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CONTINUITY OF MIDWIFERY CARE FOR MRS. D, 24 YEARS OLD, WITH MODERATE ANEMIA AT PMB PERA, MEDAN TUNTUNGAN DISTRICT, MEDAN CITY, IN 2025

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ABSTRACT

Anemia in pregnant women is one of the leading causes of maternal morbidity and mortality in Indonesia. Based on preliminary data from PMB Pera, Medan Tuntungan District, 3 of 15 pregnant women examined had anemia, indicating that this issue remains significant. This final report aims to provide Continuity of Care (CoC) midwifery services to Mrs. D, aged 24, with moderate anemia, covering pregnancy, childbirth, the postpartum period, newborn care, and family planning. The method employed is a case study based on Varney's midwifery management framework, documented using the SOAP format. The results of the care indicate that with proper, continuous services, the mother's condition can be thoroughly monitored, anemia can be effectively managed, and complications can be prevented. The implementation of CoC has also proven effective in improving mothers' knowledge of the importance of nutrition, iron tablet use, and routine health services during and after pregnancy.

Kata Kunci: Continuity of Care, Anemia, Pregnancy, Midwifery Care, Maternal Health

Introduction

The SDGs program outlines Development goals to ensure healthy lives and Well-being for all ages, with a focus on the most vulnerable groups, namely mothers and infants. A healthy and prosperous life with indicators to reduce the maternal mortality ratio to 70 per 100,000 live births (SDGs, 2018). Bleeding is one of the causes of maternal death in 360 cases in (Kemenkes, 2023). One of the priority efforts is to reduce the risk of bleeding by providing and monitoring the consumption of blood supplement tablets (TTD). WHO and the Indonesian Ministry of Health recommend giving TTD 90 tablets during pregnancy to minimize the risk of pregnancy anemia (WHO, 2024). The leading cause of maternal morbidity and mortality is anemia, with a prevalence of 51% in developing countries, significantly higher than in developed countries at 14%. This condition is particularly critical because anemia in pregnant women has direct and long-term effects on the health and Development of the babies. (Farhan & Dhanny, 2021)

In Indonesia, 48.9% of pregnant women experience anemia, with the highest prevalence found among women aged 15–24 years (84%). In North Sumatra Province, the prevalence of anemia ranges from 15% to 39% (Purba et al., 2024). Anemia in pregnant women remains a public health problem in Indonesia, including in Medan City, with

a relatively high and varied prevalence across regions. The leading causes are low iron intake and limited awareness of the importance of a healthy diet and iron supplementation. (Sari Br Sembiring et al., 2024).

Anemia is a condition where the hemoglobin (Hb) level is below normal, making it unable to meet the physiological needs of the body. Anemia is defined as a hematocrit (Ht), hemoglobin (Hb) concentration, or erythrocyte differential count below normal (Prawirohardjo, 2015). Iron plays a vital role in fetal growth. During pregnancy, iron intake must be increased, considering that during pregnancy, the blood volume in the mother's body increases. Therefore, to continue to meet the mother's needs and supply food and oxygen to the fetus through the placenta, a greater iron intake is needed (Masrizal, 2017). The iron intake given to the pregnant mother to her fetus through the placenta will be used by the fetus for its growth and development, including for brain development, while also being stored in the liver as a reserve until the baby is 6 months old(Purba et al., 2021)

To prevent anemia, every pregnant woman is expected to receive at least 90 iron tablets (TTD) during pregnancy. The coverage of iron supplementation for pregnant women in Indonesia in 2019 was 64.0%. This figure has not yet reached the 2019 Strategic Plan target of 98%. North Sumatra has 23.7%. Although the government has implemented an anemia prevention program for pregnant women, namely providing 90 iron tablets to pregnant women during pregnancy with the aim of reducing the rate of anemia in pregnant women, the incidence of anemia in pregnant women remains high (April et al., 2024)

The efforts to address this issue include improving maternal health, preventing complications, providing iron (Fe) tablets, and offering nutrition and health education. (Fauzianty, 2022). Innovation in midwifery care, such as the use of herbal alternatives, including dried rosella tea, has also been studied by researchers such as Sinaga et al., who evaluated its effectiveness in increasing hemoglobin levels among pregnant women. (Sinaga et al., 2024). One practical approach is to implement Continuity of Care (CoC) in midwifery, which involves monitoring the pregnancy, childbirth, the postpartum period, newborn care, and family planning.

Based on a preliminary survey conducted at PMB Pera, Medan Tuntungan Subdistrict, 15 pregnant women were visited over the past month, and three were found to have anemia, indicating that anemia remains a significant issue. In this context, I am interested in providing Continuity of Care (CoC) midwifery services to a pregnant woman diagnosed with anemia. This approach aims to provide comprehensive care, not only in treating anemia but also in improving the mother's overall health. Additionally, it seeks to increase pregnant women's knowledge of healthy eating patterns, iron supplementation, and routine check-ups to prevent complications.

Research Method

This study employed a case study design with a descriptive qualitative approach. The subject of the survey was Mrs. D, a 24-year-old woman who received continuity of midwifery care from the third trimester of pregnancy through to family planning at PMB Pera, Medan Tuntungan District, Medan City.

Data were collected through direct observation, interviews, and documentation throughout the provision of midwifery care, which included antenatal, intrapartum, postpartum, newborn, and family planning services. Data collection utilized the SOAP format (Subjective, Objective, Assessment, Planning) to document the patient's condition and the interventions provided.

The collected data were analyzed qualitatively to describe care outcomes and evaluate the effectiveness of managing moderate anemia during pregnancy. Implementation of actions and final evaluation. All data obtained are documented in a mental health assessment form. Data analysis is conducted, and the documentation is then compared with relevant theories to formulate recommendations for subsequent follow-up steps.

Results

Mrs. D is a 24-year-old pregnant woman, gravida 2 para 1 abortus 0 (G2P1A0), who received midwifery care at PMB Pera, Medan Tuntungan District. She was in her third trimester with a gestational age of 30 weeks and 2 days at the time of the first visit. During the initial assessment, she reported fatigue, dizziness, weakness, and reduced appetite. Her vital signs were within normal limits (blood pressure 110/70 mmHg, pulse 82/min, respiratory rate 22/min, and temperature 36.6°C), and her upper arm circumference was 23.5 cm, indicating that she did not have chronic energy deficiency. The Leopold examination showed a single fetus in cephalic presentation with fetal heart rate 144 bpm, and fundal height consistent with gestational age (30 cm). Laboratory examination revealed a hemoglobin level of 8.9 g/dL, consistent with moderate anemia according to WHO criteria. With this data, the midwife established a diagnosis of moderate iron-deficiency anemia during pregnancy.

The midwifery care for Mrs. D was implemented using the 7-step Varney's midwifery management approach and Continuity of Care (CoC) model, covering antenatal care (ANC), labor, postpartum, newborn care, and family planning. At the antenatal stage, interventions focused on nutritional counseling, the provision of iron tablets and folic acid, and education on dietary sources of iron, such as red meat, dark green leafy vegetables, dragon fruit, beetroot, and foods high in vitamin C, to increase iron absorption. She was advised to avoid tea, coffee, and milk during Fe tablet intake because they may inhibit iron absorption. Additionally, she was instructed to rest adequately and maintain hydration.

During the second ANC visit at 31 weeks and 4 days, the mother reported improved energy and appetite. Her hemoglobin level had increased to 10.5 g/dL. The fetus remained active with normal fetal heart tones and growth parameters. She continued to follow the recommended dietary plan and complied with daily iron supplementation.

At the third ANC visit at 35 weeks and 5 days, further improvements were observed. Mrs. D's hemoglobin level was 11.3 g/dL, within the normal range for pregnant women. She no longer reported fatigue or dizziness. Her fundal height measured 34 cm, fetal heart rate was 142 bpm, and fetal movements remained active. The mother showed good understanding and participation in her

care and demonstrated adherence to the advice provided.

This positive outcome reflects effective management through the Continuity of Care model. It allowed the midwife to monitor Mrs. D's condition consistently across stages and adjust interventions as needed. By the time of labor, Mrs. D had achieved a normal hemoglobin level, reducing the risk of postpartum hemorrhage and other complications. The successful increase in hemoglobin and improvement in maternal Well-being showed that early detection, proper education, consistent follow-up, and collaboration between midwife and client are critical in addressing anemia during pregnancy. (Fauzianty et al, 2022). This is consistent with the research by Sitanggang et al., which emphasizes that maternal compliance with iron (Fe) tablet use is strongly influenced by external factors, particularly the husband's support and the active role of health workers in providing education. (Sitanggang et al., 2022). The implementation was carried out for Mr. D over four meetings, in accordance with the planned interventions, and the evaluation results were directly observed.

Discussion

Mrs. D, a 24-year-old G2P1A0 pregnant woman, was in her third trimester with a gestational age of 30 weeks and 2 days. During the initial assessment, she reported fatigue, weakness, and dizziness. Physical examination revealed typical vital signs, a mid-upper arm circumference (MUAC) of 23.5 cm (not indicative of chronic energy deficiency), and a hemoglobin (Hb) level of 8.9 g/dL, consistent with moderate anemia. The use of laboratory screening, such as a hematology analyzer, is essential for obtaining an accurate overview of hemoglobin (Hb) levels in pregnant women, thereby ensuring timely and precise diagnosis of anemia. (Afifah Ismu Fitri, Afifatul Achyar, 2024). The Leopold examination confirmed a single live fetus in cephalic presentation, with the presenting part not yet engaged in the pelvic inlet.

Based on these findings, the diagnosis of moderate anemia in the third trimester of pregnancy was established. The identified contributing factors included insufficient iron intake and poor nutritional status. The management plan focused on iron supplementation (Fe tablets), folic acid, and education on a high-iron diet including beetroot juice, dragon fruit, and green leafy vegetables, along with vitamin C to enhance iron absorption. His intervention is supported by research indicating that the administration of beetroot (*Beta vulgaris L.*) juice is effective in the handling of anemia, specifically in third-trimester pregnant women, by significantly increasing hemoglobin levels (Sinaga et al., 2024). During implementation, the client was educated on the importance of taking iron supplements correctly—preferably at night with water or vitamin C-rich juice, and avoiding tea, coffee, or dairy products during consumption. She was also encouraged to consume iron-rich foods and to rest adequately. Follow-up visits demonstrated significant improvement. By the second antenatal visit (at 31 weeks and 4 days), her hemoglobin (Hb) level had increased to 10.5 g/dL, and her complaints had improved. At the third visit (35 weeks and 5 days), her Hb level reached 11.3 g/dL, which falls within the normal range for the third trimester.

This progression shows that the interventions were successful in managing her anemia and improving her

overall condition. This case demonstrates the effectiveness of Continuity of Care (CoC) in early detection, targeted intervention, and continuous monitoring for maternal anemia. Comprehensive and personalized care through CoC not only improved Mrs. D's hemoglobin levels but also minimized the risks of complications for both mother and fetus.

Conclusion

The case of Mrs. D, a 24-year-old pregnant woman diagnosed with moderate anemia in her third trimester, demonstrates the importance and effectiveness of Continuity of Care (CoC) in midwifery services. Through comprehensive and continuous care—from antenatal visits to labor, postpartum, newborn care, and family planning—her condition was successfully managed without complications.

Initial assessments identified key anemia-related symptoms, which were confirmed by a hemoglobin level of 8.9 g/dL. Following tailored interventions including iron supplementation, nutritional education, and lifestyle counseling, her hemoglobin levels improved to 11.3 g/dL by the third trimester. The mother's health and fetal Development progressed well throughout the care period.

This case highlights that early detection, accurate diagnosis, client education, and consistent follow-up are essential components in addressing maternal anemia. The successful implementation of CoC not only improved Mrs. D's health status but also reduced the risk of complications during and after childbirth. It underscores the critical role of midwives in promoting maternal and fetal Well-being through individualized and sustained care.

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