



Comprehensive Midwifery Care on Mrs. N and Baby Low Birth Weight (LBW) in the Working Area of Public Health Center Samarang Garut Regency

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Abstract, Introduction: The period of pregnancy, childbirth, puerperium, and neonates is a physiological state but has various risks, one of the efforts that can be made to reduce these risks is to apply a comprehensive midwifery care model. Comprehensive midwifery care can optimize the detection of maternal and neonatal high-risk, one of which is Intrauterine Growth Restriction (IUGR), where IUGR lead to Low Birth Weight (LBW).

Method: The method used is in the form of a case study conducted from January 2023 to March 2023 at the Samarang Health Center, Garut Regency.

Objectives: This case study involved Mrs. N with a gestational age of 39-40 weeks and Mrs. N's Baby.

Result: The client detected IUGR when examined by the author during 39 weeks of pregnancy, the author provided education to increase his nutritional intake, but this was not optimal because within 5 days the client had entered the labor phase. The baby was born at a low weight (2200 grams), and the author provided care through exclusive breastfeeding, kangaroo method treatment, and newborn massage with the final result that there was a significant increase in weight.

Conclusion: At the postpartum visit, the mother is in good health and the baby's birth weight increases by 900 grams from the day of birth. The results of the care provided have good results.

Keywords: Comprehensive Midwifery Care, IUGR, and LBW

INTRODUCTION

Comprehensive obstetric care (Continuity of Care / CoC) can optimize the detection of high-risk maternal neonatal. This effort can involve various sectors to carry out assistance to pregnant women as a promotive and preventive effort starting from the time the pregnant woman is found until the mother is in the postpartum period. This can be done through counseling, information, and education (KIE), and the ability to identify risks to pregnant women so that they are able to make referrals.¹

Low birth weight is still a major health problem in developing countries, low birth weight is often associated with impaired child growth and development both physically and

mentally in the future. 2–4 The World Health Organization (WHO) defines low birth weight as a condition in which the baby weighs less than 2,500 grams (5.5 pounds) at birth as one of premature birth (before 37 weeks of pregnancy) or is full-term, but the baby's physical condition is too weak and small. 2–4

It is estimated that 15-20% of all births worldwide are low birth weight or more than 1 in 7 babies weigh less than 2,500 grams at birth, the prevalence of low birth weight in the world today reaches 14.6%. In Indonesia, the prevalence of birth weight at the age of 0-59 months below 2500 grams reaches 11.1%. However, West Java Province has a prevalence of BBLR incidence that is close to the national figure of 10.9%. 5,6

One way to reduce morbidity and death caused by low birth weight is to use the kangaroo method (MK) or so-called skin-to-skin contact. In addition to the kangaroo method (MK), care that can be given to babies with low birth weight includes newborn massage. Research conducted by Awal and Suharto (2018) proved a significant effect of baby massage on infant weight gain/week, namely 100% BBLR and Non BBLR after massage experienced weight gain and more regular sleep patterns. 7

The main purpose of obstetric care is to save the mother and baby (reduce pain and death). Midwifery care focuses on prevention and health promotion that is holistic in nature, delivered in creative and flexible, supportive, caring, guidance, monitoring, and women-centered education. As well as comprehensive care as desired and not authoritarian and respectful of women's choices. 8

METHODS

The method used is a case study using a comprehensive continuity of care approach in pregnant women, maternity, newborns, and postpartum. The subject in this case study is a G2P1A0 woman with a gestational age of 39 weeks until the postpartum period in the Samarang Health Center area, Garut Regency. Midwifery care will be provided from January 31, 2023, to March 8, 2023. Midwifery care is carried out with a 7-step approach to midwifery management. The provision of care to subjects is carried out by paying attention to research ethics, namely respect for the person, justice, beneficence, and non-maleficence.

RESULTS AND DISCUSSION

1. Antenatal care

The results of the data obtained on January 31, 2023, Mrs. N experienced third-trimester discomfort in the form of pain in the back area, and the mother detected that her fetus had an obstacle in growth. An overall physical examination was carried out such as an anthropometric examination with the results of weight examination before pregnancy 50 kg, weight after pregnancy 66 kg, and height 147 cm. Examination of vital signs is obtained within normal limits. The results of the Leopold examination obtained the position of the fetus in a normal position, part of the head has entered the upper door of the pelvis, fetal heart rate is 140x / m regular. But the problem is the size of the fundus uteri height that does not match the gestational age, at 39 weeks gestation the height of the mother's fundus uteri is only 28 cm.

The care provided is to provide counseling on nutritional intake in the form of animal and vegetable protein that needs to be increased by the mother before birth. In addition, the care provided to overcome complaints in the form of back pain experienced by mothers, it is recommended to do body mechanics in their daily lives such as how to stand properly, sleeping position, lifting weights, and squatting positions. Because with the application of body mechanics in the mother's daily life can help reduce the pain felt.

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From the results of the examination above, here are some discussions about complaints and discrepancies during pregnancy:

a. Discomfort of pregnancy 3rd trimester

At this examination, the mother complained of pain in the waist area. The cause of the pain felt by the mother is because during the larger pregnancy, the fetus will grow bigger so that the mother must adjust her position and posture. This is in accordance with the theory at this time the greater the womb, the mother must adjust her position and posture by relying on muscle strength because the center of gravity will move forward. The recommended management for mothers is to apply body mechanics in their daily lives because it can help reduce the pain that mothers feel.⁹

b. Weight gain

In anthropometric examination, it was found that the mother's weight gain during pregnancy amounted to 16 kg. This is in accordance with Prawirohardjo's book which explains that a supervision of nutritional adequacy can be used for weight gain Normal pregnant women average between 6.5 to 16 kg.

c. Results of high measurement of fundus uteri in mother

Data from maternal measurements at 39 weeks 2 days gestation is 28 cm. This creates a gap between practice and theory. In accordance with Prawirohardjo's theory (2016), the estimated height of the uterine fundus will be in accordance with the gestational period. In the case of Mrs. "N" when adjusted for this theory, at 39 weeks 2 days gestation, the height of her uterine fundus is 33 cm but the height of the mother's uterine fundus is 28 cm. One potential problem that occurs from the mismatch of fundal uterine height with gestational age is IUGR (Intrauterine Growth Restriction) where fetal growth is inhibited (PJT). The factor of IUGR according to theory is if the measurement of fundus uteri height is less than 3 cm normal fundus uteri height, or from continuous measurement fundus height does not increase according to gestational age, which means the baby does not increase according to gestational age.^{10,11} This is also appropriate according to Wantania and John in 2017 who said stunted fetal growth can be determined by one of the signs, namely the height of the fundus uteri < 3 cm from the height of the fundus uteri normally according to gestational age.¹² From the results of the examination of Mrs. N, it was found that the compatibility between the theory of fetal growth was inhibited and practiced.

2. Intranatal Care

a. Kala I

On January 31, 2023, the mother came complaining of heartburn, blood mucus, and unbearable water from the birth canal. On the internal examination there is already an opening of 8 cm, the care given to the mother is to provide emotional support, and encourage the mother to eat and drink. This is in accordance with JNPK-K, which explains that the basic needs of maternity mothers are:

- 1) Emotional support.
- 2) Food and fluid needs, during labor the mother needs the fulfillment of nutrients by providing food and drinks to increase energy and prevent dehydration due to contractions and his. Such as giving juice, fruits, mineral water, team rice, biscuits, cereals, and others.

When 1 phase is active, massage care is carried out on the mother's back waist to relieve pain or relax the mother when there are contractions.¹³

b. Kala II

When II Mrs. N's labor lasted for approximately 30 minutes and went smoothly, there were no complications experienced by the mother. This is within normal limits because according to Amelia 2019, the duration of time II for primigravida is 1.5-2 hours and multigravida is 1.5-1 hour. The care provided by the

mother also facilitates the mother to adjust the position according to the mother's comfort and provides motivation to the mother during the delivery process, this is in accordance with the theory according to JNPK-KR, that maternal affection care can be applied during labor II, namely offering a maternity position according to the mother's comfort, guiding the mother to plan, and cleaning the mother's perineum. ¹⁴

c. Kala III

Mrs. N's third labor lasted for 9 minutes. This is under normal circumstances because according to JNPK-KR, states that physiological time III labor lasts no more than 30 minutes and there are no complications. As for the management of labor when III Mrs. N carried out a second fetal examination and if there was no second fetus then carried out care in time III labor using active management when III, namely giving 10 IU oxytocin injections IM on 1/3 of the outer thigh in the first 1 minute after the baby is born, doing controlled umbilical cord tension with dorsocranial pressure during uterine contraction, and massase the fundus uteri for 15 seconds immediately after the placenta is born to produce contractions. ¹⁴

d. Kala IV

IV delivery care is carried out after the birth of the placenta and amniotic membranes until 2 hours after. Mrs. N's condition during labor during IV labor is physiological, this can be determined based on documentation data on the partograph sheet and the results of interviews with midwives. IV delivery care given to Mrs. N included monitoring vital signs, assessing the amount of bleeding, uterine contractions, measuring the height of the uterine fundus, and assessing the condition of the mother's bladder. Monitoring is carried out every 15 minutes in the first 1 hour and every 30 minutes in the second 1 hour. ¹⁴ At the time of IV delivery, perineal suture management was carried out because in the case of Mrs. N suffered tears in the vaginal mucosa, perineal muscles and perineal skin.

3. Postpartum Care

Postpartum care is given to mothers when 6 hours after delivery, 3 days after delivery, 14 days and 35 days. At 6 hours after delivery, the care given is an abdominal examination including the height of the fundus uteri, uterine contractions, and bladder. In the physical examination of Mrs. N, the development of the involution process experienced by the mother took place physiologically and the care given in the management of Fe 1x60 mg drug therapy and Vit A 1x1 dose 200,000 IU.

The visit on the 3rd day postpartum mother said she felt pain in the suture wound in her birth canal, the results of the examination of the mother's vital signs were within normal limits and judging from the measurement of the height of the mother's uterine fundus, the results of the examination were 3 fingers below the center. Care given to mothers to reduce suture wound pain is in the form of cold compresses because one of these non-pharmacological therapies can help reduce perineal suture wound pain. ¹⁵

At the third and fourth visits the mother's condition was in good condition, the results of the examination of vital and physical signs showed that the mother was in good health, the mother had also been given counseling about the birth control to be used.

4. Newborn Care

Mrs. N's baby was born immediately crying reddish skin color, not given breast milk because at the time the baby was born it was meconium. At the age of 1 hour after birth, the results of the baby's weight examination were obtained 2300 grams, body length 48 cm, head circumference 33 cm, and chest circumference 32 cm. The result of biological reflexes is good, it can suck breast milk well and there are no congenital defects and abnormalities. The management given in this care is the provision of eye ointment and vitamin k 1 mg, counseling to mothers regarding exclusive breastfeeding on demand. In accordance with Lestari's research in 2021 that the protein contained in breast milk

is beneficial for baby's brain growth. Breast milk also contains a lot of taurine which serves for the growth of the nervous system. Breast milk is the best food for babies at the beginning of life. This is not only because breast milk contains enough nutrients, but also because breast milk contains immunoglobulin substances that protect the baby from infection.^{16,17} In addition, danger signs in newborns, and keeping the baby warm with kangaroo method care.¹⁸ In accordance with research conducted by Simanjuntak and Hartini in 2019 that by giving warmth with the kangaroo method at home can produce significant weight gain in babies with low birth weight.¹⁸

In 3-day neonatal care, the baby was found to be in good condition, weight increased by 100 grams since birth. Babies can feed smoothly and often. The umbilical cord is already faded on the 4th day, there is no infection or swelling of the central area of the baby.

At the 3rd visit or day 15, babies are given newborn massage care which is also in accordance with research conducted by Hidayanti 2018 and Lorenz, Moyses, and Surguy (2005) in Karim, Utomo, and Yulianti's research in 2021 which showed that massage treatment in newborns provides significant changes to growth. This can be seen from the larger changes in body weight and body length of babies in the massaged group than those who were not massaged.^{19,20} There was a weight gain of Mrs. N's baby by 250 grams. On the 35th day of the visit, the baby's weight was 3100 grams, where the baby's weight had increased by 900 grams. This is in accordance with the recommendations of the Card Towards Health where the recommendation for newborn weight gain in the first month is 800 grams, or it can be said that the baby's weight gain is optimal in the first month of birth.

CONCLUSION

During pregnancy, the mother is detected with suspected IUGR. Mothers are given management in the form of nutritional intake that needs to be increased, but the care is less effective because in the next 5 days the mother has given birth. Obstetric care given can help mothers go through the labor process normally as well as their babies. During the provision of care, the mother's condition is within normal limits and adaptation during the puerperium in the form of taking in, taking hold, and letting go the mother runs smoothly. Mothers can breastfeed their babies on demand and have full support from their husbands. To meet the nutritional needs of breast milk in newborn care, neonatal visits are carried out 4 times intensively for 4 weeks postpartum and can overcome the incidence of low birth weight with significant infant weight gain, more than the minimum limit as recommended.

ACKNOWLEDGMENTS

The author thanks the supervisor, Mrs. Desi Hidayanti SST., MPH who always guided and directed during the making of this case study. Furthermore, the author also expressed his gratitude to the Samarang Health Center had contributed to the implementation of this care, and did not forget to also thank Mrs. N as a client in this case study, so that the author could have the opportunity to publish this journal internationally.

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