

Continuity of midwifery care for a patient (G2P1001, 40 years old, and 26 weeks of gestation) with a single viable intrauterine fetus

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Abstract:

The Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR) in Indonesia are still relatively high, so continuous efforts are needed to improve the quality of maternal and child health services. One effective strategy is the implementation of Continuity of Care (CoC). This study aims to provide a comprehensive overview of the implementation of CoC midwifery care for Mrs. NN, 40 years old with a single intrauterine pregnancy, from the third trimester of pregnancy to contraceptive services. The method used is a descriptive case study conducted at TPMB Muhartik, S.Tr., Bd. in Kandangan Village, Kediri Regency, from November 11, 2024, to March 22, 2025. This midwifery care shows that all stages, from antenatal care (ANC), delivery, postpartum, newborn care, to contraceptive counseling have been carried out according to midwifery service standards. The interventions provided can accurately identify pregnancy risks, such as maternal age >35 years, and address postpartum issues such as sore nipples and low breast milk production through oxytocin massage. The implementation of CoC in midwifery care has proven effective in improving the overall health status of mothers and babies and supporting the achievement of national health targets.

Keywords:

midwifery care; high-risk pregnancy; jaundice

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INTRODUCTION

The Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR) are important indicators for assessing the quality of health services and public welfare in Indonesia. Although there has been a decline in recent years, the MMR and IMR in Indonesia remain relatively high compared to other countries in Southeast Asia. Maternal Mortality Rate (MMR) According to the 2020 Population Census data, the MMR in Indonesia was 189 per 100,000 live births (BPS, 2020). However, this figure is still far from the Sustainable Development Goals (SDGs) target of an MMR below 70 per 100,000 live births by 2030. The main causes of maternal death in Indonesia include hemorrhage, hypertension during pregnancy, infection, and other complications (Sari et al., 2023).

The Infant Mortality Rate (IMR) in Indonesia has shown a decline. The 2020 Population Census data recorded an infant mortality rate of 16.85 per 1,000 live births, down from 26 per 1,000 live births in the 2010 Population Census (BPS, 2020). However, this figure remains higher than in several ASEAN countries. The main causes of infant mortality in Indonesia include low birth weight (LBW), asphyxia, infection, and congenital abnormalities (Sari et al., 2023). The Indonesian government has undertaken various efforts to reduce maternal and child mortality rates (MMR) and infant mortality rates (IMR), including improving access to and quality of maternal and child health services, family planning programs, and reproductive health education. One important initiative is the publication of the Maternal and Child Health Handbook (MCH Handbook), which serves as a guide for pregnant women and their families in monitoring their health throughout pregnancy and up to the child's sixth birthday. Despite these efforts, significant challenges remain in reducing MMR and IMR in Indonesia. More intensive collaboration between the government, health workers, and the community is needed to achieve established targets and improve the well-being of mothers and children in Indonesia.

Continuity of Care (CoC) is an approach to midwifery care that places women at the center of the entire care process, encompassing pregnancy, childbirth, postpartum care, newborn care, and family planning. This approach emphasizes continuity not only in terms of time and service but also in the relationship between midwives and clients, thereby fostering trust, comfort, and satisfaction in receiving healthcare services (Homer et al., 2018). The CoC model of care is highly relevant for improving the quality of midwifery services because it can identify potential risks early and provide timely and targeted interventions. Research shows that CoC practices contribute to reduced maternal and infant mortality rates, increased maternal satisfaction with care, and increased coverage of maternal and child health services (Sandall et al., 2016). The implementation of CoC in midwifery practice also reflects the fundamental principles of Primary Health Care and the Midwife Competency Standards, namely holistic, humanistic, and continuous care (ICM, 2019). Therefore, understanding and implementing CoC in midwifery care is crucial to ensure quality services that address the needs of women.

METHODS

This research used a descriptive and case study method. This research was conducted at TPMB Muhartik, S.Tr, Keb, Bdn. This research was conducted from November 11, 2024, to March 22, 2025. The sample used was Mrs. N, a second-trimester pregnant woman with a gestational age of 26-27 weeks.

RESULTS

In the case of Mrs. N, 40, from November 11, 2024, to March 22, 2025, the assessment provided included care for the third trimester of pregnancy, childbirth, postpartum care, and the newborn. This continuous and comprehensive care was provided to prevent complications during pregnancy. Evidence-based continuity of care is crucial for women, as it contributes to safe and comfortable care throughout pregnancy, childbirth, postpartum care, newborn care, and family planning (Diana, 2017).

Theoretically, assessment is the initial stage in providing midwifery care for the health of the mother and fetus. Subjective data is obtained directly from the patient through anamnesis. Subjective data relates to the problem from the patient's perspective (Ariendha et al., 2020). In subjective data, the examination conducted by the author includes identity, main complaint, menstrual history, marital history, history of this pregnancy, history of previous illnesses, family history of illnesses, gynecological history, history and plans for contraceptive use, psychosocial and spiritual data, and the mother's knowledge.

In the pregnancy care provided to Mrs. NN, she has had 12 pregnancy check-ups with a midwife and 6 with a OB/GYN, where in the first trimester the mother had 2 ANC check-ups consisting of 1 Routine ANC and 1 Integrated ANC, in the second trimester 3 times Routine ANC, and in the third trimester 5 times consisting of 4 Routine ANC and 1 Integrated ANC, however, the mother's age over 35 years is one of the risk factors for high-risk pregnancy. The age of pregnant women over 35 years is considered at risk because it is associated with increased pregnancy complications, such as hypertension, gestational diabetes, preeclampsia, and the risk of chromosomal abnormalities, such as Down syndrome. Decreased egg quality and reproductive function also increase the risk of miscarriage, premature birth, and cesarean delivery. Therefore, this age requires more intensive pregnancy monitoring.

One of the WHO recommendations is that pregnant women should have a minimum of eight antenatal care visits (ANC). After adapting to the relevant profession and programs, it was agreed in Indonesia that ANC should be performed at least six times, with at least two visits with a doctor to screen for risk factors/pregnancy complications in the first trimester and one screening for risk factors for childbirth in the third trimester (Nurfadilah et al., 2025). Based on Mrs. NN's examination, there was no discrepancy between theory and reality.

Other subjective data obtained by the author from the comprehensive midwifery care provided to Mrs. NN, in accordance with midwifery care theory, indicate that optimal antenatal care was implemented. This can be assessed by the mother's and fetus's good condition, as well as the

monitoring of the mother's condition during pregnancy, delivery, postpartum, family planning, and the baby's condition. Mrs. NN also regularly attended pregnancy check-ups, following the midwife's instructions.

During the delivery, care was given to Mrs. N. During the assessment on February 10, 2025, the mother complained of fluid coming out of the birth canal from 13.00 WIB and regular HIS. After an internal examination, it was found that the dilation was 7 cm. The mother was immediately transferred to the delivery room and monitored for the progress of the dilation. The first active phase lasted for 1 hour and was complete at 15:19 WIB (Putri Alisa et al., 2024). In the second stage of labor, Mrs. N, from complete dilation to delivery, took 5 minutes. This is in line with the theory presented by Widiastuti et al. (2024), which states that the time required is 1-2 hours for primigravida and 30 minutes for multigravida. In the third stage experienced by Mrs. N, it lasted for 5 minutes, starting at 15.25 WIB. After the newborn was born, the placenta was delivered. This is in line with the theory presented by Antik (2017), which states that the third stage is the time for the release and expulsion of the placenta, beginning after the baby is born and concluding with the expulsion of the placenta, accompanied by the amniotic membrane. This process typically takes 5-30 minutes after birth. During the fourth stage, monitoring is performed every 15 minutes in the first hour and every 30 minutes in the second hour. This aligns with the theory presented by Widiastuti et al (2024), which states that monitoring is performed every 15 minutes in the first hour and every 30 minutes in the second hour. Therefore, the care provided is in accordance with the theory.

During postpartum visits 1 to 4, Mrs. NN complained of sore nipples on the second visit, and only a little breast milk came out. After oxytocin massage, Mrs. NN felt her breasts were better/slightly softened, and a sufficient amount of breast milk was able to come out (Satiyem & Murtiningsih, 2024). On the first to fourth postpartum visits, the results of a healthy mother were obtained from the P2002 Postpartum analysis. The actual problem found during the postpartum visit was that the mother complained of slightly sore breasts, and little breast milk came out. The immediate needs required by the mother were to provide breast care and oxytocin massage. This aligns with the theory presented by Nurlaily & Susanti (2020), which suggests that the application of correct breastfeeding techniques can help alleviate sore nipples in postpartum mothers.

Newborn care began on February 10, 2025. The baby was born spontaneously, a boy, with a height of 49 cm, a length of 33 cm, and a weight of 7-8 cm. He had a strong cry, reddish skin, and active movements. This is in line with the theory presented by Marmi and Rahardjo (2018), which states that a normal newborn weighs between 2,500 and 3,500 grams, has a length of 48-52 cm, a head circumference of 33-35 cm, and a body circumference of 30-38 cm.

Neonatal visits were conducted three times. During the first visit, the baby's face and neck were slightly yellowish. Therefore, Mrs. N was given therapy, which involved exposing the baby to sunlight from 7:00-8:00 AM without clothing and covering his eyes to protect him from direct sunlight. She also taught the mother how to care for her sore nipples and advised her to continue breastfeeding every two hours. At the first neonatal visit, signs of mild jaundice were found, which was seen from yellowing of the face to the neck, which is a common symptom of physiological hyperbilirubinemia.

Jaundice is a condition resembling liver disease in newborns caused by hyperbilirubinemia. Jaundice is a common emergency in newborns, affecting 25%-50% of full-term infants and 80% of preterm infants. Preterm infants are particularly susceptible to various illnesses. The most common complication is difficulty breathing. This is due to the immaturity of the lungs and the entire respiratory system, including the chest muscles and the respiratory center in the brain. The thin layer of fat in infants makes them susceptible to hypothermia (Choi & Lee, 2025). This condition often occurs in newborns due to increased breakdown of red blood cells and the immaturity of the liver in conjugating bilirubin.

Breast milk is given more frequently to infants with jaundice because it can help accelerate the excretion of bilirubin through feces and urine. Breast milk stimulates intestinal peristalsis, prevents dehydration, and supports liver function in bilirubin metabolism. Research shows that babies who are exclusively breastfed tend to have lower bilirubin levels and recover more quickly (Nugroho et al., 2023). According to Njuguna (2022), one common non-medical intervention in the community is exposing babies to morning sunlight. Although medical phototherapy is the primary therapy for jaundice, careful exposure to morning sunlight between 7:00 and 8:00 a.m. can help reduce bilirubin levels, provided the baby's eyes are covered and the duration and intensity of exposure are not excessive to avoid risks such as dehydration and burns.

Furthermore, educating mothers on how to care for sore nipples is necessary, as this is one of the most common lactation problems experienced by breastfeeding mothers, usually caused by improper attachment of the baby during breastfeeding. This is in line with Safitri et al. (2023), who recommended that nipple care includes applying breast milk to the sore nipple area, ensuring the wound heals, keeping the nipples dry or uncovered after breastfeeding, and maintaining proper attachment. During a routine antenatal care visit at 35 weeks of gestation, counseling was provided on choosing the right contraceptive for Mrs. NN, namely the 3-monthly birth control injection. After discussing this with her husband, Mrs. NN decided to have the 3-monthly birth control injection (Ma. Iballa & Hanum, 2024). The comprehensive midwifery care provided to Mrs. NN was implemented in accordance with theory. There were no discrepancies between the theory and the case. This was

assessed by the good condition of the mother and fetus, as well as the monitoring of the mother's and the baby's condition.

DISCUSSION

This case illustrates how continuity of care in midwifery, from antenatal to postpartum and newborn care, can lead to positive outcomes by aligning practice with evidence-based guidelines. Models of midwife-led continuity of care have been shown to lead to better maternal and perinatal outcomes, as well as improved satisfaction among women (McInnes et al., 2020). During pregnancy, Mrs. N attended 12 ANC visits with a midwife and 6 with an obstetrician, exceeding WHO's minimum standard of 8 visits. Evidence shows that adequate ANC is crucial for detecting complications, especially in women aged ≥ 35 years who are at higher risk for hypertension, diabetes, preeclampsia, and miscarriage (Achieng et al., 2022).

Labor management was consistent with theory: the active phase lasted 1 hour, the second stage only 5 minutes, and the third stage 5 minutes, aligning with recommendations for multiparous women. Postpartum care addressed nipple pain and low milk production through oxytocin massage and breast care, which effectively improved milk flow. Literature confirms that oxytocin massage can stimulate oxytocin release, enhance the let-down reflex, and increase milk production (Rahmawati et al., 2020).

Newborn care showed normal parameters at birth. Mild jaundice was detected during the first neonatal visit and managed with frequent breastfeeding and morning sunlight exposure. Studies show that breastfeeding accelerates bilirubin excretion, while safe morning sunlight exposure is an effective non-medical intervention for physiological jaundice (Njuguna, 2022). Family planning counseling was provided during ANC, and Mrs. N chose the 3-month injection with her husband's involvement, supporting findings that shared decision-making improves contraceptive use and adherence (Hanum et al., 2024).

CONCLUSION

Based on the provision of Continuity of Care, midwifery care carried out on Mrs. N has been carried out maximally and comprehensively in accordance with the principles of midwifery management. All stages have been carried out from pregnancy to contraceptive services. The evaluation demonstrated an improvement in the health conditions of both the mother and baby, indicating that the provision of COC care is effective in enhancing overall health. It is hoped that

future researchers can develop this COC midwifery care study with more diverse cases, not limited to cases of jaundice in infants.

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CONFLICT OF INTEREST

The authors declare that there is no conflict of interest regarding the publication of this case report. The care provided to Mrs. N was conducted in accordance with professional standards of midwifery practice, and there were no financial, personal, or institutional interests that could have influenced the assessment, intervention, or reporting of this case.

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