

## ANTENATAL CARE MIDWIFERY CARE ON MRS." H" WITH CHRONIC ENERGY DEFICIENCY AT THE SORAWOLIO HEALTH CENTER

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### ARTICLE INFORMATION

Received: 12 September 2024

Revised : 19 September 2024

Accepted: 25 October 2024

DOI:

### KEYWORDS

Midwifery Care; Pregnancy; Chronic Energy Deficiency

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### A B S T R A C T

**Background:** Chronic Energy Deficiency (CHD) is a common nutritional problem experienced by pregnant women, with prolonged lack of energy intake causing CHD. This condition can increase the likelihood of anemia, bleeding, abnormal weight gain, and increase the likelihood of infection which is a risk and complication in pregnant women. **The purpose** of the preparation of this Final Project Report is to carry out antenatal care midwifery care on Mrs. "H" with chronic energy deficiency at Puskesmas Sorawolio. **The subjects** in this study were pregnant women, namely Mrs. "H" with chronic energy deficiency at Puskesmas Sorawolio. **The 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 complained of nausea and dizziness that had lasted for 3 days and mild pain in the lower abdomen. Objective data obtained from the examination results showed that the mother's general condition was good, compos mentis consciousness. Blood pressure 120/80 mmHg, pulse 76 x/min, breathing 18 x/min, body temperature 36.7°C. Upper arm circumference 20.7 cm. The management carried out in this case is to encourage the mother to consume food in small portions but often, apply diverse eating habits with nutritious mother's main food, consume high calorie and protein foods and provide additional food to the mother. **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

Pregnancy is a process that starts from conception to the birth of a fetus. The normal duration of pregnancy is about 280 days (40 weeks), calculated from the first day of the last menstrual period. The gestation period is considered a very important 1,000-day period and requires special treatment. Pregnant women are included in the group that is vulnerable to nutritional problems. The diet of pregnant women has a great influence on fetal development. In pregnant women, what can cause mothers to experience KEK is a lack of energy intake and protein intake (Hasyim et al., 2023).

Chronic Energy Deficiency (CED) is a nutritional problem that is commonly experienced by pregnant women, lack of energy intake for a long time is the cause of CED (Mijayanti et al., 2020). This condition can increase the likelihood of anemia, bleeding, abnormal weight gain, and increase the likelihood of infection which is a risk and complication in pregnant women. In addition, CED can affect fetal growth, potentially causing problems such as impaired development, stillbirth, abortion, neonatal death, congenital abnormalities, intrapartum asphyxia, anemia in infants, as well as babies born with Low Birth Weight (LBW). Pregnant women are at risk of developing CED if they have an Upper Arm Circumference (LILA) of no more than 23.5 cm (Yasmin et al., 2023).

Based on data from the WHO (World Health Organization), about 40% of maternal deaths in developing countries are caused by Chronic Energy Deficiency. The WHO report shows that the prevalence of CED during pregnancy worldwide ranges from 35% to 75%. Meanwhile, the results of Riskesdas 2018 recorded in Indonesia the prevalence of CED in pregnant women was 17.3% (Herawati et al., 2024).

According to the Southeast Sulawesi Provincial Health Profile Data, the number of infants with Low Birth Weight (BBLR) and Chronic Energy Deficiency (KEK) in pregnant women has fluctuated. In 2020, there were 10,031 cases of KEK pregnant women (11.3%) and 1,294 cases of BBLR babies (2.12%). In 2021, the number of pregnant women in SEZs increased to 2,119 cases, while BBLR babies reached 1,572 cases (1.51%). In 2022, the number of pregnant women in SEZs

was recorded at 2,089 cases (3.5%), while the number of BBLR babies reached 1,865 (3.7%) (Fitriani & Anoluthfa, 2023).

Based on survey data conducted from January to March 2024 at the Sorawolio Health Center in Baubau City, after LILA measurements were carried out from 6 pregnant women, there were 4 mothers who were diagnosed with chronic energy deficiency (CED). During pregnancy, mothers do not eat enough high-calorie foods such as rice, potatoes, and low-protein foods such as eggs, fish, meat, and iron supplements, which can make the body healthy for those who feel deficient in energy and gold. From the details above, the author is interested in doing obstetric care for Mrs. H with the title "Antenatal Care Midwifery Care for Mrs."H" with Chronic Energy Deficiency at the Sorawolio Health Center in Baubau City".

## **METHODOLOGY**

The method used in this study uses the seven Varney Steps and the SOAP method. The research was conducted at the Sorawolio Health Center in Baubau City from January 15 to March 8, 2024 with the main subject Mrs. H, a pregnant woman diagnosed with CED. The data collection process is complemented by 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 SOAP principles to organize findings, determine interventions, and evaluate the outcomes of midwifery care provided. The results of this process show the importance of adequate nutritional intake during pregnancy to prevent CED complications. Research ethics are complied with by obtaining informed consent from the subject, maintaining anonymity, and implementing confidentiality to protect the subject's personal information. All of these ethical measures are designed to ensure that research is conducted with the rights and well-being of the research subjects in mind.

## **RESULTS AND DISCUSSION**

### **Subjective Data**

On February 9, 2024, Mrs. H, a 28-year-old woman, visited with complaints of nausea and dizziness that had lasted for 3 days. The patient reported that he felt mild pain in the lower abdomen that often appeared at night. This pain sometimes radiates to the lower back. The mother has a history of allergies to several medications, but is not currently taking any medications. The patient said he had undergone appendix surgery at the age of 18 and had no history of other chronic diseases. Currently, the patient is undergoing her first pregnancy with a gestational age of about 28 weeks. Mothers reported no serious problems during this pregnancy, other than complaints of nausea felt from the first trimester and often subsided after rest. The patient also mentioned that he was still working with a regular diet and maintaining nutritional intake during pregnancy.

### **Objective Data**

The general state of the mother is good, composmentic consciousness. Blood pressure 120/80 mmHg, pulse rate 76 times per minute, respiratory rate 18 times per minute, body temperature 36.7°C. The patient's height is 165 cm with a pre-pregnancy weight of 58 kg, while her current weight is 64 kg. Upper arm circumference (LILA) 20.7 cm. The head is clean without any signs of discomfort or distraction, the hair is healthy and there are no signs of loss. The face does not show any edema or swelling. The conjunctiva appears normal without any signs of anemia. The nose, ears, and mouth are in good condition, without any fluid or abnormalities on the examination. Breast examination shows symmetry, in the absence of mass or pain. In the abdominal examination, the height of the uterine fundus corresponds to the gestational age, the fetus is in the right back position, the presentation of the head, and the elongated position. The fetal heartbeat is clearly audible with a frequency of 140 beats per minute.

### **Analysis**

Mrs.H G1P0A0, gravid 27 weeks 1 day, single fetus, intrauterine life, left back, head presentation, divergent, good fetal state and maternal state with chronic energy deficiency.

### **Management**

The management carried out in this case is to encourage mothers to consume food in small but frequent portions, implement diverse eating habits with nutritious portions of the mother's main food,

consume high-calorie and high-protein foods and provide supplementary food (PMT) to mothers and encourage mothers to complete covid-19 vaccination.

## **DISCUSSION**

### **Subjective Data**

On February 9, 2024, Mrs. H, a 28-year-old woman, visited with complaints of nausea and dizziness that had lasted for 3 days. The patient reported that he felt mild pain in the lower abdomen that often appeared at night. This pain sometimes radiates to the lower back. The mother has a history of allergies to several medications, but is not currently taking any medications. The patient said he had undergone appendix surgery at the age of 18 and had no history of other chronic diseases. Currently, the patient is undergoing her first pregnancy with a gestational age of about 28 weeks. Mothers reported no serious problems during this pregnancy, other than complaints of nausea felt from the first trimester and often subsided after rest. The patient also mentioned that he was still working with a regular diet and maintaining nutritional intake during pregnancy.

Excessive nausea and vomiting complaints that pregnant women usually experience are called morning sickness. This usually happens when the mother's pregnancy is still in the first trimester. Morning sickness, which averages in pregnant women, usually occurs between the fourth and sixth weeks after the first day of the last menstrual period. 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). Some factors that affect nausea and vomiting during pregnancy include: increased estrogen hormone, number of previous births (parity), history of previous nausea and vomiting (delprelation), psychological factors, psychosocial aspects, disharmonious relationships with partners, underweight, age, and thyroid dysfunction (Susilawati et al., 2024).

### **Objective Data**

The general state of the mother is good, composmentic consciousness. Blood pressure 120/80 mmHg, pulse rate 76 times per minute, respiratory rate 18 times per minute, body temperature 36.7°C. The patient's height is 165 cm with a pre-pregnancy weight of 58 kg, while her current weight is 64 kg. Upper arm circumference (LILA) 20.7 cm. The head is clean without any signs of discomfort or distraction, the hair is healthy and there are no signs of loss. The face does not show any edema or swelling. The conjunctiva appears normal without any signs of anemia. The nose, ears, and mouth are in good condition, without any fluid or abnormalities on the examination. Breast examination shows symmetry, in the absence of mass or pain. In the abdominal examination, the height of the uterine fundus corresponds to the gestational age, the fetus is in the right back position, the presentation of the head, and the elongated position. The fetal heartbeat is clearly audible with a frequency of 140 beats per minute.

Examination of vital signs by health workers aims to monitor the patient's condition. If vital signs are outside the normal limit, this can be an indicator of a disorder in the body's systems. Vital signs that are considered normal include: for blood pressure in healthy adults, systolic pressure ranges from 90-140 mmHg, and diastolic pressure between 60-90 mmHg. Normal body temperature generally ranges from 36.5-37.5°C. A pulse rate between 60-100 beats per minute is a normal pulse rate, while a normal breathing rate is about 12-20 beats per minute (Hidayati & Lubis, 2022).

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

In pregnant women, nutritional status is influenced by various factors, including health status, gestational age, birth distance, parity, and education level. One of the methods to assess nutritional status in pregnant women is by measuring LILA. Pregnant women who have a LILA of  $\geq 23.5$  cm have good nutritional status, while  $LILA \leq 23.5$  cm are pregnant women with poor nutritional status (Adriati & Chloranyta, 2022). Chronic Energy Deficiency (CED) is a condition experienced by pregnant women due to malnutrition, which is caused by a deficiency of one or several nutrients for a long time. This can cause various health problems for mothers. Malnutrition during the first trimester can negatively impact the fetus, potentially leading to miscarriage, anemia in infants, neonatal

mortality, congenital abnormalities, babies born with Low Birth Weight (LBW) and IUFD (Putri & Salsabila, 2023)

The results of the examination showed a fetal heart rate (DJJ) of 140 times per minute. This DJJ examination is important to assess the health of the mother and the development of the fetus in the womb. The frequency range of DJJ ranging from 120 to 160 times per minute is a normal range (Risnawati & Minarti, 2020)

### **Analysis**

The analysis that is enforced in this case is based on subjective and objective data that has been studied. From the results of the anamnesis, Mrs. "H" was the first pregnancy with a gestational age of about 28 weeks (G1P0A0) in good condition. From the results of the examination, a LILA of 20.7 cm was obtained. In the abdominal examination, the height of the uterine fundus corresponds to the gestational age, the fetus is in the right back position, the presentation of the head, and the elongated position. The fetal heartbeat is clearly audible with a frequency of 140 beats per minute.

In pregnant women, nutritional status is influenced by various factors, including health status, gestational age, birth distance, parity, and education level. One of the methods to assess nutritional status in pregnant women is by measuring LILA. Pregnant women who have a LILA of  $\geq 23.5$  cm have good nutritional status, while  $LILA \leq 23.5$  cm are pregnant women with poor nutritional status (Adriati & Chloranyta, 2022). Upper Arm Circumference Measurement (LILA) is used to assess the nutritional status of a person who may experience chronic energy deficiency (CED), which can have an impact on fetal growth and development. The risk of giving birth to babies with low birth weight will increase due to this (Benny et al., 2024). Based on the theory and examination results, the analysis of Mrs. H G1P0A0, gravid 27 weeks 1 day, single fetus, intrauterine life, left back, head presentation, divergent, good fetal condition and maternal condition with chronic energy deficiency were established.

### **Management**

The management carried out in this case is based on the results of the review of subjective and objective data as well as the analysis that has been obtained, namely encouraging mothers to consume food in small but frequent portions, implementing diverse eating habits with nutritious portions of the mother's main food, consuming high-calorie and high-protein foods and providing supplementary food (PMT) to mothers and encouraging mothers to complete covid-19 vaccination.

Curative efforts to overcome nausea and vomiting experienced by mothers are carried out through pharmacological therapy with the administration of antihistamines, antibiotics, and corticosteroids. In addition, rehabilitative measures include dietary arrangements, such as eating small but frequent portions, avoiding foods with a sharp and spicy smell, and consuming pastries after waking up before doing activities. Emotional support is also important, as well as complementary therapies such as ginger aromatherapy, peppermint, acupressure, and lemon aromatherapy (Patonah et al., 2020).

CED) is a condition in which the mother experiences a lack of energy intake as well as protein intake. Pregnant women are recommended by experts to consume 75-100 grams of protein every day, because protein plays an important role in the growth of fetal tissue, including brain development (Anggela et al., 2023).

For pregnant women who experience CED, the provision of supplementary food (PMT) is considered very important. This is because, with an energy intake of between 300-800 kcal per day and less than 25% protein, PMT can increase the mother's weight and support fetal growth. Balanced nutrition will meet energy and nutrient needs, ultimately contributing to the size of the baby born as well as overall health. Therefore, it is important to design a PMT menu that is rich in carbohydrates, healthy fats, and various vitamins and minerals to support a healthy pregnancy (Iskandar et al., 2022).

In addition, mothers can use the Healthy Booklet as a tool to improve the ability of themselves, their husbands, and families to take care of their mother's health, starting from pregnancy to 5 years old. This book provides complete health information about mothers and children, including immunization, fulfillment of nutrition and child development, early detection of health problems, as well as preventive and promotive efforts (Asriadi et al., 2021).

Although COVID-19 cases are now unheard of, the virus is still there. Although a cure for COVID-19 has been found, prevention through full vaccination is still a better step. Vaccination is a process that makes a person immune or protected from disease, so that if they are exposed, they will

not experience illness or only experience mild symptoms. Pregnant and breastfeeding women fall into the category of people who are particularly at risk for COVID-19, as they have a lower immune system, making them more susceptible to disease and infection. Therefore, it is important for pregnant women to be vaccinated against COVID-19 to keep the mother and fetus protected from COVID-19 infection (Anita et al., 2022).

## CONCLUSION

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

Based on the results of the anamnesis carried out, subjective data was obtained on February 9, 2024, Mrs. H, a 28-year-old woman, visited with complaints of nausea and dizziness that had lasted for 3 days. The patient reported that he felt mild pain in the lower abdomen that often appeared at night. This pain sometimes radiates to the lower back.

Objective data obtained from the results of the examination found that the mother's general condition was good, composmentis awareness. Blood pressure 120/80 mmHg, pulse rate 76 times per minute, respiratory rate 18 times per minute, body temperature 36.7°C. The patient's height is 165 cm with a pre-pregnancy weight of 58 kg, while her current weight is 64 kg. Upper arm circumference (LILA) 20.7 cm. The head is clean without any signs of discomfort or distraction, the hair is healthy and there are no signs of loss. The face does not show any edema or swelling. The conjunctiva appears normal without any signs of anemia. The nose, ears, and mouth are in good condition, without any fluid or abnormalities on the examination. Breast examination shows symmetry, in the absence of mass or pain. In the abdominal examination, the height of the uterine fundus corresponds to the gestational age, the fetus is in the right back position, the presentation of the head, and the elongated position. The fetal heartbeat is clearly audible with a frequency of 140 beats per minute.

The analysis that was established based on the results of the assessment obtained, was Mrs. H G1P0A0, gravid 27 weeks 1 day, single fetus, intrauterine life, left back, head presentation, divergent, good fetal condition and maternal condition with chronic energy deficiency.

The management carried out in this case is to encourage mothers to consume food in small but frequent portions, implement diverse eating habits with nutritious portions of the mother's main food, consume high-calorie and high-protein foods and provide supplementary food (PMT) to mothers and encourage mothers to complete covid-19 vaccination.

## ACKNOWLEDGMENT

Previously, the author would like to express my great gratitude to supervisor I, Mrs. Bd. Anita S.ST., M.Keb., and supervisor II, Mrs. Bd. Risnawati S.ST., M.Kes., for the guidance, support, and direction that has brought me to this stage. Their sincere and attentive direction is very helpful in the process of completing this final task. Not to forget, the author also wants to sincerely thank my parents, my father (Mr. Nurhadi Sila) and my mother (Mrs. Siarni), who with their irreplaceable love and support have pushed me to this point in my life journey. My prayer is that health, happiness, and longevity will always accompany them. The author is also grateful for the prayers given by the entire extended family, support, and motivation that continues to flow, so that I can complete my responsibilities as a midwifery student at Politeknik Baubau.

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