



## PSYCHOSOCIAL IMPLICATIONS OF POST-PARTUM HAEMORRHAGE AND MATERNAL MORTALITY

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### ABSTRACT

*Post-partum hemorrhage (PPH) is the leading cause of maternal death worldwide. In developing countries, it accounts for the deaths of about 125 000 women (WHO, 2007). More than half of all maternal deaths occur within 24 hours of delivery, mostly from excessive bleeding. It is usually an emergency situation that requires urgent intervention (ICM and IFGO, 2006). These deaths are preventable if necessary care was received promptly but expert care is not easily accessible to Child bearing women in developing countries. Death of a woman has a lot of psychosocial implications which has long term effect on the family especially the new born. As the foundations of the child's psychosocial development is affect from birth. Implementation of efficient preventive obstetric care can significantly reduce adverse physical and psychological outcomes of birth trauma (Kahsay, Numbers, Martindale and Dalzell, 2010). Thus the need to prevent it cannot be overemphasized as many interventions to treat it result in other unpleasant outcomes. Increased awareness and community education on the need to seek skilled care early in pregnancy and delivery is very important. Health care facilities should be well equipped to manage PPH because it an emergency situation in order to prevent maternal mortality. Psychosocial support should be provided for the woman and her family in order to prevent long lasting negative psychosocial outcomes after complicated childbirth.*

*Key words: Psychosocial Implications, Post-Partum Haemorrhage, Maternal*

### INTRODUCTION

Life enhancing physiological processes of pregnancy and childbirth sometimes results in the death of some women. Post partum haemorrhage (PPH) is a main culprit as it is the leading cause of maternal mortality worldwide. It accounts for almost 25% of all maternal deaths (World Health Organization, 2007). The overwhelming majority of these deaths and complications occur in developing countries (Bernstein and Hansen, 2006). In developing countries, it is responsible for the deaths of about 125,000 women (WHO, 2007).

Mortality from PPH could be seen as both a psychosocial and Medical problem. While mortality is reduced in developed nations significant reduction has remained a major challenge in the developing nations. Many of these deaths are preventable if necessary care was received promptly by affected women. Stekelenburg, Kyanamina, Mukelabai, Wolffers and van Roosmalen (2004) stated that, 'low utilization of maternal health services, which is usually caused by a combination of different factors, can contribute to high maternal mortality.' Though skilled care at child birth may not be readily available but even where available many of the women do not utilize these services thus complications are not detected and managed promptly. Ayede (2012) stated that one of the major factors responsible for high maternal and neonatal deaths in Nigeria and other developing countries is the use of unskilled birth attendants such as Traditional Birth Attendants.

Death of a woman has a lot of psychosocial implications which has long term effect on the family especially the new born. Many women who survived PPH, battle with short or long term morbidity which affect them in various spheres of their lives (Sentilhes, Gromez, Clavier, Resch, Descamps, and Marpeau, 2011). Thus prevention of PPH is very vital to achieving some of the Millennium development goals. Much attention has not been placed on the psychosocial implications of PPH and Maternal Mortality as there is still dearth of information on the psychosocial impact of Maternal Mortality. According to Cecatti, Souza, Parpinelli, Haddad, Rodrigo and Camargo (2009) "little is known on the long-term



repercussions of severe, life-threatening complications related to pregnancy". This review paper seeks to discuss what has been documented in relation psychosocial implications of PPH and Maternal Mortality.

### **Overview of Maternal Mortality/ Morbidity**

WHO (2007) defined maternal death as the "death of a woman while pregnant or within 42 days of termination (via delivery, miscarriage or abortion) of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes".

Maternal mortality is a social problem because a woman is at higher risk if she is resident in a developing country or of a low socioeconomic background or resides in rural setting. WHO (2007) stated that "of the estimated total of 536 000 maternal deaths worldwide in 2005, developing countries accounted for 99% (533 000) of these deaths. Slightly more than half of the maternal deaths (270 000) occurred in the sub-Saharan Africa region alone, followed by South Asia (188 000). Thus, sub-Saharan Africa and South Asia accounted for 86% of global maternal deaths". It is clear that the maternal mortality ratio is highest in sub-Saharan African countries, which includes Nigeria. The NPC and ICF Macro (2009) reported that 'results from the Nigeria 2008 Demographic Health Survey show that the estimated maternal mortality ratio during the seven-year period prior to the survey is 545 maternal deaths per 100 000 live births'.

Maternal mortality implies loss of mother, wife, sister, care giver, provider, worker and a leader. Although maternal mortality has declined dramatically in the developed world, the risk of such death remains a serious threat for women in much of Asia, Latin America and Africa, particularly in rural settings (Mavalankar and Rosenfield, 2005). This huge discrepancy in the rate of maternal deaths is a result of differences in access and use of maternal health-care services (Mpembeni et al, 2007). The care and assistance that women receive during pregnancy and delivery are key underlying factors affecting the maternal mortality ratio (Ndikom, 2010). In the developing world, high maternal mortality is sustained by a weak health-care system, poor socioeconomic background, and low socioeconomic status of women (Drazancic, 2001).

Individual characteristics of mothers found to influence maternal deaths include maternal age, educational attainment, socioeconomic status and antenatal clinic attendance (Magadi et al, 2002). It is very unlikely that Nigeria will meet the MDG 2015 target of reducing maternal and under-5s mortality by two thirds because of obstacles like poverty, poor access to health-care facilities, HIV/AIDS, and poor maternal health (Government of Nigeria, 2004). Report from a study by Ndikom (2010) showed that "A majority of the women ( $n=78$ , 52%) in the community studied had their first babies in an informal setup, i.e. with a birth attendant or at church". This is a major challenge, as this may contribute to maternal mortality because they lack access to emergency obstetric care. Low level of education which is a social issue is implicated also in this problem. Educated women are more aware about the problems that might occur during pregnancy and they are in a better position to take care of such problems (Raj, 2005). Thus, Greater risk group: poor, uneducated, and rural women suffer disproportionately compared to their educated, wealthy, and urban counterparts.

### **Overview of post-partum haemorrhage**

Postpartum haemorrhage, defined usually as bleeding from the genital tract of at least 500 ml of blood following delivery. Most cases occur within 24 hours of delivery (referred to as primary postpartum haemorrhage), but they can occur weeks later (secondary postpartum haemorrhages are defined as occurring between 24 hours and 6 weeks from delivery). Several factors can increase the risk of postpartum hemorrhage. These include history of hemorrhage in a previous pregnancy, placenta previa, previous caesarean section, or intrauterine death, are most predictive of postpartum haemorrhage. Severe bleeding is the



single most important cause of maternal death worldwide. More than half of all maternal deaths occur within 24 hours of delivery, mostly from excessive bleeding. It is usually an emergency situation that requires urgent intervention (ICM and IFGO, 2006).

Women in developing countries are at higher risk for PPH as it is cultural norm to have large number of children which put them at greater risk. A three prospective study on maternal morbidities in Jos Nigeria by Mutahir and Utoo (2011) showed that the most common out of the Morbidities was primary postpartum haemorrhage (35.4%). Carroll, Rooney and Villar (2001) opined "The characteristics that place many women at increased risk, include very high parity, which does not have high specificity as predictors and do not account for a significant proportion of cases in the population". It is logical to think that women with severe anemia may be at higher risk of death from a given haemorrhage (AbouZahr, 1998), although direct evidence for this connection is scarce.

In severe cases haemorrhagic shock may lead to anterior pituitary ischaemia with delay or failure of lactation or breast milk production (Sert, Tetiker, Kirim and Kocak. 2008). This is referred to as Sheehan's Syndrome, also known as Postpartum Hypopituitarism or Postpartum Pituitary Necrosis. It is a condition in which hypopituitarism develops after severe PPH or immediately after delivery (Mazumdar, 2011). Blood loss generally has to be more than 800ml for Sheehan's Syndrome to develop. But in certain women, even minimal bleeding seems to cause this condition (Mazumdar, 2011).

Health workers especially nurses should be versed in methods of preventing PPH like use of Antishock garments and judicious use of Urotonics. All Midwives should undergo life saving skill training so they can provide cost effective prompt care thereby averting long term effect of PPH. Implementation of effective preventive obstetric care can significantly reduce adverse physical and psychological outcomes of PPH.

### **Psychosocial implications of Maternal Mortality and Post Partum Haemorrhage**

Maternal Mortality and Post Partum Haemorrhage have both physiological and psychosocial implications. Beyond suffering from physical complication, many women have reported some psychosocial problems emanating directly from the PPH or from a medical consequence of the condition. Generally, existing data on the level of postpartum maternal morbidity in developing countries is extremely limited (Mutahir and Utoo, 2011). Complications from PPH include orthostatic hypotension, anaemia, and fatigue while others experience Post traumatic stress and post-partum depression. Post-partum anaemia increases the risk of post- partum depression (Corwin, Murray – Kolb, and Beard, 2003). All these make childbirth experience unpleasant and also make maternal care of the newborn more difficult.

A major psychosocial consequence is post-traumatic stress. Difficulty of childbirth can also result in acute stress disorder (Tham, Christensson, and Ryding, 2007). Many women have this life long experience after PPH. The impact of a birth's psychological trauma not only affects the functional, social, personal, and psychological situations of the immediate victims but also of the community and healthcare providers involved (Kahsay, Numbers, Martindale and Dalzell, 2010).

Little attention has been paid to the psycho-social effects -the emotional and social impact of some medical intervention in the perinatal period, on the woman, the child and the family (Enakpene, Morhason-Bello, Enakpene, Arowojolu, and Omigbodun, 2007). Negative psycho-social effects could reduce the efficacy of the procedure itself on the long run. Examples, blood transfusion may have some implication when it is against the woman's religious belief. Post partum haemorrhage leads to Hysterectomy resulting in infertility, uterine evacuation resulting in Asherman's syndrome with it psychosocial effects.

Women after PPH live with fear because many of the survivors went through near miss situations and thus live with fear of death and of getting pregnant because the



experience remains fresh in their memory. According to Souza, Cecatti, Parpinelli, Serruya, and Amaral (2007) "Cases of *near miss* are those in which women present potentially fatal complications during pregnancy, delivery or during the puerperium, and who survive merely by chance or by good hospital care". A study by Sentilhes, Gromez, Clavier, Resch, Descamps and Marpeau (2011) revealed that "46 (67.6%) of 68 respondent that experienced post partum haemorrhage reported negative memories of the delivery which was mainly fear of dying (35.3%) and out of the 28 (41.2%) who reported continued repercussions, 16 (23.5%) thought about the complications at least once a month, five (7.3%) reported persistent fear of dying. Among the women who had a subsequent full-term pregnancy, nine (60%) reported intense anxiety throughout the pregnancy, and one (6.7%) developed depression requiring antidepressant treatment during pregnancy.

Pregnancy complications result in consequences that may have adverse effects on the women and their children, may negatively affect their quality of life and may persist for extended periods of time after the event Glangeaud-Freudenthal and Boyce, 2003; Lydon-Rochelle, Holt and Martin, 2001; Seng, Oakley, Sampsel, Killion, Graham-Bermann and Liberzon, 2001). Similarly, Sentilhes et al (2011) stated that, "severe postpartum hemorrhage may have a long-term psychological impact on women despite uterine preservation". Maternal distress following childbirth can affect the effectiveness of the functioning of the maternal role, depression and anxiety, adaptation to motherhood, self perceptions, lifestyle, and quality of personal relationships, among other things (Cambray, 2008)

Death of a woman could result from multiple organ failure associated with circulatory collapse due to PPH (Waiscoff, 2006). If a woman dies, her family and community suffer so much from the loss. It is a loss to the nation at large. Though it may contribute to the national demographic data on maternal mortality but it is a total loss to the family especially the new born who only has one biological mother.

The newborn will also be at a disadvantage, if the mother dies from PPH as there will not be loss of bonding and the child will be cared for by others without attachment. Baby may not be breastfed. This has both medical and psychosocial implications. Inability to commence and derive satisfaction from breast feeding affects the psychosocial development from the early stage. May have fixation during the oral stage of psychosexual development and this may influence the personality throughout life. After severe PPH, women with heavy blood loss may not be able to initiate and breastfeeding adequately. This may be related the delay in initial contact with their baby as a consequence of the PPH. These have implications for postnatal care as these women may require greater support, education and assistance in initiating and sustaining breastfeeding. In particular, enabling the opportunity for the newborn to suckle as soon as is practicable should be encouraged.

Eric Erickson's psychosocial theory proposed that, inconsistent care results in the child being unable to develop trust thus mistrust results which affect the very foundation of the child's development (Berman, Snyder, Kozier, and Erb, 2008). There may be irregularity of care when a baby's mother dies after the childbirth. The baby may suffer deprivation and failure to thrive not necessarily because of not being fed but because of the need for love and belonging not being met. This leaves the child with some level of anxiety as she does not know who to trust. Study by Nickerson, Bryant, Aderka, Hinton, and Hofmann (2013) revealed that younger age at the time of parental death was associated with poorer mental health outcomes. Neglect of the baby while trying to save the mother who was having PPH has led to death of baby, the mother survived but regrets the death of her baby (Choji-Tafida, 2010).

The husband of a woman that dies from PPH suffers a big loss especially if the woman is the only wife. She may be a major financial contributor in the home. Nirmala, Zainuddin, Ghani, Zulkifli, and Jamil (2009) opined "Maternal mortality is a catastrophe which affects not only the woman but also her family and the community at large". The pressure of combining work and care of children alone could be cumbersome to the man. Also, there is





loss of a companion and confidant thus the man may experience psychosocial stress with its implication on the family.

### **Implications for Health Care workers**

All that has been discussed shows the need to prompt and skilled Care during childbirth to prevent PPH and reduce maternal mortality because of their repercussion. This can be achieved through identifying at risk women and planning interventions even before the incident. The society has a major role to play in ensuring that women receive skilled birth during child birth.

Delays in seeking care and referral should be avoided. Health care providers especially Midwives as skilled attendants have unique role to play in ensuring that women receive skill care at childbirth. It is well reported (Ghebrehwet, 2005) that skilled early intervention can impact positively on obstetric complications such as eclampsia, post-delivery bleeding and postpartum psychosis; effective intervention can minimize adverse effects on individuals, the community at large, and healthcare practitioners.

Implementation of effective preventive obstetric care can significantly reduce adverse physical and psychological outcomes of birth trauma, and is a positive contributor to quality of life for the individual, family and community (Kahsay, Numbers, Martindale and Dalzell, 2010). There is also need for multidisciplinary team approach to ensure appropriate care and good outcome. According to, Kahsay, et al, (2010) "intervention to address this issue needs a multi-professional approach encompassing midwives, nurses, obstetricians, social workers, counsellors, spiritual therapists and health educators". Ghebrehwet (2005) opined "skilled early intervention can impact positively on obstetric complications such as eclampsia, post-delivery bleeding and postpartum psychosis; effective intervention can minimize adverse effects on individuals, the community at large and healthcare practitioners". The Health care intervention should focus on preventive aspects of obstetric care, such as recognizing early cues and taking action before the health problem occurs, hence reducing incidence.

### **Conclusion**

PPH haemorrhage is complication of childbirth that far reaching negative psychosocial effect on the childbearing family. Bleeding after delivery contributes to maternal and neonatal mortality and morbidity. Morbidity as a result of PPH will make the woman unable to carry out normal function as wife, mother etc. She may likely commence breastfeeding later than expected because her poor health condition. Long term effect may include future infertility, marital disharmony, loss of job and economic loss among others.

Maternal death is a loss to the family and has a lot of psychosocial implications on the woman, her baby, family and society at large. Thus the need to prevent it cannot be overemphasized as many interventions to treat it result in other unpleasant outcomes. Increased community education on the need to seek skilled care early in pregnancy and delivery is very important. Health care facilities should be well equipped to manage PPH because it an emergency situation. Psychosocial support should be provided for the woman and her family in order to prevent long lasting negative psychosocial outcomes.

### **REFERENCES**

- AbouZahr C. (1998) Maternal mortality overview. In: Murray CJL, Lopez, AD, eds. *Health Dimensions of Sex and Reproduction*. Geneva: WHO, 111-164.
- Ayede A. I (2012) Persistent Mission Home Delivery In Ibadan: Attractive Role Of Traditional Birth Attendants *Annals of Ibadan Post Graduate Medical Journal* 10(2) 22-27



- Bernstein S, and Hansen C.J. (2006) Public choices, private decisions: Sexual and reproductive health and the millennium development goals. UN Millennium Project.
- Berman, A, Snyder, S.J., Kozier, B. and Glenora Erb G. (2008), *Kozier and Erb's Fundamentals of Nursing*. 8<sup>th</sup> Edition. Pearson Educational International Publishing Company.
- Cambray, S. (2008) Birth Healing Maternity Services Review. <http://birthhealing.forummotion.com/maternity-services>. Accessed 5th July, 2011
- Carroli G, Rooney C, and Villar J. 2001 How effective is antenatal care in preventing maternal mortality and serious morbidity? An overview of the evidence. *Paediatric and Perinatal Epidemiology*, 15(1):1-42.
- Cecatti, J. G., Souza, J. P., Parpinelli, M. A., Haddad, S. M., Rodrigo, S Camargo R S., Pacagnella, R. C., Silveira, C., Zanardi, D. T., Costa, M. L., Pinto e Silva, J. L., Passini Jr, R., Surita, F. G., Sousa, M. H., Calderon, I. M. P., Say, L., and Pattinson R A. (2009) Brazilian network for the surveillance of maternal potentially life threatening morbidity and maternal near-miss and a multidimensional evaluation of their long term consequences *Reproductive Health* 2009, 6:15. <http://www.reproductive-health-journal.com>
- Choji-Tafida R. (2010) Nigeria: Maternal and Child Mortality - Any Hope in Sight? Leadership. All Africa Global Media (allAfrica.com)
- Corwin E. J, Murray-Kolb L, and Beard J.L. (2003) Low hemoglobin level is a risk factor for postpartum depression. *Journal of Nutrition*. 133: 4139-4142.
- Drazancic A (2001) Antenatal care in developing countries. What should be done? *Journal of Perinatal Medicine*. 29(3): 188-98
- Enakpene, C. A., Morhason-Bello, I. O., Enakpene, E. O., Arowojolu, A. O. and Omigbodun, A. O (2007) Oral misoprostol for the prevention of primary post-partum hemorrhage during third stage of labor *Journal of Obstetrics and Gynaecology Research* 33(6): 810-817
- Ghebrehiwet M. (2005) *Maternal health services in Eritrea: availability, utilization and quality*. Sabur Printing Press: Asmara, Eritrea.
- Glangeaud-Freudenthal N. M., and Boyce P (2003) Postpartum depression: risk-factors and treatments - introduction. *Arch Womens Mental Health*: 6(S2):S31-32.
- Kahsay, G. H., Numbers, L., Martindale L., and Dalzell, J (2010) Acute and post-traumatic stress disorders in an African maternity unit. Part 2: effects on clinicians and lessons for practice. *Midwives magazine: February/March*
- Lydon-Rochelle, M.T., Holt, V.L, and Martin, D. P. (2001) Delivery method and self-reported postpartum general health status among primiparous women. *Paediatric Perinatal Epidemiology*, 15:232-240.
- Mazumdar, M. D. (2011) Sheehan's Syndrome. Gynaeonline. [http://www.gynaeonline.com/sheehans\\_syndrome](http://www.gynaeonline.com/sheehans_syndrome). Accessed 5th July, 2011
- Magadi M, Diamond I, and Madise N (2001) Analysis of factors associated with maternal mortality in Kenyan hospitals. *Journal of Biosocial Science* 33(3): 375-89
- Mavalankar, D. V., and Rosenfield, A. (2005) Maternal mortality in resource-poor settings: policy barriers to care. *American Journal of Public Health* 95(2): 200-3
- Mpembeni, R. N. M, Killewo, J. Z., Leshabar, M. T. et al (2007) Use pattern of maternal health services and determinants of skilled care during delivery in southern Tanzania: Implications for achievement of MDG-5 targets. *BMC Pregnancy and Childbirth* 7:29
- Murray-Kolb, L. E. and Beard, J. L. (2003) Low Haemoglobin level is a risk factor of postpartum depression. *Journal of Nutrition* 133:4139-42.
- Mutihir, J. T. and Utoo, B. T. (2011) Postpartum maternal morbidity in Jos, North-Central Nigeria. *Nigerian Journal of Clinical Practice* 14 (1) 38-42. [www.njcponline.com](http://www.njcponline.com)
- National Population Commission and ICF Macro (2003) Nigeria 2003 Demographic Health Survey Abuja. Nigeria [www.measuredhs.com/](http://www.measuredhs.com/) (accessed 29 June 2010)



- Ndikom, C. M. (2010) Pattern of uptake of maternal health services in a rural community in Nigeria. *African Journal of Midwifery and Women's Health*, 4 (3) 129-45
- Nickerson, A., Bryant, R. A., Aderka, I. M., Hinton, D. E. and Hofmann, S G. (2013) The impacts of parental loss and adverse parenting on mental health: Findings from the National Comorbidity Survey-Replication. *Psychological Trauma: Theory, Research, Practice, and Policy*, 5(2) 119-127. doi: [10.1037/a0025695](https://doi.org/10.1037/a0025695)
- Nirmala, K., Zainuddin, A. A., Ghani, N.A. Zulkifli, S., and Jamil M. A., (2009) Carbetocin versus syntometrine in prevention of post-partum hemorrhage following vaginal delivery each year. *Journal of Obstetrics and Gynaecology Research* 35(1): 48–54, 2009
- Sentilhes, L, Gromez, A, Clavier, E., Resch, B., Descamps, P., Marpeau, L. (2011) Long-term psychological impact of severe postpartum hemorrhage. *Acta Obstetrica et Gynecologica Scandinavica*. 90(6) 615-620
- Seng, J. S., Oakley, D. J., Sampsel, C. M., Killian, C., Graham-Bermann, S., and Liberzon, I (2001) Posttraumatic stress disorder and pregnancy complications. *Obstetrics Gynecology*: 97:17-22.
- Stekelenburg J, Kyanamina S, Mukelabai M, Wolffers I, and van Roosmalen J (2004) Waiting too long: low use of maternal health services in Kalabo, Zambia. *Trop Med Int Health* 9(3): 390–8
- Sert M., Tetiker, T., Kirim S, and Kocak, M.(2008) Clinical report on 28 patients with Sherman's syndrome. *Endocrine Journal* 56: 297-301
- Souza, J. P., Cecatti, J. G., Parpinelli, M. A., Serruya, S. J. and Amaral E. (2007) Appropriate criteria for identification of near-miss maternal morbidity in tertiary care facilities: a cross sectional study. *BMC Pregnancy and Childbirth* 7:20 <http://www.biomedcentral.com>
- Tham, V., Christensson, K., and Ryding, E.L. (2007) Sense of coherence and symptoms of post-traumatic stress after emergency caesarean section. *Acta Obstetric Gynecologica Scandinavica*: 86:1090-1096.
- Waiscoff. P. (2006) pregnancy, postpartum haemorrhage: treatment and medication. University of South western. Medical centre.
- World Health Organization (2003) *Maternal mortality in 2000: Estimates Developed by WHO, UNICEF and UNFPA*. Geneva: World Health Organization.
- WHO (2007) *Maternal mortality in 2005: estimates developed by WHO, UNICEF, UNFPA, and the World Bank*. 7/7/2010
- World Health Organization, (2004). *Beyond the number. Reviewing maternal deaths and complications to make pregnancy safer*. Geneva, World Health Organization.