PLACE OF DELIVERY AND DELIVERY ASSISTANTS AS A FACTOR INFLUENCING PERINATAL MORBIDITY AND MORTALITY AMONG WOMEN OF REPRODUCTIVE AGE IN EDO STATE

Agbonlahor N. Loveth. M.Sc, [1] & Osagiede F. Isoken, Ph.D. [2]

Abstract

The thrust of this study was to Xray the perception of place of delivery and delivery assistants as a factor influencing perinatal morbidity and mortality among women of reproductive age in Edo State. A total of 897 women randomly drawn participated in the study. Two research questions were raised in relation to place of delivery and delivery assistants as a factor influencing perinatal morbidity and mortality among these women. The result revealed that women perceived place of delivery and delivery assistants as a factor influencing perinatal morbidity and mortality; thus, pointing to the key role place of delivery and delivery assistants play in perinatal morbidity and mortality hence it was recommended that the general public and women specifically should be educated on the role that place of delivery and delivery assistants play in improving perinatal health and the overall infant health.

Key words: Perinatal, Morbidity, Mortality and reproductive age.

Introduction

Reducing childhood mortality levels by two-third by the year 2015 is one of the Millennium Development Goals (MDG-4) set by the United Nations (United Nations, 2006.). Thus, in order to move towards the goals, adequate knowledge of childhood health is a prerequisite. Consequently, United Nations (2006) submitted that one of the most important problems facing childhood health in Nigeria is the country's high perinatal mortality. The perinatal period serves dual purpose, of being an indicator of the mother's health and the care she received

[1,2,] **Department of Physical & Health Education Ambrose Alli University, Ekpoma. Nigeria**

during pregnancy and delivery as well as a determinant of the baby's outcome later in life (Ibekwe, Ugboma, Onyire & Muoneke, 2011). The perinatal mortality rate is known to be a key health status indicator of a community (Wilkinson, 1997). Specifically, it is an important indicator of the quality of obstetric care available in any setting as well as a major contributor to overall childhood mortality and more so, the services of skilled attendants are sinequanon to the achievement of the millennium development goal (Ricahrdus, Graafinansp, Verltoove & Mackenback, 1998).

The term skilled attendant refers exclusively to people with midwifery skills for example doctors, midwives and nurses who have been trained to proficiency in the skills to manage normal deliveries and complications (WHO, 1999). They must be able to recognize the onset of complication, perform essential interventions, start treatment and supervise the referral of mother and baby for intervention that are beyond their competence or not possible in the particular setting.

Nigeria Demographic Health Survey (NDHS, 2008) reported that three in five births (62 percent) occur at home. South East has the highest proportion of institutionalized deliveries(72 percent),followed by South West (70 percent),while North West has the lowest proportion (8 percent). Enormous disparity remains within countries. Impoverished and rural are far less likely than their urban or wealthier counterparts to receive skilled care during childbirth. In rural areas, health clinics and hospitals are often spread out over distances and transportation system are often rudimentary that is one of the reasons why United Nations Population Fund (UNFPA) support increasing the number of community based midwives and strengthening district-level health system provide backup support. Skilled attendance at birth is considered to be the single most critical intervention for ensuring safe motherhood because it hastens the timely delivery of emergency obstetric and newborn care when life threatening complications arise. Skilled attendance denotes not only the presence of midwives and others with midwifery skills but also the enabling environment they need in order to be able to perform capably. It also implies access to a more comprehensive level of obstetric care in case of complications requiring surgery or blood transfusion. (UNFPA, 2012)

Perinatal morbidity and mortality is a unique public health problem that cannot be solved without the establishments of clinical services that are needed to prevent perinatal mortality in those cases where pregnancy complication could be prevented (Adanu, 2010).Nearly two third of all births in developing countries occur at home and in

approximately half of the deliveries, skilled care is not available (Save the Children Federation US, 2001).Historically skilled care at delivery has also been associated with lower neonatal mortality rates (WHO, 2000). Countries where skilled attendance and institutional delivery rates are low usually have high perinatal mortality rate.Birth asphyxia; hypoglycema and hypothermia are major causes of perinatal mortality and morbidity. An estimated 4 to 9 million cases of birth asphyxia occur each year accounting for 21percent to 61percent of all perinatal mortality (WHO, 1998). Proper resuscitation, however, is provided to only an estimated 1 to 2 million neonates, an estimated 1.2 million newborns die annually of birth asphyxia. Hypothermia is also influencing increased risk of morbidity and mortality, there are also increased risk of neonatal infection, coagulation defect, acidosis, delayed fetal to newborn circulatory adjustment, hyaline membrane disease and brain heamorrhage (Costello & Manandlar, 2000). All these intrapatum aforementioned risk factors influencing morbidity and mortality required skilled professionals to be present at birth to manage them in an effective and timely manner. These skilled attendants play an important role. They must be vigilant during this critical period of baby adaptation to recognized problems in newly born infants which are frequently subtle and to provide immediate and appropriate care and to refer the baby if necessary. In other words, skilled midwives functioning in or very close to the community can have a drastic impact on reduction of perinatal mortality and morbidity. This is why the proportion of births attended by a skilled health provider is one of the two indicators for measuring progress towards the fourth millennium development goals.

It has been observed that for quiet sometime now and since after the late 1970's, infant health has remained on top of the list of issues of international concerns. In 2000, the World Health Organization estimated the number of perinatal deaths globally to be greater than 6.3 million with about 78 percent of these deaths occurring in low and middle income countries. WHO (2006) indicated that Nigeria is a low income country that has experienced a surge. Perinatal deaths in Nigeria were thought to be around 30 per 1000 live births in 1990. This figure tripled to 86 per 1000 lives births by year 2000 and in 2011 it recorded a range of 50 to 133 per 1000 live births. This high level of perinatal mortality in Nigeria means that the country may be unable to attain the Millennium Development Goal-4 by the year 2015.

Furthermore, in many developing countries like Nigeria, infant health has long been recognized as one of the most urgent public health and social policy priorities. However, most of what is currently known

about infant health as well as intervention scheme for improving infant health are mostly based on, and guarded by laboratory tests and outsiders based interpretations and perspective of the key factors that affect infant health status. This has been the determinant yardstick without involving the women directly concerned with reproductive health. Thus, little or no attempt has been made to investigate how women themselves perceive the essential factors that affect the infant health. Therefore this study is instituted to investigate the perception of place of delivery and delivery assistants as factors influencing perinatal morbidity and mortality among women of reproductive age in Edo State.

Research questions

The following research questions were raised to guide and address the study.

1. Is place of delivery and delivery assistants perceived as a factor influencing perinatal morbidity among women of reproductive age in Edo State?
2. Is place of delivery and delivery assistants perceived as a factor influencing perinatal mortality among women of reproductive age in Edo state?

Methods

The descriptive survey design was adopted for this study. The design was chosen because it involves studying a group of people or items by collecting and analyzing data from only a few people or items considered to be representative of the entire population. Thus, women of reproduction age perception of place of delivery and delivery assistants as a factor influencing perinatal morbidity and mortality is descriptive in nature and descriptive surveys are concerned with description of events as they are in their natural setting (Omoroguiwa, 2006).

Sample and Sampling Technique

The sample for this study was 897 women of reproductive age, selected through stratified random sampling technique. The antenatal and postnatal clinics in the three senatorial districts in Edo state were identified. The simple random sampling technique of balloting was used to select 50 percent of the clinics from the three senatorial districts. This ensured that all groups were fairly represented Therefore seven clinics were selected from Edo South, four from Edo Central and six from Edo North. While the systematic random sampling was used to select 10 percent of the women from the clinics that were selected.

Instrumentation

The instrument for data collection in this study was a self structured questionnaire comprising of two sections with section. A eliciting demographic data while section B was a modified likert scale consisting of four columns with these responses strongly agreed

(SA), agreed (A) strongly disagreed (SD) and disagree (D) and this section elicited information on women of reproductive age perception of place of delivery and delivery assistants as a factor influencing perinatal morbidity and mortality.

Method of Data Analysis

The data collected in this study was analyzed using descriptive statistics of frequency count, mean, standard deviation and percentages.

Results

The findings of the study are presented below in Table 1 and 2

Table 1: Frequencies, mean, standard deviation and percentages showing perception of place of delivery and delivery assistants as a factor influencing perinatal morbidity among women of reproductive age in Edo State.

S/N	ITEMS	SA				A				SD				D			
		F	X	SD	%	F	X	SD	%	F	X	SD	%	F	X	SD	%
1	Delivery taken at home is the cause of perinatal morbidity.	326	2.75	10.53	36.34	2.54	3.53	7.71	28.32	167	5.37	1.50	18.61	149	6.0	3.35	16.1
2	Delivery taken in clinics account for perinatal morbidity.	52	17.25	17.16	5.79	31	28.94	28.92	3.46	5.03	1.78	16.7	56.07	311	2.88	9.98	34.67
3	Inappropriate management of complication during delivery is the cause of perinatal morbidity.	481	1.86	15.95	53.62	219	4.10	6.05	24.41	122	7.35	6.11	13.60	75	11.96	11.69	8.36
4	Inappropriate management of complication during pregnancy is the cause of perinatal morbidity.	396	2.27	13.03	44.14	323	2.78	10.42	36.00	102	8.79	8.10	11.37	73	12.29	12.04	8.14

Table 1 shows that 326 women of reproductive age with a mean of 2.75±10.53 representing 36.34% strongly agreed, while 254 women with a mean value of 3.53±7.71 representing 28.32% agreed, 167 women with a mean of 5.37±1.50 depicting 18.61% strongly disagreed and 149 women with a mean value of 6.0±3.35 depicting 16.61% disagreed that delivery taken at home is the causes of perinatal morbidity respectively.

In addition, 52 women of reproductive age with a mean of 17.25±17.16 representing 5.77% strongly agreed, while 31 women with a mean value of 28.92±28.92 depicting 3.46% agreed, 503 women with a mean value of 1.78±16.76 representing 56.67% strongly disagreed while 311 women with a mean of 2.88±9.98 representing 34.67% disagreed that delivery taken in clinics accounts for perinatal morbidity respectively

Furthermore, 481 women of reproductive age with a mean of 1.86±15.95 depicting 53.62% strongly agreed while 219 women with a mean of 7.35±6.11 depicting 13.60% strongly disagreed and 75 women with a mean of 11.96±11.69 depicting 8.36% disagreed that inappropriate management of complication during delivery is the cause of perinatal morbidity respectively.

Consequently, 396 women of reproductive age with a mean of 2.27±13.03 representing 44.14% strongly agreed, while 323 women with a mean value of 2.78±10.42 representing 36.00% agreed, 102 women with a mean of 8.79±8.10 representing 11.37% strongly disagreed and 73 women with a mean value of 12.29± 12.04 representing 8.14% disagreed that inappropriate management of complication during pregnancy is the cause of perinatal morbidity respectively.

Table 2: Frequencies, mean, standard deviation and percentages showing perception of place of delivery and delivery assistants as a factor influencing perinatal mortality among women of reproductive age in Edo State.

S/N	ITEMS	SA				A				SD				D			
		F	X	SD	%	F	X	SD	%	F	X	SD	%	F	X	SD	%
5	Delivery taken at home is the cause of perinatal mortality	356	2.52	11.62	39.68	325	2.76	11.42	36.23	127	7.06	5.64	14.15	174	4.62	4.54	21.63
6	Delivery taken in clinics account for perinatal mortality	74	12.12	11.87	8.24	83	10.81	10.44	9.25	393	2.28	12.92	43.81	347	2.59	11.29	38.69
7	Inappropriate management of complication during delivery is the cause of perinatal mortality	424	2.12	14.00	47.26	309	2.90	9.90	34.35	87	10.31	9.89	9.69	77	11.65	11.36	8.58
8	Inappropriate management of complication during pregnancy is the cause of perinatal mortality	325	2.76	11.42	36.23	324	2.77	10.46	36.12	165	5.44	0.87	18.39	83	11.81	10.44	9.25

Table 2 shows that 356 women of reproductive age with a mean of 2.52±11.62 depicting 39.68% strongly agreed, while 325 women with a mean value of 2.76±11.42 depicting 36.23%agreed, 127 women with a mean of 7.006±5.64 depicting 14.15% strongly disagreed and 194 women with a mean of 4.62±4.54 depicting 21.63% disagreed that delivery taken at home is the cause of perinatal mortality respectively.

In addition, 74 women of reproductive age with a mean of 12.12±11.87 depicting 8.24% strongly agreed while 83 women with a mean value of 10.81±10.44 depicting 9.25% agreed, 393 women with a mean of 2.28±12.92 depicting 43.81% strongly disagreed and 347 women with a mean value of 2.59±11.29 depicting 38.69% disagreed that delivery taken in clinics accounts for perinatal mortality respectively.

Furthermore 424 women of reproductive age with a mean of 2.12±14.00 respectively 47.26% strongly agreed, while 309 women with a mean value of 2.90±9.90 respectively 34.45% agreed, 87 women with a mean of 10.31±9.89 representing 9.69% strongly disagreed and 77 women with a mean value of 11.65±11.36 representing 8.58% disagreed that inappropriate management of complication during delivery is the cause of perinatal mortality respectively.

Consequently, 325 women of reproductive age with a mean of 2.76±11.42 representing 36.23% strongly agreed, while 324 women with a mean of value of 2.77±10.46 representing 36.12% agreed, 165 women with a mean value of 5.44±0.87 representing18.39% strongly disagreed and 83 women with a mean of 10.81±10.44 representing 9.25% disagreed that inappropriate management of complication during pregnancy is the cause mortality respectively.

Discussion of Findings

This result from this study provided information on the perception of place of delivery and delivery assistants as factors influencing perinatal morbidity and mortality among women of reproductive age in Edo State.

The result of the study revealed that the two research questions raised in relation to place of delivery and delivery assistants was perceived as factors influencing perinatal morbidity and mortality among women of reproductive age in Edo State hence this corroborates Adanu (2010), where he opined that obstetric services are crucial in the effort to reduce perinatal mortality and morbidity. He stressed that perinatal morbidity and mortality are unique public health problem that cannot be solved without the establishment of clinical services that are needed to prevent perinatal morbidity and mortality. He further emphasized that countries with a high

proportion of births attended by skilled attendants have low perinatal mortality ratio (Adanu, 2010).

Conclusion

The study revealed that place of delivery and delivery assistants was perceived as a factor influencing perinatal morbidity and mortality. This further shows the critical role place of delivery and delivery assistant's play in reducing perinatal morbidity and mortality. Hence attention should be put on it to reduce perinatal morbidity and mortality.

Recommendations

Based on the findings and conclusion of the study, the following recommendations were made to reduce infant mortality by two third prior 2015 in order to meet the MDG.

1. The general public and especially women should be educated through the media, community outreach and health talks on the role place of delivery and delivery assistants play in reducing perinatal morbidity and mortality.
2. Government and hospital owners should ensure that adequate manpower and facilities are provided to meet the need of these babies.
3. Government should put mechanism in place to routinely monitor the personnel and facilities available to bring about efficiency when these women access these facilities.

References

Adanu, R. (2010). Utilization of obstetric services in Ghana between 1999 and 2003. *African Journal of Reproductive health,* 14 (3), 153.

Ibekwe, P. C., Ugboma, H. U., Onyire, N. & Muoneke, U. (2011). Perinatal mortality in Southern Nigeria; less than half a decade to the millennium developmental goal. Annals of medical and health sciences research 1 (2), 215-222.

Richardus, J., Graafmansp, W., Verloove, S. & Mackenbach, J. (1998). The perinatal mortality rate as indicator of quality of care in international comparisons. *Medical care* 36(1):54-66.

Save the Children Federation (2001). Skilled care not available. Washington, DC USA.

United Nations (2006). The Millennium Development Goal Report. New York.

UNFPA (2012). Skilled attendance at birth www.unfpa.org. Retrieved 12/12/2012.

World Health Organization (1998). World Health Report. Life in the 21st century a vision for all. Geneva, Switzerland.

World Health Organization (1999). Progress towards the global elimination of neonatal tetanus. Geneva, Switzerland.

World Health Organization (2000). Making pregnancy safer. Geneva, Switzerland

World Health Organization (2006). World Health report, neonatal and perinatal mortality country, regional and global estimates, Geneva.