Determinants of use of Maternal Health Care Services in a Rural Nigerian Community

Itimitang Wilson Etukudo, PhD[1]   Anietie A. Inyang, Ph.D[2*]

1.Department of Political Science and Sociology, Western Delta University, Oghara - Nigeria

2.Department of History & International Studies, University of Uyo,Uyo - Nigeria

* E-mail of the corresponding author: anietieainyang@yahoo.com

Abstract

The study was conducted to assess utilization pattern of maternal healthcare services and to identify factors affecting the use of these services in Jesse kingdom of Ethiope West Local Government area in Delta State, South-South, Nigeria. Data used in the study were collected from 263 women randomly selected from 20 villages in the Kingdom and structured questionnaire was used to collect information from the respondents. The data were analyzed using SPSS statistical package, all statistical test of significance were at the 5% probability level. Of all the factors examined, only distance from healthcare facility, women's education and their ages were the strongest determinant of the choice and used of maternal healthcare services in the study area. Strategies and means aimed at improving utilization of healthcare services (especially modern health care) in the area are suggested

Keywords: Determinants, Maternal, Healthcare, Utilization, Rural Community, Jesse and Nigeria

Introduction

The World Health Organization (WHO) estimates that about 580,000 women of reproductive age die every year as a result of complication associated with pregnancy, and a large proportion of these deaths occur in Sub-Saharan Africa. This region has a maternal mortality of about 686 per 100,000 live births, which is one of the highest in the World (World Bank, 1994). In Africa, one explanation for poor health outcomes among women is the non-use of modern health care services by a sizable number of women of child bearing age. Regular medical checkup during pregnancy is important to reduce the risk of illness and death for the mother and child during pregnancy and delivery. In Nigeria, the Sentinel Survey of the National Population Programme Baseline Report of 2007 shows that about 48 percent of the women reported that they saw somebody for antenatal care. The report further shows that only 42% of the rural women received antenatal care from doctors. According to that report the use of Traditional Birth Attendants (TBAs) is highest in the South-South geopolitical zone of the country. Concerning maternal and child health-care services, report indicate that the use of these services is unacceptably low (National Population Commission, Abuja 2009). Other studies have shown that the utilization of available modern maternal health services is very low in rural Nigeria, (Osubor et al, 2005, Adetunji, 1991 and Adekunle et al 1990).

In their study of Oligbo Community in the South-south zone of Nigeria, Osubor et. al (2005) observed that private maternity center was the most preferred place for child birth, followed by traditional birth attendant (TBAs). Government health facilities were the least preferred. Maternal health services are essentially promotive and preventive and they provide avenues for the early detection of mothers and infants at high risk of illness and mortality. Majority of the patients utilizing such services are usually not ill. It seems logical therefore to hypothesize that, given the slightest constraints, maternal health services would be underused (AL-Nahedh, 1995). A number of studies conducted in developing countries on demographic and socio-cultural factors influencing use of maternal health services have shown that factors like age, duration of marriage, education, occupation, family income, parity and distance are significantly associated with the use of maternal healthcare services (National Population Commission, 2009; Celik and Hotchkiss 2000; Elo, 1992; Bhatia, 1993; WHO, 1994; Ojong et al, 2011 and Addai, 2000). Despite the fact that maternal health-care services utilization is essential for improvement of maternal health, little is known about the current magnitude and patterns of use and factors influencing the use of these services in Jesse Kingdom, but fertility rates are reported to be high in the area. A number of maternal deaths and serious morbidity have been reported in Jesse in recent times. Poor health-seeking behavior is a challenge in Jesse and interventions are needed to achieve improved maternal health status.

This study therefore aims at filling the gaps in knowledge by using data from the current survey to assess the utilization patterns of maternal healthcare services among married women of reproductive age in Jesse. It is hoped that the results of the study will improve, policy makers' understanding of the determinants of maternal health-care services use in rural Nigeria in general and serve as important tools for any possible intervention, aimed at improving the low use of maternal healthcare services in Jesse.

They Study Area

Jesse is one of the Kingdoms in Ethiope West Local Government Area of Delta State, South-South, Nigeria. It has 35 villages and is sandwiched between Ethiope East Local Government Area in the North, Sapele Local Government area in the South, in the East by Okpe Local Government Area and in the west by Oriomhon Local government Area of Edo State. The 1991 census gave the population figure of Jesse as 70,000 but it is evident that at present the population has far exceeded that the inhabitants of Jesse are mainly Urhobos and their mother tongue is Urhobo language. The people are mainly subsistent farmers, and they are generally poor. There are six medical facilities in the area. These facilities are in Jesse town, Egenesa, Irode, Ovade, Onobru and Bobokrokun. The health facilities are understaffed and grossly ill-equipped.

Material and Methods

A community- based cross sectional study was conducted in the study area (Jesse). A house to house survey of all households in 20 villages randomly selected was carried out and all women of child-bearing age (15-49 years) who had children less than five years old were interviewed. In all, 263 women satisfied the inclusion criteria. Structured questionnaire was used to elicit information from respondents. It was administered by twenty staff from the six health centers in the area. Questions asked bordered on the respondents' demographic characteristics, fertility history, most recent pregnancy, types of maternal health services used and some of the problems which affected their use. The data were analyzed using SPSS statistical package. Simple percentage was used in analyzing the tabulated data, and chi-square test was used for bivariate analyzes of cross-tabulation to assess associations with maternal health care services use and other variables. In order to determine which variables distinguished between woman using government health facilities, private maternity and traditional birth attendants, the discriminate analysis procedure was used. All statistical tests of significance were at the 5% probability level.

RESULTS

TABLE 1: Distribution of Women by Demographic characteristics and Type of HealthCare Services Used

Characteristics	Types of Health Care Services Used			
	Government Health Facility	Private Maternity Centre	Traditional Birth attendant	Chi-Square
Age (in years)				
15 – 19	25	15	6	X^2=39.37 P<0.05
20 – 24	12	18	9	
25 – 29	9	15	12	
30 – 34	8	26	21	
35 – 39	6	20	18	
40+	4	18	21	
Duration of marriage (In Years)				
0 – 4	24	17	13	
5 – 9	19	25	17	
10 – 14	9	23	14	X^2=24.22 P<0.05
15 – 19	7	26	23	
20+	5	21	20	
Education				
No formal education	14	55	40	
Primary Education	18	40	31	X^2=30.80 P<0.05
Secondary Education and Above	32	17	16	

TABLE 1 (contd.)

Characteristics	Types of Health Care Services Used			
	Government Health Facility	Private Maternity Centre	Traditional Birth attendant	Chi-Square
Husband's Education				
No formal education	18	50	38	X^2=18.06
Primary Education	16	35	34	P<0.05
Secondary Education and Above	30	27	15	
Monthly income (In Naira)				
<4000.00-5999.00	2	23	26	
6000-7999.00	4	41	23	
8000.00-9999.00	13	22	17	X^2=62.83
1000.00+	19	14	12	P=0.05
Employment status				
Unemployed	16	67	58	X^2=28.76
Employed	48	45	29	P<0.05
Parity				
1 – 4	21	7	10	
5 – 9	48	53	33	X^2=28.84
10+	15	52	44	P=0.05

TABLE 2: The Relationship of Accessibility Variables to the Preferred HealthCare Facilities

	Government Health Facility	Private Maternity Centre	Traditional Birth attendant	Chi-Square
Distance (In KM)				
<1	22	8	12	
1 – 5	25	11	15	X^2=66.50
6 – 10	10	51	21	P=0.05
11 – 15	7	42	39	
Family monthly income (In Naira)				
<4000.00	3	36	32	
4000.00-5999.00	15	33	27	
6000-7999.00	19	14	18	X^2=71.5
8000.00-9999.00	19	14	9	P<0.05
1000.00+	22	10	1	

Table 1 presents the result of the univariate analyses of the type of healthcare services used by the 263 women interviewed in the study by their demographic characteristics. The analyses showed a statistically significant relationship between each of the variables-age, duration of marriage, education, employment status, income, parity, husband's education and the choice of healthcare services. The table shows that private maternity centre was the most preferred health facility by the respondents (43%), followed by traditional birth attendants (TBAs) (33%). Government facility was used by 24%. A high proportion (69% and 57%) of those who used the services of private maternity centres and traditional birth attendants respectively were 30 years old or above, compared to 28% who used government healthcare facilities. Most of those utilizing private health facilities, were people who had no formal education and those with primary education. Those people had married for 10years or more. They were predominantly unemployed (housewives) and 76% of them had a family income of less than N8, 000.00 a month. Their husbands also had, at most, a primary education. A majority (80.0%) of the women who did not use the government health facilities complained of high irregularity, high cost of services, and poor quality of services as being responsible for their use of other facilities. A sizable proportion (7.7%) travelled more than 6 kilometres to receive the services. Table 2 shows the relationships between distance to hospital, family income and choice of healthcare service. There is a statistically significant association between each of these variables and the type of healthcare services chosen at p<0.05. A combination of socio-demographic and access variables that best predicted the choice of health care service, determined in a stepwise discriminate analysis procedure, showed distance as the best discriminate variable. This was followed by the mother's education and age respectively. The other variables were not statistically significant. The average

classification function for three health-care services was 57%. The best classification function of 70% was achieved for those using traditional birth attendants. Use of private healthcare services was next (58%) and the worst was the use of government health facilities (43%).

TABLE 3: The Place of Delivery of Most Recent Child by Mother's Demographics Characteristics

Characteristics	Government Health Facility	Private Maternity Centre	Traditional Birth Attendant	Chi-Square
Age (in years) 15 – 19	8	10	17	
20 – 24	10	16	19	
25 – 29	8	12	23	X^2=25.62
30 – 39	7	8	26	P<0.05
35 – 39	5	8	32	
40+	4	8	40	
Duration of marriage (In Years)				
0 – 4	20	15	11	
5 – 9	16	20	14	X^2=36.30
10 – 14	10	15	17	P<0.05
15 – 19	8	17	32	
20+	5	21	42	
Educational Level				
No formal education	11	31	62	X^2=45.26
Primary Education	27	31	30	P<0.05
Secondary Education and above	36	23	12	

TABLE 3 (contd.)

Characteristics	Government Health Facility	Private Maternity Centre	Traditional Birth Attendant	Chi-Square
Monthly income (In Naira) <4000.00	4	26	39	
4000.00-5999.00	6	18	29	X^2=50.22
6000.00-7999.00	13	19	24	P<0.05
8000.00-9999.00	15	11	15	
1000.00+	24	9	11	
Employment status				
Unemployed	25	37	80	X^2=24.94
Employed	49	38	34	P<0.05
Parity				
1 – 4	44	32	20	X^2=28.30
5 – 9	37	42	84	P<0.05
10+	0	0	41	

The place of delivery of the most recent child by mother's demographic characteristics as shown on Table 3 indicates that, about 45% delivered at traditional birth attendants homes, 30% and 25% delivered at private maternity centres and government health facilities respectively.

DISCUSSION

In Nigeria, health services are poor in general, but they are particularly deficient for maternal health services in rural areas. The results of this study shows that age, duration marriage, education, occupation, family income, parity, and distance are significantly and positively associated with the choice of maternal health care services used in the study area. These findings are in consonance with previous reports (Stewart and Sommerfelt, 1991; Raghupathy, 1996; Mengistu and James, 1996; ALNahedh, 1995 and Rasheed and Khan, 1990).

In fact, Traditional Birth Attendants (TBAs) were the most preferred because of their proximity to mothers and affordability of their services. Most illiterate women, who were older and with poor family income,

and long duration of marriage are the majority among those who resort to traditional birth attendants and private clinics managed by midwives, these women even travel long distances of more than 10 kilometers to receive these services. Health service related factors were mentioned to have constrained the decision making process in the study. Bad experience with government health facilities such as poor attitude of health workers towards patients (especially those who are poor, old and illiterate), fear of discrimination, unfamiliar setting at the government health facility, being attended to by strangers, and male care providers, lack of sympathy and understanding on the part of the health care personnel contributed to government health facilities being the least preferred in the study area. Another explanation for this is that those women found it difficult to change their habits, having been used to traditional birth attendants and private midwives before the advent of the government service. Traditional birth attendants' homes and private clinics established and managed by midwives had been in place in the study area before the introduction of government health centres, and the women patronizing them who were over 30years old may have found these healthcare services satisfactory enough for their purpose. Government health facilities were mostly used by younger women. This may have been because they started childbearing at or around the time the facilities were introduced.

The multi-variate logistic regression analysis used which selected potential determinants has advantage over the univariate analysis which only provided preliminary idea of which variable has an important association with the choice and use of maternal healthcare services in the study area. The result of the discriminate analysis highlights distance, mothers' education and age as the strongest determinants of the choice and use of maternal healthcare services, after adjusting for all other variables. These identified factors are consistent with previous studies, which report multi-parity, social class, transport problems and age as factors which account for the differential use of healthcare services (Adekunle et al, 1990; Addai, 2000; Mekonnen and Mekonnen, 2002; Kwast and Liff, 19988; Osubor et al, 2005). Education and households' income (family income) serve as indicators to access socioeconomic status. In this study most women were illiterate and a high proportion of them belonged to the poor income group. After the multivariate analysis, income and education were found to be significant variables (of all other variables used in determining social class) for utilization of health-care service, which is consistent with the findings of other studies (Celik and Hhotechkiss, 2000, Ojong, et al, 2011; Addai, 1998 Abbas and Walker, 1986. Addai, 2000). The importance of mother's education and age as strong discriminating factors of the choice of maternal healthcare service as indicated in this study deserves further comment. The younger and more educated mother who utilized the government health facilities could have started child bearing at the inception of these services (AL-Nahedh, 1995) . Another possible explanation for this is that women who are pregnant with their first children are usually more likely to have difficulties during labour and delivery than women of high parity. This may result in low parity women being more motivated to deliver in medical facilities than high parity women (Mekonnen and Mekonnen. 2002).

The high prevalence of deliveries at home found in this study is an indicator of poor or low use of modern health services in the kingdom, despite the health education programmes mounted by the government. Possible explanation for the high level of use of other healthcare facilities other than government healthcare facilities is that some women developed confidence and may believe that modern healthcare is not necessary due to the experience and knowledge accumulated from previous pregnancies and births.

Conclusion

This study demonstrates that the utilization of modern maternal healthcare services is inadequate in Jesse Kingdom. The study shows that the most important factors influencing the use of maternal health care services in Jesse are demographic and socio-cultural. However, this does not detract from the relevance of service-related factors. The demographic and socio-cultural factors identified in this study include maternal age, duration of marriage, education, income, employment status and parity and distance which are similar to those documented in many settings throughout Africa and other developing countries. These findings therefore serve as the basis for a number of policy recommendations.

Recommendations

First, that education was found to have an important impact on the use of maternal healthcare services in the study area (Jesse Kingdom) suggests that improving educational opportunity for women in the area may have a large impact on improving utilization of such services. This is however, a long term investment. As an alternative, in the short term, health programmes need to focus on attracting women with little or no education, second, that women at higher parity levels were found to be less likely to have deliveries assisted by modern professionals implies that parity should be one of the criteria for targeting education campaign on the benefits of safe motherhood programmes in the study area. Third, those rural women were less likely to use the modern services means that maternal health-care programmes should be expanded and intensified in the study area along with culturally appropriate education campaigns. Finally, distance was found to affect the use of healthcare services (especially services provided by government health facilities). In other to overcome the problem of

distance, governments should build more health care facilities in the area. This will help to reduce the time and money to be spent on going to long distance places for these services.

REFERENCES

Abbas, A.A, and Walker, G.J (1986) Determinants of the utilization of Maternal and Child Health Services in Jordon Int. J. Epidemiol: 15:404-7.

Addai I. (2000) Determinants of use of Maternal Child health services in rural Ghana.Journal of Biosocial Sciences 32 (1): 1 – 15

Adekunle, C, Filippi V, Grapham, iv, Oyeemunwa, P and Udjo, E (1990) Pattern of maternity care among women in Ondo State, Nigeria. In Determinants of Health and Mortality in Africa ed Allan G. Hill Demographic and Health Survey Further Analysis Series No. 101-45.

Fatunji, I. A. (1991) Response of Parents to Five Killers Diseases among Children in Yoruba community, Nigeria Social Science and Medicine 32 (2): 1379-1387.

AL-Nahedh, N.N. A (1995) Factors affecting the choice of maternal and child Health services in a rural area of Saudi Arabia Eastern Mediterranean Health Journal 1 (2): 261 – 269.

Celik, Y. and Hotchkiss, D.R (2000) The Socio economic determinants of maternal healthcare utilization in Turkey. Social Science and Medicine 50:1787 – 1806.

Kwast, B. E and Liff, J.M. (1988) Factors associated with Maternal mortality in Addis Ababa, Ethiopia. International Journal of Epidemiology 17:115 – 21.

Leslie, J. and Gupta, R.G. (1989) Utilization of formal services for Maternal Nutrition and Health care in the Third World. Washington D.C International centre for Research on women

Mekonnen, Y and Mekonnen, A. (2002) Utilization of Maternal health Care Service in Ethiopia, Calverton, Maryland, USA: ORC Macro.

National Population Commission (2009) Sentional Survey of the National Population Programme: Baseline Report, 2007. Nigeria, Abuja

National Population Commission and ORRC Macro (2009) Nigeria Demographic and Health Survey, 2008, Nigeria Abuja

Ojong O.E., Ibor, U.W and Eni, D.D. (2011) Distribution and utilization of Health Facilities in Calabar Metropolis, Nigeria, Annals of Humanities and Development Studies 2(1):67 – 78

Osubor K. M. Adesugun, O, Fatusi, O and Chiwuzie , J.C. (2005) Maternal Health Seeking Behaviour and Associated Factors in a Rural Nigerian Community. Maternal and Child Health Journal 10 (2):159-169

Raghupathy, S. (1996) Education and the use of maternal health – care in Thailand Social Sciences and Medicine 43 (4): 459 – 471.

Rashed, P and Khan A (1990) A multifunctional study of birth place options: Improving health care delivery in Saudi Arabia Int. J. Gynaecol Obstet 33 (3): 229 – 234.

Stewart, K and Sommerfelt, A. A (1991) Utilization of Maternity care service: A Comparative study using Demographic and Health Services Data. Demographic and Health Surveys World Conference Proceedings Vol3:1645-1668. Washington D.C Columbia, Maryland, U.S.A

World Bank (1994) Better health in Africa: Experience and lessons learned Washington, D.C. World Bank.

The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage:
http://www.iiste.org

CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

Prospective authors of journals can find the submission instruction on the following page: http://www.iiste.org/journals/ All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: http://www.iiste.org/book/

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digtial Library , NewJour, Google Scholar