

## KNOWLEDGE AND PRACTICE IN HEALTH EDUCATION OF NURSING MOTHERS IN REDUCING THE COMPLICATIONS ASSOCIATED WITH POST-NATAL CARE

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### Abstract

Post-natal care is the services given to the mother and her new born baby immediately after birth and for the first six weeks of life. The period is a very critical time, most maternal and infant mortality occurred during this period, because majority of the nursing mothers lack adequate knowledge on post-natal care. This paper title knowledge and practice in health education of nursing mothers in reducing the Complications of post-natal care, explore the related literature on post-natal care, post-natal period, the maternal mortality ratio around the world, sub-saharah Africa, Nigeria and Katsina state, the paper also discussed some of the guidelines laid by WHO on the issues regarding Maternal and infant mortality rate, the paper also explore some of the post-natal Complications and there symptoms, the paper also explore the MDG Target on Maternal Mortality by the year 2030, the paper also reviewed some of the research findings on health education program to nursing mothers in reducing maternal death. The paper concluded that according to the World Health Organization (WHO) reports Nigeria and Katsina state are leading high in MMR and recommend for provision of adequate knowledge of Post-natal care among the nursing mothers and the conduct of empirical studies especially in northern states where the incident is more.

**Keywords:** Knowledge and Practice, Health Education, Nursing mothers, Reducing Complications, Post-natal care.

### Introduction

Post-natal care is the services given to the mother and her new born baby immediately after birth and for the first six weeks of life. This period mark the establishment of a new phase of family life for women and their partners and beginning of life long health record for the new born baby. Post-natal period is a time beginning immediately after birth of the baby and extending up to six weeks (42 days), this is a critical time for women, newborns, parents, partners, caregivers and families ( WHO 2023.)

The most important condition for a healthy people is to have a healthy mothers, healthy mothers means healthy children and children are the foundation of the future people (Turkan Pasinlioglu 2004). Maternal mortality continues to claim the lives of women of childbearing age worldwide. This problem remains a

challenge for many countries that still struggle to prevent it. Over half a million annual maternal deaths propelled maternal mortality on to the international stage, where it became a global priority and the chosen outcome to assess progress on maternal health. The United Nations Maternal Mortality Estimation Inter Agency Group (MMEIG) Comprising World Health Organization (WHO), United Nations Children Emergency Funds (UNICEF), United Nations Population Funds (UNFPA), The World Bank Group and the United Nations Development of Economic and Social Affairs, population division (UNDESA/ Population division (2023) has collaborated with external technical experts on a new round of estimate covering 2000-2020. The estimate State that now Globally, an estimated (287000 to 343000) maternal mortality occurred in 2020, yielding an overall MMR of 223 maternal death per 100000 live birth, this correspond to almost 800 maternal death every day, and approximately one maternal death every two minutes globally and the global lifetime risk of maternal mortality was estimated at 1 in 210.

According to the report Sub Sahara Africa is leading high with the MMR points estimate of 545 per 100000 live birth and the life time risk of maternal death of 1 in 40. Sub-Saharan Africa alone accounted for approximately 70% of global maternal death in 2020. In Africa Nigeria has the highest number maternal death and accounts for more than a quarter (28.5%). Of all estimated global maternal death with approximately 82000 in 2020. (WHO 2023) Health indices in Nigeria vary widely across geopolitical zones and socioeconomic groups. The northeast (NE) zone has the highest MMR: 1,549/100,000 live births compared to 165/100,000 live births in the southwest (SW). There are also urban and rural variations with MMR of 351/100,000 live births in urban areas compared to 828/100,000 in rural areas. Northern part of the country has so far recorded high level of maternal mortality, and Katsina State is among the States hit by high maternal mortality rate; Katsina State recorded the highest maternal mortality rate of 653 death per 100000 live births, followed by Zamfara, Kano and Sokoto states with 576,509 and 470 death per 100000 live births respectively (NHMIS 2020). Maternal and infant mortality rates are more significant in the Northern states than in other parts. The alarming rate is exemplified by the northeastern region's high maternal death rate, three times higher than the national average. The new transformative agenda set by the United Nations (UN) Sustainable Development Goal (SDG) is planned to reduce the global maternal mortality ratio (MMR) to less than 70 per 100,000 live births by 2030. To achieve the Sustainable Development Goals (SDGs) for maternal and newborn health (MNH) in Nigeria by 2030, the number of maternal fatalities must decrease by more than 90 to less than 3000 per year. Maternal mortality reduction is a central theme under SDG 3. One step that could be made to reduce maternal mortality is to promote health education. (Nicholas 2022)

### **Post-Natal Care to Nursing Mothers**

The postnatal period (or called postpartum, if in reference to the mother only) is defined by the WHO (2013) as the period beginning one hour after the delivery of the placenta and continuing until six weeks (42 days) after the birth of an infant. Post-natal care during this period is critical for the health and survival of both the mother and the newborn. Most maternal deaths occur during labour, delivery or the first 24 hours postpartum, and most intrapartum complications cannot be reliably predicted or prevented, though most can be successfully treated with prompt and appropriate diagnosis and care. The neonatal period is only 28 days but accounts for 38% of all deaths in children younger than 5 years (Godama 2019). ANC and PNC knowledge have the potential to contribute to reducing maternal and child morbidity and mortality. The World Health Organisation (WHO, 2013) has been strongly advocating improvements of maternal health services as part of its Safe Motherhood Initiative (SMI) According to Demographic and Health Survey (DHS) data from 23 African countries, two-thirds of women in SubSaharan Africa give birth at home, but only 13% of all women receive a postnatal visit within two days. (Mwifadhi, 2009). Following childbirth at home, it is important that the mother and baby receive a postnatal examination as early as possible, preferably within 24 hours of birth. If the birth was at a facility, mother and baby should

receive a postnatal examination before discharge. There are a number of important points to discuss with the woman and her family following birth to ensure that the woman has adequate care, In the immediate weeks following childbirth women need extra care, including partner and family support. Labour and childbirth are physically demanding, as is breastfeeding and looking after a newborn baby. It is therefore very important that women regain their strength and maintain their health as they adjust to life with their new baby. Women in the postnatal period need to maintain a balanced diet, just as they did during pregnancy. Iron and folic acid supplementation should also continue for 3 months after birth. Women who are breastfeeding require additional food and should drink sufficient clean water (WHO, 2013) The early postnatal period is a dangerous time for both mother and baby where morbidity and mortality are highly prevalent if proper care is not done.

Post-natal care (PNC) knowledge has significant role in reducing its complications. Accordingly, postnatal care knowledge and practices enables mothers to develop parenting skills to fulfill their mothering role within their particular family. Lack of appropriate postnatal care sometimes may result in death or disability of the mother and/or newborn. According to WHO (2022) as cited in Trends in Maternal Mortality (2020). Worldwide, nearly 800,000 mothers between the ages of 15–49 years die every year due to complications arising from pregnancy and childbirth. Hence, maternal death occurs almost every minute of every year, out of which 99% are in the developing countries. Around two thirds of maternal and newborn deaths occur in the early postpartum period in developing countries and most of them in sub-Saharan Africa. Almost half of postnatal maternal deaths occur within the first 24 h and 66% occur during the first week after delivery. There has been great emphasis on skilled attendant delivery and efforts have been made to improve PNC guidelines globally and nationally. In sub-Saharan Africa, 48% of women give birth with the assistance of skilled personnel. A review of sub-Saharan Africa demographic and health survey showed that only 13% of women who delivered at home received postnatal care within 2 days of birth (WHO, 2013), majority of health care providers across sub-Saharan Africa, including Nigeria, continue to advise mothers to come back to the facility for a first check-up after 6 weeks. Despite these services and advice, maternal and neonatal mortality and morbidity in Nigeria were extremely high. According to a WHO (2020) report, infant mortality rate was 57 deaths per 1000 live births and maternal mortality ratio was 545 per 100,000 live births in 2020. Hence, providing adequate knowledge services and advice is always necessary that lead to achievement of the required goals. Maternal and child health is one of the basic needs of a society for it is the cornerstone on which a health community and nation are built. Hence, postnatal care program knowledge and practices, with sequence of activities that begins with clean delivery practice, followed by clean umbilical cord care, special care of low birth weight or preterm birth, early and exclusive breastfeeding, as well as immunization programs (Nicholas, 2022). The World Health Organization recommends that postnatal care for all newborns should include immediate and exclusive breastfeeding, warming of the infant, hygienic care of the umbilical cord, and timely identification of danger signs such as bleeding and infection with referral and treatment (WHO 2013). With respect to the timing and number of visits, the WHO recommends postnatal visits within 6-12 hours after birth, 3-6 days, 6 weeks, and at 6 months (6-6-6 model) (WHO 2013). Postpartum mothers can pass the critical postpartum period successfully if they have knowledge regarding postnatal care. A study conducted in Malawi by Rehana (2013) on assessment of the knowledge and practice of postpartum mothers regarding postnatal care showed that almost all the participants were knowledgeable about some aspect of postnatal care. However, other studies have shown women's insufficient knowledge on postnatal care. Therefore, knowledge and practices of post-natal care need to be adequately provided in order to decrease the maternal and infant mortality.

### **Post-Natal Care Complications**

The World Health Organization (WHO 2013) describes the postnatal period as the most critical and yet the most neglected phase in the lives of mothers and babies; most maternal and newborn deaths occur during this period. Data obtained from the National Health Management Information System (NHMIS, 2020) cited in the state of maternal health in Nigeria shows that Nigeria is still has a long way from achieving the target set by the sustainable development goals for maternal mortality (70 or less deaths per 100,000 live births). Particularly, some Northern states (Katsina, Zamfara, Kano, Jigawa and Sokoto) require more effort and attention as they continue to record high maternal mortality figures. Katsina State recorded the highest maternal mortality rate of 653 deaths per 100,000 live births (NHMIS, 2020). According to Julia Pelly (2019). Generally, there are four delays that can lead to maternal deaths or complications and these include;

1. Delay in recognizing danger signs
2. Delay in deciding to seek necessary care
3. Delay in reaching health facility for the appropriate care
4. Delay in receiving care at the health facility

She also stated that since maternal deaths are largely preventable, these delays are vital in determining the maternal mortality rate in a country at any given time. It's absolutely reasonable to experience some pain and discomfort in the weeks after giving birth but, it's also essential to be aware of where "normal" ends. Some postpartum complications, if left unaddressed, can interfere with healing and cause lasting problems. Some common post-natal complications include:

### **Excessive bleeding**

While bleeding after giving birth is normal and most women bleed for 2 to 6 weeks some women can experience excessive bleeding after childbirth. Normal postpartum bleeding typically begins immediately after giving birth, whether delivery happens vaginally or via cesarean section. It's normal immediately post-birth to bleed heavily and pass lots of red blood and clots. (It can feel like making up for that 9-month break in your period all at once!) In the days after birth, though, bleeding should begin to slow and, over time, you should start to notice a reduced flow of darker blood that may last for weeks. While there may be temporary increases in the flow with increased physical activity or after breastfeeding, each day should bring a lighter flow.

### **Infection:**

Giving birth is no joke. It may result in stitches or open wounds for several reasons. As unpleasant as it is to think about, vaginal tearing during childbirth is a reality for many first-time, and even second-, third-, and fourth-time mothers. This typically occurs as the baby is passing through the vaginal opening, and it often requires stitches. If you give birth via cesarean delivery, you'll get stitches or staples at the incision site. If you have stitches in the vaginal or perineal area, you can use a squirt bottle to clean with warm water after using the restroom. (Make sure you always wipe from front to back.) You can use a doughnut-shaped pillow to reduce discomfort when sitting. While it's normal for this stitching or tearing to cause some discomfort as it heals, it's not part of healthy healing for the pain to suddenly increase. This is one of the signs that the area might be infected. Some women also experience other infections, like urinary, kidney, or vaginal infections after birth. Signs of infection include: increasing pain, fever, redness, warmth to the touch, discharge and pain when urinating.

### **Incontinence or Constipation**

Urinary incontinence immediately after birth is more common than you may think. And it's not dangerous but this complication can cause discomfort, embarrassment, and inconvenience. mothers may also experience fecal incontinence, possibly due to weakened muscles or injury during birth. While being

unable to hold it in may be one issue, not being able to go is another. From that first post-labor poop and beyond, you may struggle with constipation and hemorrhoids.

### **Breast Pain**

Whether you choose to breastfeed or not, breast pain and discomfort are a common complication during the postpartum period. When your milk comes in typically 3 to 5 days after birth, you may notice significant breast swelling and discomfort. If you're not breastfeeding, you might find that getting relief from the pain of engorgement is challenging. If you choose to breastfeed, you may also experience nipple pain and discomfort as both you and baby begin to learn how to latch and nurse. Whether a mother choose to breastfeed or not, she may be at risk for mastitis in the early days of milk production and beyond, if she decide to breastfeed. Mastitis is a breast infection that, while painful, can usually be treated easily with antibiotics. Some Mastitis symptoms include: redness of the breast, the breast feeling warm or hot to the touch, fever, flu-like symptoms etc.

### **Postpartum depression**

Feeling a little up and down, or feeling more weepy than usual in the weeks after birth is normal. Most women experience some form of the "baby blues." But when these symptoms last more than a few weeks or interfere with your caring for your baby, it may mean that you're experiencing postpartum depression.

### **Other Complications**

There are other serious complications following childbirth that are less common but need to be addressed immediately for your health and safety. Some issues that may affect women in the postpartum stage include: sepsis, cardiovascular events, deep vein thrombosis, stroke, embolism. check with your doctor and seek emergency medical care if you experience: chest pain, trouble breathing, seizures, thoughts about harming yourself or your baby or if you experience: fever, a red or swollen leg that is warm to the touch, bleeding through a pad in an hour or less or large, egg-sized clots, a headache that won't go away, especially with, blurred vision. Most postpartum complications are treatable. Taking care of the issues allows you to return to focusing on your baby and feeling confident that you're doing what you can for their well-being and your own (Julia, 2019).

### **Effect of Health Education on Post-Natal Care Services**

The postnatal period is a critical phase in the lives of mothers and newborn babies. Most maternal and infant deaths occur during this time. Yet, this is the most neglected period for the provision of quality care (WHO 2013). WHO also published a documents guideline on Pregnancy, childbirth, postpartum and newborn care: a guide for essential practice. The guidelines focus on postnatal care of mothers and newborns in resource limited settings, in low and middle-income countries. The critical maternal health outcome considered was maternal morbidity (including haemorrhage, infections, anaemia and depression).<sup>114</sup>The guidelines address timing, number and place of postnatal contacts, and content of postnatal care for all mothers and babies during the six weeks after birth. The guidelines include assessment of mothers and newborns to detect problems or complications. Health education knowledge is fundamental to the practice of sharing experiences. Teaching is not simply the transfer of certain knowledge, but it is possible to construct it. Thus, health education becomes an instrument, which allows pregnant and nursing women to expose their possible doubts and questions, aiming at reducing uncertainties through orientations in health, making possible the construction of the autonomy of the pregnant women, contributing to promoting the empowerment of the guidelines given. Health education

activities rely on health professionals to be facilitators of the groups and to build the trustworthy knowledge these women have about prevention, promotion and treatment to expand their Knowledge (Turkan, 2004). Based on many researchers conducted on the knowledge and practices of health education to nursing mothers in the world and the results shows a significant influence of health education knowledge of post-natal care of nursing mothers, however the reverse is the case in Sub Sahara Africa, Nigeria and Katsina state which takes lead in the maternal mortality rate, there is little if not none researchers conducted on the effect of knowledge and practice of health education of nursing mothers on post-natal care, which is one of the effective way in decreasing the maternal mortality rate.

Hoda and Eman (2016) conducted a study on the effect of health education program on post-natal mothers knowledge and practice regarding their exclusive breastfeeding continuation, the result shows a remarkable improvement in post-natal knowledge and techniques of breastfeeding after receiving the health education by the study group before, immediately after and 6 months later 57.1%,95.2%,& 94.2% compared to 76.2%,81.0%& 81.0% respectively among the control group.

Chidinma et al, (2021) conducted a study on postnatal care services use by mothers. A comparative study of defaulter versus attendees of post-natal clinics in Enugu Nigeria, the result of the study indicates that majority of women are not attending post-natal clinics 60.6% and the reasons are unawareness and being healthy.

Adamu et al, (2022) conducted a survey on prevalence and factors influencing exclusive breastfeeding practice among nursing mothers in Sokoto. A perspective study in northwestern Nigeria. The result shows that all the respondents breastfeed their children for more than 6 months 82 (34.2%), higher level of maternal education, ANC attendance, maternal occupation and hospital delivery significantly influence the practice of exclusive breastfeeding for more than six months, which is a crucial towards achieving SDG-2 and 3 in Sokoto.

Umar, Nda & Jibrin (2022) conducted a study on the effect of nursing health education intervention on women's knowledge about pregnancy problems and utilization of obstetrics care services in Edu Kwara State Nigeria. The findings of the study shows positive effect of nursing health education intervention on knowledge of women about pregnancy with pre intervention 63.33% and post intervention 72.22% and control group 28.33%, this shows that health education program interventions significantly improve knowledge level and encouraged use of obstetrics care services among women.

Ashenefi (2018) conducted a study on the determinant of post-natal care in Zambia, the result indicated that barely 71% of women in the study area utilize Post-natal care services. This is in contrast with the study conducted by Oluwaseyi Dalapo Sometun on the determinant of post-natal care non utilization among women in Nigeria, the result indicated majority of mothers 63% are not utilizing post-natal care out of which 61% of mothers had no education for post-natal care.

Joseph & Ugboja (2013) carried out another research on Barriers to post-natal care and exclusive breastfeeding among urban women in Nnewi town Anambra State, south eastern Nigeria, the result indicated that out of 400 women interviewed 365 (91.7%) are not attending post-natal clinics and lack of knowledge about post-natal services (42.2%) were the main reason for attendance to post-natal clinics which is the main obstacle.

Kihinetu, Galaye & Wudinah (2018) conducted a study on post-natal care services utilization and associated factors among women who give birth in Debretabour town, north west Ethiopia, a community

base cross sectional study, the result shows that utilization of post-natal care services is low only 17% of the woman reported.

### Conclusion

In conclusion, According to the World Health Organisation (WHO, 2020) Nigeria accounts for over 34 percent of global maternal deaths. The alarming rate is exemplified by the northeastern region's high maternal death rate, three times higher than the national average, with Katsina State leading and maternal mortality is a preventable issue. The government must realize that improving the quality of health services entails more than just looking at the supply side of things. One step that could be made to reduce maternal mortality is to promote health education, knowledge and practices, these will decrease maternal mortality in a pursue for Nigeria to achieve the SDG (2030) target of less than 90 per 100000 death. Post-natal care knowledge and practice for Maternal mortality reduction is a central theme under SDG 3.

### Recommendations

Base on the review the researcher recommended that:

1. All stakeholders in health sector should put their hands on desk in northern Nigeria where the incident of maternal and infant mortality is higher to provide with the nursing mothers knowledge and practices of post-natal care.
2. Research studies need to be carried out to understand how the problem is and what should be done since the problem is preventable.

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