ANTENATAL CARE MIDWIFERY CARE FOR MRS. " U" G2P1A0 WITH CHRONIC ENERGY DEFICIENCY AT BUNGI HEALTH CENTER

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A B S T R A C T

Background: *Chronic Energy Deficiency (CED) is a condition in which the mother experiences long-lasting malnutrition, especially related to unbalanced energy and protein intake.* ***Objective:*** *This case study aims to provide antenatal care obstetric care to Mrs. "U" G2P1A0 with chronic energy deficiency.* ***Subject:*** *The research subject taken was Mrs. "U" G2P1A0 with chronic energy deficiency (CED).* ***Method*** *used in this research is a case study with a descriptive approach using Varney's seven steps and the SOAP intervention method.* ***Results:*** *subjective data: the mother said she felt weak, had difficulty eating, had nausea and vomiting since the beginning of pregnancy. The mother said the fetus was moving strongly at this time and the mother had felt abdominal pain since 1 week ago. Objective data obtained from the examination results showed that the mother's general condition was good, composmentis consciousness. Blood pressure 110/80 mmHg, pulse 82 x/min, breathing 20 x/min, body temperature 36.5°C. Upper arm circumference 21 cm. The management given is to explain to the mother the results of the examination, provide health education, explain to the mother the 10 danger signs of pregnancy, encourage the mother to consume FE tablets taken 1 time a day and encourage the mother to consume the PMT given and project the mother to breastfeed her baby exclusively.* ***Conclusion:*** *The care of Mrs. "H" was carried out in as much detail as possible in accordance with midwifery care and midwifery service standards.*

INTRODUCTION

Chronic Energy Deficiency (CED) is a condition where the mother experiences long-term malnutrition, especially related to unbalanced energy and protein intake. This results in the body not getting the nutrients it needs. Pregnant women who experience CED are at high risk of sudden death during the perinatal period and are also at risk of giving birth to babies with low birth weight (Hayat et al., 2021).

Chronic energy deficiency (CED) is a condition in which a person's energy intake is consistently below their body's metabolic needs. This condition can occur due to a lack of adequate food intake or an insufficient amount of nutrients obtained from the food consumed (Ariestanti et al., 2020).

In pregnant women, CED can have serious impacts on maternal health and fetal development. Pregnant women who experience CED are at high risk of pregnancy complications, such as anemia, urinary tract infections, preeclampsia, and premature labor. CED can also cause excessive maternal weight loss and decreased breast milk production after delivery. In addition, CED also has a negative impact on fetal growth and development. Fetuses carried by mothers with CED are at risk of stunted growth, low birth weight (LBW), and have a high risk of developing chronic diseases later in life, such as type 2 diabetes and heart disease (Indrayani & Sari, 2020).

To overcome the problem of CED in pregnant women, it is important to provide comprehensive midwifery care. Midwifery care includes monitoring the nutritional status of pregnant women, education about the importance of balanced food intake and adequate nutrition, and monitoring fetal growth during pregnancy. In addition, the medical team can also provide nutritional supplements to meet the nutritional needs of pregnant women, such as iron and folic acid tablets, which are needed by the body. Regular supervision and monitoring will help detect and address CED problems early on, as well as prevent more serious complications by providing proper care to the mother and her fetus (Sinambela & Solina, 2021).

The nutritional status of pregnant women is one of the important indications for assessing the nutritional status of the community. Intake that does not match the body's needs can result in

nutritional deficiencies. This increase is important to support fetal growth and development, enlarge the reproductive organs, and change the composition and metabolism of the mother's body. Therefore, if certain nutrients needed during pregnancy are lacking, it can result in suboptimal fetal growth and development (Ervinawati et al., 2019).

Factors that influence Chronic Energy Deficiency (CED) include maternal knowledge of nutrition, energy intake, maternal age , birth spacing, and family income. Pregnant women require more food than non-pregnant women. Maternal age , whether very young or older, also affects nutritional needs. In addition, knowledge of nutrition influences dietary habits. Family income plays an important role in determining the quality and quantity of food available (Asmin et al., 2022).

The prevalence of Chronic Energy Deficiency (CED) ranges from 15% to 47%. in developing countries such as Myanmar, Indonesia, India, Bangladesh, Nepal, Sri Lanka, and Thailand. Among these countries, Bangladesh recorded the highest prevalence, which is 47%, while Indonesia is in fourth place with a prevalence of 35.5 % . Thailand ranges from 15% to 25% has the lowest prevalence (Fatkhiyah et al., 2020).

In Indonesia, based on the 2013 Basic Health Research (RISKESDAS), the proportion of pregnant women experiencing Chronic Energy Deficiency (CED) showed an increase from 33.5% in 2010 to 38.5% in 2013. Sixteen provinces in Indonesia have a higher prevalence of CED than the national average, namely South Kalimantan, West Nusa Tenggara, West Sulawesi, Southeast Sulawesi, Central Sulawesi, South Sulawesi, Central Kalimantan, East Java, Banten, Aceh, North Maluku, East Nusa Tenggara, West Papua, Maluku, Papua, and DI Yogyakarta (Daryanti, 2019).

According to the Southeast Sulawesi Health Office quoted from the official BPS website of the Central Statistics Agency (BPS), the number of pregnant women with CED (chronic energy deficiency) in Southeast Sulawesi in 2021 was 2,119 people from the total population. The number of pregnant women at that time was 58,952 people (Southeast Sulawesi Provincial Health Office, 2022). Meanwhile, according to the performance report of the Directorate General of Public Health, Ministry of Health of the Republic of Indonesia in 2022, the percentage of pregnant women with chronic energy deficiency (CED) in Southeast Sulawesi was 3,786 out of 23,439 pregnant women who had done. Women (CED) (Ministry of Health of the Republic of Indonesia, 2023) (Fatkhiuah & Izzatul, 2019).

Based on preliminary survey data conducted from January to March 2024 at the Bungi Health Center, Baubau City, there were at least 10 mothers diagnosed with chronic energy deficiency (CED). Based on this background, the author is interested in discussing the case with the title "Antenatal Care Midwifery Care for Mrs. U G2P1A0 with Chronic Energy Deficiency at the Bungi Health Center"

METHODOLOGY

The method used in this study uses the seven Varney Steps and the SOAP method. The study was conducted at the Bungi Health Center in Baubau City from January 15 to March 8, 2024 with the main subject Mrs. U, a pregnant woman diagnosed with CED. The data collection process was supplemented with direct observation and in-depth interview techniques to obtain comprehensive information about the subject's health condition .

Data analysis used Varney's seven-step approach and the SOAP principle to organize findings, determine interventions, and evaluate outcomes of midwifery care provided. The results of this process indicate the importance of adequate nutritional intake during pregnancy to prevent CED complications. Research ethics were adhered to by obtaining informed consent from subjects, maintaining anonymity, and implementing confidentiality to protect subjects' personal information. All of these ethical actions were designed to ensure that the research was conducted with consideration for the rights and welfare of the research subjects.

RESULTS & DISCUSSION

Subjective Data

Mrs. “U” aged 32 years visited the Bungi Health Center on February 5, 2024 at 10:00 WITA. The mother came to the Bungi Health Center saying she felt weak, had difficulty eating, and had nausea and vomiting since early pregnancy. The mother said that her fetus' movement is strong now and she has felt abdominal pain since 1 week ago. On the first visit, the mother said that this was her second pregnancy and had never had a miscarriage, the gestational age was 36-37 weeks, the mother felt her fetus' movement was strong now and had lower abdominal pain, the mother had never consumed drugs without a doctor's prescription, the mother received TT1 immunization at the health

center and during her pregnancy the mother had never been allergic to food, drinks, and drugs. On the second visit, the mother felt her fetus' movement was strong now, the lower abdominal pain was still felt by the mother.

Objective Data

The results of the physical examination showed that the condition of the mother and fetus was good, composmentis consciousness, Vital signs: BP 110/80 mmHg, N 82 x / minute, P 20 x / minute, S 36.5ºC, height 160 cm, Weight before pregnancy 63 kg, Current weight 73 kg, LILA 21 cm, clean head without any signs of discomfort or disorders, healthy hair and no signs of loss. The face showed no edema or swelling. The conjunctiva appeared normal with no signs of anemia. The nose, ears, and mouth were in good condition, with no fluid or abnormalities on examination. Breast examination showed symmetry, with no masses or pain. On abdominal examination, the height of the uterine fundus was in accordance with the gestational age, the fetus was in the right dorsal position, head presentation, and elongated position. The fetal heartbeat was clearly audible with a frequency of 139 times per minute.

Analysis

Mrs. " U" G2P1A0 with chronic energy deficiency.

Management

The management given based on the results of research data both subjectively and objectively and the analysis in this case does not require immediate action or collaboration because there is no supporting data. The management given is to explain to the mother about the results of the examination. In addition, the author provides health education about balanced nutrition, by consuming foods containing carbohydrates as a source of energy (rice, sweet potatoes), protein as a source of body builders, vitamins and minerals as body regulators (vegetables and fruits), personal hygiene and sufficient rest.

The author explains to the mother 10 danger signs of pregnancy, namely continuous headache, edema on the face and hands, blurred vision, excessive abdominal pain, continuous nausea and vomiting, lack of fetal movement, vaginal bleeding, premature rupture of membranes (PROM), high fever, and seizures. And the author recommends the mother to consume FE tablets once a day and recommends the mother to consume the PMT given and advises the mother to breastfeed her baby exclusively.

DISCUSSION

Subjective Data

Mrs. "U" aged 32 years visited the Bungi Health Center on February 5, 2024 at 10:00 WITA. The mother came to the Bungi Health Center saying she felt weak, had difficulty eating, and had nausea and vomiting since early pregnancy. The mother said that her fetus' movement is strong now and she has felt abdominal pain since 1 week ago. On the first visit, the mother said that this was her second pregnancy and had never had a miscarriage, the gestational age was 36-37 weeks, the mother felt her fetus' movement was strong now and had lower abdominal pain, the mother had never consumed drugs without a doctor's prescription, the mother received TT1 immunization at the health center and during her pregnancy the mother had never been allergic to food, drinks, and drugs. On the second visit, the mother felt her fetus' movement was strong now, the lower abdominal pain was still felt by the mother.

The second pregnancy (multigravida) is characterized by loose abdominal muscle tone, due to previous pregnancy experiences. In addition, multigravida mothers often show signs of striae lividae, which are caused by maximum stretching of the abdominal muscles (Anggraeni, 2019).

Based on data collection and examination, the mother reported feeling weak, having difficulty eating, and experiencing nausea and vomiting since early pregnancy. During pregnancy, the need for energy and other nutrients also increases due to increased energy metabolism. This increase is important to support fetal growth and development, enlarge the reproductive organs, and change the composition and metabolism of the mother's body. Therefore, deficiencies in certain nutrients, especially iron, are a serious concern.

Complaints of excessive nausea and vomiting that are commonly experienced by pregnant women are called morning sickness. This usually occurs when the mother's pregnancy is still in the

first trimester. Morning sickness that usually occurs in pregnant women usually occurs between the fourth and sixth weeks after the first day of the last menstruation. This condition is caused by hormonal changes that occur during pregnancy, especially the hormones estrogen and progesterone, which are common causes of nausea and vomiting (Adellia et al., 2024). Several factors that influence nausea and vomiting during pregnancy include: increased estrogen hormone, number of previous births (parity), history of previous nausea and vomiting (delprelsi), psychological factors, psychosocial aspects, disharmonious relationships with partners, underweight, age, and thyroid dysfunction (Susilawati et al., 2024).

Objective Data

The results of the physical examination showed that the condition of the mother and fetus was good, compos mentis consciousness, Vital signs: BP 110/80 mmHg, N 82 x / minute, P 20 x / minute, S 36.5ºC, height 160 cm, weight before pregnancy 63 kg, current weight 73 kg, LILA 21 cm, clean head without any signs of discomfort or disorders, healthy hair and no signs of loss. The face showed no edema or swelling. The conjunctiva appeared normal with no signs of anemia. The nose, ears, and mouth were in good condition, with no fluid or abnormalities on examination. Breast examination showed symmetry, with no masses or pain. On abdominal examination, the height of the uterine fundus was in accordance with the gestational age, the fetus was in the right dorsal position, head presentation, and elongated position. The fetal heartbeat was clearly audible with a frequency of 139 times per minute.

In pregnant women, physical examinations include Leopold's palpation, which is an examination technique performed by feeling the pregnant woman's abdomen using the examiner's hand in a certain position. This technique aims to feel and move certain parts with the appropriate level of pressure. Leopold's palpation is mainly used to determine the position and location of the fetus in the uterus, and can help in determining gestational age and estimating fetal weight (Ratmawati et al., 2019).

Chronic Energy Deficiency (CED) is a condition experienced by pregnant women due to malnutrition, which is caused by a deficiency of one or more nutrients over a long period of time. This can cause various health problems for the mother. Malnutrition during the first trimester can have a negative impact on the fetus, potentially causing miscarriage, anemia in infants, neonatal death, congenital abnormalities, babies born with Low Birth Weight (LBW) and IUFD (Putri & Salsabila, 2023).

Analysis

The analysis in this study was conducted based on the results of subjective and objective data, namely Mrs. "U" G2P1A0 with chronic energy deficiency.

In pregnant women, nutritional status is influenced by various factors, including health status, gestational age , birth spacing, parity, and education level. One method for assessing nutritional status in pregnant women is by measuring LIL A. Pregnant women who have LILA of ≥ 23.5 cm have good nutritional status, while LILA ≤ 23.5 cm is a pregnant woman with poor nutritional status (Adriati & Chloranyta, 2022).

Upper Arm Circumference (MUAC) measurement is used to assess the nutritional status of someone who may experience chronic energy deficiency (CED), which can affect fetal growth and development. The risk of giving birth to a baby with low birth weight will increase due to this (Benny et al., 2024).

According to research conducted by Wijianto and colleagues, there is a significant relationship between the risk of Chronic Energy Deficiency (CED) and the incidence of pregnant women with anemia. Pregnant women who are at risk of CED are 2.76 times more likely to suffer from anemia compared to pregnant women who are not at risk. In addition, pregnant women in the third trimester also have a 1.92 times greater chance of suffering from anemia compared to pregnant women in the first and second trimesters (Fitrianingtyas et al., 2018).

Management

Based on the results of the research data both subjectively and objectively and the analysis, the management given in this case does not require immediate action or collaboration because there is no supporting data. The management given is to explain to the mother about the results of the examination. In addition, the author provides health education about balanced nutrition, by consuming

foods containing carbohydrates as a source of energy (rice, sweet potatoes), protein as a source of body building, vitamins and minerals as body regulators (vegetables and fruits), personal hygiene and sufficient rest. The author explains to the mother 10 signs of pregnancy danger, namely persistent headaches, edema on the face and hands, blurred vision, excessive abdominal pain, persistent nausea and vomiting, lack of fetal movement, vaginal bleeding, premature rupture of membranes (PROM), high fever, and seizures. And the author recommends that the mother consume FE tablets once a day and consume the PMT provided. The mother is also advised to breastfeed her baby exclusively. Naturally, breast milk (ASI) contains nutrients that are very important to support the growth and development of the baby, especially the brain. These nutrients include iodine, iron, choline, protein, essential fatty acids, vitamin B complex, and zinc. In addition, breast milk is also clean and free from contamination because it contains anti-infective substances (Samrida, 2023).

The author explains the signs of labor and advises the mother to immediately go to the nearest health service if these signs appear. The mother understands the explanation given. In addition, the author recommends that the mother take iron tablets (FE) once a day, and the mother agrees and is ready to follow the recommendation. The author also explains several preparations for childbirth, including the birth attendant, location of delivery, costs, clothing for the mother and baby, transportation, blood donors, and companions during the labor process. In this case, the role of the family is very important in supporting pregnant women to utilize health services optimally (Wa Ode Nurul Mutia, 2022).

Based on the care given to Mrs. "U," the author provides communication, information, and education regarding Chronic Energy Deficiency (CED) and good nutrition for pregnant women. In addition, the author also provides psychological support to the mother to help improve her well-being during pregnancy (Sandra, 2018).

Problems experienced by patients include weakness, difficulty eating, and nausea and vomiting since early pregnancy. This condition can be overcome by implementing a small but frequent diet, varied and balanced nutritional eating habits, and ensuring adequate main food portions, with a focus on foods high in calories and protein (Fitrianingtyas et al., 2018).

CONCLUSION

Based on the results of the assessment obtained from the results of anamnesis, physical examination, established diagnosis, and care plans prepared according to needs, and discussions that have been carried out, there is a correspondence between reality and theory that has been described. Thus, the author concludes that:

Based on the results of the anamnesis conducted, subjective data was obtained on February 5, 2024 at 10:00 WITA. The mother came to the Bungi Health Center and said she felt weak, had difficulty eating, and had nausea and vomiting since early pregnancy. The mother said she had a history of hypertension, had never suffered from sexually transmitted infections , had never had surgery and was not allergic to drugs. The mother also said this was her second pregnancy.

The results of the physical examination showed that the condition of the mother and fetus was good, compos mentis consciousness, Vital signs: BP 110/80 mmHg, N 82 x / minute, P 20 x / minute, S 36.5ºC, height 160 cm, weight before pregnancy 63 kg, current weight 73 kg, LILA 21 cm, clean head without any signs of discomfort or disorders, healthy hair and no signs of loss. The face showed no edema or swelling. The conjunctiva appeared normal with no signs of anemia. The nose, ears, and mouth were in good condition, with no fluid or abnormalities on examination. Breast examination showed symmetry, with no masses or pain. On abdominal examination, the height of the uterine fundus was in accordance with the gestational age , the fetus was in the right dorsal position, head presentation, and elongated position. The fetal heartbeat was clearly audible with a frequency of 139 times per minute.

The analysis in this study was conducted based on the results of subjective and objective data, namely Mrs. "U" G2P1A0 with chronic energy deficiency.

The management given is to explain to the mother about the results of the examination. In addition, the author provides health education about balanced nutrition, by consuming foods containing carbohydrates as a source of energy (rice, sweet potatoes), protein as a source of body builders, vitamins and minerals as body regulators (vegetables and fruits), personal hygiene and sufficient rest. The author explains to the mother 10 signs of pregnancy danger, namely continuous headaches, edema on the face and hands, blurred vision, excessive abdominal pain, continuous nausea and vomiting, lack of fetal movement, vaginal bleeding, premature rupture of membranes (PROM),

high fever, and seizures. And the author recommends that the mother consume FE tablets once a day and consume the PMT provided. The mother is also advised to breastfeed her baby exclusively.

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