Factors Affecting Weight Gain for Pregnant Women at the Ketapang II Sampit Health Center, East Kotawaringin Regency, Province Central Kalimantan

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ABSTRACT

Lack of knowledge about nutrition during pregnancy, wrong diet causes the risk of chronic energy deficiency which has an impact on pregnant women's weight loss. The purpose of this study was to analyze the factors that influence the weight gain of pregnant women at the Ketapang II Sampit Health Center, Kotawaringin Timur Regency, Central Kalimantan Province.The design of this study is an observational analytic with a cross sectional approach. Respondents were taken by purposive sampling technique that met the inclusion and exclusion criteria with a sample of 30 people. The independent variables are knowledge, diet, chronic energy deficiency and the dependent variable is the weight gain of pregnant women. Statistical test results using Logistic Regression.The results showed that most of the respondents 18 (60%) had good knowledge, eating patterns were known by half of the respondents 15 (50%) in the good category, chronic energy deficiency was known by most of the respondents 22 (73%) that CED did not occur, weight gain in pregnant women was known by almost all respondents 23 (77%) in the appropriate category.The results of data analysis showed that the knowledge variable had a significance level (0.003), eating pattern variable (0.005), Chronic Energy Deficiency (KEK) variable (0.008). Thus it can be concluded that there is an effect of knowledge, diet and chronic energy deficiency on weight gain of pregnant women at the Ketapang II Sampit Health Center, East Kotawaringin Regency, Central Kalimantan Province.Based on the results of the study it was concluded that the better the knowledge about chronic energy deficiency, the better the diet, the mother's weight will increase according to gestational age.

Keywords: Chronic Energy Deficiency, Diet, Gain, Knowledge, Pregnant Women, Weight.

BACKGROUND

Problems that are often faced by pregnant women where low nutritional status and wrong eating patterns in pregnant women can result in nutritional disorders including anemia, poor weight gain in pregnant women, and impaired fetal growth (Merissa, 2021). Low knowledge about Chronic Energy Deficiency (KEK) and eating patterns causes pregnant women not to know proper nutritional intake during pregnancy. Problems that are often found such as pregnant women rarely consume fruits, always consume vegetables or fruit 3 times a day and rarely consume fish and meat due to family economic limitations (Tasya, 2020).

The World Health Organization (WHO) (2021), confirms that the prevalence of Chronic Energy Deficiency (KEK) in pregnant women globally is 35-75% where most occur in third trimester pregnant women, while in developing countries there are 40% of deaths related to chronic energy deficiency. The incidence of SEZ in developing countries including Indonesia, India, Bangladesh, Sri Lanka, Thailand, Nepal, and Myanmar is 15-47%, namely with BMI

<18.5. The highest incidence was experienced by Bangladesh, which was 47%, while Indonesia had the fourth largest rank after India with a prevalence of 35.5% and followed by fifth place was Thailand with a prevalence of 15-25% (WHO, 2021). Riskesdas (2021) shows that there are 10 provinces in Indonesia that have a prevalence of SEZ above the national rate, which is 13.6%. Based on the 2010 Riskesdas, it shows that pregnant women who consume energy and protein below the minimum requirement are 40.8% and 49.5% (Riskesdas, 2021). The results of the 2015 Nutrition Status Monitoring Survey (PSG) from the Performance Report of the Directorate General of Public Health showed a figure of 13.3%, where this figure was still not in line with expectations for achieving the target or as expected, namely 24.2%. Meanwhile in 2016 it was found to be 16.2, even though this figure was below the desired target of 22.7% (Ministry of Health RI, 2021). The weight gain of pregnant women in East Kotawaringin District, Central Kalimantan Province is around 6.8 kg (East Kotawaringin District Health Office, 2022).

The results of a preliminary study conducted by researchers on February 8-9 at the Ketapang II Sampit Health Center, Kotawaringin Timur Regency, Central Kalimantan Province with interviews with 10 pregnant women found that 5 (50%) mothers said they did not know about proper nutrition and eating patterns during pregnancy. The eating pattern of pregnant women who is not good, that is, the majority schedule is not as recommended, marked by always consuming vegetables or fruit 3 times a day, they consume more of them once a week, if only once a day, but only occasionally for reasons of boredom and depending on desire. Especially for fruit, they rarely consume it at all on the grounds that it is expensive and in their daily diet consuming fruit is not made as a habit, so mothers tend to consume it once a week or if there is a desire. 3 (30%) mothers said that they consumed vegetable and fruit foods during pregnancy for the reason of avoiding resentment and advice from health workers and instead pregnant women consumed fast food such as pizza, meatballs, fried foods and so on for the reason that the baby wanted in the womb and it had become a habit, this was as if revenge because in the first trimester of pregnancy it was difficult for mothers to eat. 2 (20%) mothers said that mothers consume blood supplements for the reason that now they have an appetite, especially if supplemented with taking supplements later it can affect the baby in the womb to become large and the mother to become fat (Results of Preliminary Study with Interviews with Respondents at the Ketapang II Sampit Health Center, East Kotawaringin Regency, Central Kalimantan Province, 2022).

Factors that influence pregnant women's weight gain include knowledge, diet and Chronic Energy Deficiency (KEK) in pregnant women. The knowledge possessed by a mother can influence decision making and also affect her behavior (Sukmawati, 2020). Mothers with good knowledge about KEK can consume nutritious food so that they can provide adequate nutrition for their babies. When a mother enters a period of cravings, where the stomach feels nauseous and doesn't want to be filled, even in these conditions if a mother has good knowledge, she will try to meet her nutritional needs and that of her baby (Budhi, 2019). Likewise, the weight gain of pregnant women is also influenced by the diet of pregnant women. A good diet is a diet that includes balanced nutrition including carbohydrates, protein, vegetables and fruits with a meal schedule of 3x with snacks 2 times a day (Chandradew, 2020). Leny (2016), said that the health condition of pregnant women depends on their daily diet which can be determined by the quality and quantity of dishes. So that diet is an important

thing to pay attention to during pregnancy, because what is consumed by the mother will affect the fetus in her womb.

Malnutrition in pregnant women can affect the growth process of the fetus and can cause miscarriage, abortion, stillbirth, neonatal death, congenital defects, anemia in infants, intrapartum asphyxia (death in the womb), low birth weight birth (LBW).

Poor nutrition before pregnancy or during pregnancy, more often results in abortion, LBW (low birth weight babies), inhibition of fetal brain growth, anemia in newborns, babies born susceptible to infection, stillbirth, and rarely causes birth defects. Chronic malnutrition in childhood, with/without recurring illness, will lead to a stunted body shape in adulthood. Mothers who experience this condition often give birth to LBW babies. The weight of babies born can be affected by the nutritional status of the mother, both before pregnancy and during pregnancy (Prawirohardjo, 2019). Mothers with LILA less than 23.5 cm before pregnancy have a 4.27 times risk of giving birth to LBW babies compared to mothers with LILA > 23.5 cm. Kamariyah (2020), said that maternal nutrition before and during pregnancy can also affect the baby's birth weight, for example a deficiency of macronutrients due to chronic energy deficiency (LILA <23.5cm). If a pregnant woman experiences CED, the fetus does not get optimal nutritional intake, so that the growth and development of the fetus is disrupted. LILA followed by weight gain during pregnancy are factors that can affect the baby's weight at birth (Supriasa, 2019).

An increase in pregnant women's weight that is less or excessive can have an impact on the mother and fetus. Some of the impacts if excess weight gain occurs in pregnant women are babies who are born large so that they are at risk for experiencing difficulties during childbirth, besides that excess weight in pregnancy is a risk factor for hypertension in pregnancy (Haryani, 2018). Meanwhile, the impact that occurs on pregnant women whose weight gain is less than recommended during pregnancy is the risk of not developing the fetus, besides that malnutrition and anemia can become complications during childbirth (Leny, 2016).

The solution to be able to overcome the problem above is where the diet of pregnant women needs to pay attention to several principles, namely the amount consumed is more, the quality of the food is better, besides that the food must be nutritionally balanced. The strategy for getting adequate nutrition is called my dinner plate which is divided into four parts consisting of ½ carbohydrate-containing food, ¼ protein-containing food, ¼ vegetable group and ¼ fruit again. The menu for pregnant women that is balanced is equivalent to 5-6 dishes of rice/substitutes, 4-5 pieces of animal side dishes, 3-4 pieces of vegetable side dishes, 2-3 bowls of vegetables, 3 pieces of fruit and it is recommended to drink 8-12 glasses/day. Apart from that, a healthy eating pattern for pregnant women, namely adhering to the meal schedule, namely 3x with snacks 2 times a day with a balanced nutritional menu, don't forget to eat breakfast, reduce foods that contain junk food and caffeine.

Based on the background of the problems above, the researcher is interested in conducting research with the title "Factors Affecting Weight Gain for Pregnant Women at the Ketapang II Sampit Health Center, East Kotawaringin Regency, Central Kalimantan Province".

METHOD

The research design used in this study is observational analytic with a cross sectional method approach. The sampling technique used was purposive sampling which met the inclusion and exclusion criteria with a sample of 30 mothers. In this study the independent variables were Knowledge, Diet, Chronic Energy Deficiency (KEK) and the dependent variable was Weight Gain for Pregnant Women. Data processing through the stages of editing, coding, scoring, tabulation. The statistical test used is Logistic Regression with a value of α = 0.05.

RESULT

No	Age	Frequency	Precentage (%)
1	≤ 25 year old	7	8%
2	25-35 year old	19	86%
3	≥ 35 year old	4	6%
	Total	**30**	**100**

No	Education	Frequency	Precentage (%)
1	Elementary	6	20
2	Junior High school	10	33
3	Senior High School	14	47
4	Diploma/Bachelor	0	0
	Total	**30**	**100**

No	Ocupation	Frequency	Precentage (%)
1	Housewife	9	30
2	Enterpreneur	15	50
3	Employer	6	20
4	Civil Servant	0	0
	Total	**30**	**100**

Based on the table above, it is known that the age of pregnant women is known that the majority of respondents aged 25-35 years, namely 19 (64%) respondents. Education of pregnant women It is known that almost half of the respondents have high school education level, namely 14 (47%) respondents. It is known that half of the respondents work as traders, namely 15 (50%) of the respondents.

No	Knowledge	Frequency	Precentage (%)
1	Bad	6	20
2	Enough	6	20
3	Good	18	60
	Total	30	100

No	Dietary	Frequency	Precentage (%)
1	Bad	5	17
2	Enough	10	33
3	Good	15	50
	Total	30	100

No	Chronic Energy Deficiency	Frequency	Precentage (%)
1	Yes	8	27
2	No	22	73
	Total	30	100

No	Weight Gain of preganant woman	Frequency	Precentage (%)
1	accordance	23	77
2	Not accordance	7	23
	Total	30	100

Based on the table above, it shows that the knowledge of pregnant women is known to the majority of respondents, as many as 18 (60%) of respondents are in the Good category. It is known that half of the respondents (15 (50%)) are in the Good category. Chronic Energy Deficiency (CED) in pregnant women is known that the majority of respondents as many as 22 (73%) of respondents are in the category of KEK not occurring. The weight gain of pregnant women is known that almost all respondents as many as 23 (77%) of respondents are in the appropriate category.

Analysis

Result Regresi Logistik

Variabel	Significancy
Knowledge	0.003
Dietary	0.005
Chonic Energy Deficiency	0.008

The results of the data analysis showed that the knowledge variable had a significance level (0.003), eating pattern variable (0.005), Chronic Energy Deficiency (KEK) variable (0.008). Thus it can be concluded that there is an effect of knowledge, diet and Chronic Energy Deficiency (KEK) on the weight gain of pregnant women at the Ketapang II Sampit Health Center, East Kotawaringin Regency, Central Kalimantan Province.

DISCUSION

A. Knowledge of Chronic Energy Deficiency (KEK) in Pregnant Women at the Ketapang II Sampit Health Center, East Kotawaringin Regency, Central Kalimantan Province

Based on the results of the study it was found that Knowledge About Chronic Energy Deficiency (KEK) in Pregnant Women at the Ketapang II Sampit Health Center, Kotawaringin Timur Regency, Central Kalimantan Province, it was known that the majority of respondents as many as 18 (60%) respondents were in the Good category. This is in accordance with the results of the questionnaire that pregnant women know about weight gain during pregnancy marked by the statement of pregnant women that the measurement of weight in pregnant women is carried out using a standing scale/stood scale without shoes/sandals with minimal clothing. Pregnant women also say that the higher the diet, the more weight gain during pregnancy. One pregnant woman also said that pregnant women's weight should always be considered during pregnancy. Meanwhile the mother of one of the pregnant women also explained that body weight must always be monitored in order to provide information that allows preventive nutritional interventions as early as possible to overcome unwanted trends of weight loss or gain.

Lia (2019), explained that the better the knowledge about Chronic Energy Deficiency (KEK), the better it is in carrying out a balanced nutritional diet that is needed for the body, as well as with the way food is served. Notoatmodjo (2019), explains that knowledge is the result of knowing that humans can answer the question "what". This knowledge can be the result of knowing something from humans, or all human actions to understand a certain object. Pregnant women with good knowledge will more easily receive information, especially those that

support the health of themselves and their babies, educated pregnant women will also tend to seek health services that maintain good family health, especially in maintaining weight gain during pregnancy.

In the opinion of researchers that the better the knowledge of pregnant women, the better their attitude and behavior in choosing food during pregnancy and pregnant women are also able to maintain ideal body weight during pregnancy. Because food consumption behavior during the gestation period is a critical point to determine the quality of the mother and fetus. Thus the attitude and behavior of pregnant women's nutritional intake is related to the level of knowledge of the mother. The higher the level of knowledge of pregnant women, will be followed by food intake behavior that suits the needs of the mother during the pregnancy period.

B.   Eating Patterns in Pregnant Women at the Ketapang II Sampit Health Center, East Kotawaringin Regency, Central Kalimantan Province

Based on the results of the study, it was found that the diet of pregnant women at the Ketapang II Sampit Health Center, Kotawaringin Timur Regency, Central Kalimantan Province, it was known that half of the respondents, 15 (50%) of respondents were in the Good category. This is in accordance with the results of the questionnaire that pregnant women always maintain a diet during the first trimester, always set regular meal times, choose healthy snacks,

routinely consult a doctor to get the right diet, always consume low-fat dairy-based foods, always consume at least 2-3 servings of vegetables a day, always consume at least 2 servings of fruit, consume at least 2-3 servings of protein sources which can be obtained from lean meat, fish, eggs and poultry, avoid sweet foods, always avoid foods high in fat, such as fatty meat, skin, coconut milk, fried foods, offal, and others.

Fathonah (2018), explained that a good diet for pregnant women must meet sources of carbohydrates, protein, fat, vitamins and minerals. To replace rice, you can use corn, sweet potatoes and bread. As a substitute for animal protein, meat, chicken and eggs can be used. Food for pregnant women is expected to meet the nutritional needs so that the mother and fetus are healthy. For a successful pregnancy, the mother's nutritional state at the time of conception must be in good condition and during pregnancy she must receive additional protein, minerals, vitamins and energy. Food intake for pregnant women in the first quarter often decreases due to decreased appetite and frequent onset or vomiting, but these foods must still be given as usual. To overcome nausea or vomiting, the mother's portion of food should be given less by giving it more frequently. While in the second quarter, the mother's appetite usually has increased. The need for energy substances is more than the needs during young pregnancy, as well as the need for builder substances and regulatory substances such as side dishes, vegetables and colorful fruits.

In the opinion of researchers that pregnant women should pay attention to the food consumed. A good diet for pregnant women for pregnant women must meet sources of carbohydrates, protein, fat, vitamins and minerals. To replace rice, you can use corn, sweet potatoes and bread. As a substitute for animal protein, meat, chicken and eggs can be used. Eating pregnant women is expected to meet the nutritional needs so that the mother and fetus are in good health. For a successful pregnancy, the mother's nutritional state at the time of conception must be in good condition and during pregnancy she must receive additional protein, minerals, vitamins and energy. Dietary arrangements for pregnant women must meet sources of carbohydrates, proteins and fats as well as vitamins and minerals. Mother's food during pregnancy is expected to meet the nutritional needs so that the mother and fetus are in

good health. For smooth digestion it is recommended to avoid foods that have lots of spices, too hot/cold and not to use alcohol. It is also advisable to eat lots of green vegetables. In order to get a better effect from the diet of pregnant women, it is necessary to pay attention to the principle of pregnant women, that is, more quantity, better quality, besides that the menu arrangement must also be balanced. The menu for pregnant women that is balanced is equivalent to 5-6 dishes of rice/substitutes, 4-5 pieces of animal side dishes, 3-4 pieces of vegetable side dishes, 2-3 bowls of 11 vegetables, 3 pieces of fruit and it is recommended to drink 8-12 glasses/day.

Chronic Energy Deficiency (KEK) in Pregnant Women at the Ketapang II Sampit Health Center, East Kotawaringin Regency, Central Kalimantan Province

A.   Based on the results of the study it was found that Chronic Energy Deficiency (KEK) in Pregnant Women at the Ketapang II Sampit Health Center, East Kotawaringin Regency, Central Kalimantan Province, it is known that the majority of respondents as many as 22 (73%) respondents were in the category of KEK not occurring. This shows that pregnant women always pay attention to diet during pregnancy. A good diet for pregnant women is a source of carbohydrates, protein, fat, vitamins and minerals. To replace rice, you can use corn, sweet potatoes and bread. As a substitute for animal protein, meat, chicken and eggs can be used. Food for pregnant women is expected to meet the nutritional needs so that the mother and fetus are healthy. In the opinion of the researchers that the nutritional needs of pregnant women are important factors that will affect the nutrition of the mother and fetus, so a mother must pay attention to the substances consumed to meet her nutritional needs.

B.   Malnutrition in pregnant women can affect the growth process of the fetus and can cause miscarriage, abortion, stillbirth, neonatal death, congenital defects, anemia in infants, intrapartum asphyxia (death in the womb), low birth weight birth (LBW). Poor nutrition before pregnancy and during pregnancy, more

often results in abortion, LBW (low birth weight babies), fetal brain growth retardation, anemia in newborns, babies born susceptible to infection, stillbirth, and rarely causes birth defects. Chronic malnutrition in childhood, with/without recurring illness, will lead to a stunted body shape in adulthood. Mothers who experience this condition often give birth to LBW babies. The weight of babies born can be affected by the nutritional status of the mother, both before pregnancy and during pregnancy (Prawirohardjo, 2019). Muliarini (2020), also explained that the condition of pregnant women with CED has the potential to reduce the manpower that can help smooth the delivery process so that it can cause fetal death such as miscarriage, preterm birth, defects in babies, Low Birth Weight Babies (LBW) to the potential for infant death. Pregnant women with CED can cause disruption of fetal growth and development such as the occurrence of stunting, brain and metabolic defects which result in infectious diseases in adulthood.

In the opinion of researchers that pregnant women must get adequate nutrition for themselves and for their fetus. Malnutrition in pregnant women can cause the risk of complications in pregnant women. Meanwhile, poor nutritional status before and during pregnancy will cause low birth weight babies (LBW), delays in fetal brain development, anemia in newborns, infected newborns, and abortion. Apart from that, to obtain a better nutritional status, the diet of pregnant women needs to pay attention to several principles, namely the amount consumed is more, the quality of the food is better, besides that the food must be nutritionally balanced.

C.   **Weight Gain for Pregnant Women at the Ketapang II Sampit Health Center, East Kotawaringin Regency, Central Kalimantan Province**

Based on the results of the study it was found that the weight gain of pregnant women at the Ketapang II Sampit Health Center, Kotawaringin Timur Regency, Central Kalimantan

Province, it was known that almost all respondents as many as 23 (77%) respondents were in the appropriate category. This shows that the weight gain of pregnant women in the appropriate or ideal category is supported by good knowledge, diet and nutritional status of pregnant women so as to prevent weight gain or loss during pregnancy. In addition, pregnant women are always regular in weighing. Sofian (2018), said that weighing in the first and second trimesters of pregnancy aims to determine the increase in maternal weight before and after pregnancy. Weighing starting in the third trimester aims to determine the weight gain every week. In the opinion of researchers that the dangers of excess weight gain in pregnant women include, babies who are born large so that they are at risk of complicating labor. In addition, excess weight gain, especially in the third trimester, is a danger sign of the possibility of preeclampsia. Likewise, the dangers of excessive weight loss include the risk of the fetus not developing. Then malnutrition and anemia in pregnant women can also be a complication during childbirth.

Mandriwati (2019), explained that the weight gain of pregnant women who are lacking or excess can have an impact on both the mother and the fetus. Some of the impacts if there is excess weight gain in pregnant women are babies who are born large so that they are at risk for experiencing difficulties during labour, besides that excess weight in the third trimester of pregnancy is a sign of a danger of the risk of preeclampsia. Meanwhile, the impact that occurs on pregnant women whose weight gain is less than recommended during pregnancy is the risk of not developing the fetus, besides that malnutrition and anemia can become complications during childbirth. Fraser (2019), says that the right weight gain for every pregnant woman is currently based on the pre-pregnancy body mass index (body mass index/BMI), or with the term BMI (body mass index) which describes the ratio between the mother's weight and height. Weight gain in pregnant women indicates the mother's adaptation to fetal growth and there is accumulation of fat in the body in pregnant women. The normal limit for pregnant women's weight gain depends on the woman's Body Mass Index (BMI) before pregnancy.

According to research assumptions chronic energy deficiency will affect the weight loss of pregnant women, where if the nutritional status is normal then the weight gain of pregnant women will be normal and vice versa if the nutritional status is not normal then the weight gain of pregnant women is not normal. Nutritional status is one of the factors that can affect the weight gain of pregnant women.

D.   Factors Affecting Weight Gain for Pregnant Women at the Ketapang II Sampit Health Center, East Kotawaringin Regency, Central Kalimantan Province

The results of the data analysis showed that the knowledge variable had a significance level (0.003), eating pattern variable (0.005), Chronic Energy Deficiency (KEK) variable (0.008). Thus it can be concluded that there is an effect of knowledge, diet and Chronic Energy Deficiency (KEK) on the weight gain of pregnant women at the Ketapang II Sampit Health Center, East Kotawaringin Regency, Central Kalimantan Province. The results of the cross-tabulation also showed that Knowledge of Chronic Energy Deficiency (KEK) was known to almost all respondents, namely 15 (83%) of respondents in the good category so that the weight gain of pregnant women was in the appropriate category. The eating patterns of pregnant women were known to all respondents, namely as many as 15 (100%) respondents in the good category so that the weight gain of pregnant women was in the appropriate category. Chronic Energy Deficiency (CED) in pregnant women is known to all respondents, namely as many as 22 (100%) respondents in the category of CED not occurring so that the weight gain of pregnant women is in the appropriate category.

Factors that influence pregnant women's weight gain include knowledge, diet and Chronic Energy Deficiency (KEK) in pregnant women. The knowledge possessed by a mother can influence decision making and also affect her behavior (Sukmawati, 2020). Mothers with good knowledge about KEK can consume nutritious food so that they can provide adequate nutrition for their babies. When a mother enters a period of cravings, where the stomach feels

nauseous and doesn't want to be filled, even in these conditions if a mother has good knowledge, she will try to meet her nutritional needs and that of her baby (Budhi, 2019). Likewise, the weight gain of pregnant women is also influenced by the diet of pregnant women. A good diet is a diet that includes balanced nutrition including carbohydrates, protein, vegetables and fruits with a meal schedule of 3x with snacks 2 times a day (Chandradew, 2020). Leny (2016), said that the health condition of pregnant women depends on their daily diet which can be determined by the quality and quantity of dishes. So that diet is an important thing to pay attention to during pregnancy, because what is consumed by the mother will affect the fetus in her womb.

Malnutrition in pregnant women can affect the growth process of the fetus and can cause miscarriage, abortion, stillbirth, neonatal death, congenital defects, anemia in infants, intrapartum asphyxia (death in the womb), low birth weight birth (LBW). Poor nutrition before pregnancy or during pregnancy, more often results in abortion, LBW (low birth weight babies), inhibition of fetal brain growth, anemia in newborns, babies born susceptible to infection, stillbirth, and rarely causes birth defects. Chronic malnutrition in childhood, with/without recurring illness, will lead to a stunted body shape in adulthood. Mothers who experience this condition often give birth to LBW babies (Prawirohardjo, 2019).

Mothers with LILA less than 23.5 cm before pregnancy have a 4.27 times risk of giving birth to LBW babies compared to mothers with LILA > 23.5 cm. Kamariyah (2020), said that maternal nutrition before and during pregnancy can also affect the baby's birth weight, for example a deficiency of macronutrients due to chronic energy deficiency (LILA <23.5cm). If a pregnant woman experiences CED, the fetus does not get optimal nutritional intake, so that the growth and development of the fetus is disrupted. LILA followed by weight gain during pregnancy are factors that can affect the baby's weight at birth (Supriasa, 2019).

Underweight or excess pregnant women's weight can have an impact on the mother and fetus. Some of the impacts if excess weight gain occurs in pregnant women are babies who are born large so that they are at risk for experiencing difficulties during childbirth, besides that excess weight in pregnancy is a risk factor for hypertension in pregnancy (Haryani, 2018). Meanwhile, the impact that occurs on pregnant women whose weight gain is less than recommended during pregnancy is the risk of not developing the fetus, besides that malnutrition and anemia can become complications during childbirth (Leny, 2016).

The solution to be able to overcome the problem above is where the diet of pregnant women needs to pay attention to several principles, namely the amount consumed is more, the quality of the food is better, besides that the food must be nutritionally balanced. The strategy for getting adequate nutrition is called my dinner plate which is divided into four parts consisting of ½ carbohydrate-containing food, ¼ protein-containing food, ¼ vegetable group and ¼ fruit again. The menu for pregnant women that is balanced is equivalent to 5-6 dishes of rice/substitutes, 4-5 pieces of animal side dishes, 3-4 pieces of vegetable side dishes, 2-3 bowls of vegetables, 3 pieces of fruit and it is recommended to drink 8-12 glasses/day. Apart from that, a healthy eating pattern for pregnant women, namely adhering to the meal schedule, namely 3x with snacks 2 times a day with a balanced nutritional menu, don't forget to eat breakfast, reduce foods that contain junk food and caffeine.

CONCLUSION

Knowledge of Pregnant Women at the Ketapang II Sampit Health Center, East Kotawaringin Regency Knowledge of Chronic Energy Deficiency (KEK) in Pregnant Women at the Ketapang II Sampit Health Center, East Kotawaringin Regency, Central Kalimantan Province, it is known that the majority of respondents as many as 18 (60%) respondents are in the Good category. Eating patterns of pregnant women at the Ketapang II Sampit Health

Center, Kotawaringin Timur Regency, Central Kalimantan Province, it is known that half of the respondents, 15 (50%) of respondents, are in the Good category. Chronic Energy Deficiency (KEK) in Pregnant Women at the Ketapang II Sampit Health Center, Kotawaringin Timur Regency, Central Kalimantan Province, it is known that the majority of respondents (22 (73%)) are in the category of KEK not occurring. Weight Gain for Pregnant Women at the Ketapang II Sampit Health Center, East Kotawaringin Regency, Central Kalimantan Province, it is known that almost all of the respondents, 23 (77%) of respondents, were in the appropriate category. The results of the data analysis showed that the knowledge variable had a significance level (0.003), eating pattern variable (0.005), Chronic Energy Deficiency (KEK) variable (0.008). Thus it can be concluded that there is an effect of knowledge, diet and Chronic Energy Deficiency (KEK) on the weight gain of pregnant women at the Ketapang II Sampit Health Center, East Kotawaringin Regency, Central Kalimantan Province. It is recommended to be able to provide understanding to all health workers to provide counseling about the importance of weight gain for pregnant women through classes for pregnant women, posyandu or when pregnant women carry out pregnancy checks at the Puskesmas so that they can increase pregnant women's knowledge about the importance of gaining weight during pregnancy. In addition, it is also hoped that this can become information material so that it can increase pregnant women's knowledge about the importance of gaining weight during pregnancy by always adhering to the meal schedule, namely 3x snacks 2 times a day with a balanced nutritional menu, don't forget to eat breakfast, reduce foods that contain junk food and caffeine.

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