



Implementation Of Local Food Supplements On Weight Gain Of Pregnant Women Chronic Energy Deficiency Of Indigenous Papuans At Mopah Baru Health Center

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ABSTRACT

One of the efforts to prevent the impact of Chronic Energy Deficiency in Pregnant Women is by providing additional food. This study aims to determine the Implementation of Providing Supplementary Food Made from Local Food on Weight Gain in Pregnant Women with Chronic Energy Deficiency of Indigenous Papuans at the Mopah Baru Health Center. The study design was Observational Analytical cross sectional. A sample of 30 pregnant women with Total sampling technique with Chi Square statistical test. Independent variables (Provision of Supplementary Food) and dependent variables (Weight Gain) using observation sheets. The results of the study were obtained from 30 respondents, who finished the Supplementary Food made from local food well, namely 19 respondents (63.3%), and those who experienced an increase in Body Weight were 16 respondents (53.3%). There is a relationship between the Provision of Supplementary Food . Made from Local Food on Weight Gain in Pregnant Women with Chronic Energy Deficiency of Indigenous Papuans with p value = 0.000 < 0.05. Pregnant women with chronic energy deficiency need to pay attention to their diet and nutritional intake during pregnancy and the need for midwives to play a role in implementing the provision of additional food made from local food from the government.

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1. Introduction

One of the causes of maternal death due to nutritional problems is Chronic Energy Deficiency (CED). The condition of pregnant women with CED is at risk of reducing muscle strength that helps the labor process so that it can result in fetal death (miscarriage), premature birth, birth defects, low birth weight (LBW) and even infant death. Pregnant women with CED risk can interfere with fetal growth and development, namely physical growth (stunting), brain and metabolism which cause infectious diseases in adulthood (P2PTM Kemenkes RI, 2019).

The World Health Organization (WHO) states that the prevalence of pregnant women experiencing Chronic Energy Deficiency (CED) tends to occur in developing countries than in developed

countries (Dini et al., 2021). Of the 10 ASEAN countries, only half have exceeded the 2030 Sustainable Development Goals (SDGs) target; less than 70 per 100 thousand births. The highest cases are in Myanmar with 250 deaths, then Laos 185 deaths per 100 thousand population. Meanwhile, Malaysia and Singapore, only 29 and 8 deaths per 100 thousand births respectively. Malnutrition or chronic energy deficiency (CED) in mothers and babies has contributed to at least 3.5 million deaths each year in ASIA and accounts for 11% of global disease in the world (UNICEF, 2019).

Based on the 2022 routine report data source collected from 34 provinces, it is known that there are 283,833 pregnant women with Upper arm circumference <23.5 cm (risk of CED) from 3,249,503 pregnant women whose LiLA was measured, so it is known that the achievement of pregnant women with CED risk is 8.7%, while the 2021 target is 14.5%. This achievement illustrates that the target for CED pregnant women this year has exceeded the target of the 2021 Ministry of Health Renstra (Kemenkes RI, 2021).

Based on data from the Directorate of Community Nutrition, there are 7 provinces where the percentage of pregnant women with CED is still above the target of 14.5%, while 27 other provinces have reached the expected target. DKI Jakarta is the province with the lowest percentage of pregnant women with CED, which is 3.1%, while the provinces with the highest percentage of pregnant women with CED are West Papua (40.7%), East Nusa Tenggara (25.1%) and Papua (24.7%) (Kemenkes RI, 2021).

Based on data obtained from the Merauke Regency Health Office in 2023, it shows that the percentage of CED pregnant women in Merauke Regency in 2021 was 28%, and in 2022 it was 30%. Mopah Baru Health Center is one of the Health Centers in Merauke Regency. The percentage of KEK pregnant women at Mopah Baru Health Center in 2021 was 21%, and in 2022 it was 21.2%. The data above is still above the target set by the Indonesian Ministry of Health, which is 14.5% (Dinas Kesehatan Kabupaten Merauke, 2023).

Providing Additional Food made from local food is one of the strategies for handling nutritional problems in pregnant women. Upper arm circumference activities need to be accompanied by nutrition and health education for changes in feeding behavior, cleanliness and sanitation for families (Kemenkes RI, 2022).

To determine pregnant women who receive Additional Food Provision made from local food, it is necessary to look at the mother's Upper arm circumference and Body Mass Index (BMI). Pregnant women who have a pre-pregnancy Body Mass Index or in the first trimester (<12 weeks) of <18.5 kg/m² and pregnant women who have an Upper Arm Circumference below 23.5 cm, are entitled to receive Additional Food Provision made from local food (Kemenkes RI, 2022).

A preliminary study conducted by researchers at the Mopah Baru Health Center in August 2023, through direct interviews, obtained data from 20 pregnant women, 6 pregnant women (30%) of whom experienced CED which was characterized by an upper arm circumference <23.5 cm and an increase in body weight that was not in accordance with the increase in gestational age.

In a study conducted by Iskandar et al entitled "Improving Nutrition in Pregnant Women with Chronic Energy Deficiency (CED) Through Assistance in Providing Additional Food in the Lampisang Aceh Besar Health Center Work Area in 2022" showed that out of 42 pregnant women, 8 pregnant women experienced Chronic Energy Deficiency (CED) (19%). All pregnant women with chronic energy deficiency (CED) experienced eating disorders such as lack of appetite, nausea and vomiting. Food intake from Additional Food Provision during assistance was still below 80% adequacy on average, but there was a gradual increase towards better (53.5%, 62.8% and 66.6%). The average body weight before assistance was 48.9 kg, and after assistance there was an increase to 50.1 kg. While the upper arm circumference before the average of 22.1 cm increased to 23.2 cm (Iskandar et al., 2022).

Based on the background above, the author is interested in conducting research on the Implementation of Providing Additional Food Made from Local Food on Weight Gain in Pregnant Women with Chronic Energy Deficiency (CED) of Indigenous Papuans (OAP) at the Mopah Baru Health Center.

2. Research Method

This study uses an Analytical Observational research design with a cross-sectional approach. With a total sampling technique, a sample of 30 respondents was obtained, the independent variable (Provision of Additional Food) and the dependent variable (Weight Gain) using an observation sheet. The Chi Square statistical test was used to determine the relationship between variables. Data analysis showed that there was a relationship between the Provision of Additional Food Made from Local Food and Weight Gain in Pregnant Women with Chronic Energy Deficiency of Indigenous Papuans at the Mopah Baru Health Center with a p value = 0.000 < 0.05.

3. Result And Discussions

Table 1. Distribution of Respondent Characteristics

s	Frekuensi (f)	Percentage (%)
Age		
< 20 year	4	13,3
20-35 year	24	80
>35 year	2	6,7
Gestational Age		
13-20 Weeks	12	40
21-27 Weeks	18	60
Supplementary Feeding		
Less	0	0
Enough	11	36.7
Good	19	63.3
Weight Gain		
No Increase	14	46,7
There is Increase	16	53,3
Total	30	100

Sumber : Kuesioner Penelitian, tanggal 27 November 2023

Based on table 1 above, it is known that out of 30 respondents (100%), 19 respondents (63.3%) completed the supplementary food provision properly, while 11 respondents (36.7%) completed the supplementary food provision sufficiently, and 0 respondents (0%) completed the supplementary food provision inadequately. The results of this study are in line with research conducted by (Juliasari and Ana, 2021), which shows that 17.9% of respondents were given additional food and 82.1% were not.

Providing Supplementary Food Based on Local Food is a local food supplement given to improve the nutritional status of the target. Providing Supplementary Food Based on Local Wisdom is one of the strategies for handling nutritional problems in pregnant women. (Kemenkes RI, 2022). According to the researcher, respondents who finished the supplementary food well were more because for 1 month the researcher routinely observed the supplementary food given. In addition to routine monitoring, pregnant women with chronic energy deficiency Papuan natives like the supplementary food made from local food cooked by the researcher, so that pregnant women finish all the food given.

In this study, some respondents finished the supplementary food sufficiently because the supplementary food was almost completely used up in 1 month (75%). Some pregnant women with chronic energy deficiency in Papua do like the provision of supplementary food made from local food cooked by researchers, but when the mother is full or does not want to eat anymore, she does not force herself to finish the food given. She will share the rest with her child at home.

In addition, this study showed that no respondents spent less than 50% of the Additional Food Provision, which means that no respondents only spent half of the Additional Food Provision in 1 month. This means that the Provision of local food ingredients is really liked by pregnant women with chronic energy deficiency in Papua. In addition, with the support of regular monitoring, the Additional Food Provision can be carried out quite well. With regular monitoring of pregnant women with chronic energy

deficiency who are given Additional Food Provision, it is hoped that the nutritional status of pregnant women with chronic energy deficiency will increase.

3.1 Identifying Weight Gain

Based on table 1 above, it is known that out of 30 respondents, there were 16 respondents (53.3%) who experienced an increase in BB, and 14 respondents (46.7%) who did not experience an increase in BB. The results of this study are in line with research conducted by (Juliasari and Ana, 2021), which shows that 98.5% of respondents experienced weight gain and 1.5% did not experience weight gain.

Weight gain during pregnancy has an important contribution to the success of pregnancy, so every pregnant woman who is examined must be weighed. Some of the additional weight of pregnant women is stored in the form of fat for fetal food reserves in the last trimester and as an energy source at the beginning of breastfeeding. Weight gain in the second and third trimesters is an important indication of fetal development (Ningrum and Cahyaningrum, 2018).

According to the researcher, most respondents experienced weight gain because the respondents spent the local food supplement well so that the average weight gain was >2 kilograms. On the other hand, respondents who did not experience weight gain was because the respondents only spent part of the local food supplement (75%) so that the average weight gain was <2 kg. So, the routine food supplement program if consumed 100% by pregnant women with chronic energy deficiency, can improve the nutritional status of mothers as indicated by changes in body weight.

Table 2. Cross Tabulation Between Variables

			Weight Gain Criteria		Total
			No Weight Gain	There is Weight Gain	
Monitoring the Implementation of Additional Feeding	Enough	Fequency	11	0	11
		%	78,6%	0%	36,7%
Total	Good	Fequency	3	16	19
		%	21,4%	100%	63,3%
		Fequency	14	16	30
		%	100%	100%	100%

Source: Research observation sheet, November 27, 2023

Based on table 2 above, it is known that out of 30 mothers, most of the mothers who completed the supplementary feeding properly experienced an increase in body weight, namely 16 people (100%). The results of the chi square test showed that the p value = 0.000 <0.05, so H_0 was rejected and H_1 was accepted, which means that there is a relationship between the provision of supplementary feeding made from local food and the weight gain of pregnant women with Chronic Energy Deficiency in Indigenous Papuans at the Mopah Baru Health Center.

Similar research conducted by Juliasari and Ana entitled "Provision of Additional Food with Weight Gain in Pregnant Women with Chronic Energy Deficiency in 2021" showed that respondents who were given additional food were 17.9% and those who were not given were 82.1%. Respondents who experienced weight gain were 98.5% and those who did not experience weight gain were 1.5%. The results of the statistical test showed a p-value <0.005, which means that there is a relationship between Additional Food Provision and Weight Gain in Pregnant Women with Chronic Energy Deficiency (Juliasari and Ana, 2021).

There is a relationship between the provision of additional food and weight gain in pregnant women Chronic energy deficiency because additional food is additional food that contains complete nutrients in accordance with government regulations. Regulation of diet and types of nutrients consumed are important factors in increasing the weight of pregnant women. The role of health workers to educate pregnant women to regulate diet and good nutritional intake for pregnant women by utilizing available food ingredients according to local food in their area (Juliasari and Ana, 2021).

According to the researcher, most respondents who spent the Local Food Supplements well experienced weight gain because the Local Food Supplements consumed 100% contained sufficient

nutrition for pregnant women with chronic energy deficiency so that the nutritional status of pregnant women increased through the provision of these supplements. The increased nutritional status of pregnant women with chronic energy deficiency can be seen from one of the increases in body weight.

In the research results, there were 3 respondents who finished the provision of additional food made from local food well but were included in the category of not experiencing weight gain because the criteria for respondents to be included in the category of increased weight is if the weight is > 2 kilograms. The three respondents in a month only experienced an increase of 1.5 kilograms, in contrast to other respondents whose weight gain could reach > 2 kilograms. Researchers argue that there are other factors that can influence, for example, there are obstacles in the absorption or absorption of food consumed.

The results of the study showed that there was a relationship between the provision of local food-based supplementary foods and the weight gain of pregnant women with Chronic Energy Deficiency in the Papuan Indigenous People in the Mopah Baru Health Center area, which means that it proves that the provision of local food-based supplementary foods really has an impact on the weight gain of pregnant women with Chronic Energy Deficiency. Therefore, the provision of supplementary foods accompanied or supplemented with available food ingredients according to local wisdom in the area, needs to be continued in order to increase the weight of pregnant women with Chronic Energy Deficiency.

Table 3. Analysis of Research Statistical Test Results

		Value	Approx. Sig
Nominal by Nominal	Contingency Coefficient	16.610	.000
N of valid Cases		30	

The results of the research analysis on the relationship between monitoring the provision of additional food and weight gain of pregnant women with Chronic Energy Deficiency in Indigenous Papuans based on statistical tests using the Chi-Square test obtained the result $p = 0.000 < 0.05$, so H_0 was rejected and H_1 was accepted, which means there is a relationship between monitoring the provision of additional food and weight gain of pregnant women with Chronic Energy Deficiency in Indigenous Papuans at the Mopah Baru Health Center.

4. Conclusion

Most respondents spent the provision of additional food made from local food well, namely 19 respondents (63.3%). Most respondents had an increase in body weight, namely 16 respondents (53.3%). There is a relationship between monitoring the provision of additional food and the increase in body weight of pregnant women with Chronic Energy Deficiency in Indigenous Papuans at the Mopah Baru Health Center, namely p value = $0.000 < 0.05$. Assistance in providing additional food by midwives is very necessary to evaluate the process.

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