

The Continuity of Care Approach in Midwifery Care for Pregnant Women with Mild Anemia and Low Birth Weight Infants: A Case Study

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ABSTRACT

Keywords:

Anemia, Pregnancy, Continuity of Care.

Abstract: The incidence of anemia among pregnant women in Indonesia remains relatively high, at around 70%. The prevalence in South Kalimantan in 2024 was recorded at 20.13%, and within the service area of the Kayu Tangi Community Health Center, there were 56 pregnant women with mild anemia and 19 with moderate anemia. This study aims to apply the Continuity of Care (COC) approach in comprehensive midwifery care for Mrs. S within the service area of the Kayu Tangi Community Health Center. This case study employs a descriptive qualitative approach. Data were collected through in-depth interviews, observations, and document reviews. Continuity of Care midwifery care during pregnancy was provided over four visits. Findings revealed that the patient's hemoglobin (Hb) level at the first visit was 10.9 g/dl, indicating mild anemia. By the subsequent visit, her Hb level had risen to 13.7 g/dl. The author recommended that the patient eat a variety of vegetables daily, reduce her tea consumption, and take iron tablets twice a day. The delivery results showed that the baby was born weighing 2,340 grams, which falls into the low birth weight (LBW) category. After the baby was born, monitoring was conducted as part of the Continuity of Care program. At the next visit, the baby's weight had increased to 3,001 grams. The implementation of midwifery care through the Continuity of Care (COC) approach proved effective in continuously monitoring the condition of both the mother and the baby.

Kata Kunci:

Anemia, Kehamilan, Kelangsungan Perawatan.

Abstrak: Angka kejadian anemia pada ibu hamil di Indonesia masih relatif tinggi, yaitu sekitar 70%. Prevalensi di Kalimantan Selatan pada tahun 2024 tercatat sebesar 20,13%, dan di wilayah pelayanan Puskesmas Kayu Tangi, terdapat 56 ibu hamil dengan anemia ringan dan 19 ibu hamil dengan anemia sedang. Penelitian ini bertujuan untuk menerapkan pendekatan Continuity of Care (COC) dalam pelayanan kebidanan komprehensif bagi Ibu S di wilayah pelayanan Puskesmas Kayu Tangi. Studi kasus ini menggunakan pendekatan kualitatif deskriptif. Data dikumpulkan melalui wawancara mendalam, observasi, dan tinjauan dokumen. Pelayanan kebidanan Continuity of Care selama kehamilan diberikan melalui empat kali kunjungan. Temuan menunjukkan bahwa kadar hemoglobin (Hb) pasien pada kunjungan pertama adalah 10,9 g/dl, yang mengindikasikan anemia ringan. Pada kunjungan berikutnya, kadar Hb-nya telah meningkat menjadi 13,7 g/dl. Penulis merekomendasikan agar pasien mengonsumsi berbagai jenis sayuran setiap hari, mengurangi konsumsi teh, dan mengonsumsi tablet zat besi dua kali sehari. Hasil persalinan menunjukkan bahwa bayi lahir dengan berat 2.340 gram, yang termasuk dalam kategori berat badan lahir rendah (LBW). Setelah bayi lahir, pemantauan dilakukan sebagai bagian dari program Continuity of Care. Pada kunjungan berikutnya, berat badan bayi telah meningkat menjadi 3.001 gram. Penerapan pelayanan kebidanan melalui pendekatan Continuity of Care (COC) terbukti efektif dalam memantau kondisi ibu dan bayi secara berkelanjutan.

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A. INTRODUCTION

Pregnancy is a physiological process that requires optimal monitoring because the various changes that occur during gestation can affect the health of both the mother and the fetus. One of the most common problems among pregnant women is anemia. According to the World Health Organization (WHO), approximately 37% of pregnant women worldwide suffer from anemia, with a higher prevalence in developing countries. In Indonesia, the prevalence of anemia among pregnant women also remains relatively high, making it a health issue that requires attention in efforts to improve maternal health (WHO, 2024).

Anemia during pregnancy is generally caused by an increased need for iron that is not met by adequate intake (Zuiatna D, 2021). Several factors contribute to this condition, including low consumption of iron-rich foods, poor adherence to iron (Fe) supplementation, and the habit of drinking tea, which can inhibit iron absorption (Hasanah U et al., 2022). This condition has the potential to lead to various complications, such as bleeding and infections in the mother, as well as fetal growth restriction and low birth weight (LBW) (Hanifa S, 2025).

Low Birth Weight (LBW) is one of the leading causes of neonatal morbidity and mortality. Various studies have shown that pregnant women with anemia are at greater risk of giving birth to low birth weight infants than women with normal hemoglobin levels (Wahyuningsih E et al., 2023). In addition to increasing the risk of LBW, anemia is also associated with preterm birth, fetal growth restriction, and an increased risk of complications for the mother during pregnancy and childbirth (Herlina N et al., 2024).

One measure that can be taken to prevent these complications is through continuity of care (COC). The COC approach is a service model that provides care from pregnancy through childbirth and the postpartum period, all the way to newborn care. Providing care continuously allows healthcare providers to detect risk factors early, provide appropriate interventions, and continuously evaluate the progress of both the mother and the baby, thereby improving the quality of midwifery care (Pratiwi IGD et al., 2023).

Based on the background described above, this study was conducted with the aim of applying the Continuity of Care (COC) approach in providing comprehensive midwifery care to pregnant women with mild anemia through the postpartum period and in caring for newborns, as well as evaluating the outcomes of this care on the mothers' condition and the infants' health.

B. RESEARCH METHODS

This study employed a case study design with a descriptive qualitative approach to provide an in-depth description of the implementation of midwifery care through the Continuity of Care (COC) approach for pregnant women with mild anemia through the postpartum period and the care of newborns. This approach was chosen because it provides a comprehensive overview of the care process, the progression of the mother's and infant's conditions, and the outcomes of the continuous interventions provided.

The study subject was a pregnant woman, Mrs. S, who experienced mild anemia in the third trimester and received comprehensive midwifery care from pregnancy through delivery, the postpartum period, and newborn care within the service area of the Kayu Tangi Community Health Center in Banjarmasin City. The case study was conducted from September 2025 to May 2026, with periodic monitoring carried out in accordance with the principle of Continuity of Care.

Research data were collected through in-depth interviews, direct observation, and a review of medical records. Interviews were conducted with mothers, family members, and midwives to obtain information regarding pregnancy history, health status, and adherence to treatment. Observations were used to assess the clinical condition of the mother and infant, as well as the provision of midwifery care during each visit. Meanwhile, the documentation review involved examining examination records, laboratory test results, and care documentation using the SOAP format as the basis for evaluating changes in the clients' conditions.

Data analysis was performed descriptively by presenting the results of each stage of midwifery care, which were then compared with theory and previous research findings to interpret the effectiveness of implementing Continuity of Care in the management of anemia in pregnant women and the outcomes for the newborns.

C. RESULTS AND DISCUSSION

1. Initial Condition of a Pregnant Woman with Mild Anemia

The subject of this case study is Mrs. S, a 40-year-old pregnant woman with an obstetric history of G3P2A0 who has been receiving midwifery care through the Continuity of Care (COC) approach since 28 weeks of

gestation. Initial examination results showed a hemoglobin (Hb) level of 10.9 g/dL, which is classified as mild anemia according to WHO criteria. Additionally, the medical history revealed that the mother rarely consumed vegetables and fruits and frequently drank tea after meals. These habits are suspected to contribute to the low hemoglobin level, as they may inhibit iron absorption in the body.

Anemia during pregnancy is a common condition resulting from increased iron requirements to support fetal growth, placental development, and an increase in the mother's blood volume. If these needs are not met through dietary intake or supplementation, hemoglobin levels will decrease, thereby reducing the blood's ability to carry oxygen. A study by Zuiatna D (2021) explains that low consumption of iron-rich foods, non-compliance with iron supplementation, and the habit of drinking tea are factors that contribute to the development of anemia in pregnant women. This condition also increases the risk of fetal growth restriction if not addressed promptly.

In addition to low hemoglobin levels, the assessment results showed that the mothers' body weight during pregnancy decreased compared to their pre-pregnancy weight. These findings indicate a possible nutritional deficiency during pregnancy. The mother's nutritional status is a key determinant of fetal growth because it is directly related to meeting energy and nutrient requirements during gestation. Malnutrition during pregnancy is known to increase the risk of preterm birth and low birth weight (Ningdiah AK & Khayati YN, 2023).

2. The Effectiveness of the Continuity of Care Approach in Improving Maternal Health

Management focused on administering iron (Fe) supplements, providing education on a balanced and nutritious diet, increasing consumption of foods rich in iron and vitamin C, and recommending a reduction in tea consumption to enhance iron absorption. All interventions were provided consistently at each visit as part of a Continuity of Care approach, allowing for periodic monitoring of the mother's condition.

Evaluation results showed an increase in hemoglobin levels to 13.7 g/dL at the next visit. This change indicates that the interventions successfully improved the mother's hematological status. The rise in hemoglobin levels not only reflects the effectiveness of iron tablet supplementation but also demonstrates a change in the mother's behavior regarding meeting her nutritional needs during pregnancy. These results are consistent with the study by Pertiwi MI et al., (2025) which states that adherence to iron tablet intake, combined with increased consumption of green vegetables, can significantly increase hemoglobin levels in pregnant women.

The Continuity of Care approach offers advantages because healthcare providers can conduct ongoing monitoring, evaluate the mother's response to treatment, and provide repeated education as needed by the patient. As a result, changes in the mother's condition can be detected earlier, allowing for more targeted interventions. This aligns with the concept of Continuity of Care, which emphasizes the continuity of care as a means of improving the quality of midwifery care (Pratiwi IGD et al., 2023).

3. Childbirth and Low Birth Weight

Although the mother's hemoglobin level increased before delivery, the baby was born weighing 2,340 grams, placing it in the low birth weight (LBW) category. This finding suggests that an improvement in hemoglobin levels late in pregnancy is not entirely sufficient to counteract the effects of pre-existing anemia on fetal growth. In other words, successful treatment of the mother does not always result in optimal neonatal outcomes if fetal growth restriction has been present since the early stages of pregnancy (Barus ER et al., 2025).

Physiologically, anemia reduces the blood's ability to carry oxygen, leading to suboptimal distribution of oxygen and nutrients to the fetus via the placenta. This condition can impair intrauterine growth and increase the risk of low birth weight (LBW) (Barus ER et al., 2025). In addition to anemia, maternal age of 40 years or older is also a factor suspected of contributing to the incidence of LBW, as pregnancy at an advanced age carries a higher risk of complications compared to the ideal reproductive age (Herlina N et al., 2024).

4. Role of Continuity of Care in Monitoring Newborns

Setelah persalinan, pemantauan tetap dilanjutkan melalui kunjungan neonatal sebagai bagian dari pendekatan Continuity of Care. Fokus asuhan meliputi pemantauan kondisi umum bayi, keberhasilan pemberian ASI, pertumbuhan berat badan, serta deteksi dini terhadap kemungkinan komplikasi yang sering terjadi pada bayi BBLR. Hasil pemantauan menunjukkan bahwa bayi berada dalam kondisi stabil tanpa ditemukan tanda bahaya selama masa neonatal.

An evaluation during the neonatal visit showed that the infant's weight had increased from 2,340 grams at birth to 3,001 grams. This increase indicates that the infant's nutritional needs can be met through exclusive breastfeeding. Breast milk is the primary source of nutrition for infants because it contains a complete range of nutrients as well as various immunological components that play a role in supporting growth, development,

and protection against infection (Wijaya W et al., 2023). These results indicate that even though the infant was born with low birth weight, postnatal growth can proceed optimally if the infant receives good neonatal care accompanied by adequate breastfeeding.

The implementation of Continuity of Care in this case study demonstrates tangible benefits in continuously monitoring the progress of both the mother and the infant. This approach enables early detection of maternal anemia, the provision of appropriate interventions, evaluation of treatment response, and monitoring of the infant's growth after birth. Although the delivery outcomes still show an incidence of LBW, the successful increase in maternal hemoglobin levels and the infant's weight gain during the neonatal period indicate that Continuity of Care plays a crucial role in improving the quality of midwifery care and preventing subsequent complications.

D. CONCLUSIONS AND SUGGESTIONS

The implementation of midwifery care through the Continuity of Care (COC) approach for Mrs. S supported continuous monitoring of the mother's and baby's conditions from pregnancy through labor, the postpartum period, and the neonatal period. Interventions—including the administration of iron (Fe) supplements, nutrition education, and support for healthy behavioral changes—successfully increased the mother's hemoglobin level from 10.9 g/dL to 13.7 g/dL. However, the baby was still born weighing 2,340 grams, which falls into the low birth weight (LBW) category, indicating that the anemia that occurred early in pregnancy still had an impact on fetal growth. Nevertheless, monitoring during the neonatal period showed an increase in the infant's weight to 3,001 grams through exclusive breastfeeding, illustrating that the Continuity of Care approach plays a crucial role in supporting the ongoing monitoring and evaluation of both the mother's and infant's conditions. Therefore, the implementation of Continuity of Care must continue to be optimized through high-quality antenatal care, periodic monitoring of hemoglobin levels, education on the use of iron (Fe) supplements, and support for meeting the nutritional needs of pregnant women to improve adherence to treatment, prevent anemia during pregnancy, and reduce the risk of maternal and neonatal complications, including low birth weight (LBW).

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REFERENCES

- Barus ER, Sihaloho ML, Hutapea MSR, Nurmila, Maryani, Nuraini, Wulansari RW, Daryanti KE, Nurhidayah S, Baharuddin RB, & Sofiyanti I. (2025). Literature Review : Faktor-Faktor yang Berhubungan dengan Kejadian Berat Badan Lahir Rendah (BBLR). Prosiding Seminar Nasional Dan Call for Paper Kebidanan, 1433–1444.
- Hanifa S. (2025). Deteksi Dini Upaya Pencegahan Anemia Ringan pada Kehamilan Trimester Tiga Melalui Asuhan Kebidanan Continuity of Care (COC) : Studi Kasus Pada Ny. A di Wilayah Puskesmas Kayu Tangi. Prosiding Seminar Nasional UNIMUS, 63–71.
- Hasanah U, Sari K, Anggraini L, Khairunnisa N, Amanda DR, & Setiawati D. (2022). Literatur Review: Hubungan Anemia pada Ibu Hamil dengan Kejadian BBLR. Prosiding Seminar Nasional Dan Call for Paper Kebidanan , 918–931.
- Herlina N, Oktariyani SD, Dharmawan AK, & Shariff FO. (2024). Hubungan Anemia pada Ibu Hamil dengan Bayi Berat Lahir Rendah (BBLR). Jurnal Penelitian Perawat Profesional, 6(6), 2367–2372.
- Ningdiah AK, & Khayati YN. (2023). Hubungan Status Gizi Ibu Hamil dengan Berat Badan Lahir di BPM Bidan Sri Harti. Journal of Holistics and Health Sciences, 5(1), 67–74.
- Pertiwi MI, Notiyanti M, Permatasari MA, & Rodliya AF. (2025). Efektivitas Konsumsi Daun Katuk (*Sauropus Androgynus*) Terhadap Peningkatan Kadar Hemoglobin Pada Ibu Hamil: Studi Meta Analisis. Prosiding Seminar Informasi Kesehatan Nasional (SIKESNas), 144–151.

- Pratiwi IGD, Camalia HE, & Wardita Y. (2023). Peningkatan Kesehatan Ibu dan Anak Melalui Pelayanan Kebidanan Berbasis COC (Continuity Of Care). *Jurnal ABDIRAJA*, 6(1), 27–32.
- Wahyuningsih E, Hartati L, & Puspita WD. (2023). Analisis Faktor Resiko Kejadian Anemia Pada Ibu Hamil. *PROFESIONAL HEALTH JOURNAL*, 4(2), 303–313.
- WHO. (2024). Prevalence of anaemia in women aged 15-49 (%).
- Wijaya W, Limbong TO, & Yulianti D. (2023). Buku Ajar Asuhan Kebidanan Nifas untuk Sarjana Akademik dan Profesi. PT Nasya Expanding Management.
- Zuiatna D. (2021). Faktor-faktor yang Mempengaruhi Kejadian Anemia pada Ibu Hamil. *Jurnal Kebidanan Malahayati*, 7(3), 404–412.