



Post partum haemorrhage among pregnant women: Update on risks factors

***Emmanuel Ifeanyi Obeagu¹, Getrude Uzoma Obeagu² and
Esther Musiimenta²**

¹Department of Medical Laboratory Science, Kampala International University, Uganda.

²Department of Nursing Science, Kampala International University, Uganda.

E-mail: emmanuelobeagu@yahoo.com

Abstract

Obstetric haemorrhage is the World's leading cause of maternal death and accounts for an estimated 127,000 deaths each year. Many pregnant have died during delivery especially in the developing world. Adequate training should be given to the health workers handling the women on bleeding disorders and the control of bleeding. Some pregnant women die during delivery due may be due to lack of experienced medical doctors and midwives and necessary equipment and drugs. Educating the community will play a significant role to decrease maternal morbidity and mortality. As most women live in the rural areas and are most likely to go through the hands of a Traditional birth attendants (TBAs), a comprehensive training program of the TBA should be organized emphasizing on early referral of the women to the different levels of health care settings whenever needed.

Keywords: postpartum haemorrhage, pregnant women, risk factors, control

Introduction

Obstetric haemorrhage is the World's leading cause of maternal death and accounts for an estimated 127,000 deaths each year (Kodla, 2015; (Okoroiwu *et al.*, 2022; Obeagu *et al.*, 2022; Obeagu, 2022). World Health Organization (WHO, 2009) defined Postpartum Haemorrhage as excessive bleeding from the genital tract after delivery of the child. PPH is classified by World Health Organization as primary and secondary.

It's primary when there is a blood loss of 500ml or more within the first twenty four hours after child birth and secondary if the excessive loss of blood occurred at any time after the first day to 42 days of puerperium (WHO, 2013).

In a study conducted in Sweden, PPH was found to be the leading cause of maternal death and the overall prevalence of postpartum haemorrhage was 4.6% after vaginal deliveries (Sara *et al.*, 2014).

In Africa, studies have shown that the major cause of maternal death is postpartum haemorrhage (especially primary postpartum) accounting for 25.7%. In a study in Cameroon by (Halle-ekane *et al.*, 2016) showed haemorrhage at (38%) as the main cause of maternal deaths. Studies conducted in the General Hospital and the Yaoundé central Teaching Hospitals in 2008 and 2013 reported prevalence of primary postpartum haemorrhage of 1.68% and 4.1% respectively (Halle-ekane *et al.*, 2016).

Maternal related factors contributing to postpartum haemorrhage

Socio-demographic Characteristics of the Study Population

In a study conducted in Ghana on 130 participants with postpartum hemorrhage, the majority of the women 111 (85.4%) who had PPH were between 20- 30 years. Most of the women who had PPH were self-employed 93 (71.5%). They were mainly traders, hair-dressers and business women. Marital status of the participants also was another factors and it was found that the risk of developing PPH was more common among the single woman than the married ones (108 and 25, respectively). Education level was another important factor, PPH was found high among women who attained secondary level than among those who attained primary and tertiary level of education (Halle-ekane *et al.*, 2016).

In a study conducted In Zimbabwe, it was reported that advanced maternal age (> 35 years) was associated with 95% risk of developing PPH (Dongol *et al.*, 2010)). Similarly (Sosaet *al.*, 2009) found that, the risk of PPH in women >35 years was two-fold higher compared to women <25 years.

However another study by (WHO, 2009) showed that PPH was high among the Married woman (89.7%) than among the single women (10.3%). The majority of the women who had PPH were between the age of 20-34years of age (78.2%) and lower among the age group of > 35years (10.9%) and below 20years respectively (10.9%).

Socio – obstetrics Characteristics

Socio- Obstetric Characteristics were other important contributing factors to PPH. Fourteen (2.6%) women did not attend ANC. Furthermore, only 169 (30.7%) participants had the minimum of 4 ANC visits as recommended by World Health Organization. Eight (6.2%) of the women who did not attend ANC had PPH. Of the 480 (87.3%) term pregnancies, 121 (93.1%) had PPH, while 6 (4.6%) developed PPH of the 36 (6.6%) that were post-term (Halle-ekane *et al.*, 2016).

Over the years, grand multiparity has been thought of as a risk factor for PPH, however, some studies have revealed contrary. Two studies found no relation between grand multiparity and significant obstetric haemorrhage. Another study has reported an association with low parity (0–1 previous birth) with risk of developing PPH with and without intrapartum factors respectively (Gani, 2013).

Causes of PPH due to uterine over distension

In the similar study based on the causes of large for dates uterus or uterine over distension based on the ultra-sonographic findings during pregnancy were; multiple pregnancy, hydramnios, uterine fibroids and macrosomia as associated with PPH. There were 10 (1.8%) cases of multiple gestations; six (4.6%) of them developed PPH. Furthermore, out of the eight cases of uterine over-distension due macrosomia, 5 (3.8 %) developed PPH Halle-ekane *et al.* (2016).

Few studies have suggested that twins and other high order pregnancies are associated with obstetric haemorrhage. Multiple pregnancies are associated with an increased risk for PPH (95%) (Puri *et al.*, 2011).

Labor and Child Birth

In another study conducted on 550 participants, of the 550 women who gave birth, 10 (1.8%) had induced labor indicated for post-term or premature rupture of membranes (PROM). Among these 10 women, 7 (70%) developed PPH. Of the 218 (39.64%) women who delivered

within 12 hours, 12 (9.2%) developed PPH. Prolonged labor was also found to be associated with PPH, participants whose labor lasted more than 24 hours had a higher risk of developing PPH than when labor lasted less than 12 hours (Kongnyuyet *et al.*, 2008).

Clinical (Medical, Surgical and Gynecological) Characteristics

In a study, based on the past medical history of 130 participants, of the 130 women who had PPH, 13 (10%) had malaria during pregnancy, this was significantly associated with PPH. Those who had malaria during pregnancy were 6 times more likely to develop PPH than those women who did not. Pregnancy induced hypertension (PIH) accounted for 5 (3.9%) of the cases of PPH while 9 (6.9%) were associated with premature rupture of membranes (Halle-ekane *et al.*, 2016).

Other Sources have indicated that fibroids are associated with a risk for PPH. However, these have mostly been based on case reports of (Takoet *et al.*, 2014). A cohort study in Japan found a similar association in women with leiomyomas (Sara *et al.*, 2014).

Evidence has also found that, women are more likely to bleed more at vaginal delivery when they have had a previous caesarean section (Paglia *et al.*, 2012).

Several other medical conditions have also been found to increase the risk of PPH. Some of which are type II diabetes mellitus, connective tissue disorders like Marfan's and Ehlers Danlos syndrome. Inherited and acquired bleeding disorders like the Haemophilia A and B and Von-Willebrand's disease are also contributing factors (Puri *et al.*, 2011).

Another recent study conducted in Karachi, Pakistan reported, haemorrhage (51%), anemia (21.2%) and dystocia (14.8%) as the causes of maternal mortality. Among these causes haemorrhage was identified in late pregnancy period (44.6%), while the rest were followed by severe hypertensive disorders and abruptio placentae.(Gani, 2013)

Health workers related factors that contribute to PPH

Qualification of the birth attendant

A study conducted in Liaquat University of Medical & Health Sciences, Jamshoro Pakistan reported the frequency of retained placenta as 37.7% in women of age group 26 to 30 years, 26.6% up to age of 35 years, 22.2% in age 20–25 years and it was low between 36– 40 years of age, while the frequency was high in women of low parity (44.4%). Causes included augmentation by oxytocin in 38.8%. (Gani, 2013).

Similarly, a study from Nepal showed that too many outpatients in the departments of the facility make it difficult to manage privacy and confidentiality and lack of adequate training to service providers to maintain privacy and confidentiality and provision of quality services also contributed to the risk of developing PPH(Wangwe Balandya 2012).

Conclusion

Some pregnant women die during delivery due may be due to lack of experienced medical doctors and midwives and necessary equipment and drugs. Educating the community will play a significant role to decrease maternal morbidity and mortality. As most women live in the rural areas and are most likely to go through the hands of a Traditional birth attendants (TBAs), a comprehensive training program of the TBA should be organized emphasizing on early referral of the women to the different levels of health care settings whenever needed.

References

- Dongol, Shrestha and Chawla,(2010) *Postpartum haemorrhage: prevalence, morbidity and management pattern in Dhulikhel Hospital*. Kathmandu Univ Med J (KUMJ) 8, 212-? -215.
- Gani, and Ali, (2013). *PREVALENCE AND FACTORS ASSOCIATED WITH MATERNAL POSTPARTUM HAEMORRHAGE IN KHYBER AGENCY , PAKISTAN*, 25, 81–85.

- Halle-ekane, Emade, Bechem, Palle, Fongaing, Essome and Fomulu, (2016). *Prevalence and Risk Factors of Primary Postpartum Hemorrhage after Vaginal Deliveries in the Bonassama District Hospital , Cameroon*,13(2), 1–12.
- Kodla, (2015). *A study of prevalence , causes , risk factors and outcome of severe obstetrics haemorrhage*, 4(2), 83–87.
- Kongnyuy, Mlava, Broek, (2008) *Using Criteria-Based Audit to Improve the Management of Postpartum Haemorrhage in Resource Limited Countries: A Case Study of Malawi*. *Matern Child Health J* 13(6): 873-878
- Obeagu, E. I., Ikpenwa, J. N., Chukwueze, C. M., & Obeagu, G. U. (2022). Evaluation of Protein C, Protein S And Fibrinogen in Pregnant Women in Owerri Metropolis. *Madonna University Journal of Medicine and Health Sciences ISSN: 2814-3035*, 2(1), 292-298.
- Obeagu, E.I. (2022). Haemophilia B: A Review. *Int. J. Curr. Res. Chem. Pharm. Sci.* 9(1): 14-20. DOI: <http://dx.doi.org/10.22192/ijcreps.2022.09.01.XXX>
- Okoroiwu, I. L., Obeagu, E. I., & Obeagu, G. U. (2022). Determination of Clot Retraction in Pregnant Women Attending Antenatal Clinic in Federal Medical Centre Owerri, Nigeria. *Madonna University Journal of Medicine and Health Sciences ISSN: 2814-3035*, 2(2), 91-97.
- Paglia, Grotegut, Johnson, Thames and James, (2012) *Body mass index and severe postpartum hemorrhage*. *Gynecol Obstet Invest* 73, 70-? -74.
- Puri, Patra, Singh, Malhotra, Trivedi, Sharma, Kumar and Sarin, (2011) *Factors influencing occurrence of postpartum haemorrhage in pregnant women with hepatitis E infection and deranged coagulation profile*. *Obstetric Medicine* 4, 108-? -11
- Sara, Hernández-dia , Frisell, Greene, Almqvist, & Bateman, (2014). *Genetic contribution to postpartum haemorrhage in Swedish population: cohort study of 466 686 births*, 4984(August), 1–14.
- Sosa, Althabe, Beliz & Buekens , (2009) . *Risk factors for postpartum hemorrhage in vaginal deliveries in a Latin-American population*. *Obstet Gynecol*;113:1313
- Tako, Ujjiga, & Ochi, (2014). *Risk factors associated with postpartum haemorrhage at Juba Teaching Hospital , 7(3)*.
- Wangwe and Balandya , (2012) *Accuracy in diagnosis of postpartum haemorrhage using visual estimation of blood loss versus change in haematocrit in a tertiary hospital in Tanzania*. *Tanzan J Health Res* 14, 1-? -9.
- World Health Organization (WHO, 2009). *WHO Guidelines for the Management of Postpartum Haemorrhage and Retained Placenta*. Geneva: Available from: http://whqlibdoc.who.int/publications/2009/9789241598514_eng.pdf
- WHO, (2013), *Recommendations for clinical practice of Emergency Obstetrical and Neonatal Care in Africa*, printed in the Republic of Mauritius.

How to cite this article:

Emmanuel Ifeanyi Obeagu, Getrude Uzoma Obeagu and Esther Musiimenta. (2023). Post partum haemorrhage among pregnant women: Update on risks factors. *Int. J. Curr. Res. Med. Sci.* 9(2): 14-17.
DOI: <http://dx.doi.org/10.22192/ijcrms.2023.09.02.003>

Access this Article in Online



Website:
www.ijcrims.com

Subject:
[Medical Sciences](#)

Quick Response Code