

INTERVENTION OF PROVIDING IRON CONSUMPTION EDUCATION TO PREVENT THE RISK OF BLEEDING IN MRS. I SPONTANEOUS POSTPARTUM WITH ANEMIA

Afni Wulandari¹, Uni Wahyuni², Nugeraha Risdiyanto³,
Nadila Nur Azmi⁴, Melati Puspita Sari⁵

Institut Teknologi dan Kesehatan Mahardika, Jawa Barat, Indonesia

E-mail: Afnialifa@gmail.com¹, uniwahyuni166@gmail.com², nugeraharisdiyanto9@gmail.com³,
nadila.nurazmi331@gmail.com⁴, melatipus13@gmail.com⁵

KEYWORDS

Postpartum Mothers,
Bleeding Risk,
Anaemia, Iron.

ABSTRACT

Postpartum hemorrhage is one of the leading causes of 150,000 maternal deaths each year worldwide, and nearly 4 out of 5 such deaths occur within 4 hours of delivery. One of the factors that can cause postpartum hemorrhage is the presence of anemia in pregnant women, which can be caused by iron and vitamin B12 deficiency. If anemia is not treated during pregnancy, it can impact the postpartum period by increasing the risk of uterine atony and significant bleeding. The purpose of this study was to explain nursing care in postpartum mothers with anemia using an educational intervention of iron consumption to prevent postpartum hemorrhage. The research method used is a qualitative approach with case studies as the main method, using observation sheets, interviews, and documentation studies. The subject of this study was one postpartum maternal patient with anemia at RSUD Waled Cirebon. The results of the case study showed clinical success in the absence of signs and symptoms of bleeding, improvement in the mother's condition, although breast milk expenditure was still not optimal. The implication of this study is that effective nursing care delivery can meet patient needs and prevent further complications such as postpartum hemorrhage.

INTRODUCTION

One of the indicators used to measure women's health degree is the maternal mortality rate (MMR) (Yunadi, Frisca Dewi and Andhika, 2019). Based on data from the Maternal Perinatal Death Notification (MPDN), the number of maternal deaths in 2022 reached 4,005, and in 2023 increased to 4,129. In West Java, especially Cirebon district, cases (MMR), according to the situation analysis, are still relatively high despite a decrease compared to last year. In 2022, the number of maternal deaths was 34 people, and in 2023, it decreased to 15 people (Cirebon Health Office, 2023).

According to (the Ministry of Health R1, 2019), the most common causes of maternal deaths in Indonesia in 2019 were bleeding and hypertension during pregnancy. Postpartum haemorrhage is the leading cause of 150,000 maternal deaths each year in the world. Almost 4 out of 5 deaths caused by postpartum haemorrhage occur within 4 hours, according to Saiffudin 2012 (Yunadi, Frisca Dewi and Andhika, 2019). One of the factors causing postpartum haemorrhage is pregnant women with anaemia. Anaemia in pregnancy is a condition where the

haemoglobin level of pregnant women is less than 11%. A lack of several nutrients, such as iron and vitamin B12, can cause anaemia. During pregnancy, anaemia is identified as iron deficiency (Nurfitriana et al., 2022)

If anaemia is not treated until the end of pregnancy, it will affect the postpartum period (Davidson et al., 2023). Anaemia in postpartum mothers will cause uterine atony (Rabinowitz & Reibstein, 1945). This is because the uterus does not get the maximum oxygen supply, so the uterus does not contract adequately so that uterine atony arises, which results in heavy bleeding (Fatkhayah, 2018). Postpartum haemorrhage that is not treated correctly can result in shock and decreased consciousness due to much blood coming out. This can lead to impaired blood circulation throughout the body and can cause maternal death (Yunadi, Frisca Dewi and Andhika, 2019). Therefore, monitoring bleeding and fulfilling iron needs for postpartum women must be adequately fulfilled. Research (Sari et al., 2021) shows that the intervention of iron and spinach vegetable supplementation affects increasing haemoglobin levels in the blood. Patient compliance with consuming appropriate nutrition and undergoing treatment can affect the quality of client health, increase healthcare costs, and increase client morbidity and mortality (Khoiriyah et al., 2020).

The purpose of this study was to explain nursing care in postpartum mothers with anemia using an educational intervention of iron consumption to prevent postpartum hemorrhage. The benefit of this research is that it is expected to provide useful information for health workers in improving nursing care for postpartum mothers with anemia, as well as helping in the prevention of postpartum bleeding through iron consumption education. In addition, this study is expected to be a reference for future studies and contribute to reducing maternal mortality rates related to postpartum hemorrhage.

RESEARCH METHOD

This research uses a qualitative approach with case studies as the primary method. The subject of this study used one patient in postpartum mothers with anaemia. The data collection methods used were observation, interview, and physical examination. Observation is done by observing the patient for signs and symptoms of bleeding risk due to anaemia history. The interview was conducted with Allo anamnesa, namely the family accompanying the patient and the patient herself (Auto anamnesa). While the physical examination was carried out head to toe. The interviewer will collect data using the established postpartum mother assessment guidelines. Data analysis is carried out starting from data collection until the data is collected. Then, the researcher compiles a nursing care plan and implements and evaluates the nursing care given to the patient.

RESULT AND DISCUSSION

The results of the assessment obtained in the patient, Mrs I, 26 years old (P2A0), was admitted to the Rose room of Waled Cirebon Hospital on January 5, 2024, with a history of spontaneous postpartum with serotinous and anaemia. After giving birth, Mrs I complained of weakness and dizziness when moving a lot. I felt pain in the perineal area because there were stitches. In addition, Mrs. I complained that breast milk had not yet been released.

Based on the results of the physical examination obtained anaemic conjunctiva, CRT <3 Seconds appeared limp, BP: 120/90 mmHg, N: 89x/min, RR: 20x/min and temperature 36.2 C.

The breasts were palpably flaccid; the nipples were protruding; the milk had not been released, and TFU was two fingers below the centre with lochia rubra. There was a suture wound on the perineum, which was 4 cm in length, and varicose veins were absent. Laboratory examination results in haemoglobin 8.9gr%, hematocrit 28%, leukocytes 7.1×10^3 /mm³, platelets 150×10^3 /mm³ before the red blood cell transfusion two golf before delivery.

Based on the objective and subjective data obtained, it can be concluded that the priority nursing problems include the risk of bleeding associated with coagulation disorders, ineffective peripheral perfusion associated with lack of haemoglobin levels in the blood, and ineffective breastfeeding associated with inadequate milk supply. The nursing care process is carried out from assessment to evaluation by the SDKI, SLKI, and SLKI standards. Mrs I was carried out for 1x24 hours and obtained the results. There were no signs and symptoms of bleeding, the mother's condition improved, haemoglobin levels increased to 11%, and platelets 179×10^3 /mm³.

Risk of Bleeding

Postpartum haemorrhage is the occurrence of bleeding of 500 ccs or more that occurs after the birth of a child (fahira et al., 2019). So, the implementation focuses on the signs and symptoms of bleeding, monitoring the release of lochea, decreasing the height of the fundus uteri (TFU), and performing perineal care.

The evaluation results for 1x24 hours on the day of treatment, the height of the fundus uteri has decreased, and the discharge of lochia is normal; the episiotomy wound is good without pus, odour and other signs of infection. The mother's condition improved; there were no signs of symptoms such as bleeding gums, bruises, ecchymosis, or petechiae. After a correction laboratory examination, there was an increase in platelet levels of 179×10^3 /mm³, haemoglobin 11.0 g%, hematocrit 34%, and leukocytes 15.4×10^3 /mm³.

In the case of Mrs I, platelets before giving birth were 150×10^3 /mm³ haemoglobin 8.9% and during childbirth, there was an episiotomy wound; this is by the theory regarding the occurrence of postpartum haemorrhage according to (Simanjuntak, 2020) caused by several factors which are divided into 4T, namely tone (tonus; atonia uteri), tissue (tissue; retention of the placenta and placental remnants), tears (lacerations; perineum, vagina, cervix, and uterus), thrombin (coagulopathy; blood clotting disorders). Therefore, it is necessary to monitor signs and symptoms to prevent the risk of postpartum haemorrhage. By research (Yunadi et al., 2019), it was concluded that there was a relationship between anaemia and the incidence of postpartum bleeding, with a six times greater risk in mothers with anaemia. Therefore, it is necessary to monitor signs and symptoms to prevent the risk of postpartum bleeding and advise mothers to consume foods that are high in iron and Fe tablets to overcome anaemia.

In addition, it is necessary to carry out perineal care in postpartum women with episiotomy wounds in line with the theory (Nurfitriana et al., 2022) that it is essential to do because the function of platelets in the body acts as a balanced defence on the vascular endothelium which will produce coagulation for blood clotting so that bleeding risk factors can be minimized.

Ineffective Peripheral Perfusion

Interventions for ineffective peripheral perfusion focus on increasing haemoglobin levels by educating patients to consume foods high in iron, performing conjunctival examinations, CRT, vital signs, and reviewing laboratory results.

The results of the evaluation for 1x24 hours of treatment obtained signs and symptoms of weakness and dizziness, which decreased, and the patient could sit and walk to the bathroom by himself. The conjunctiva looks less pale, CRT < 3 seconds. Vital signs examination BP 110/90 mmHg, N: 80x/min, RR: 20x/min and temperature 36.0 C. The patient and family were very cooperative during education regarding iron consumption, such as green vegetables and Fe tablets. Mrs. I complained that since she was young, she did not like to eat vegetables and fruits, affecting her current health condition. At the time of education, there was good mutual communication. The results were that Mrs I obeyed taking Fe tablets as directed by the doctor and began to want to eat vegetables that nutritionists from the hospital had provided. After reviewing the laboratory results, Mrs I is haemoglobin level increased to 11gr%.

The function of conducting the conjunctival examination is to predict signs and symptoms of the presence or absence of anaemia in a person, in addition to examining nails, face, and palms (Yunadi, Frisca Dewi and Andhika, 2019).

Lack of haemoglobin levels in the blood can be done by transfusing red blood cells and collaborating with maintaining a balanced diet so that the nutrients that enter the body are fulfilled (Gozali, 2019). In addition, giving Fe tablets to postpartum mothers increases haemoglobin levels in the blood (Rahayu, 2020) Therefore, the interventions carried out on Mrs.I are on the theoretical basis mentioned. Then, during the subsequent evaluation, Mrs.I was allowed to go home while still carrying Fe tablets to be consumed at home according to the doctor's instructions.

Ineffective Breastfeeding

The best and most appropriate source of infant nutrition is breast milk, which is given from birth until six months. However, the target of achieving breastfeeding is difficult to achieve because one of them is breast milk, which does not come out smoothly (Nurainun & Susilowati, 2021) This is by Mrs I, who experienced the problem of not producing breast milk after giving birth, and the baby was separated from the mother. The problem of ineffective breastfeeding is that the author intervenes with breastfeeding counselling and performs oxytocin massage on the patient.

Breastfeeding counselling assists mothers in obtaining information related to breastfeeding. Hence, mothers can recognize the problems faced during breastfeeding, identify alternative ways to solve problems, set priorities, and improve the mother's ability to think positively and optimistically (Mariani, 2019). According to research (Nindya Kurniawati, 2019), breastfeeding counselling can influence the implementation of sound and correct breastfeeding methods.

Milk production and milk production are two factors that can affect the release of breast milk. Hormones that can affect breast milk production are prolactin and oxytocin, which affect milk production (Asih, 2017). Therefore, research has proven that the alternative of oxytocin massage affects breast milk production (Nurainun & Susilowati, 2021). Physiologically, oxytocin massage through neurotransmitters will stimulate the medulla oblongata by sending

messages to the hypothalamus to stimulate oxytocin reflexes or let down to secrete the hormone oxytocin into the blood. The massage is done on the back along the spine (*vertebrae*) to stimulate the postpartum oxytocin hormone (Ludviah et al., 2023).

After applying the predetermined implementation, the nursing evaluation resulted in Mrs I understanding how to breastfeed properly and correctly. After the oxytocin massage, Mrs I looked relaxed and comfortable, but no milk was released. Therefore, oxytocin massage can be applied at home every 1-2 times/day to be routinely done with the husband.

CONCLUSION

This study aims to explain nursing care in postpartum mothers with anemia using an educational intervention of iron consumption to prevent postpartum hemorrhage. Based on the results of research on Mrs. I's patients, it can be concluded that education on iron consumption and high-iron feeding, accompanied by monitoring signs of bleeding and perineal treatment, is effective in improving the health condition of postpartum mothers with anemia. This intervention was shown to increase maternal hemoglobin levels and reduce the risk of postpartum hemorrhage. In addition, education and administration of oxytocin massage helps in improving the condition of breastfeeding even though breast milk has not come out optimally. The implications of this study suggest that the results of the study can be used as a guide in improving the quality of nursing care for postpartum mothers with anemia, especially in the prevention of postpartum hemorrhage. With the implementation of appropriate interventions, it is expected to help reduce maternal mortality due to postpartum hemorrhage in Indonesia. These findings can also be the basis for health policymakers to strengthen education programs and nutrition interventions for pregnant and postpartum women as a preventive effort against pregnancy and childbirth complications.

REFERENCES

- Asih, Y. (2017). Pengaruh Pijat Oksitosin terhadap ASI Ibu Nifas. *Jurnal Keperawatan, XIII*(2), 209–214.
- Davidson, E. M., Scoullar, M. J. L., Peach, E., Morgan, C. J., Melepia, P., Opi, D. H., Supsup, H., Hezeri, P., Philip, W., Kabiu, D., Tokmun, K., Suruka, R., Fidelis, R., Elijah, A., Siba, P. M., Pomat, W., Kombut, B., Robinson, L. J., Crabb, B. S., ... Fowkes, F. J. I. (2023). Quantifying differences in iron deficiency-attributable anemia during pregnancy and postpartum. *Cell Reports Medicine, 4*(7), 101097. <https://doi.org/https://doi.org/10.1016/j.xcrm.2023.101097>
- fahira, nur andi, Rahman, A., & Kurniawan, H. (2019). Faktor Risiko Kejadian Perdarahan Postpartum Di Rumah Sakit Umum (RSU) Anutapura Palu. *Jurnal Kesehatan Tadulako, 5*(1), 26–31.
- Fatkhayah, N. (2018). Faktor Risiko Kejadian Anemia Pada Ibu Hamil (Studi Di Wilayah Kerja Puskesmas Slawi Kab. Tegal). *Indonesia Jurnal Kebidanan, 2*(2), 86. <https://doi.org/10.26751/ijb.v2i2.561>
- Gozali, W. (2019). Hubungan Pola Makan dengan Kejadian Anemia pada Ibu Hamil di Wilayah Kerja Puskesmas Buleleng III. *International Journal of Natural Science and Engineering, 2*(3), 117. <https://doi.org/10.23887/ijnse.v2i3.17448>
- Kemendes R1. (2019). Profil kesehatan Indonesia 2019. In *Kementrian Kesehatan Republik Indonesia*.
- Khoiriyah, S., Sari Purbaningsih, E., & Wahyuni, U. (2020). Correlation of self efficacy with

- compliance undergoing hemodialysis on patients chronic kidney failure in general waled hospital cirebon. *Jurnal Kesehatan Mahardika*, 7(2), 19–26.
- Ludviah, E., Wahyuningsih, S., Widayati, A., & Sunanto. (2023). Effect of Oxytocin Massage on Breast Milk Production among Postpartum Mothers. *Health and Technology Journal (HTechJ)*, 1(3), 327–334. <https://doi.org/10.53713/htechj.v1i3.62>
- Mariani, N. H. (2019). Pengaruh konseling menyusui terhadap sikap, motivasi dan keberhasilan ibu dalam menyusui di Desa Karangbong. *Mariani I Nur Hamim I I. Prodi DIII Keperawatan Stikes Hafshawaty Pesantren Zainul Hasan Probolinggo Jawa Timur*. 12(1).
- Nindya Kurniawati, E. K. (2019). Pengaruh Konseling Cara Menyusui Terhadap Pelaksanaan Cara Menyusui Pada Ibu Yang Mempunyai Bayi Usia 0-2 Minggu Di Puskesmas Ngombol. *Jurnal Komunikasi Kesehatan*, 10(1), 29–37.
- Nurainun, E., & Susilowati, E. (2021). Pengaruh Pijat Oksitosin Terhadap Produksi ASI Pada Ibu Nifas : Literature Review. *Jurnal Kebidanan Khatulistiwa*, 7(1), 20. <https://doi.org/10.30602/jkk.v7i1.611>
- Nurfitriana, A., Kiftia, M., & Halifah, E. (2022). Asuhan Keperawatan Ibu Postpartum Dengan Sectio Caesaria Dan Trombositopenia : Suatu Studi Kasus Nursing Care of Postpartum Mothers with Caesarian Section and Thrombocytopenia: A Case Study. *Jurnal Ilmiah Mahasiswa ...*, 1, 71–77.
- Rabinowitz, H. M., & Reibstein, N. (1945). Early extirpation of the uterus in persistent atony with postpartum hemorrhage. *The American Journal of Surgery*, 69(1), 66–72. [https://doi.org/https://doi.org/10.1016/S0002-9610\(45\)90349-7](https://doi.org/https://doi.org/10.1016/S0002-9610(45)90349-7)
- Rahayu, S. (2020). Pengaruh Pemberian Tablet Besi Pada Ibu Nifas Terhadap Anemia Post. *XIII(I)*, 21–29.
- Sari, Y. O., Darmayanti, D., & Ulfah, M. (2021). Pengaruh Pemberian Zat Besi Dan Sayur Bayam Terhadap Peningkatan Kadar Hemoglobin Ibu Hamil Dengan Anemia Di Wilayah Kerja Puskesmas Martapura I. *Jurnal Keperawatan Suaka Insan (Jksi)*, 6(1), 19–26. <https://doi.org/10.51143/jksi.v6i1.265>
- Simanjuntak, L. (2020). Perdarahan Postpartum. *Jurnal Visi Eksakta (JVIEKS)*, 1(1), 1.
- Yunadi, Frisca Dewi dan Andhika, R. S. R. (2019). Hubungan Anemia Dengan Kejadian Perdarahan Pasca Persalinan. *Jurnal Kesehatan Al-Irsyad*, 12(2), 47–52. <https://doi.org/10.36746/jka.v12i2.39>