

## Case Study

# Case study of a 16-year-old pregnant woman (G1P0A0) with high-risk pregnancy due to early maternal age at Pujon Community Health Center, Central Kapuas Regency

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### Abstract:

The researcher chose Mrs. I to be a comprehensive patient because when the study was carried out, the condition of pregnant women who were too young <20 years old was obtained, which was very risky to cause various complications in the mother and fetus in the womb that could cause death to the mother and fetus. This study aimed to carry out comprehensive obstetric care for Mrs. "I" continuously from pregnancy, childbirth, BBL, postpartum to neonatal and family planning. By using an obstetric management approach on Mrs. I aged 16 years with a pregnancy too young at the Pujon Health Center, Central Kapuas Regency using 7-step midwifery management varney and soap. Using a case study by conducting comprehensive midwifery care in Mrs. I at the age of 16 pregnant women in the third trimester. The subject of the study is Mrs. I, conducted at the Pujon Health Center, Central Kapuas Regency on February 04 - April 05, 2025. The results were analyzed using 7-step varney and soap management. Midwifery care for Mrs. I aged 16 years with too young pregnancy was carried out from the third trimester of pregnancy, with 4 pregnancy visits, first delivery assistance lasted 4 hours and 35 minutes. At 3 neonatal visits, 4 postpartum visits, and 1 maternal birth control visit, the mother decided to use 3 months of injectable birth control. Comprehensive obstetric care for Mrs. I at the age of 16 years G1P0A0 starting from pregnancy, childbirth, BBL, postpartum period, neonates, and birth control was physiological, a gap was found between facts and theories, there were no complications in the mother or baby. This is because midwifery care for mothers and babies has been carried out according to standards.

### Keywords:

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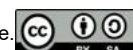
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## INTRODUCTION

High-risk pregnancy is defined as a pregnancy with one or more maternal or fetal risk factors that may lead to unfavorable outcomes for both the mother and the fetus and is associated with potential complications that are urgent but not yet emergent (Rochjati, 2013). Several risks associated with pregnancy among adolescents under the age of 20 include miscarriage, health complications, low birth weight (LBW), anemia, bleeding, neonatal intensive care unit (NICU)

admission, and congenital anomalies. Adolescent pregnancy may occur due to curiosity, unplanned sexual activity, coercion, or inadequate decision-making skills, reflecting adolescents' limited understanding of sexual health risks and their limited capacity to refuse unwanted sexual activity. Many adolescents also enter forced marriages, which may lead to divorce or unsafe abortion practices (Zikri, 2010).

During the first visit on February 4, 2025, Mrs. I, aged 16 years, G1P0A0, with a gestational age of 36 weeks, was identified as having a high-risk pregnancy due to early maternal age. She reported frequent urination and lower back pain.

Among women aged 15–19 years in Indonesia, approximately 1,000 pregnancies are classified as early-age pregnancies (Ramadhan, 2024). In Central Kalimantan Province, 427 women aged 15–19 years were recorded as experiencing early-age pregnancy (BKKBN, 2024). Based on data from the Indonesian Statistics Agency, Palangkaraya recorded 231 adolescent pregnancies in 2024. At the Pujon Community Health Center, Central Kapuas Regency, there were 37 pregnant women under the age of 20 classified as high-risk from 2024 to March 2025.

Early marriage has significant health impacts, contributing to maternal mortality, infant mortality, and poor maternal and child health outcomes. Childbearing under the age of 20 poses a high risk, with increased incidences of preterm birth, congenital anomalies, physical or mental disabilities, blindness, and deafness. In contrast, the safest reproductive age range with the lowest obstetric risk is between 20 and 35 years (Prawiroharjo, 2011). High-risk pregnancy in women under 20 may result in several complications, including postpartum hemorrhage due to weak uterine muscle tone, retained clots or membranes, delayed coagulation, and birth canal lacerations. Miscarriage is also more likely to occur.

Health education regarding the risks of early-age pregnancy is essential, along with encouraging mothers to attend regular antenatal care visits and consume iron supplements, calcium, and pregnancy-supporting nutrition to reduce the risk of LBW, a common complication among adolescent pregnancies. Health promotion aims to enhance maternal knowledge about the risks of early pregnancy, ultimately reducing maternal mortality (MMR) and infant mortality (IMR). Lack of pregnancy supervision may contribute to various complications during pregnancy, labor, postpartum, newborn care, and family planning. Based on the background above, the author conducted a case study titled "Comprehensive Midwifery Care for Mrs. I, a 16-Year-Old G1P0A0 at 36 Weeks of Gestation with Early-Age Pregnancy at Pujon Community Health Center, Central Kapuas Regency."

## METHOD

A case study is a research method that provides a comprehensive and detailed explanation of the characteristics of an individual, group, or organization, requiring the researcher to collect and analyze as much information as possible about the subject under investigation (Mulyana, 2018). The case study in this research aims to gain a holistic understanding and conduct an in-depth analysis of the condition of Mrs. I, a 17-year-old primigravida (G1P0A0) at 36 weeks' gestation, as well as the comprehensive midwifery care provided to her by the author. This care encompassed pregnancy, childbirth, newborn care, postpartum care, neonatal care, and family planning services at Pujon

Community Health Center. The preparation of this report was carried out from February 4 to April 5, 2025.

## RESULTS

Antenatal care for Mrs. I was conducted over four visits between 36 and 39 weeks of gestation. All examinations were within normal limits, and the pregnancy progressed without complications. The mother reported common discomforts, including frequent urination and lower back pain. She received health education on these discomforts, nutritional patterns, the importance of adequate rest, third-trimester discomforts, the Birth Planning and Complication Prevention Program (P4K), the ten-component antenatal service coverage (10T), and danger signs during the third trimester. The mother demonstrated good compliance with the recommendations provided by the author.

Intrapartum care during the first, second, third, and fourth stages of labor proceeded normally. The first stage lasted 4 hours, the second stage 35 minutes, the third stage 5 minutes, and the fourth stage 2 hours. The total duration of labor was 4 hours and 35 minutes. At 22:35 Western Indonesian Time, Mrs. I delivered a male infant spontaneously, with a strong cry. The newborn's birth weight was 2,640 grams, length 48.2 cm, head circumference 31 cm, chest circumference 30 cm, anus patent, and Apgar scores of 8, 9, and 10 at 1, 5, and 10 minutes, respectively.

Postpartum care for Mrs. I from 6 hours to 28 days postpartum proceeded without complications, with a total of four visits. The first postpartum visit (KF1) was conducted at 10 hours postpartum, followed by KF2 at day 5, KF3 at day 10, and KF4 at day 18. All assessment findings were within normal limits.

Newborn care was provided during the first 2 hours postpartum, and the infant remained healthy and stable. Mrs. I's infant was delivered spontaneously in occipital presentation on February 25, 2025, at 22:35 WIB, with all examination parameters within normal limits. Routine newborn care procedures were performed.

Neonatal care for Mrs. I's infant consisted of three visits from 9 hours postpartum to 4 weeks of age and proceeded smoothly. The neonate remained healthy and exhibited normal growth and development. Neonatal Visit 1 (KN1) occurred at 6 hours of life, KN2 at 5 days, and KN3 at 10 days. During each visit, the author provided health education appropriate to the infant's developmental stage and maternal needs. At one month of age, the infant had not yet been brought to the community health post (posyandu) for BCG immunization due to local cultural traditions, which require families to conduct a ceremonial event ("nahunan"/"balas bidan") before taking the infant outside the home.

Family planning counseling for Mrs. I was carried out successfully. She chose the three-month progestin injectable contraceptive and was scheduled for her next follow-up visit on June 29, 2025.

## DISCUSSION

Comprehensive midwifery care refers to the provision of holistic services to women throughout pregnancy, childbirth, the postpartum period, and newborn care. The purpose of this continuum of care is to ensure thorough monitoring of all conditions experienced by women during these stages, while simultaneously strengthening midwives' competencies in conducting assessments, establishing accurate diagnoses, anticipating potential complications, determining immediate interventions, planning and implementing appropriate care, and evaluating the outcomes of the provided interventions (WHO, 2018). According to the latest antenatal care standards, a minimum of six antenatal visits is required, including at least two examinations by a physician during the first and third trimesters. The visit schedule consists of two visits in the first trimester (up to 12 weeks of gestation), one visit in the second trimester (12 to 26 weeks), and three visits during the third trimester (24 to 40 weeks) (Ministry of Health, 2020). Findings by Aziza and Amperaningsih (2014) indicate that adolescent pregnancy is influenced by several factors, including limited knowledge regarding adolescent pregnancy, insufficient parental involvement in providing reproductive health education, inadequate adolescent reproductive health counseling, weak internalization of religious teachings, as well as technological, social, and cultural influences.

During labor, the first stage for primigravidas typically lasts approximately 12 hours, with the active phase lasting around 6 hours and cervical dilation progressing at a rate of 1 cm per hour; in multigravidas, the first stage usually lasts about 8 hours (Altika, 2020). The second stage of labor, which spans from complete cervical dilation to the birth of the baby, lasts about 1.5 to 2 hours in primigravidas and represents a critical phase in the childbirth process (Prawiroharjo, 2019). The third stage begins with the delivery of the baby and ends with the expulsion of the placenta, normally within 30 minutes. Active management of the third stage is recommended to promote effective uterine contractions, shorten the duration of placental expulsion, prevent postpartum hemorrhage, and reduce blood loss compared to physiological management (Ministry of Health, 2008). The fourth stage involves close observation during the first two hours after delivery, with monitoring conducted every 15 minutes during the first hour and every 30 minutes during the second hour. This includes assessment of blood pressure, pulse, fundal height, uterine contractions, bladder condition, and vaginal bleeding.

Following birth, newborn care consists of a physical examination, administration of vitamin K, hepatitis B immunization, and prophylactic eye ointment (El Sinta et al., 2019). A normal newborn typically weighs between 2,500 and 4,000 grams and measures 48–52 cm in length (Noorbaya, 2019). Uterine involution begins immediately after placental delivery, with the fundal height located two fingerbreadths below the umbilicus; by one week postpartum it descends to the midpoint between the symphysis pubis and umbilicus, becomes non-palpable by the second week, and returns to near-normal size by the sixth week (Purwanto et al., 2018). Postpartum visits are conducted four times: between 6 hours and 2 days postpartum, on day 3, on day 14, and at 6 weeks postpartum (Azizah & Rafhani, 2019). Uterine involution involves reorganization and shedding of the decidua/endometrium, exfoliation of the placental implantation site, progressive reduction in uterine size and weight, and characteristic changes in the color and amount of lochia over the six-week postpartum period.

At six hours of life, a vital sign assessment of the neonate generally reveals a heart rate of approximately 150 beats per minute, a body temperature of 36.8°C, and a respiratory rate of about 55 breaths per minute. The newborn is expected to breastfeed effectively. Thermal protection is maintained by swaddling and covering the infant, while infection prevention includes cord care and the regular replacement of diapers and swaddling cloths when they become wet or soiled (El Sinta et al., 2019). In the context of family planning, postpartum contraception aims to prevent pregnancy within the first 42 days after childbirth using methods such as progestin-only pills, three-month progestin injections, implants, intrauterine devices (IUDs), and condoms (Sulistyawati, 2019). The three-month injectable contraceptive is considered safe for breastfeeding mothers and works by releasing progestin into the bloodstream to inhibit ovulation (BKKBN, 2019).

## CONCLUSION

Four ANC visits were conducted from 36 to 39 weeks of gestation. All examinations were normal. Mrs. I received health education related to discomforts, nutrition, rest, third-trimester discomforts, P4K, the 10 T standard, and danger signs. Her pregnancy progressed physiologically. Labor progressed normally, lasting 4 hours and 35 minutes. The newborn male had normal anthropometric measurements and Apgar scores of 8, 9, and 10. Postpartum care consisted of four visits, up to 28 days postpartum. All assessments were normal, and appropriate health education was provided. Newborn care was conducted immediately after birth, with findings within normal limits, and all essential newborn care was performed appropriately. Neonatal care consisted of three visits up to 4 weeks postpartum. The infant remained healthy, although BCG immunization was delayed due to cultural customs. Postpartum family planning care was completed, and Mrs. I chose a 3-month injectable contraceptive with a scheduled follow-up.

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## CONFLICT OF INTEREST

The author acknowledges the limitations of this study, including the limited time available and the absence of laboratory examinations that could have supported more comprehensive care.

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