

ASSESSMENT OF CAUSES AND CONSEQUENCES OF PRE AND POST-NATAL MATERNAL DEATH IN UMUAHIA NORTH AND SOUTH ABIA STATE

¹Alozie E.N. & ²Catherine Igbokwe

¹*Department of Home Economics/Hospitality Management and Tourism*

Michael Okpara University of Agriculture

²*Vocational Education Department, Abia State University Uturu*

Abstract

The study examined the improved strategies that curb the causes and consequences of post-natal maternal death in Umuahia North and South L.G.A of Abia State. It specifically identified the causes of post-natal maternal death, the consequences of post-natal maternal problem and improved strategies that can curb post natal and maternal death in umuahia north and south LGA of Abia state. A total of 45 mothers from different hospitals in umuahia north and south were randomly selected for the study, descriptive survey design was used for the study while data was collected using a structured questionnaire which was administered to the selected women. Frequency, percentage and mean were used to analyse the collected data. Result showed that lack of information/awareness has the highest mean of ($X=3.16$) on the causes of post-natal maternal death, while the consequences of post-natal maternal problem premature rupture of membrane has the highest mean of ($X=3.5$), also for ways of improvement proper maternal and post-natal care has the highest mean of($X=3.15$), and for the practicable strategies for sustenance, government intervention into proper health care facilities has the highest mean of($X=3.15$). The study therefore recommends improved access to maternal health services, government should locate health services as close as possible to the community where the people live. Also the ministry of health has to make a comprehensive plan to overcome information barriers by increasing the women's understanding and awareness on the need to go for post-natal health care, and availability of postnatal care services.

Keywords: Post-natal, Maternal, Strategies and Improvement.

Corresponding Author: Alozie E.N.

Background to the Study

Maternal health, child-health and health education are three major concerns of public health organisations and researchers throughout the world. Health education for mothers is a strategy many countries have adopted to improve maternal and child health (Soltani et al., 1999). Over half a million women encounter complications due to childbirth annually and many die (Policy project, 1999; Ashford, 2004). The report states that almost 40% of women experience complications after delivery and an estimated 15% of these women develop potentially life-threatening problems. This is most common in Umuahia North and South area of Abia state.

Nigeria is one of the few countries that account for most of the maternal deaths; others include Uganda, Bangladesh, Ethiopia, and India (Danguilan, 1997). This ratio is startlingly high given that the field of maternal health has not received significant attention from the government (Ministry of Health, 2001). However, the World Health Organization (WHO) contends that the immediate cause of maternal deaths is the absence, inadequacy or underutilization of the healthcare system (WHO, 2004b). Women should not die in childbirth because the vast majority of maternal deaths can be prevented or reduced if women had access to, or visited maternal health services during pregnancy, childbirth and the first month after delivery (Policy Project, 1999; WHO, 2004b).

Postnatal care refers to the assistance given to a mother and the baby for a period of six weeks from the time of delivery. Postnatal services are primarily comprised of physiotherapy, physical examination, immunisation, health education and family planning services. Many women do not receive these essential healthcare services, yet they need these services following delivery.

Complications following childbirth are more common and aggravated in developing countries. The long-term maternal complications in the postnatal period include chronic pain, impaired mobility, damage to the reproductive system and infertility (Safe Motherhood, 2002). Some women suffer genital prolepses after bearing several children. This condition is extremely uncomfortable and can lead to other complications in future pregnancies if not properly addressed in the postnatal period (Ashford, 2004). These complications could be eliminated through preventive maternal healthcare services such as physiotherapy, family planning, health education, and screening (Policy project, 1999). 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 and that of their infants.

Therefore, high quality maternal health services must be accessible, affordable, effective, appropriate for, convenient and acceptable to the women who need them (WHO, 2001; Frost, 2001). According to the World Programme of Action, postnatal care is regarded as one of the most important maternal healthcare services for the prevention of impairments and disabilities resulting from childbirth (United Nations, 2002).

Safe Motherhood (1998a) reported that the factors which prevent women in developing countries from getting postnatal care include: distance from health services; cost including direct fees and the cost of transportation, drugs and supplies; multiple demands on women's time; women's lack of power in decision-making within the family; and poor quality of services including poor handling by health providers. However, the utilisation of health services is a

complex phenomenon. Rower and Garcia's (2003) investigation showed that the use of health services is related to the availability, the quality and cost of the services. In addition, the social structure, health beliefs and personal characteristics of the users are also considered.

Statement of the Problem

Maternal mortality in developing countries like Nigeria has been attributed to the “3 delays”: delay in deciding to seek care, delay in reaching care in time, and delay in receiving adequate treatment. (UNFPA, 2003), The first delay is on the part of the mother, family, or community not recognizing a life-threatening condition. Because most deaths occur during labour or in the first 24 hours postpartum, recognizing an emergency is not easy. Most births occur at home with unskilled attendants, and it takes skill to predict or prevent bad outcomes and medical knowledge to diagnose and immediately act on complications. By the time the lay midwife or family realizes there is a problem, it is too late.

The second delay in reaching a health-care facility, and may be due to road conditions, lack of transportation, or location. Many villages mostly in Abia State do not have access to paved roads and many families do not have access to vehicles. Public transportation (or animals) may be the main transportation method. This means it may take hours or days to reach a health-care facility. Women with life-threatening conditions often do not make it to the facility in time.

The third delay occurs at the healthcare facility. Upon arrival, women receive inadequate care or inefficient treatment. Resource-developing nations with fragile health-care facilities may not have the technology or services necessary to provide critical care to haemorrhaging, infected, or seizing patients. Omissions in treatment, incorrect treatment, and a lack of supplies contribute to maternal mortality.

Objectives of the Study

The main objective is to assess causes and consequences of pre and post-natal maternal death in Umuahia North and South.

Specific objectives are to

- i. Identify the causes of post and pre-natal maternal death in Umuahia north and south.
- ii. Identify the consequences of pre and post natal maternal death in Umuahia north and south
- iii. Identify ways of improving and sustaining post and pre natal maternal care in Umuahia north and South

Research Question

- i. What are the causes of pre and post natal maternal death in Umuahia north and south
- ii. What are the consequences of pre and post natal maternal death in Umuahia north and south.
- iii. What are the ways of improving and sustaining pre and post natal care in Umuahia north and south

Review of Related Literature

The review of literature in this work focused on the following; the historical perspective, the conceptual, the theoretical and the empirical frame work to pre and post-natal maternal death and care.

Historical Perspective of Pre and Post-Natal Maternal Death

The historical level of maternal deaths is probably around 1 in 100 births. Mortality rates reached very high levels in maternity institutions in the 1800s, sometimes climbing to 40 percent of birth giving women; At the beginning of the 1900s, maternal death rates were around 1 in 100 for live births. Currently, there are an estimated 275,000 maternal deaths each year. Historically, mortality death was a devastating disease. It affected women within the first three days after childbirth and progressed rapidly, causing acute symptoms of severe abdominal pain, fever and debility (U.N, 2008).

Factors that increase maternity death can be direct or indirect. Generally, there is a distinction between a direct maternal death that is the results of a complication of the pregnancy, delivery, or management of the two, and an indirect maternal death. Pregnancy related death in a patient with a pre-existing or newly developed health problem unrelated to pregnancy. Fatalities during but unrelated to a pregnancy are termed accidental, incidental, or no obstetrical maternal death (KhlatM, and Ronsmans,2009).

Conceptual Framework

Maternal death is defined by the World Health Organization (WHO) as "the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes."(WHO, 2016); it is defined as death of either a pregnant woman or death of a woman within 42 days of delivery, miscarriage, termination or ectopic pregnancy providing the death is associated with pregnancy or its treatment.

Direct deaths are defined as those related to obstetric complications during pregnancy, labour or puerperium (six weeks) or resulting from any treatment received. Indirect deaths are those associated with a disorder, the effect of which is exacerbated by pregnancy. Late maternal deaths occur ≥ 42 days but less than one year after end of pregnancy.

Types of Pre and Post-natal Maternal Death

1. Haemorrhage: Haemorrhage primarily postpartum haemorrhage (PPH)—is the leading contributor to maternal mortality worldwide, causing about 24 percent of all maternal deaths (World Health Organization, 1999). PPH is the excessive loss—usually of 500 millilitres or more—of blood from the genital tract within 24 hours of delivery (World Health Organization, 1998). If uncontrolled, haemorrhage can quickly lead to shock and death, which generally occurs within 7 days of childbirth. Because of the difficulty of measuring blood loss, a more practical definition of PPH is any blood loss that causes a physiological change such as low blood pressure that threatens a woman's life (McCormick et al., 2002). Immediate PPH is most commonly due to uterine atony, inadequate contraction of the uterus, and a retained

placenta or placental fragments (McCormick et al, 2002). Other causes include damage to the genital tract such as cervical tears, perineal lacerations, and episiotomy. Even relatively mild PPH can aggravate existing anaemia caused by poor nutritional intake of iron and folic, hookworm infestation, malaria, or repeated short birth intervals. Women who survive haemorrhage frequently suffer from chronic anaemia.

2. Sepsis: The second leading cause of maternal mortality, sepsis, is estimated to cause 15 percent of all maternal deaths worldwide (World Health Organization, 1999). Puerperal infections are caused by transfer of an infectious agent from the cervix or vagina to the uterus during labor or pelvic examination or by transfer of bacteria from skin, nostrils, and perineum by contaminated fingers or instruments (Abouzahr et al., 1998). The risk of puerperal sepsis is higher for women with sexually transmitted and other infections, premature rupture of membranes, retained products of conception, diabetes, caesarean or other operation, postpartum haemorrhage, anaemia, poor nutritional status, history of previous complications of labor, and poor infection control.

The most common sign of puerperal infection is fever, but a small percentage of women with postpartum fever may have an infection at another site or no infection. Coupled with the unavailability and inappropriate use of effective antibiotics, relatively minor puerperal infections can rapidly become life-threatening. Women who survive puerperal sepsis are frequently left to cope with chronic ill health due to pelvic pain, dysmenorrhoea, menorrhagia, and/or infertility (Abou Zahr et al., 1998). Information on the incidence and outcome of puerperal sepsis is limited because the majority of women in developing countries deliver at home or are in a clinic or hospital only briefly.

3. Malaria: More than 40 percent of the world's population lives in malarious areas, and 90 percent of the estimated 300 to 500 million malaria cases occur in sub-Saharan Africa (United Nations Children's Fund, 2000). Malaria in pregnancy has serious health consequences for the newborn, as well as for the mother. Women are more susceptible to malaria infection during pregnancy, but this susceptibility decreases with successive pregnancies (Duffy and Fried, 1999; Miller and Smith, 1998; Brabin, 1983). Where malaria is endemic, adults rarely experience severe illness; however, pregnant women in these populations are at increased risk for high parasitemias and anaemia (Miller and Smith, 1998; Diagne et al., 1997). In areas of low malarial transmission, immunity is low, and infection during pregnancy can cause severe disease, including fever and central nervous system complications (Steketee et al., 1996a). HIV infection appears to interfere with the maintenance of pregnancy-specific immunity acquired during first and second pregnancies, placing HIV-positive multigravida in endemic areas at increased risk for the clinical consequences of malaria (Steketee et al., 1996b; Verhoeff et al., 1999).

4. Viral Hepatitis: Viral hepatitis is the most common cause of liver disease during pregnancy (Pastorek, 1993). The disease, which is caused by several diverse types of virus, is endemic in many regions of Asia, Africa, the Middle East, and Central America where sanitation practices are inadequate (Michielsen and Van Damme, 1999). One form of the disease, hepatitis E, is of greatest concern during pregnancy because of its reported mortality rate of up to 25 percent among pregnant women, compared with a rate of less than 1 percent

among the general population (Skidmore, 1997; Aggarwal and Krawczynski, 2000). Pregnant women who contract hepatitis E during the third trimester appear highly susceptible to developing a fulminant infection. Even when the mother escapes liver failure, this infection often causes a fetal death (Michielsen and Van Damme, 1999).

5. Unsafe Abortion: Unsafe abortion can lead to a variety of complications, including sepsis, haemorrhage, genital and abdominal trauma, tetanus, perforated uterus, and poisoning from abort efficient medicines (Maine et al., 1994; Bernstein and Rosenfield, 1998; Brabin et al., 2000; Rochat and Akhter, 1999). These complications have been estimated to result in at least 70,000 maternal deaths per year, accounting for at least 13 percent of all maternal mortality (Bernstein and Rosenfield, 1998; Maine et al., 1994). Moreover, the treatment of abortion complications consumes a disproportionate share of limited health care resources in developing countries (AbouZahr and Ahman, 1998). For example, in Bolivia in the late 1980s, treatment of abortion complications was reported to consume 60 percent of national spending for obstetric and gynaecological care (Maine et al., 1994).

6. Hypertensive Disease of Pregnancy: Eclampsia is estimated to cause approximately 12 percent of all deaths due to pregnancy-related causes in developing countries (World Health Organization, 1999). A review of hospital-based studies on maternal mortality associated with hypertensive disorders in Africa, Asia, Latin America, and the Caribbean revealed similar rates—between 10 and 15 percent of all maternal deaths—among all regions. In Pakistan, where maternal mortality due to eclampsia has reached an estimated 500 deaths per 100,000 live births, a hospital-based study showed eclampsia to occur in 1 of every 60 deliveries (Jamelle, 1997). Several studies suggest that mortality associated with hypertensive disease of pregnancy is more difficult to prevent than deaths due to other pregnancy-related causes (Duley, 1992; Moodley, 1990; Loudon, 1991).

7. Obstructed Labour: Obstructed labour is estimated to cause 8 percent of all maternal deaths and also presents serious risks for the fetus and neonate (World Health Organization, 1999). Its incidence varies widely and is particularly high where levels of nutrition are poor and early marriage is common (Kwast, 1992; Konje and Ladipo, 2000). Obstructed labor can often be anticipated, as it is caused by mechanical factors. Women whose growth has been stunted by malnutrition or untreated infection or who bear children before pelvic growth is complete are at greatest risk for cephalopelvic disproportion, disproportion between the size of the infant's head and the bony birth canal, which is the main cause of obstructed labor; fetal mal presentation is another, less common cause (Kwast, 1992).

Prolonged obstructed labor may produce injuries to multiple organ systems, such as vesico-vaginal or recto-vaginal fistulae, and is associated with increased risk of sepsis, haemorrhage, and uterine rupture (Arrowsmith et al., 1996; Konje et al., 1992). In the developing world, women who suffer physical injuries with long-term sequelae resulting from prolonged obstructed labor may also face serious social problems, such as divorce; exclusion from religious and other social activities; and ultimately, worsening poverty and malnutrition (Arrowsmith et al., 1996).

Theoretical Framework

Theory of Prenatal Attachment

The theory of prenatal attachment posits that a unique relationship develops between mother and foetus long before a child is born. This theory was propounded by John Bowlby: He conceptualized human attachment as a system of evolutionary behaviour beginning at birth and persisting through adulthood, motivated by fear, exploration, affection and caregiving (Bowlby, 1958).

Regulation of the dyadic attachment, interactions of mother and infant, Bowlby reasoned was solely biological, he posited that the infants primary goal was to maintain a certain degree of physical proximity to the mother for survival. Bowlby later added that attachment would include psychological goals on the part of the developing child and mother (Bowlby, 1969), but that attachment was an independent behavioural system and was not necessarily determined by unconscious drives set his theory apart from the psychoanalytic theories of his era. The theory reveals that mothers who exhibited sensitive caregiving behaviour were those able to

- a) Attend to infants signals with attentiveness
- b) Appropriately interpret the signals
- c) Respond appropriately to the signals and
- d) React promptly, in a time period that will not provoke excessive frustration for the child.

Empirical Framework

Studies conducted by Mohammed and SFCA (2000) under the auspices of World Health Organization. The objective of the study was the review evidence on the levels of maternal mortality according to different estimation technique. The WHO “maternal mortality and morbidity review database” was search for in the article of 1988. Studies were selected according to their methodological quality and included its reported maternal death with reported sample size of 200 and above. From the results most of the studies indicated an underestimation in maternal mortality compared with their findings. The methods for data collection were either direct (vital registration system) or by using special surveys (indirect sisterhood methods). The review revealed that there was an increase in maternal mortality in some regions, while there was marked reductions in others. The leading causes of maternal deaths were preedampsia/eclampsia, sepsis, pulmonary embolism and abortion related complications (WHO, UNICEF and World Bank Statement, 1999).

Frank (2001) conducted a study on health and medical problems of Efik women. The instrument used for the study was questionnaire and the sample used in the study was 350 respondents. His findings revealed that 75% of the respondents were not knowledgeable about the importance of prenatal care while 78.5% of the women had negative attitude towards hospital delivery. In the data verify his hypothesis. Frank adduced by conclusion that cultural heritage and background are major setback on orthodoxy and implementation of recommended health care for antenatal services and family planning. The cultural background has really made them ignorant of the benefits of modern medicine. Herbal and native treatment with many obvious disadvantages is their priority in health service provision. The medical facility has not been adequately utilized and medical personnel are forced to go practicing and medical personal are forced to go practicing in other places.

Methodology

Research Design

The research work adopted descriptive survey design. Descriptive research was used to describe characteristics of population or phenomenon being studied. It does not answer questions about how/when/why the characteristics occurred it is also used for frequencies, averages and other statistical calculations

Sample and Sampling Technique

This included all the women that registered in the eight maternity centres in Umuahia north and south., In all of the eight centres, two were randomly selected from each LGA using the simple random technique ..From each of the hospital birth registers a list of all the names of mothers who delivered from january2016 till date along with their contact addresses was obtained. Out of these lists, a convenient sample of 45 mothers were randomly selected,. Questionnaires were distributed at the homes of these mothers who were able to respond to the questions immediately for the data analysis. The instruments used for data collection for this study was a questionnaire, which was in different sections which include; The causes of pre and post-natal maternal death, The consequences of pre and post-natal maternal problem, The means of improving and sustaining pre and post-natal care ,and the practicable strategies for sustaining post-natal maternity care in Umuahia North and South L.G.A of Abia State

Results, Discussions and Findings

Table 1: Causes of Post-natal Maternal Death in Umuahia North and South L.G.A

Causes	SA	A	D	SD	N	X	Remark
lack of information / awareness	19	16	8	2	45	3.16	Accepted
Lack of finance/fund	7	10	15	13	45	2.24	Rejected
Poor health facilities	17	14	9	5	45	2.96	Accepted
Mal-nutrition	10	15	12	8	45	2.60	Accepted
Convulsion	13	14	8	10	45	2.66	Accepted
Anaemia	9	7	12	17	45	2.18	Rejected
Un-safe Abortion	17	10	15	3	45	2.91	Accepted
Haemorrhage	9	3	22	11	45	2.22	Rejected
Grand Mean						2.62	Accepted

Source: Survey (2016) SA=strongly agreed, A=Agreed, D= disagreed, SD= strongly disagreed.

X = Mean Value.

From the result five of the variables in the table were accepted by the mean range used for decision which is 2.5 and above. Lack of information / awareness has on the average the highest mean (X= 3.16) i.e. the respondents indicated strong agreement to the question statement; this was followed by Poor health facilities which has a mean of (X= 2.96); other were Unsafe Abortion(X=2.91), Convulsion (X=2.66) and Mal-nutrition (X=2.60). This shows that these factors are major cause of post-natal maternal death in Umuahia North and South L.G.A. The table further review lack of finance/fund and Haemorrhage were rejected since is less than 2.5. This shows that are not a major cause of post-natal maternal death in Umuahia North and South L.G.A.

Consequences of Post-Natal Maternal Problem

Table 2: Consequences of Post-natal Maternal problem

Consequences	SA	A	D	SD	N	X	Remark
Death	14	15	12	4	45	2.87	Accepted
Deformation of child	15	15	9	6	45	2.87	Accepted
Deformation of the mother	22	17	5	1	45	3.33	Accepted
Premature rupture of membrane	28	15	2	0	45	3.58	Accepted
Urinary tract infection	17	18	7	3	45	3.09	Accepted
Anaemia	22	19	4	0	45	3.40	Accepted
Grand Mean						3.19	Accepted

Source: *Survey (2016)* SA=strongly agreed, A=Agreed, D= disagreed, SD= strongly disagreed.
X = Mean Value.

From the result all the variables in the table were accepted by the mean range used for decision which is 2.5 and above. Premature rupture of membrane has on the average the highest mean (X= 3.58) i.e. the respondents indicated strong agreement to the question statement; this was followed by Anaemia which has a mean of (X= 3.40); Deformation of the mother (X= 3.33, Urinary tract infection (X= 3.09), Death (X= 2.87) and Deformation of child (X=2.87). This shows that all these factors are consequences of post-natal maternal problem in the area.

Means of Improving Post-natal Maternal Care in Umuahia North and South

Table 3: Means of Improving Post-natal Maternal Care in Umuahia North and South

Means	SA	A	D	SD	N	X	Remark
Adequate nutrition	17	14	9	5	45	2.96	Accepted
Provision of health facilities	16	14	10	5	45	2.91	Accepted
Creating awareness	21	10	7	7	45	3.00	Accepted
Proper maternal and postnatal care	19	18	4	4	45	3.16	Accepted
Grand Mean						2.406	Accepted

Source: *Survey (2016)* SA=strongly agreed, A=Agreed, D= disagreed, SD= strongly disagreed.
X = Mean Value.

From the result all of the variables in the table were accepted by the mean range used for decision which is 2.5 and above. Proper maternal and postnatal care has on the average the highest mean (X= 3.16) i.e. the respondents indicated strong agreement to the question statement; this was followed by Creating awareness which has a mean of (X= 3.00). Other are Adequate nutrition (X =2.96) and Provision of health facilities (X = 2.91). This shows that these are the major means of improving post-natal maternal care in Umuahia North and South.

Practicable Strategies for sustaining post-natal maternal Care

Table 4: Practicable Strategies for Sustaining post-natal Maternal Care

Practicable Strategies	SA	A	D	SD	N	X	Remark
Government intervention into proper health facilities	22	11	9	3	45	3.16	Accepted
Affordable health attention to pregnant mothers and new born babies	19	12	9	5	45	3.00	Accepted
Consultation of medical personnel if any abnormal symptom in pregnancy is noticed	14	18	11	2	45	2.98	Accepted
Grand Mean						3.05	Accepted

Source: *Survey (2016) SA=strongly agreed, A=Agreed, D= disagreed, SD= strongly disagreed.*
X = Mean Value.

From the result all of the variables in the table were accepted by the mean range used for decision which is 2.5 and above. Government intervention into proper health facilities has on the average the highest mean (X= 3.16) i.e. the respondents indicated strong agreement to the question statement; this was followed by affordable health attention to pregnant mothers and new born babies which has a mean of (X= 3.13) and consultation of medical personnel if any abnormal symptom in pregnancy is noticed (X= 2.98)

Discussion of Findings

The study examined improved strategies that curbs causes and consequences of post-natal maternal death, and the practicable ways for sustaining post-natal maternal care in Umuahia North and South L.G.A of Abia State were examined.

Result shows that women within age bracket of 20-30, 31-40 and above 40 years, constituted 52.5%, 42.5%, and 5.0% respectively of total respondent. Women within the age bracket of 21-30 years had the highest frequency constituting 52.5% of the total respondent. Also 30%, 40% and 30% of respondent had a 1-2, 3-4 and above 4 children respectively. Furthermore an overwhelming majority (93.3%) of the respondents had formal education while the remaining (6.7%) had no formal education. Result on Causes of post-natal maternal death in Umuahia

North and South L.G.A shows Sepsis has on the average the highest mean (X= 3.16) while Malaria and Haemorrhage were rejected since is less than 2.5.

Also Consequences of post-natal maternal death shows that sixteen of the variables in the table were accepted by the mean range used for decision which is 2.5 and above with urinary tract infection has on the average the highest mean (X= 3.78) while Heart burn was rejected since is less than 2.5.

All of the variables on means of improving post-natal maternal care in Umuahia North and South were accepted by the mean range used for decision which is 2.5 and above. Intrapartum and Postpartum Period has on the average the highest mean (X= 3.16)

Furthermore From the result all of the variables on Practicable strategies for sustaining post-natal maternal care were accepted by the mean range used for decision which is 2.5 and above. Antenatal Care has on the average the highest mean (\bar{X} =

Recommendations

Based on the results of the study, the following recommendations were made:

- i. In order to improve access to maternal health services, government should locate health services as close as possible to the community where the people live. This could be done by training more midwives who serve as the critical link between communities.
- ii. The ministry of health has to make a comprehensive plan to overcome informational barriers by increasing the women's understanding and awareness of the need to go for, and availability of postnatal care services.
- iii. The hospital authorities can ensure that services are provided at convenient hours, in a comprehensive non-fragmented manner, with privacy and respect and responsive to women's needs, preferences, and cultural beliefs. This can be done through strengthening mechanisms to evaluate the quality of services, incorporating both the clients and the providers.
- iv. The increase in awareness and understanding by mothers about postnatal services during antenatal clinics so as to improve on the use of postnatal services is necessary. Barriers such as long waiting time, lack of drugs, inadequate number of staff and overcrowding of labour wards need to be looked at by the hospital authorities so as to provide a good conducive atmosphere to the clients.

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