-pregnant women. The nutritional needs of pregnant women are not only to meet the nutritional needs of pregnant women but also for the growth and health of the fetus they contain. Therefore the nutritional needs of pregnant women are more than those of non-pregnant women (Karyadi, 2010).

According to Dharmayanti (2019), the nutrition of pregnant women during pregnancy is influenced by knowledge and attitudes. The mother's behaviour in adjusting during pregnancy is supported by education, occupation, age, and information. Maternal nutrition is fulfilled if the addition of the mother's body during pregnancy is normal and the mother's nutritional status is good. According to the researcher's assumption that knowledge and attitudes affect the fulfilment of maternal nutrition during pregnancy are fulfilled while insufficient knowledge, the fulfilment of nutrition is not fulfilled. The attitude of pregnant women who agree or are positive, the fulfilment of nutrition will be fulfilled. In contrast, the attitude of disagreeing or negative, then the fulfilment of nutrition is not fulfilled.

### **Distribution Of the relationship of knowledge to the fulfillment of nutrition during pregnancy**

From the results of the study, the number of 15 respondents who were good in their knowledge of balanced nutrition during pregnancy, the majority of nutritional fulfilment was fulfilled by as many as 12 people (20%), while of the ten respondents whose



knowledge was lacking about balanced nutrition, the majority of their nutritional fulfilment during pregnancy was not fulfilled as many as seven people (11.7%).

It was found that the mother's common knowledge of the fulfilment of nutrients and nutritional intake during pregnancy resulted in the mother and fetus being disturbed; nutrition during pregnancy is very important for the development of the mother and fetus. Mostly in remote areas, pregnant women who have low education, limited environmental conditions and lack of socialization affect the mother's knowledge, according to research by one of the STIKES Padang students.

The factors affecting the level of knowledge, according to Notoadmojo, are education, information, culture, experience, age and occupation. In this study, the education and age of the respondents influenced respondents' knowledge of balanced nutrition towards the fulfilment of nutrition during pregnancy. According to Paputungan (2016) and Sitorus (2020) in her research, maternal knowledge affects the pregnant woman in fulfilling nutrition during pregnancy. If the mother's knowledge is lacking, the fulfilment of maternal nutrition during pregnancy is not fulfilled according to the researcher's assumption in his study that the respondent's knowledge of balanced nutrition to the fulfilment of nutrition during pregnancy is influenced by the respondent's knowledge and is influenced by the respondent's education and age.

### **Distribution of Attitude Relationships to Nutritional Fulfilment during Pregnancy**

From the results of the study, the number of respondents 25 who agreed with their attitudes about the fulfilment of balanced nutrition during pregnancy, the majority of nutritional fulfilment was fulfilled by as many as 17 people (28.3%), while of the 35 respondents whose attitudes did not agree with balanced nutrition, the majority of their nutritional fulfilment during pregnancy was not fulfilled as many as 25 people (41.6%). Attitude is a reaction or response of a person close to stimulation or object. In the attitude of respondents who agreed to the fulfilment of nutrition during pregnancy, the majority of nutritional fulfilment was fulfilled because the respondents' education was mostly high school. Some were Diplomas, while the attitude of respondents did not agree with the fulfilment of nutrition during pregnancy; the majority of nutritional fulfilment was not fulfilled because the education of elementary school respondents and age ranged from 20 years. According to Dewi (2015) and Rahayuningsi (2007) in her research, the attitude of pregnant women affects the pregnant woman in fulfilling nutrition during pregnancy,

where an attitude of a pregnant woman underlies the mother to adjust to the state of her pregnancy. Suppose the mother's attitude is positive or agrees. In that case, the fulfilment of maternal nutrition is fulfilled. If the mother's attitude is negative or disagrees about balanced nutrition, then nutrition fulfilment during pregnancy is not fulfilled.

According to the researcher's assumption in his study that the relationship of respondents' attitudes about balanced nutrition to the fulfilment of nutrition during pregnancy was influenced by whether the respondents' attitudes were positive or negative and the respondents' education and age.

## 5. CONCLUSION

1. The study results concluded that there is a relationship between maternal knowledge and the fulfilment of nutrition during pregnancy, where good knowledge is the majority of the fulfilment of good nutrition. In contrast, the knowledge of lacking the majority of nutritional fulfilment is not fulfilled.
2. There is a relationship between the mother's attitude and nutrition fulfilment during pregnancy. In the attitude of respondents who agreed to the fulfilment of nutrition during pregnancy, the majority of nutritional fulfilment was fulfilled because the respondents' education was mostly high school and there was a Diploma. In contrast, the respondent's attitude did not agree with the fulfilment of nutrition during pregnancy; most nutritional fulfilment was not fulfilled.
3. Advice pregnant women to continue to meet nutritional needs during the pregnancy process with various foods.

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