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CASE REPORT OF COMPREHENSIVE MIDWIFERY CARE FOR A WOMAN WITH A VERY HIGH-RISK PREGNANCY (G3P20002) AT 23-24 WEEKS OF GESTATION COMPLICATED BY DEPENDENT EDEMA AND AN UNPLANNED PREGNANCY

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ABSTRACT
Very high-risk pregnancies complicated by dependent edema and an unplanned pregnancy may lead to both physical and psychological problems for the mother. Dependent edema occurs as a result of increased blood volume and impaired venous return, whereas an unplanned pregnancy may affect maternal readiness and adherence to antenatal care. This case report aimed to describe comprehensive midwifery care for a pregnant woman with a very high-risk pregnancy complicated by dependent edema and an unplanned pregnancy to reduce edema, improve maternal comfort, and enhance maternal understanding and readiness during pregnancy. Midwifery care was provided over a two-week period through four visits. This study employed a case report approach. Data were collected through interviews, observations, physical examinations, and a review of medical records, and were analyzed by comparing theoretical concepts with the actual case findings. The interventions included health education, routine antenatal care (ANC), non-pharmacological therapies consisting of foot massage and warm water foot soaks with Kaempferia galanga (kencur), and psychological support. The results showed a reduction in the severity of dependent edema, improved maternal comfort, and increased maternal understanding and readiness in managing the pregnancy. These findings suggest that comprehensive and continuous midwifery care can improve both the physical and psychological well-being of pregnant women with very high-risk pregnancies. Therefore, healthcare providers are encouraged to deliver holistic midwifery care that integrates physical and psychological interventions to optimize maternal and fetal health.

Keywords: Dependent edema; Very high-risk pregnancy; Unplanned pregnancy; Midwifery care.

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INTRODUCTION

Pregnancy is a physiological process accompanied by various physiological and psychological changes. Physiological changes occur in the reproductive, cardiovascular, respiratory, renal, integumentary, musculoskeletal, nervous, digestive, and endocrine systems. Meanwhile, psychological changes occur as emotional responses to these physical adaptations and to the responsibilities associated with pregnancy and childcare(14).

According to the World Health Organization (WHO) (2021), approximately 80% of pregnant women experience swelling or edema, making it the second most common complaint during pregnancy. Around 15% experience swelling in the legs during the second and third trimesters.

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This condition can be managed through routine and planned midwifery care, including at least six antenatal care (ANC) visits for early detection and prevention of further complications. High-risk pregnancies may be identified even before conception. Risk factors include maternal age over 35 years or under 17 years, hypertension, diabetes mellitus, obesity, height below 140 cm, and a history of recurrent miscarriage. Early detection during the first trimester is commonly performed through screening using the Poedji Rochjati Scorecard and routine antenatal care visits, with particular attention to warning signs such as vaginal bleeding or hypertension after 20 weeks of gestation. Prevention can also be achieved through preconception counseling to identify risk factors before pregnancy[2].

An unplanned pregnancy refers to a pregnancy that occurs without prior planning or is unintended at the time of conception. This condition may increase the risk of anemia, malnutrition, psychological stress, and unmet family planning needs among women of reproductive age. Furthermore, unplanned pregnancy contributes to an increased Total Fertility Rate (TFR) and maternal mortality due to inadequate utilization of antenatal care services[8].

Dependent edema during the second trimester is a common physiological condition in pregnancy. It occurs due to increased fluid retention, pressure from the enlarging uterus on the venous system, and hormonal changes, particularly increased estrogen levels, resulting in swelling of the feet and lower legs. This condition may cause physical discomfort, including pain, fatigue, and reduced mobility. In addition, it may lead to emotional distress due to limitations in daily activities. However, mild physiological edema generally does not pose a risk to the fetus[4].

Dependent edema can be managed through routine and planned midwifery care, including ANC examinations as part of early detection efforts to prevent further complications. In addition, non-pharmacological interventions such as foot massage and warm water foot soaking with Kaempferia galanga (kencur) have been shown to improve blood circulation through vasodilation, thereby enhancing oxygen delivery to swollen tissues. These interventions are considered safe, effective, and free from adverse effects, making them suitable for pregnant women with physiological edema, particularly during the third trimester[13].

Reporting cases of dependent edema in pregnant women is important to emphasize the role of midwives in the early identification, monitoring, and management of pregnant women at risk of physical and psychological discomfort. This case report is expected to serve as a reference for healthcare professionals and contribute to the improvement of maternal and child health services, particularly in the management of dependent edema during pregnancy, thereby supporting safe and optimal care for both the mother and the fetus.

Goal

This study aims to describe a case report of midwifery care for a woman with a very high-risk pregnancy (G3P20002) at 23–24 weeks of gestation, complicated by dependent edema and an unplanned pregnancy, at Mrs. “N”'s Independent Midwifery Practice (PMB). Specifically, this study describes the assessment of subjective and objective data, data analysis to establish the midwifery diagnosis, and the midwifery management provided in this case.

METHODS

This study employed a case report method involving an in-depth analysis of a single obstetric case considered unique and of clinical educational value. The reported case involved comprehensive midwifery care for a 39-year-old woman with a very high-risk pregnancy complicated by dependent edema and an unplanned pregnancy. Midwifery care was provided and monitored over a specific period according to the patient's condition using a midwifery care

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management approach. The care was provided by a practicing midwife at the study site under the supervision of a student midwife.

The case was managed at the Independent Midwifery Practice of Mrs. "N" in Baron Village, Magetan. Data collection and case observation were conducted from April 2 to 19, 2026, during the period of pregnancy monitoring and midwifery care.

Data were collected comprehensively to obtain a complete picture of the participant's condition through several methods. First, interviews were conducted to obtain subjective data regarding the mother's obstetric history, current complaints, knowledge, and attitudes toward family planning. Second, observations were carried out to monitor the mother's condition throughout pregnancy and during the provision of midwifery care. Third, physical examinations were performed, including assessments of vital signs and relevant supporting examinations related to the mother's condition. Fourth, a document review was conducted by examining medical records, the Maternal and Child Health (MCH) handbook, and other supporting documents related to the mother's health status and the midwifery care received.

Midwifery management was conducted using the SOAP (Subjective, Objective, Assessment, and Planning) documentation framework. Subjective data were obtained through history taking from a pregnant woman with dependent edema and an unplanned pregnancy, including the chief complaint of leg swelling, particularly in the afternoon, a sensation of heaviness in the legs, and a history of repeated pregnancies without contraceptive use. These data were supplemented by information regarding the mother's medical history, daily activities, rest patterns, nutritional status, and knowledge of family planning and birth spacing. Objective data included the results of physical and supporting examinations, such as the presence of pitting edema of the lower extremities, vital signs (blood pressure, pulse, temperature, and respiratory rate), and obstetric examinations, including fundal height and fetal heart rate. These data were also supplemented by laboratory findings, when indicated, to rule out potential complications such as preeclampsia.

The assessment stage involved analyzing subjective and objective data to establish the midwifery diagnosis of a pregnant woman with dependent edema and a very high-risk pregnancy associated with the absence of contraceptive use, which may result in unfavorable birth spacing. At this stage, actual and potential problems were identified, including discomfort caused by edema and the risk of pregnancy-related complications. The management stage included health education on the causes and management of edema, such as resting with the legs elevated, avoiding prolonged standing, and soaking the feet in warm water; routine antenatal care monitoring; and counseling on the importance of postpartum contraceptive use to regulate birth spacing. Periodic evaluations were conducted to assess the mother's condition and the effectiveness of the interventions provided.

Prior to data collection, informed consent was obtained from the participant. The participant received an explanation regarding the objectives of the study, data collection procedures, the right to refuse or withdraw from participation at any time, and the measures taken to ensure the confidentiality of personal information.

RESULTS

This case describes a very high-risk pregnancy in Mrs. "D," a 39-year-old pregnant woman (G3P20002) at 23–24 weeks of gestation, with only a 6-month interval between her second and third pregnancies. Mrs. "D" presented at the Independent Midwifery Practice during the second trimester with complaints of grade 2 dependent edema in both legs and ankles. The edema worsened after prolonged standing and improved with leg elevation. She had no hypertension, proteinuria, or signs of preeclampsia, indicating physiological edema associated with increased

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blood volume, estrogen-induced fluid retention, and compression of the inferior vena cava by the enlarging uterus.

This pregnancy was classified as very high risk (KRST) because the mother was over 35 years of age, had a short interpregnancy interval, a history of cesarean section, dependent edema, and an unplanned pregnancy. Based on the Poedji Rochjati Scorecard, she obtained a score of 14. Anthropometric measurements showed a height of 155 cm, a weight of 66 kg, and a body mass index (BMI) of 24 kg/m^2, indicating a normal nutritional status. According to her medical history, she had attended one integrated antenatal care (ANCT) visit at the Community Health Center (Puskesmas) and two antenatal care (ANC) visits at the Independent Midwifery Practice. Laboratory findings showed hemoglobin of 12 g/dL, non-reactive HIV, negative HBsAg, negative syphilis, and negative urine protein. Based on the assessment, the care plan included education on adequate rest, sleeping with the legs elevated, lower-extremity elevation, foot massage, warm water foot soaking with Kaempferia galanga (kencur), and postpartum family planning counseling.

The first follow-up visit was conducted on April 2, 2026, at 4:15 p.m. at Mrs. “D”’s home, the mother complained of persistent swelling in both legs, particularly in the afternoon, accompanied by a feeling of heaviness, weakness, mild dizziness, and anxiety related to the unplanned pregnancy. She had been taking the prescribed vitamins, although adherence was not yet optimal. Her dietary pattern had begun to improve through small, frequent meals, reduced salt intake, and increased consumption of fruits and fluids. Daily activities remained limited because of weakness and leg swelling, and sleep quality was poor. Physical examination showed that the mother's general condition was good, vital signs were within normal limits, and grade 2 dependent edema was present in both lower extremities. Midwifery care included education regarding her very high-risk pregnancy, edema management, adequate rest, adherence to prescribed supplements, and scheduling of follow-up visits.

The second follow-up assessment was performed on April 9, 2026, at 4:20 p.m., the mother continued to report easy fatigability during daily activities but was able to understand and repeat the health education provided during the previous visit. Her dietary pattern, rest, and daily activities had become more regular, although she was still advised to avoid strenuous activities. Physical examination showed that her general condition and vital signs remained within normal limits, while grade 2 dependent edema persisted. Midwifery care focused on reinforcing previous education, promoting adequate nutritional and fluid intake, providing psychological support, and encouraging adherence to prescribed supplements.

At the third follow-up on April 13, 2026, at 3:45 p.m., the mother's condition had improved, with a noticeable reduction in lower-extremity swelling. She had complied with the recommended interventions, including warm water foot soaking with Kaempferia galanga (kencur), maintaining a balanced diet, obtaining adequate rest, and performing light daily activities. Physical examination showed that the dependent edema had decreased from grade 2 to grade 1. Midwifery care continued through routine monitoring, additional health education, and reinforcement of healthy lifestyle practices.

At the final visit, conducted on April 19, 2026, at 4:50 p.m., swelling in the lower extremities had almost completely resolved. The mother continued to follow the recommended interventions, including maintaining a healthy diet, obtaining adequate rest, and continuing the prescribed non-pharmacological therapy. Physical examination showed that her general condition remained good, vital signs were within normal limits, and the dependent edema had decreased to a mild degree. Overall, the mother's condition improved following continuous midwifery care and routine monitoring.

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DISCUSSION

Subjective Findings

Based on the subjective assessment, the pregnant woman with a very high-risk pregnancy complicated by dependent edema and an unplanned pregnancy reported experiencing fatigue during daily activities, particularly after prolonged standing. She also complained of swelling in both legs, which was more pronounced in the afternoon. At the time of assessment, the mother no longer experienced nausea, vomiting, or dizziness. According to her obstetric history, she had experienced hypertension during the delivery of her second child. In her current pregnancy, she was pregnant with her third child, with an interpregnancy interval of less than two years. Psychosocially, the mother was still adjusting to the unplanned pregnancy, resulting in anxiety and feelings of unpreparedness that affected her daily activities. These findings are consistent with the study by Amin Rahayu and Nevi Susianty (2025), which reported that an unplanned pregnancy under high-risk conditions may negatively affect the mother's psychological well-being[1].

In addition, the mother reported that she still became easily fatigued during daily activities, although she no longer complained of nausea, vomiting, or dizziness. She was able to recall the health education that had been provided, indicating an adequate understanding of the information received. However, she still required ongoing support to adapt to her pregnancy. Her dietary pattern was generally good, with regular meals and adequate fruit and fluid intake, although her nutritional status still required continuous monitoring to ensure that her nutritional needs were met. These findings are supported by the study conducted by Fatmasari et al. (2023), which reported that adequate health education and a balanced diet contribute to a healthier pregnancy, although continuous support remains essential[3].

Based on the Poedji Rochjati Scorecard (KSPR), the mother obtained a score of 14, classifying her pregnancy as a Very High-Risk Pregnancy (KRST). The total score was derived from several risk factors, including the initial pregnancy score (2 points), maternal age over 35 years (4 points), an interpregnancy interval of less than two years (4 points), a history of cesarean section (4 points), and an unplanned pregnancy. These findings indicate the presence of multiple maternal risk factors requiring close physical and psychological monitoring throughout pregnancy. This finding is in agreement with Widiastini (2022), who stated that mothers with high KSPR scores require closer monitoring and delivery planning at appropriate healthcare facilities staffed by trained healthcare professionals to reduce the risk of maternal and fetal complications[15].

Objective Findings

Based on the objective examination, the condition of the pregnant woman with a very high-risk pregnancy complicated by dependent edema and an unplanned pregnancy remained generally good. Her vital signs were within normal limits, and her weight gain was appropriate for her gestational age. Physical examination revealed dependent edema in both lower extremities. The mother's condition showed gradual improvement throughout the follow-up period. During the first and second visits, the edema remained at grade 2, characterized by a 3-mm indentation that resolved within 10–15 seconds. By the third visit, the edema had decreased to grade 1, with an indentation depth of 2 mm, and by the fourth visit, it had become even milder, with an indentation of approximately 1 mm that resolved almost immediately. Overall, the mother showed no signs of dehydration, such as sunken eyes or dry lips. These findings are consistent with the study by Singh (2025), which reported that the degree of pitting edema can be used to monitor disease progression and evaluate the effectiveness of interventions, such as foot massage and warm water foot soaking with Kaempferia galanga (kencur), as recommended in this case[12].

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The reduction in the severity of dependent edema in this case also supports the findings of Nugraheni (2021), who reported that foot massage performed from the distal to the proximal part of the lower extremities, beginning at the soles of the feet and continuing to the calves, may improve blood and lymphatic circulation, thereby reducing swelling and discomfort. In addition, warm water foot soaking with Kaempferia galanga (kencur) may further enhance circulation, reduce fluid accumulation, and provide anti-inflammatory and relaxing effects[7]. These findings were reflected in the present case, where the severity of edema gradually decreased following regular implementation of the recommended interventions.

According to Maharani et al. (2025), dependent edema during pregnancy may occur as part of the physiological adaptations of pregnancy, including increased blood volume, fluid retention, and compression of the inferior vena cava by the enlarging uterus, resulting in impaired venous return[5]. In the present case, psychological factors also appeared to contribute to the mother's condition, as the unplanned pregnancy affected her overall psychological well-being. Therefore, comprehensive monitoring of both physical and psychological conditions remained essential throughout pregnancy.

Laboratory examination showed a hemoglobin level of 12 g/dL, with negative or non-reactive results for urine protein, urine glucose, HIV, syphilis, and HBsAg. These findings indicated the absence of anemia, infection, or other pregnancy-related complications. Overall, the laboratory findings were consistent with the mother's clinical condition, and no significant discrepancies were identified. This finding is supported by Meilinda et al. (2025), who emphasized the importance of regular maternal and fetal monitoring to prevent potential pregnancy complications[6].

Assessment

The diagnosis established for Mrs. “D” was a very high-risk pregnancy complicated by dependent edema and an unplanned pregnancy. This diagnosis was based on both subjective and objective findings, including complaints of leg swelling that worsened after physical activity, as well as physical examination findings confirming the presence of dependent edema in both lower extremities. In addition, the psychological impact of the unplanned pregnancy was also considered, as it could affect the mother's emotional well-being and readiness to continue the pregnancy.

These findings are consistent with the study by Sari et al. (2024), which reported that dependent edema during pregnancy occurs as a result of physiological changes, including increased body fluid volume, sodium retention, and compression of the inferior vena cava by the enlarging uterus, resulting in impaired venous return and fluid accumulation in the lower extremities[11]. As the findings in this case corresponded with the mechanisms described in the study, no discrepancy was identified between the theoretical concepts and the patient's clinical condition. Therefore, the diagnosis established was considered appropriate for the mother's condition.

Based on these findings, comprehensive midwifery care should address not only the mother's physical condition but also the psychological impact of the unplanned pregnancy to prevent potential maternal and fetal complications.

Management

Management of Mrs. “D,” who had a very high-risk pregnancy complicated by dependent edema and an unplanned pregnancy, was comprehensive and included promotive, preventive, curative, and rehabilitative approaches. The primary intervention consisted of routine antenatal care (ANC) monitoring to facilitate the early detection of potential complications. This monitoring included assessment of vital signs, fetal growth and development, and the

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mother's physical and psychological condition. These findings are consistent with the study by Rahmawati et al. (2021), which reported that adherence to antenatal care plays a crucial role in reducing the risk of complications among women with high-risk pregnancies[10].

To manage dependent edema, Mrs. "D" was advised to undergo safe, non-pharmacological interventions, including foot massage and warm water foot soaking with Kaempferia galanga (kencur). This intervention is supported by Widiastini (2022), who explained that the essential oils, flavonoids, and anti-inflammatory and antioxidant compounds contained in Kaempferia galanga may help accelerate the reduction of dependent edema[15].

In addition to physical management, psychological care was also emphasized because the pregnancy was unplanned. Emotional support, counseling, and health education were provided to improve the mother's acceptance of her pregnancy. The therapeutic communication approach helped reduce anxiety and emotional distress while encouraging greater adherence to antenatal care. These findings are consistent with Nurhalimah and Veronica (2020), who reported that unplanned pregnancy is associated with an increased risk of psychological problems and lower utilization of maternal healthcare services; therefore, continuous psychological support is an essential component of comprehensive midwifery care[9].

The effectiveness of the interventions was evaluated through four home visits conducted over a two-week period. At each visit, the mother's vital signs, degree of edema, daily activities, and psychological condition were assessed. The evaluation demonstrated gradual improvement throughout the follow-up period. Dependent edema progressively decreased after the mother consistently followed the recommended interventions, including resting with the legs elevated, limiting strenuous activities, and performing regular foot care. She also demonstrated better management of her daily activities and rest patterns, resulting in reduced complaints of leg heaviness and discomfort. These findings support the study by Fatmasari et al. (2023), which emphasized that consistent adherence to self-care recommendations contributes to reducing physical discomfort during pregnancy[3].

From a psychological perspective, the mother's anxiety related to the unplanned pregnancy gradually decreased as her acceptance of the pregnancy improved through continuous education and emotional support provided during the follow-up visits. This improvement was reflected in her increased cooperation in maintaining a healthy diet and attending routine antenatal care visits. Overall, these findings are consistent with the study by Sari et al. (2024), which reported that continuous home visits positively influence both the physical and psychological well-being of pregnant women, thereby reducing the risk of complications and improving maternal and fetal health outcomes[11].

CONCLUSION

Comprehensive midwifery care for Mrs. "D," who had a very high-risk pregnancy complicated by dependent edema and an unplanned pregnancy at 23–24 weeks of gestation, was provided using the Varney midwifery management approach, which consists of assessment, diagnosis, planning, implementation, and evaluation. Based on the assessment findings, the mother was classified as having a very high-risk pregnancy due to several risk factors, including an unplanned pregnancy and dependent edema, which was characterized by leg swelling that worsened after prolonged standing and improved with rest.

The comprehensive management provided included health education on high-risk pregnancy, non-pharmacological interventions for dependent edema, including foot massage and warm water foot soaking with Kaempferia galanga (kencur), recommendations for adequate rest with leg elevation, avoidance of prolonged standing, and guidance on wearing loose-fitting clothing. In addition, the mother received education regarding the basic needs of pregnancy during the

second trimester, warning signs of pregnancy complications, and the importance of regular antenatal care (ANC) visits.

Evaluation of the provided care demonstrated that the mother understood the health education, was able to recognize the warning signs of pregnancy complications, and understood appropriate strategies for managing dependent edema. She also expressed willingness to attend routine ANC visits. The mother's and fetus's conditions remained stable throughout the period of care. These findings suggest that comprehensive midwifery care, integrating physical and psychological support, may contribute to improving maternal well-being and should be considered in the management of similar cases of very high-risk and unplanned pregnancies.

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