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Determining relevant areas of research in maternal health education in Nigeria

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Abstract

Of all the components of primary health care, maternal health seems to be most revealing of the stark differentials between health care in developed and developing countries such as Nigeria. This most easily observed indicator of these differentials is the spiraling increases in maternal mortality ratio in many parts of the country. There seems to be several barriers which are causing resistance to intervention by health agencies. There is therefore a need for research to provide evidence based and relevant information to unravel these barriers to appropriate health seeking behavior. This article discusses the relevant educational, cultural and socioeconomic barriers and suggests research needs for breaking them in Nigeria.

Keywords

Research Needs, Priorities, Barriers, Health Education, Maternal Health

1. Introduction

According to a joint report by WHO, UNICEF, UNFPA and the World Bank, in 2007, the world's maternal mortality ratio was declining too slowly to meet Millennium Development Goal (MDG) 5, which aims to reduce the number of women who die in pregnancy and childbirth by three-quarters by 2015. An annual decline of 5.5% was required to achieve the fifth millennium development goal. Most of the developing countries are failing to meet this target. The sub-Saharan countries including Nigeria seem to be the worst performers with an annual decline of less than 0.1%. The 41% reduction in the maternal mortality ratio in Nigeria from 1,100/100,000 to 608/100,000 at a rate of 1.4% per year, since the emergence of the Nigerian Midwives Service Scheme in November 2009 (Abimbola et al., 2012) indicates an attempt by the Federal Government of Nigeria to halt and reverse the trend of escalating maternal mortality ratio. However, this has not taken Nigeria close to the target of reducing the maternal mortality ratio by three quarters in 2015 (Joint Report of UNFPA, WHO, World Bank and UNICEF, 2012). The reason for the dismal performance of Nigeria in its bid to achieve the fifth millennium development goal is not straight forward. It is neither a failure of the Nigerian Government to put in place the necessary infrastructures and staffing nor the failure of skilled birth attendants to provide adequate care. It may be the failure of health education research to bring the barriers to service utilization to the notice of the policy makers. There is also a probability that the policy makers may lack the necessary background to understand and analyze the situation and are therefore be unable to design appropriate strategies for halting and reversing the trend of spiraling escalation of the maternal mortality ratio. This article attempts to present a simplified version of maternal health and offer suggestions for research needs that are capable of providing evidence based and relevant information to policy makers and government agencies that are interested in unraveling the barriers to appropriate health seeking behavior towards maternal health care utilization.

2. Maternal Health

Maternal health is one of the components of the primary health care. Ideally, a pregnant woman should have access to

a minimal module of maternal health services consisting of three elements namely:

- Community based services (Primary Health Care)
- Essential obstetric care as a first referral center to deal with complications
- Effective communication and transportation between primary health center and first referral center (Lucas and Gilles, 2006).

Community based services include pre-conception care, antenatal or prenatal care, clean and safe delivery, and post partum care. The aim of maternal health is to produce a healthy mother and child. Each of the components of community based services has to be skillfully managed to ensure optimum maternal health. In the absence of optimum care, maternal morbidity or mortality may occur.

2.1. Preconception Care in Nigeria

The whole purpose of preconception care is to improve the prospects for safe motherhood. Preconception care can be described as a specialized form of care in women of reproductive age before the onset of pregnancy to detect, treat and counsel them about preexisting medical and social conditions that may militate against safe motherhood and delivery of healthy offspring. It involves the taking of comprehensive health history, a thorough physical examination, appropriate ancillary screening tests and health promotion interventions (Omigbodun, 2002). There is no doubt that the need for preconception care exists in Nigeria. There is a large pool of women with gestational diabetes mellitus that would obviously benefit from such a program if it existed (Wokama et al., 2001). Nearly 25% of women of childbearing age screened in Lagos, Nigeria had no antibodies against rubella, making this an important public health issue in Nigeria (Onyenekwe, 2000). The possibility of using preconception as a tool to battle these problems and others of similar nature is yet to receive serious attention from the nation's policy planners.

However, there are obstacles to the introduction of preconception care in Nigeria. These include the fact that a substantial proportion of pregnancies are unplanned. There is poor attitude of the women to preconception care and there is reluctance of reproductive health workers to participate in preconception care. Adequate health education, community mobilization and continuing education for the health care providers may resolve the issue (Omigbodun, 2002).

2.2. Antenatal Care in Nigeria

The world health organization recommends that pregnant women should have at least four antenatal visits for health promotion, advice on nutrition and health care, counseling to alert women on danger signs and planning for childbirth.

Assessment includes history taking, physical examination and screening tests. Other components of antenatal care, include prevention, early detection and management of complications and where needed, prevention and management of malaria, hookworm, tetanus, anemia, sexually transmitted disease; including HIV/AIDS, and other conditions. The aim of antenatal care is to prevent maternal and neonatal morbidity and mortality. Both health professionals and pregnant women see pregnancy as a time when healthy behavior can have a significant effect on the outcome and consequently the need for appropriate information and advice. There is a wealth of scientific evidence on the effect of alcohol and cigarette smoking on the developing fetus. However, simple links between knowledge, attitude and behavior cannot be assumed (Jewell, 1990; Ajzen and Fishbein, I980).

The practice of antenatal care in developing countries was affected by factors, which include inadequate resources (shortage of doctors, midwives and maternity units due to financial constraints) widely dispersed population, literacy and financial status, cultural and traditional practices, religious practices and basic health of the population (Nylander, 1990). In recent times however, midwives are quite adequate in number in most of the primary health centers of Nigeria. In a more recent study of maternal health seeking behavior in Ologbo, a rural community in the South-South geopolitical region of Nigeria, it was found that, only 9.9% and 6.2% of the women that delivered within a one year period received antenatal care and two doses of tetanus toxoid respectively (Osubor et al, 2006). Factors other than resource inadequacy must therefore be responsible for poor antenatal service utilization by Nigerian women.

There is evidence that literacy plays a more important role in determining the standard of antenatal care in such a community than the degree of affluence of the people. Education has been found to be significantly associated with choice of place for delivery ($p < 0.05$) in rural Nigeria (Osubor et al, 2006).

3. Delivery Services in Nigeria

The world health organization recommends a skilled attendant (WHO, 1999) at every birth that can provide good quality care on an ongoing basis. Care can be hygienic, safe and empathetic. The attendant should recognize and manage complications, including life saving measures for mother and child and should refer promptly and safely when higher level of care is needed.

Many women and newborn infants develop complications during or immediately after delivery that are difficult to predict and which require skilled attendant to manage appropriately. Skilled attendants are trained to manage uncomplicated deliveries safely, recognize complications, treat complications they can and refer women to district or tertiary hospitals if more advanced care is needed. In 1996, 53% of deliveries in developing countries took place with a skilled attendant, particularly midwives. Many countries and most rural areas have a serious shortage of skilled birth attendants, particularly midwives. In order to provide skilled attendants at all births, targeted programs of training, supervision and deployment are needed.

However, majority of women still deliver at home under

the supervision of traditional birth attendants. Traditional birth attendants are already in the rural areas where most people live. They are accepted members of the community and reimbursed by women and their families and so do not add to government payroll. These attractive features have made traditional birth attendant training programs increasingly popular over the years. In 1984, the world health organization reported that 52 countries with Traditional Birth Attendant training programs, which was more than double the number in 1972. Originally, their main focus was the prevention of neonatal tetanus. Traditional birth attendants have a role in supporting women during labor but generally are not trained to deal with complications. Because most of them have had one or less training, they are not defined as skilled attendants. Studies in Africa and Asia have found that training traditional birth attendants, in the absence of skilled backup support, did not decrease women's risk of dying in childbirth (WHO, 1999). Traditional Birth Attendants are not capable of recognizing and treating complications, which are so often unpredictable in pregnancy, labor and delivery, and they cannot therefore be left alone to take on deliveries (Inegbenebor, 2007). Even when trained, they need a backup from a functioning referral system and support from professionally trained health workers to be effective in reducing maternal mortality (WHO, 1999).

3.1. Emergency Obstetric Care

Fifteen percent of pregnant women are likely to develop complications that will require skilled obstetric care to prevent death or serious ill health. All women, whether their pregnancies are complicated or not, need good quality maternal health services during pregnancy, delivery and in the postpartum period to ensure their health as well as that of their infants. High quality maternal health services must be accessible, affordable, effective, appropriate for and acceptable to the women who need them.

Attention to quality of care has been growing in the reproductive health field and there have been significant effects to define criteria and develop methodologies to assess the quality of maternal health services. Key determinants of quality of care include technical competence of providers, their interpersonal skills, availability of basic supplies and equipment, the quality of physical facilities and infrastructure, linkages to other health services and the existence of care that spans from the pregnancy to the postpartum period, in which women and health care providers are partners in care. Transportation must be available, and appropriately staffed and equipped facilities must be within reach (WHO/UNICEF/UNFPA/ World Bank, 2007).

3.2. Postpartum Care

The world health organization recommends integrated postpartum care that includes identification and management of problems in the mother and newborn, counseling information and service for family planning and health promotion for the newborn and mother including immunization, breastfeeding and safe sex—the mother–baby package.

The package sets out the minimum levels of care that should be available to all pregnant women and newborn babies. It is aimed at countries where the problems are most severe and resource constraints most acute but can be used by any country to evaluate current maternity care and revitalize existing services. For each major cause of maternal and neonatal mortality, there are guidelines for early diagnosis and health interventions at different levels of care within the community, at the health center and the district hospital. Though postpartum care has many advantages, mothers seldom attend postnatal clinic in Nigeria (Osubor et al, 2006).

4. Current Maternal Health Practice in Nigeria

In order to enhance maternal health practice in Nigeria, the three tiers of Government namely local government, state government and Federal government have over the past twenty or more years established primary health centers in every ward of the ten to twelve wards that make up the 774 local governments of Nigeria (Inegbenebor, 2007). Each of these primary health centers has facilities for family planning/birth spacing, antenatal care, clean and safe delivery as well as Post-partum care. Initially, there was a major problem of staffing with skilled birth attendants. However, the emergence of the midwives service scheme in November 2009 has minimized staffing deficiencies. This implies that most of the deliveries in the primary health centers are supervised by skilled birth attendants. Though one would expect that maternal health would be at its optimal level in Nigeria, the maternal health indices are escalating in some parts of the country notably North-East and North-West zones (Abimbola et al., 2012). In addition, it has been said that the indices in areas where maternal mortality ratio is at the lowest level in Nigeria are far from what is obtainable in developed countries in America and Europe (Abimbola et al., 2012). It is known that the availability of facilities do not necessarily imply utilization (Park, 2007). Several barriers including educational, psychological, cultural, socio-economic and religious barriers may affect utilization of available facilities (Park, 2007). There is therefore a need to determine the areas of research that will provide evidence based and relevant information to unravel these barriers to appropriate maternal health seeking behavior.

4.1. Educational Research Needs

The North East and North West zones in which maternal mortality ratio is highest also have the lowest literacy rates in Nigeria (UNESCO, 2012). Previous studies have found that there is a relationship between a woman's level of education and her susceptibility to maternal morbidity or mortality (Harrison, 1997). Research is necessary to find out why women in these zones do not attend school.

4.2. Cultural Research Needs

Many of the women in the affected zones are married at tender ages to men who could be their fathers or even grand fathers. Many of them reach menarche after marriage. When they get pregnant, they are given herbal medications by traditional birth attendants. When it is time to deliver, their first born must be delivered at home under the supervision of traditional birth attendants. In many cases these women are given 'gishiri' cut in their vagina during child birth (Gishiri cut does not serve the purpose of enlarging the birth canal like episiotomy) The combination of prolonged obstructed labor and vaginal trauma during child birth may lead to vessico-vaginal fistula, early divorce, social ostracism and eventual prostitution. Research is needed to determine the reason for early marriage, and delivering first born at home. Research is also necessary to find out why 'gishiri' cut is used during delivery. The probability that a 15-year-old girl will die from a complication related to pregnancy and childbirth during her lifetime is highest in Africa: 1 in 26. In the developed regions it is 1 in 7300. Of all 171 countries and territories for which estimates were made, Niger had the highest estimated lifetime risk of 1 in 7 (WHO/UNICEF/UNFPA/ World Bank, 2007). Delaying marriage and first birth, preventing unwanted pregnancy and eliminating unsafe abortion will avert up to a third of maternal deaths. Wider birth spacing, and prevention of pregnancy in very young women, could also reduce child mortality by a quarter (DFID, 2004). Unfortunately, attendance at family planning clinics is poor and abortion is restricted in Nigeria. Women in the zones where there are high maternal mortality ratios are often kept indoors and not allowed to see other people. They are allowed to go out at night however. In many cases they are veiled. This implies that these women are unable to attend clinics during the day. In addition, the men prefer their wives to examined and treated by female doctors. If all men kept their daughters and wives at home and away from school, where will the female doctors come from? There is therefore a need to research into ways of changing this culture to the type that values education and female freedom to make decisions in matters affecting their health.

4.3. Decision Making Research Needs

An individual should have the right to determine when s/he should visit a health care provider. This is only possible if s/he has decision making capability. In the traditional system in Nigeria, the husbands are commonly the decision makers in their families. This may be related to economic empowerment. Where the husband is not available, fathers and mothers in law make decisions. This type of health seeking behavior causes delay in health facility utilization and its attendant complications (Thaddeus and Maine, 1994). There is therefore a need to research into ways of empowering women economically and in decision making ability.

4.4. Poverty Eradication Research Needs

One of the major problems of women is abject poverty. Poverty wears a woman's face in Nigeria (Ezekwem, 2002). Where a woman is uneducated and unskilled; she has to depend on her husband for all her needs. This promotes economic slavery in which she has no say over anything that is financially achievable. This includes health care, which comes at a cost. Even where health is said to be free, many workers who are corrupt in nature add hidden costs to health care. In Edo state of Nigeria, delivery is free in the district hospitals. It is however rare to find any woman who has been discharged from the hospital without paying for one thing or the other. Research is therefore needed in the area of women empowerment to determine how government and non-governmental organizations can improve the welfare of women.

A woman in the poorest countries is over 100 times more likely to die in pregnancy and childbirth than is a woman in a developed country. This stark difference in risk of death is the widest disparity in all human development indicators. And for the poorest women, the risk is even higher (DFID, 2004). While it is true that most maternal deaths do occur in poor countries, and that poor women have the least access to skilled attendants, there are poor countries with low Gross National Product, who have low maternal mortality ratio. An example is Vietnam with maternal mortality ratio of 160 per 100,000 (Zoë, 2002), which is lower than that in the zone (South West) with the lowest maternal mortality ratio in Nigeria (Abimbola et al., 2012).

5. Conclusion

Several barriers affect the maternal health in Nigeria. Research is needed to unravel the kernel of these barriers so that appropriate health education services can be designed to minimize them.

Author's Contribution

Dr Ute Inegbenebor critically revised and approved the final version.

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