



# A Case Study Approach to Families Risk of Hyperemesis Gravidarum: Community Midwifery Care

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<p><b>Track Record Article</b></p> <p>Revised: 17 March 2026 Accepted: 27 June 2026 Published: 30 June 2026</p> <p><b>How to cite :</b> Sumaifa, S., Isnaeny, I., &amp; Ramadhani, R. S. (2026). A Case Study Approach to Families Risk of Hyperemesis Gravidarum: Community Midwifery Care. <i>Contagion: Scientific Periodical of Public Health and Coastal Health</i>, 8(2), 448–456.</p>	<p style="text-align: center;"><b>Abstract</b></p> <p><i>Hyperemesis gravidarum (HG) is a pregnancy complication characterized by excessive nausea and vomiting, which may lead to dehydration, electrolyte imbalance, weight loss, and adverse health problems for both mother and fetus. Effective management of HG requires not only clinical intervention but also comprehensive family support and community-based midwifery care. This case study describes the application of community midwifery care for families at risk of HG and identifies family-related factors influencing the success of case management. A qualitative exploratory case study approach was employed to examine family perspectives on health services in depth, focusing comprehensively on a single case. Informants were selected purposively, with inclusion criteria targeting pregnant women at risk of HG. Data were collected through observation, interviews, physical examinations, and home visits. The findings revealed that the pregnant woman, Mrs. R, experienced severe nausea and vomiting, which reduced her appetite and daily functioning. Risk factors included her fourth pregnancy and limited family support, especially from her husband. Community midwifery interventions comprised education about HG, nutritional counseling, maternal condition monitoring, and family involvement in her care. Following these interventions, the mother's condition improved, as evidenced by reduced nausea and vomiting and enhanced family capacity to support her pregnancy. In conclusion, family-centered community midwifery care plays a crucial role in managing hyperemesis gravidarum. Ongoing education and family involvement can mitigate complications and promote maternal and fetal health during pregnancy</i></p> <p><b>Keyword: Case Study, Midwifery Care, Community, Hyperemesis Gravidarum</b></p>
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## INTRODUCTION

Pregnancy is a physiological process that may be accompanied by various physical and psychological changes in expectant mothers. One of the most common complaints during the first trimester is nausea and vomiting. While these symptoms are generally mild and manageable, in certain cases they can progress to hyperemesis gravidarum, a condition marked by excessive nausea and vomiting that may lead to dehydration, electrolyte imbalances, weight loss, and adverse effects on maternal and fetal health (Terävä-Utti et al., 2025; Sumaifa & Nur, 2024).

Hyperemesis gravidarum remains a maternal health problem requiring serious attention, as it can increase the risk of pregnancy complications if not managed appropriately (Ostenfeld et al., 2025). Risk factors include maternal psychological condition, inadequate family support, nutritional status, parity, and social and cultural influences (Wardani & Wijaya, 2025). Within the context of community midwifery, the family plays a pivotal role in supporting maternal

health, particularly by recognizing danger signs, providing emotional support, and helping to meet the mother's nutritional and rest needs (Capper & Downer, 2026).

According to WHO data, the global maternal mortality rate in 2022 was 216 per 100,000 live births, equivalent to approximately 303,000 maternal deaths, with the highest burden occurring in developing countries (302,000). The maternal mortality rate in developing countries is about 20 times higher than in developed countries, where the rate in 2015 was 239 per 100,000 live births (World Health Organization, 2022). Indonesia's maternal mortality rate remains among the highest among ASEAN, with the 2022 Indonesian Demographic and Health Survey (PJS) reporting 359 deaths per 100,000 live births. This figure is still far above the Sustainable Development Goals (SDGs) target of reducing maternal mortality to 70 per 100,000 live births by 2030 (Kemenkes RI, 2022).

According to the Ministry of Health (2021) profile, the five leading causes of maternal death in Indonesia are hemorrhage (30.3%), hypertension during pregnancy (27.1%), infection (7.3%), prolonged or obstructed labor (1.8%), and abortion (1.6%). Hyperemesis gravidarum (HG) accounts for 14.8% of cases, with prevalence in South Sulawesi reaching 17.2%, based on antenatal care data. Hyperemesis gravidarum (HG) has a significant relationship with the risk of hypertension, as it may lead to complications such as eclampsia seizures. Therefore, providing health care for pregnant women at the community, particularly through the role of community midwives, is essential.

Community midwifery is a fundamental concept in which midwives provide services to families, groups and communities within a specific area (Cross-Sudworth et al., 2024). Through community midwifery, midwives extend care beyond hospitals and health centers (Khan et al., 2026). This approach positions midwives as key implementers of midwifery services, with community midwifery representing a form of midwifery technology shaped by multiple factors, including environmental conditions and the diverse characteristics of populations served (Lloyd et al., 2023; Yulizawati et al., 2023)

The community midwifery service approach emphasizes promotive and preventive care by engaging families and communities as primary partners in maintaining maternal and infant health (Monteblanco, 2021; Laila et al., 2024). This approach extends beyond clinical treatment to include health education (Jacobsen et al., 2022), family empowerment, and the strengthening of environmental support systems that contribute to healthy pregnancies (Dube et al., 2023 ; Dolofu & Nasrawati, 2023).

In families at risk of hyperemesis gravidarum, a community midwifery approach is highly relevant for preventing the worsening of the condition through early detection, continuous monitoring, and family-based interventions (Fogh et al., 2025; Wistuti & Haryanti, 2025 ). However, in practice, families often have limited understanding of hyperemesis gravidarum, including its initial management and the importance of psychosocial support for pregnant women. This underscores the need for a comprehensive and contextual community midwifery approach tailored to family circumstances and the living environment (van Wijngaarden et al., 2024; Olajide & Duma, 2024)

The novelty of this research lies in the application of a case study approach to community midwifery care, focusing on families at risk of hyperemesis gravidarum. It integrates preventive measures, family support, and socio-cultural context, dimensions that have not been widely explored in previous studies, which tend to emphasize clinical and individual aspects.

Based on this background, the purpose of this study is to analyze a case of hyperemesis gravidarum in a pregnant woman and provide midwifery care. This case study is expected to serve as a reference for midwives and health professionals in enhancing the quality of community midwifery services and preventing complications of hyperemesis gravidarum in pregnant women.

## **METHODS**

This study employed an exploratory case study approach to comprehensively examine family perspectives on health services, focusing on a case (Wardani & Wijaya, 2025; van Wijngaarden et al., 2024). Informants were selected through purposive sampling, specifically targeting families of pregnant women experiencing hyperemesis gravidarum. The research subject was Mr. H's family in Sungitangga II Hamlet, Pa' Benteng Village, Bajeng District, Gowa Regency. Semi-structured interviews were conducted using Verny's 7-step format with the SOAP method and involved one participant, Mrs. R, over the course of one month with four visits: observation, examination 1, examination 2, and evaluation. Data collection included interviews, observations, physical examinations, and documentation review. Qualitative analysis was performed based on the case study of hyperemesis gravidarum experienced by Mrs. R.

## RESULTS

This case study examines Mr. H's family, in which Mrs. R is pregnant and experiencing hyperemesis gravidarum (HG). The findings are based on observations, interviews, and examinations conducted with Mr. H's family and Mrs. R, and are presented as follows.

### 1. Support and Conducive Family Conditions During Pregnancy

The study findings indicate that Mrs. R lives in a nuclear family consisting of her husband and three children. Family relationships are harmonious, with clearly defined roles: the husband serves as the head of the household and primary breadwinner, while the wife manages domestic affairs. The family also maintains positive interactions with the surrounding community. From a socioeconomic perspective, the household has a stable monthly income of approximately Rp3,000,000, managed by the husband to meet family needs. Living conditions are considered adequate, as the family resides in a permanent home they own, with access to clean well water and a relatively hygienic environment. These findings suggest that the family's social and economic circumstances provide a supportive environment for prenatal care and monitoring maternal health.

### 2. The Impact of Hyperemesis Gravidarum on the Physical Condition of Pregnant Women

At the time of assessment, Mrs. R was a Gravida IV, Para III, Abortus 0 (GIV PIII A0) at 12 weeks of gestation. Her primary complaint was excessive nausea and vomiting, occurring almost every time she ate (5-6 times daily). This condition resulted in significant weight loss, from 65 kg before pregnancy to 50 kg at the time of examination and throughout her pregnancy. Interviews revealed that these symptoms interfered with her ability to meet daily nutritional needs. Mrs. R stated:

"Nothing changed, but when I ate, I vomited again."

Although her vital signs remained within normal limits and her hemoglobin level was 11.8 g/dL, the persistent nausea and vomiting demonstrated that hyperemesis gravidarum had a substantial impact on her nutritional status and maternal comfort during pregnancy.

### 3. Educational and Support Efforts in Managing Hyperemesis Gravidarum

The intervention focused on providing Mrs. R with education and support related to hyperemesis gravidarum. The material covered the definition, causes, potential complications, and management strategies during pregnancy. In addition, regular monitoring was conducted over one month through four home visits. These visits aimed to assess maternal progress and reinforce the implementation of recommended health practices. Interview findings indicated that Mrs. R understood the information provided about her condition and recognized the

importance of ongoing health monitoring during pregnancy. Overall, the results suggest that education and support are essential components of care for pregnant women experiencing hyperemesis gravidarum.

#### **4. Persistence of Symptoms and Need for Referral for Further Health Care**

After three weeks of intervention, Mrs. R's nausea and vomiting showed slight improvement. Symptoms no longer occurred at night but persisted in the morning and afternoon. By the end of the one-month monitoring period, her hyperemesis gravidarum symptoms had decreased, though they remained present. Mrs. R explained:

"Whenever food enters my body, nausea and vomiting will occur."

This situation indicates that family-level management efforts were insufficient to fully address her symptoms. Therefore, education was provided regarding pregnancy warning signs and the importance of seeking further care in collaboration with midwives and physicians at more comprehensive health facilities. These findings highlight that persistent hyperemesis gravidarum requires further referral for advanced treatment to prevent complications for the mother and fetus.

## **DISCUSSION**

The results of this case study indicate that pregnant women observed over four-week period experienced risks associated with hyperemesis gravidarum, including excessive nausea and vomiting, reduced appetite, and disruption of daily activities. These findings can be compared with research by O'Brien et al. (2024), who studied patients with Hyperemesis Gravidarum over eight weeks in relation to symptoms, food intake, and nutritional status. Their study reported improvements in nutritional status and a reduction in symptoms. Similarly, Lindgren et al., (2025) examined Hyperemesis Gravidarum over 22-week period and found that affected mothers were able to manage the condition effectively and continue daily activities. In this study, initial counseling was provided to anticipate nausea and vomiting by recommending small, frequent meals and foods less likely to trigger symptoms, such as apples, watermelon, bananas, eggs, and nuts.. Counseling also emphasized recognition of pregnancy danger signs. These interventions highlight the importance of early education and dietary guidance in mitigating the impact of hyperemesis gravidarum and preventing complications.

Mrs R was monitored during the following week. The results showed that she understood and followed the midwife's instructions, and her condition began to show some improvement in her nausea and vomiting. A physical examination and assessment of vital signs indicated normal findings. These results are consistent with the study by Lindgren et al.,

(2025), which emphasized the importance of dietary management in hyperemesis gravidarum to ensure adequate nutritional intake and reduce excessive nausea and vomiting. Research by Cross-Sudworth et al., (2024) also highlights that intervention planning should consider available resources, funding, implementation time, and priority health problems at both family and individual levels. In line with the identified health problems, health promotion activities were carried out through counseling supported by brochures.

Further evaluation showed that Mrs. R's excessive nausea and vomiting began to subside, and the family was encouraged to maintain a healthy lifestyle and attend regular prenatal check-ups. This study highlights that excessive nausea and vomiting were Mrs. R's primary complaints, a common occurrence in pregnancy, but if left untreated, such symptoms can have serious consequences, requiring midwives to provide appropriate obstetric care (Sumaifa et al.,2024; Downing et al., 2023). In Mrs. R's case, her history revealed loss of appetite due to persistent nausea and vomiting, consistent with hyperemesis gravidarum, which is a frequent symptom in early pregnancy, particularly during the first trimester. Nausea typically occurs in the morning but may also present at other times, including at night. This finding is supported by previous research indicating that obstetric care for pregnant women with Hyperemesis Gravidarum Level 1 should emphasize dietary management and monitoring (Morrin et al., 2025; Fogh et al., 2025) .

During the development of the intervention plan, preparations included providing educational materials in the form of brochures. The intervention focused on counseling about healthy eating habits and recognizing pregnancy warning signs. Even though Mrs R's condition showed some improvement, further evaluation remained necessary, as several studies emphasize that pregnant women must remain vigilant regarding hyperemesis gravidarum. Therefore, Mrs R was advised to stay calm and manage nausea and vomiting by avoiding foods that trigger symptoms and consuming small, regular portions of nutritious food(Olajide & Duma, 2024; Siska et al., 2023).

The findings of this study contribute to family education on the care of pregnant women experiencing severe nausea and vomiting, as well as the early detection of complications that may endanger both the mother and fetus. Therefore, it is essential to provide families with education on managing Hyperemesis Gravidarum, including strategies to reduce symptoms, nutritional counseling to ensure adequate maternal intake, and recommendations for regular pregnancy check-ups at hospital or health centers to ensure optimal care.

## **CONCLUSIONS**

The study concludes that Mrs. R suffered from hyperemesis gravidarum, characterized by excessive nausea and vomiting that affected her appetite and daily activities. Following treatment, her symptoms slightly decreased, as reflected in reduced frequency of nausea and vomiting and improved family support for pregnancy care. Family-focused community midwifery care plays a crucial role in managing hyperemesis gravidarum, as ongoing education and support from the family can help reduce complications and improve maternal and fetal health outcomes.

### **Theoretical Implications**

The findings reinforce the theory that hyperemesis gravidarum is a pregnancy complication marked by excessive nausea and vomiting, which can disrupt nutritional status, fluid balance, and daily activities functioning. Mrs. R's case illustrates that the condition affects not only the mother's physical health but also her psychological and social well-being. These results align with the perspectives of O'Brien and Lindgren, who emphasize the importance of a holistic approach and family involvement in managing pregnancy-related health issues. The study also supports the concept of community midwifery care, positioning the family as the primary support system in maintaining maternal health.

### **Practical Implications**

Practically, the study demonstrates the importance of early detection and management of hyperemesis gravidarum by midwives through comprehensive care. Midwives should conduct thorough assessment of the physical, psychological, and social conditions of pregnant women, while providing education on appropriate diet, fluid intake, danger signs, and strategies to reduce nausea and vomiting. Family involvement in providing emotional support, assisting with nutritional needs, and monitoring maternal health is essential to accelerate recovery. These findings can serve as a guide for community midwifery practices to improve the quality of antenatal care, particularly for pregnant women at risk of or experiencing hyperemesis gravidarum.

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