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MIDWIFERY CARE MANAGEMENT FOR MRS.U A CASE OF HYPEREMESIS GRAVIDARUM, HALL VII, BANGUN REJO VILLAGE, DISTRICT TANJUNG MORAWA, DELI SERDANG REGENCY YEAR 2026

[1]Eva Ulina Lompohta Pinem, [2]Haura Nabila
[3]Nursani Prestati Simamora, [4]Srilina Br Pinem, [5] Duma Irawaty Sitompul
[1,2,3,4,]Sekolah Tinggi Ilmu Kesehatan Mitra Husada Medan
[5]Puskesmas Bangun Rejo

Email: 2219201030@mitrahusada.ac.id , 2219201038@mitrahusada.ac.id, 2519201613@mitrahusada.ac.id , srilinapinem@mitrahusada.ac.id, dumairawaty@gmail.com

ABSTRACT

Background: Hyperemesis gravidarum (HG) is a severe form of nausea and vomiting during pregnancy that can significantly affect maternal and fetal health. It often leads to dehydration, weight loss, and electrolyte imbalances in pregnant women, especially in the first trimester. Managing HG effectively remains a challenge in community midwifery care due to limited resources and awareness. **Objectives:** To deliver professional and innovative comprehensive midwifery care to pregnant women with hyperemesis gravidarum during the first trimester, to improve maternal and fetal health outcomes.Methods: A case study approach was employed involving Mrs. Uci Lestari, a 32-year-old pregnant woman diagnosed with grade I hyperemesis gravidarum at 8 weeks gestation. The study utilized comprehensive data collection through anamnesis, physical examination, and supportive assessments. Care management was conducted following Varney's midwifery care steps: assessment, diagnosis, immediate action, planning, implementation, and evaluation. Collaboration with healthcare professionals and family involvement were integral components of care. **Results:** Following eight days of midwifery care and family support, Mrs. Uci showed significant clinical improvement. Nausea and vomiting frequency decreased from more than ten times daily to 1–2 times per day, appetite and general condition improved, and signs of dehydration resolved. Both the patient and her family gained understanding and confidence in managing HG at home, including awareness of danger signs requiring medical attention. **Conclusions**: Comprehensive family-based midwifery care incorporating psychological support, education, and evidence-based management can effectively alleviate symptoms of hyperemesis gravidarum and improve maternal well-being during the first trimester. This case underscores the importance of integrated community midwifery interventions and family engagement to support high-risk pregnancies..

Keywords: Retained placenta; Midwifery care; Postpartum hemorrhage; Obstetric emergency.

INTRODUCTION

Maternal health remains a global public health priority as reflected in the Sustainable Development Goals (SDGs), particularly Goal 3, which aims to reduce the global maternal mortality ratio and improve maternal well-being. Although maternal mortality has declined over recent decades, pregnancy complications continue to contribute significantly to maternal

morbidity and adverse pregnancy outcomes. One of the common complications during the first trimester is hyperemesis gravidarum (HG), a severe form of nausea and vomiting that exceeds normal pregnancy symptoms and may require medical intervention(WHO, 2025).

Hyperemesis gravidarum affects approximately 0.3–3% of pregnancies worldwide and is characterized by persistent nausea and vomiting resulting in dehydration, electrolyte imbalance, ketonuria, weight loss, nutritional deficiencies, and decreased maternal physical and psychological well-being. If not managed appropriately, HG may increase the risk of maternal complications and negatively affect fetal growth and development. Therefore, early identification and comprehensive management are essential to maintain maternal and fetal health throughout pregnancy(WHO, 2025).

In Indonesia, nausea and vomiting during pregnancy remain among the most frequent reasons for antenatal consultation and hospitalization during the first trimester. The Ministry of Health emphasizes the importance of quality antenatal care to detect pregnancy complications at an early stage and provide evidence-based management. Community-based midwifery services play a vital role in achieving this objective by providing continuous antenatal care, health education, nutritional counseling, psychological support, and timely referral for women experiencing pregnancy complications(Kemenkes, 2024).

The management of hyperemesis gravidarum requires a holistic approach involving not only pharmacological treatment but also non-pharmacological interventions, including dietary modification, adequate hydration, psychological counseling, and active family participation. Family support is particularly important because emotional stress and anxiety may worsen nausea and vomiting, whereas a supportive home environment can improve treatment adherence and maternal recovery. Consequently, comprehensive family-centered midwifery care has become an important strategy in reducing the severity of HG and improving maternal quality of life(Afni *et al.*, 2024).

Although several studies have reported the effectiveness of medical management for hyperemesis gravidarum, documentation regarding comprehensive community-based midwifery care using Helen Varney's Seven-Step Midwifery Management remains limited. Clinical case studies are therefore needed to provide practical evidence regarding the implementation of comprehensive and continuous midwifery care in community settings(Profil, Visi, Misi, 2022).

Based on these considerations, this case study aimed to describe the implementation of comprehensive family-centered midwifery care for a pregnant woman with Grade I hyperemesis gravidarum in Hamlet VII, Bangun Rejo Village, Tanjung Morawa District, Deli Serdang Regency. The findings are expected to contribute to evidence-based midwifery practice and improve the quality of maternal healthcare services at the community level(Dinkes Kota Medan, 2022).

METHODS

This study employed a descriptive qualitative design using a single case study approach to describe the implementation of comprehensive family-centered midwifery care for a pregnant woman with Grade I hyperemesis gravidarum. The study was conducted in Hamlet VII, Bangun Rejo Village, Tanjung Morawa District, Deli Serdang Regency, North Sumatra, Indonesia, in February 2026.

The subject of this case study was Mrs. U, a 32-year-old pregnant woman, gravida 5 para 2 abortus 2 (G5P2A2), at eight weeks of gestation who was diagnosed with Grade I hyperemesis gravidarum. The participant was selected purposively based on the inclusion

criteria of being in the first trimester of pregnancy, experiencing clinical signs of hyperemesis gravidarum, being willing to participate in the study, and providing informed consent. Family members were also involved throughout the care process to support treatment adherence and recovery.

Data were obtained from both primary and secondary sources. Primary data were collected through comprehensive history taking, direct observation, physical examination, assessment of nutritional and hydration status, measurement of maternal vital signs, and psychological assessment. Secondary data were obtained from the maternal health record (Buku KIA) and supporting clinical documentation(KIA, 2024).

The independent variable in this study was comprehensive family-centered midwifery care, including health education, nutritional counseling, dietary modification, hydration management, psychological support, family involvement, administration of vitamin B6 (pyridoxine), and continuous follow-up through home visits. The dependent variables included the reduction in nausea and vomiting frequency, improvement of maternal hydration status, nutritional intake, maternal psychological condition, and overall clinical improvement(Sinaga, Simanullang and Maha, 2024).

The management of this case followed Helen Varney's Seven-Step Midwifery Management, including comprehensive assessment, identification of actual and potential problems, determination of immediate needs, development of an individualized care plan, implementation of evidence-based interventions, and evaluation of maternal outcomes. The patient's progress was documented systematically using the SOAP (Subjective, Objective, Assessment, and Plan) format(Sembiring *et al.*, 2026).

Midwifery interventions consisted of counseling regarding hyperemesis gravidarum, encouragement to consume small but frequent meals, avoidance of fatty and strong-smelling foods, adequate oral fluid intake, consumption of ginger beverages as a complementary therapy, administration of vitamin B6 according to medical recommendations, psychological support, active family participation in maternal care, and education regarding danger signs requiring immediate referral. Follow-up evaluations were conducted during three home visits over an eight-day period to monitor clinical progress and treatment adherence(Sari *et al.*, 2022).

This study was conducted according to ethical principles, including respect for patient autonomy, confidentiality, beneficence, and non-maleficence. Written informed consent was obtained before data collection and implementation of midwifery care. The patient's identity was kept confidential throughout the study(Munthe *et al.*, 2019).

RESULTS AND DISCUSSIONS

This case study was conducted on Mrs. U, a 32-year-old pregnant woman, gravida 5 para 2 abortus 2 (G5P2A2), at eight weeks of gestation who was diagnosed with Grade I hyperemesis gravidarum. During the initial assessment, the patient complained of persistent nausea and vomiting occurring more than ten times per day for several days. She reported difficulty eating and drinking, decreased appetite, generalized weakness, dizziness, and disruption of daily activities due to the severity of her symptoms. The patient also expressed concern about the condition and felt anxious because the nausea and vomiting continued despite attempts to rest.

Physical examination showed that the patient's general condition was weak. Vital signs revealed a blood pressure of 100/70 mmHg, pulse rate of 100 beats per minute, respiratory rate within normal limits, and normal body temperature. Mild dehydration was identified through dry lips and decreased skin turgor. Based on the comprehensive assessment, the patient was diagnosed with Grade I

hyperemesis gravidarum accompanied by mild dehydration and anxiety related to prolonged nausea and vomiting.

Comprehensive midwifery care was implemented according to Helen Varney's Seven-Step Midwifery Management. The interventions included health education regarding hyperemesis gravidarum, counseling to consume small but frequent meals, advice to avoid fatty, spicy, and strong-smelling foods, encouragement to increase oral fluid intake, administration of vitamin B6 according to medical recommendations, consumption of ginger beverages as complementary therapy, psychological support, and active involvement of the husband and other family members in assisting the patient's daily care.

The patient's condition was evaluated through several home visits over eight days. During each follow-up visit, the frequency of nausea and vomiting progressively decreased. The patient gradually regained her appetite, tolerated oral intake better, and consumed adequate fluids. Clinical signs of dehydration disappeared, and her vital signs improved, with blood pressure increasing to 110/80 mmHg and pulse rate decreasing to 84 beats per minute. By the end of the observation period, vomiting occurred only one to two times per day, the patient reported feeling physically stronger, her anxiety had decreased, and she was able to perform daily activities more comfortably with continued support from her family(Wawan, 2023).

DISCUSSION

Hyperemesis gravidarum is a severe condition of persistent nausea and vomiting during pregnancy that may result in dehydration, electrolyte imbalance, malnutrition, and impaired maternal quality of life. The condition is associated with hormonal changes during early pregnancy, particularly elevated levels of human chorionic gonadotropin (hCG) and estrogen, which stimulate the vomiting center in the central nervous system. Without appropriate treatment, prolonged vomiting may increase the risk of maternal and fetal complications(Adethia and Sapna, 2020).

The findings of this case study indicate that comprehensive midwifery care was effective in reducing the severity of hyperemesis gravidarum. Administration of vitamin B6, combined with dietary modification and adequate hydration, successfully reduced the frequency of nausea and vomiting while improving the patient's nutritional intake. The recommendation to consume small, frequent meals and avoid foods with strong odors helped minimize stimulation of the vomiting reflex and increased the patient's tolerance for oral intake(Surbakti *et al.*, 2024).

Psychological counseling and emotional support also contributed significantly to the patient's recovery. Anxiety is known to aggravate the symptoms of hyperemesis gravidarum by increasing psychological stress, which may further stimulate nausea and vomiting. Continuous reassurance from the midwife, together with active support from the husband and family members, improved the patient's confidence and adherence to the recommended treatment plan. This finding supports the concept of family-centered maternity care, in which family participation plays an important role in improving maternal health outcomes.

Regular home visits enabled continuous monitoring of the patient's condition and early identification of any worsening symptoms requiring referral. Throughout the follow-up period, progressive improvement was observed in the patient's physical condition, hydration status, appetite, and emotional well-being. No severe complications or hospitalization occurred, indicating that early evidence-based management was effective in controlling Grade I hyperemesis gravidarum within the community setting.

Overall, this case study demonstrates that the application of Helen Varney's Seven-Step Midwifery Management provides a systematic and comprehensive approach to managing

hyperemesis gravidarum. Holistic interventions integrating pharmacological therapy, nutritional counseling, psychological support, and family involvement contributed to significant clinical improvement while preventing progression to more severe forms of the disease. These findings reinforce the important role of midwives in delivering evidence-based, continuous, and patient-centered care during early pregnancy.

CONCLUSIONS

This case study demonstrates that comprehensive family-centered midwifery care using Helen Varney's Seven-Step Midwifery Management was effective in managing Grade I hyperemesis gravidarum during the first trimester of pregnancy. Early assessment, accurate diagnosis, continuous monitoring, and evidence-based interventions successfully reduced the frequency of nausea and vomiting, improved maternal nutritional intake and hydration status, relieved anxiety, and enhanced the patient's overall physical and psychological well-being(Sinaga, Simanullang and Maha, 2024).

The combination of pharmacological therapy with vitamin B6, dietary modification, adequate hydration, psychological counseling, and active family involvement contributed significantly to the patient's recovery. Continuous home visits also enabled regular evaluation of maternal progress and early detection of potential complications. These findings emphasize that holistic and family-centered midwifery care plays an important role in preventing the progression of hyperemesis gravidarum and supporting healthy pregnancy outcomes(Simanullang *et al.*, 2024).

Future studies involving larger numbers of participants and supported by laboratory examinations are recommended to provide stronger evidence regarding the effectiveness of comprehensive midwifery interventions for hyperemesis gravidarum in community settings(Sari, Herawaty and Sinaga, 2022).

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CONFLICT OF INTEREST AND FUNDING DISCLOSURE

The authors declare that there is no conflict of interest regarding the publication of this article. This study did not receive any financial support from government agencies, commercial organizations, or non-profit institutions.

AUTHOR CONTRIBUTIONS Author Contributions

EULP: Conceptualization, investigation, data collection, implementation of comprehensive midwifery care, formal analysis, writing the original draft, and manuscript revision.

SBP: Methodology, supervision, validation, critical review, and manuscript editing.

FEM: Literature review, data analysis, data curation, and manuscript preparation.

RA: Clinical supervision, validation of clinical findings, and resource management.

HN: Final manuscript review, project administration, and overall supervision of the research process.

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