

MANAGEMENT OF OBSTETRIC CARE WITH PLACENTAL RETENTION DURING THE THIRD STAGE OF LABOR IN MRS. Y AT TUTUN-SEHATI CLINIC 2025

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ABSTRACT

Background: Retained placenta is an obstetric emergency that occurs when the placenta fails to be expelled within 30 minutes after delivery despite Active Management of the Third Stage of Labor (AMTSL). The incidence of retained placenta is estimated at 0.5–3% of all vaginal deliveries worldwide and remains one of the leading causes of postpartum hemorrhage, contributing substantially to maternal morbidity and mortality, particularly in low- and middle-income countries. Although retained placenta has been widely investigated, limited evidence is available regarding the practical implementation of Helen Varney's seven-step midwifery management approach integrated with WHO and FIGO recommendations in primary maternity care settings. This study provides clinical evidence from a primary healthcare facility to support evidence-based midwifery practice. **Objective:** This study aimed to analyze the application of Helen Varney's seven-step midwifery management approach in managing retained placenta during the third stage of labor in a multiparous woman. **Methods:** A descriptive case study design was employed. Data were collected through anamnesis, direct observation, physical examination, abdominal palpation, genital tract exploration, and review of medical records. Data were analyzed descriptively by comparing clinical findings and interventions with recommendations from the World Health Organization (WHO), the International Federation of Gynecology and Obstetrics (FIGO), and evidence-based midwifery literature. **Results:** Mrs. Y, a 32-year-old multiparous woman (P2A0), experienced retained placenta 30 minutes after spontaneous vaginal delivery. Clinical findings included continuous vaginal bleeding, inadequate uterine contractions, blood pressure of 100/70 mmHg, pulse rate of 92 beats per minute, and respiratory rate of 24 breaths per minute. Emergency management consisted of fluid resuscitation, bladder catheterization, manual placental removal, uterotonic administration, and close monitoring. The placenta was successfully removed without complications, uterine contractions improved, bleeding was controlled, and the maternal condition stabilized. **Conclusion:** Helen Varney's seven-step management approach provided a systematic framework for the early diagnosis, emergency intervention, and evaluation of retained placenta. The implementation of evidence-based midwifery care contributed to successful maternal outcomes and the prevention of severe postpartum hemorrhage.

Keywords: Placental Retention, Midwifery Care, Postpartum Hemorrhage, Manual Removal Of Placenta, Varney Management.

INTRODUCTION

Childbirth is a physiological process that marks the culmination of pregnancy; however, it remains associated with significant risks of maternal complications, particularly during the third and fourth stages of labor. One of the most serious obstetric emergencies encountered during this period is postpartum hemorrhage, which continues to be a leading cause of maternal mortality worldwide. According to the (World Health Organization WHO 2020), postpartum hemorrhage accounts for approximately one-quarter of maternal deaths globally, especially in low- and middle-income countries where access to emergency obstetric services remains limited.

Retained placenta is defined as the failure of placental expulsion within thirty minutes after the birth of the baby despite the implementation of Active Management of the Third Stage of Labor. The condition can rapidly progress to severe postpartum hemorrhage, hypovolemic shock, infection, and even maternal death if not managed promptly and appropriately. Epidemiological studies estimate that retained placenta occurs in approximately one to three percent of vaginal deliveries and remains a major contributor to obstetric emergencies.

Despite extensive studies addressing the epidemiology, risk factors, and medical management of retained placenta, limited case-based evidence has explored the application of Helen Varney's seven-step management framework in Indonesian primary maternity clinics. Most previous studies focus on hospital-based interventions, while evidence from primary healthcare settings remains scarce. Therefore, this study aims to fill this gap by describing the implementation of systematic midwifery management in a retained placenta case at a primary maternity clinic.

Several risk factors have been associated with retained placenta, including advanced maternal age, multiparity, anemia during pregnancy, previous uterine surgery, history of curettage, and prolonged labor. Maternal age above thirty years has been reported to reduce uterine muscle responsiveness, whereas multiparity may contribute to uterine muscle fatigue, thereby increasing the risk of inadequate uterine contractions during the third stage of labor (World Health Organization 2023). These conditions may interfere with normal placental separation and increase the likelihood of postpartum hemorrhage.

The physiological mechanism of placental separation depends on effective uterine contraction and retraction following childbirth. Strong uterine contractions decrease the implantation area of the placenta, facilitating its detachment from the uterine wall (American 2026). Failure of this physiological process results in retained placenta and disrupts the normal hemostatic mechanism known as the living ligature effect. Consequently, blood vessels at the placental implantation site remain open, leading to continuous bleeding.

Although retained placenta has been extensively discussed in the literature, most studies have focused on epidemiological characteristics, risk factors, and medical management (Favilli et al. 2021). Limited studies have comprehensively examined the implementation of Helen Varney's seven-step midwifery management approach in primary healthcare settings. Furthermore, evidence regarding the integration of systematic assessment, emergency decision-making, and evidence-based midwifery interventions remains scarce in maternity clinics.

Therefore, this case study aims to analyze the implementation of Helen Varney's seven-step midwifery management approach in managing retained placenta during the third stage of

labor in a multiparous woman at Tutun Sehati Clinic. The findings are expected to contribute to evidence-based midwifery practice and improve maternal safety in emergency obstetric care (Franke et al. 2021). This study demonstrates the integration of Helen Varney's seven-step management approach with current WHO and FIGO emergency obstetric recommendations in a primary healthcare setting, providing evidence for practical implementation in resource-limited maternity clinics.

RESEARCH METHOD

This study employed a descriptive case study design focusing on the implementation of midwifery care management in a retained placenta case. The study utilized Helen Varney's seven-step midwifery management framework, consisting of data collection, diagnosis identification, identification of potential problems, determination of immediate actions, care planning, implementation, and evaluation (Jiang, Chen, and Li 2023; Takaji et al. 2021).

The study was conducted at Tutun Sehati Clinic, Medan, North Sumatra, Indonesia, in January 2026. Primary data were collected through direct anamnesis, continuous clinical observation during labor, physical examination, abdominal palpation, genital tract exploration, and monitoring of maternal vital signs. Secondary data were obtained from medical records and supporting clinical documentation (Oktapianti and Triyanti 2025; Sianturi 2024).

Written informed consent was obtained from the patient before data collection. Patient confidentiality was maintained throughout the study by using initials rather than personal identifiers. Data analysis was conducted descriptively using a comparative approach. Clinical findings and interventions were compared with recommendations from the World Health Organization (WHO), the International Federation of Gynecology and Obstetrics (FIGO), and current evidence-based midwifery literature to evaluate conformity with international standards of retained placenta management (American 2026; World Health Organization 2023).

Ethical principles were applied throughout the study. Written informed consent was obtained from the patient before data collection. Confidentiality and anonymity were maintained by using patient initials. The study complied with the ethical standards for case report publication and the Declaration of Helsinki.

RESULT

Mrs. Y, a 32-year-old multiparous woman (P2A0), was admitted to Tutun Sehati Clinic during active labor. The patient delivered a healthy baby through spontaneous vaginal delivery. Active Management of the Third Stage of Labor was performed according to standard procedures, including administration of 10 IU oxytocin intramuscularly immediately after delivery. After fifteen minutes, the placenta had not shown signs of separation. Additional uterotonic therapy and bladder emptying were performed. However, up to thirty minutes postpartum, the placenta remained undelivered. The patient complained of dizziness, weakness, anxiety, and blurred vision (Adnan and Dinata 2025; Marlioni et al. 2022). Clinical examination revealed blood pressure of 100/70 mmHg, pulse rate of 92 beats per minute, respiratory rate of 24 breaths per minute, soft uterine contractions, and continuous vaginal bleeding estimated at approximately 200 mL. Based on the assessment findings, the diagnosis

of retained placenta with risk of postpartum hemorrhage was established. Immediate interventions included intravenous fluid resuscitation using Ringer Lactate solution, bladder catheterization, preparation for manual removal of the placenta, administration of uterotonic agents, and close monitoring of maternal condition.

Manual removal of the placenta was successfully performed using aseptic techniques. Following the procedure, the placenta was completely expelled without retained fragments. Uterine contractions became firm, vaginal bleeding decreased significantly, and maternal vital signs returned to normal limits. No signs of hypovolemic shock, severe hemorrhage, or puerperal infection were observed during the evaluation period (Takaji et al. 2021; Tchuinte Lekuikou and Moreland 2022).

Theoretically, the severity of placental retention is classified into four levels based on the depth of villi chorialis infiltration into the uterine wall (Perlman and Carusi, 2024). The first level is placenta adhesiva, where the placental tissue attaches very strongly to the endometrium decidua layer exceeding normal limits due to minimal contraction, but its structure has not penetrated the uterine muscle layer. The second level is placenta accreta, where the villi chorialis have grown to penetrate the basal decidua layer and attach directly to the surface of the myometrium muscle. The third level is named placenta increta, which is characterized by the entry of villi chorialis deep into the thickness of the myometrium muscle layer (Oktapianti and Triyanti 2025).

The retained placenta was identified promptly at 30 minutes postpartum, allowing immediate intervention before severe postpartum hemorrhage developed. Early recognition and management contributed significantly to preventing maternal deterioration and reducing the risk of hypovolemic shock.

Based on Table 1, Mrs. Y, a 32-year-old multiparous woman (P2A0), experienced retained placenta during the third stage of labor, characterized by the failure of placental expulsion within thirty minutes after spontaneous vaginal delivery. Clinical findings showed continuous vaginal bleeding, inadequate uterine contractions, and unsuccessful controlled cord traction, indicating incomplete placental separation (Sari et al. 2026; Sianturi 2024). Based on these findings, the patient was diagnosed with retained placenta and was immediately managed through fluid resuscitation, bladder catheterization, and manual removal of the placenta. Following the intervention, the placenta was successfully delivered, uterine contractions improved, bleeding was controlled, and the patient's condition remained stable (Siti Nurmawan Sinaga 2025).

Table 1. Clinical Findings of Mrs. Y with Retained Placenta at Tutun Sehati Clinic in 2026

Variabel	Clinical Findings
Patient	Mrs. Y / 32 years old
Parity Status	P2A0 (Multipara)
Delivery Method	Spontaneous vaginal delivery
Placental Status (at 30 mins)	Undelivered with no signs of separation
Blood Pressure	100/70 mmHg
Pulse Rate	92 beats/minute
Respiratory Rate	24 breaths/minute
Uterine Fundal Height	At the level of the umbilicus (navel)
Uterine Tone / Consistency	Soft / Atonic (Inadequate contraction)
Vaginal Bleeding Volume	Approximately 200 ml (continuous flow)
Controlled Cord Traction (CCT)	Failed with a notable recoil sensation

Primary Intervention Performed	Manual removal of the placenta under aseptic technique
Final Clinical Outcome	Placenta completely removed; maternal condition stabilized
Outcome	Placenta successfully removed; patient stable

Based on Table 2, the implementation of Helen Varney's seven-step midwifery management approach provided a systematic framework for identifying, managing, and evaluating the retained placenta case. Comprehensive assessment enabled accurate diagnosis and early recognition of potential complications, including postpartum hemorrhage and hypovolemic shock. Prompt emergency interventions, consisting of fluid resuscitation, bladder catheterization, uterotonic administration, and manual removal of the placenta, were carried out according to established clinical protocols (Oktapianti and Triyanti 2025; Umiro 2020). The successful outcome, evidenced by complete placental delivery, adequate uterine contraction, controlled bleeding, and maternal stabilization, demonstrates the effectiveness of evidence-based midwifery management in ensuring maternal safety during obstetric emergencies. (Rezeki et al. 2024)

Table 2. Application of Helen Varney's Seven-Step Midwifery Management Framework in the Management of Retained Placenta

Varney's Step	Clinical Application
Step 1: Data Collection	Comprehensive assessment through history taking, physical examination, vital signs monitoring, abdominal palpation, and observation of placental expulsion.
Step 2: Identification of Actual Diagnosis	Retained placenta with continuous vaginal bleeding and inadequate uterine contraction.
Step 3: Identification of Potential Problems	Risk of postpartum hemorrhage, hypovolemic shock, anemia, and puerperal infection
Step 4: Immediate Action	Intravenous fluid resuscitation, bladder catheterization, and preparation for manual placenta removal.
Step 5: Care Planning	Development of an emergency management plan according to retained placenta protocols and maternal stabilization measures.
Step 6: Implementation	Administration of uterotonics, manual removal of placenta, uterine massage, and close monitoring of maternal condition
Step 7: Evaluation	Placenta successfully removed, uterus contracted firmly, bleeding controlled, and maternal condition stabilized.

DISCUSSION

He findings of this case are consistent with the systematic review conducted by Favilli et al. (2021), which identified multiparity as one of the significant risk factors associated with retained placenta. Similarly, Mrs. Y was a multiparous woman (P2A0), supporting previous evidence regarding the relationship between parity and placental retention. (Surbakti et al. 2024; Syalfina, Priyanti, and Irawati 2021). Franke et al. (2021) reported that timely intervention is more important than the duration of placental retention alone in preventing severe maternal complications. In the present case, rapid assessment and immediate manual removal of the placenta contributed to favorable maternal outcomes and prevention of postpartum hemorrhage. (Asfia and Rahmayanti 2022; Manurung, Damanik, and Gulo 2024). In retained placenta cases, this mechanism fails, resulting in persistent placental attachment and continuous bleeding from the implantation site.

The interventions implemented in this case were consistent with international recommendations for retained placenta management (Surbakti et al. 2024). Fluid resuscitation was initiated to maintain hemodynamic stability and prevent hypovolemic shock. Bladder catheterization was performed to eliminate mechanical obstruction to uterine contraction. Manual removal of the placenta was subsequently conducted under aseptic conditions, followed by administration of uterotonic agents to enhance uterine contractility and reduce blood loss (Marliani et al. 2022).

The successful outcome observed in this case also supports WHO recommendations emphasizing early recognition, uterotonic administration, maternal stabilization, and prompt placental removal as key components in retained placenta management. These interventions were implemented systematically through Helen Varney's seven-step management framework.

Furthermore, the implementation of Helen Varney's seven-step approach provided a structured framework for clinical decision-making throughout the management process. Comprehensive assessment, accurate diagnosis, anticipation of potential complications, immediate intervention, and continuous evaluation contributed substantially to achieving favorable maternal outcomes. This finding highlights the relevance of standardized midwifery management models in improving the quality of emergency obstetric care within primary healthcare settings (Surbakti et al. 2024).

The management implemented in this case was also consistent with WHO recommendations on retained placenta management and postpartum hemorrhage prevention, which emphasize early recognition, timely manual removal of the placenta, uterotonic administration, and maternal stabilization. Likewise, FIGO guidelines recommend prompt intervention when placental expulsion exceeds thirty minutes after delivery to reduce the risk of severe maternal morbidity.

This study is limited by its single-case design, which restricts the generalizability of the findings. Additionally, the study was conducted in a single primary healthcare facility, which may not represent all clinical settings. Further studies involving larger samples and multiple healthcare facilities are recommended (Nainggolan 2024).

This case demonstrates that the integration of Helen Varney's seven-step management approach with evidence-based emergency obstetric care can facilitate early diagnosis, rapid intervention, and prevention of severe maternal complications. The framework may serve as a practical guide for midwives working in primary healthcare settings.

CONCLUSION AND SUGGESTION

Retained placenta remains a significant obstetric emergency that requires timely diagnosis and evidence-based intervention. The application of Helen Varney's seven-step midwifery management approach facilitated systematic assessment, rapid clinical decision-making, prompt intervention, and continuous evaluation. The successful maternal outcome in this case demonstrates the effectiveness of integrating standardized midwifery management with WHO and FIGO recommendations in preventing severe postpartum hemorrhage and improving maternal safety in primary healthcare settings. (Sianturi 2024).

Continuous training programs in emergency obstetric and neonatal care should be provided to midwives working in primary healthcare settings to strengthen competencies in managing retained placenta and postpartum hemorrhage. Healthcare facilities should ensure the availability of emergency equipment, uterotonic medications, and standardized clinical protocols. Future studies involving larger sample sizes and multiple healthcare settings are recommended to further evaluate the effectiveness of Helen Varney's seven-step management approach in improving maternal outcomes and reducing preventable maternal mortality (Marliani and Sinaga 2023).

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