

Utilization of Maternal Health Services at the Secondary Health Care Level in a Limited-Resource Setting

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Abstract

Context: Adequate prenatal and maternity services reduce maternal and perinatal morbidity and mortality in a population. In Nigeria, only a percentage of pregnant women attend prenatal clinics and deliver in the hospital.

Objective: To evaluate the level of utilization and factors militating against uptake of maternal health services at the secondary health care facility.

Methods: The researchers using semi-structured questionnaire in a cross-sectional study interviewed consenting expectant mothers from 3 randomly selected communities in Ebonyi State. Medical officers at the secondary level Healthcare facilities were also interviewed to assess volume of referrals. The study lasted 3 months.

Main Outcome Measures: Utilization of maternal health services by the respondents.

Results: About 90% of the 150 respondents were aware of the prenatal/maternity services in the General hospitals. The mean age of the respondents was 26.3±1 year. Women of the lower parities (<4) were more likely to utilize maternity services at the facilities than their grandmultiparous counterparts ($X^2 = 15.51$; p value < 0.05). Women of higher educational status also patronized the General hospitals more often. ($X^2 = 30.4$; $P < 0.05$). Only 17.2% of the 172 respondents who had previously utilized such facilities were willing to continue further patronage. The non-availability of doctors, poor quality services, lack of drugs and equipment, transport difficulties and negative attitudes of health personnel, were reasons for their disinterest.

Conclusion: Community mobilization, improvement in staffing, equipment, drug supplies and infrastructure, will optimize uptake of prenatal and maternity services at the secondary health care level.

Key Words: Culture, Maternal Health, Prenatal Care, Orthodox Facility

Introduction

The rising maternal mortality figures in Nigeria are of public health significance. Besides the known major causes of maternal mortality are other correlates that contribute significantly to the high rate of maternal deaths in developing countries. These among others include the availability and utilization of maternal health care services¹. In Ebonyi State, the maternal mortality ratio of 1884/100,000 is higher than the national average².

The Nigerian health system is organized in 3 levels: the primary, secondary, and tertiary health care levels. Each offers different levels of maternal care and are expected to be integrated through a referral system³. The primary health center, as the first point of contact for patients, offers limited maternity services for uncomplicated pregnancies, labour and puerperium, provides general health services of preventive, curative, promotive and rehabilitative nature to the population and concerns itself with community mobilization. It refers complicated cases to the secondary health care facility. The secondary health care facilities which include the General hospitals, receive referrals from the primary level and offer limited specialized and emergency maternity services, referring complicated cases to the tertiary level of care³ where highly specialized maternity services and care

for specific disease conditions complicating pregnancy, labour and puerperium are obtainable.

Materials and Methods

Study Area

Ebonyi State created in 1996 from the rural areas of the former Enugu and Abia States, has 13 local government areas (LGAs); one urban, one semi-urban and the rest rural. Each of the LGAs has a General hospital. It has estimated population of 2.1 million and occupies a landmass of 5932 km² sharing boundaries in the North with Benue State, Enugu State in the West, Abia State in the Southwest and Cross-River State in the East. About 75% of the population dwells in the rural area with farming as their major occupation.

Study Population

The rural communities used in the study were Umudomi, Ohaofia-Agba and Effium and were selected via a multi-stage random sampling, one from each of the 3 senatorial zones of the state. The urban and the semi-urban LGAs were excluded from the

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study. Also excluded from the study were non-pregnant mothers and those who declined consent. The local government chairmen and community heads in the selected towns gave permission for the conduct of the study.

Study Design

This was a cross-sectional study over a 3-month period (April 2005-June 2005). Households were numbered and one in five samples selected using the systematic sampling method. One hundred and fifty (150) expectant mothers, 50 from each community were interviewed using semi-structured questionnaires administered by the principal investigators or the trained research assistants who were conversant their local dialect. The medical officers in charge of the General hospitals were also interviewed to ascertain the volume of referrals to and from their hospitals. Records from the Obstetric unit of the Teaching hospital and the State Ministry of health in the State Capital were also examined.

Information was collected on socio-demographic characteristics, awareness of the existence of maternal services at the General hospitals and utilization of maternal services at the General hospitals. Finally, information on the constraint or factors militating against the utilization of maternal services at the general hospitals was obtained.

Results obtained were analyzed using the SPSS package version 10.0. The mean, range and percentages were used to describe the quantitative data. The Chi-Square test was used test for significance of association. P value less than 0.05 was considered significant.

Results

One hundred and fifty respondents were interviewed, 50 each from the 3 communities studied. One hundred and thirty-four (89.3%) were aware of the existence of maternal services at the General hospitals.

Seventeen (11.3%) respondents were teenagers while 9 respondents accounting for 6.0% of the respondents were aged 35 years and above. Fifty-seven (57) of the respondents (38%) were between 25 and 29 years. The mean age of the respondents was 26.3 ± 1 years (2 S.D.). Twenty-four (16%) of the respondents were

primigravidas while 57 (38%) were grandmultiparas. Parity had a significant influence on the utilization of facilities with low parity women more likely to utilize maternity services than were the grandmultiparas ($\chi^2 = 15.51$, $df = 4$; $P < 0.05$). Majority of the respondents, 65 (43.3%) had no formal education, eleven (7.3%) had post-secondary/tertiary education. The difference in the rate of utilization of maternity services at the General hospital among respondents with various educational levels was statistically significant ($\chi^2 = 30.4$, $df = 6$; $P < 0.05$). (Table 1).

One hundred and thirteen (75.3%) respondents had booked index pregnancy at various facilities. Among the booked respondents, 49 accounting for 43.4% booked in the Teaching hospital at the State Capital. Thirty-two (28.3%) respondents were managed by the traditional birth attendants (TBAs). Sixty-five point six percent of respondents seen by the TBAs also booked at other health facilities. Only 7 (6.2%) of the booked respondents booked at the general hospital while the rest booked at the private clinics, maternity homes of mission hospitals (Table 2).

One hundred and twenty-two (81.3%) of the respondents had utilized the maternity services at the General hospitals previously. A fraction (21) accounting for 17.2% of the respondents who had previously utilized such facilities were willing to continue further patronage. Among the 28 (18.7%) respondents who never utilized the facilities, only seven (25%) will want to utilize the facilities in future. The non-availability of doctors, poor quality services lack of drugs/equipment, cultural barriers, distance, negative attitudes of health personnel, transport difficulties and cost were reasons for their disinterest in the utilization of maternity services at the General hospitals. (Table 3).

Table 4 shows that 58 respondents (38.7%) would prefer to utilize services at the tertiary (state teaching) hospital, while only seven (4.7%) would prefer facilities at the General hospitals. Eighteen respondents (12%) preferred seeing the TBAs while 21 (14%) would not like to book with any facility and deliver at home. The least number of respondents 4, (2.6%) preferred private clinics.

A total of 288 women received maternity services at the General hospitals in the study areas, 13 (4.5%) were referred from Primary Health Care (PHC) facilities while 28 (9.7%) were referred to the tertiary health facilities.

Table 1: Socio-Demographic Characteristics of the Respondents

Parameters	Number	Percentage (%)
Age (Years)		
≤19	17	11.3
20-24	43	28.7
25-29	57	38.0
30-34	24	16.0
≥35	9	6.0
Parity		
0	24	16.0
1-4	69	46.0
≥5	57	38.0
Educational Status		
No Formal	65	43.3
Primary	43	28.7
Secondary	31	20.7
Post Secondary/Tertiary	11	7.3
Occupation		
Farming	74	49.3
House Wives	20	13.3
Civil Servants	9	6.0
Nurses/Midwives	4	2.7
Teaching (Primary/Secondary)	21	14.0
Seamstress	7	4.7
Hair Dresser	9	6.0
Student	6	4.0

Table 2: Facilities for Antenatal Care Visits of Respondents

Health Facilities Booked	Number	%
PHC	5	4.4
General Hospital	7	6.2
Tertiary Hospital	49	43.4
Private Clinic	3	2.7
Maternity Home	13	11.5
Mission Hospital	4	3.5
TBA	32	28.3

Discussion

Many of the respondents were aware of existing maternity services at the secondary level health care but current uptake of such services was low. Women who had previously used such services were reluctant to continue presently. This was however not statistically different from the willingness of non-users to utilize the services in future. Such reluctance by previous users might have derived from their experiences in the past. Such experiences are shared with non-users, who in turn avoid the General hospitals to obviate similar negative experiences. This hesitancy and lack of trust in the General hospitals was also evident in the small proportion of respondents who currently receive prenatal care at the hospitals, some of who also visited the TBAs. Most rural inhabitants believe that orthodox medicine should be complimented with native medication to ensure a

Table 3: Reasons for Disinterest in the Utilization of Maternity Services at the General Hospital. N=122.

Obstacles/Reasons	Number	%
Cost	3	2.5
Transport Difficulties	5	4.1
No Doctors at all	43	35.2
Doctors not available	107	87.7
No nurses/Midwives	47	38.5
Nurses/Midwives not - Available when needed	51	41.8
No Equipment/Drugs	72	59.0
Negative attitudes of Nursing staff	30	24.6
Nothing works in the hospital	81	66.4
Cultural/Traditional barrier	45	36.9
Distance	43	35.2
Dissatisfaction with quality of services	75	61.5

Table 4: Respondents Preferred Facilities for Childbirth.

Preferred Facility	Number	%
PHC	9	6.0
General Hospital	7	4.7
Maternity Home	13	8.7
Private Clinic	4	2.6
Mission Hospital	20	13.3
Teaching Hospital	58	38.7
TBA	18	12.0
Home	21	14.0

better outcome of pregnancy. Moreover they repose more confidence in the TBAs with whom they share common cultural and traditional norms⁴. The negative experience and consequent dissatisfaction at the General hospitals might also have resulted in many of the respondents booking at the Teaching hospital at the State capital, which was 30 kilometers away from the nearest study community. Preference for delivery in index pregnancy was also low for the General hospitals because majority will want to deliver either at the state teaching hospital or under the supervision of the TBAs.

Unlike in previous studies^{5,6} where cost and transport difficulties were the major hindrances to the utilization of maternity services, in this study, non-availability of doctors on 24 hours basis, negative attitude of nursing staff, lack of equipment/drugs including blood for transfusion with the resultant inherent inability to deliver quality emergency obstetric services as well as cultural factors were the limiting factors. Cost was eliminated by the free maternity health policy of the State Government. In some cultures in rural Ebonyi State, decision to seek reproductive health services lies with the male who does not directly benefit from such decision nor suffers consequences of delay in decision or indecision. It is likely therefore that such decision might be influenced by other considerations rather than reproductive health demands. In other cultures, some pregnancy and labour complications must not be managed in orthodox medical facilities, lest death will

result. Obstructed labour is viewed as punishment for marital infidelity and the parturient can only be taken to a medical facility after she must have confessed 'her sin'. The result is poor utilization of maternal health services at the General hospitals in the rural areas.

Interview with the medical officers in-charge of the PHC around the study sites revealed a very low volume of referrals to the secondary level. Of the respondents who had previously utilized secondary health care services, none admitted having being referred from the secondary level. In a situation like this therefore, the dedicated role of the secondary care center in receiving referrals from the PHC, offering basic essential obstetric care and referral of more complicated cases to tertiary care centers is eroded. Referrals are very important in optimizing patient's care in any set up.

Records from the State ministry of health revealed only 39 doctors on the staff roll of the state government, which implies an average of 3 doctors per LGA in the state. And of the 635 nurses in the state, about 450 are based in the two tertiary hospitals in the state capital, leaving than 200 nurses distributed throughout the rural communities. This may be the reason behind poor staffing obtainable in the secondary health level. Utilization of services at the secondary level of care was more prevalent among the more educated mothers and this was in conformity with a previous study⁷. Education empowers a woman and impacts positively on her health seeking behaviour, understanding the need for adequate prenatal care. Use of services was also higher among women of low parity in line with previous studies^{6,8}. The grandmultipara, having done "it" repeatedly in the past are confident they can always do it again without intervention. In previous studies such women accounted for greater proportion of unbooked emergencies at the referral centers with the consequent maternal mortality².

This was a community based cross sectional study and hence, effectively represented the health seeking

behaviour of the rural Igbo women of Ebonyi State. However, the sample size was small and may not have represented accurately the entire population of the study areas. All the households were not covered during the 'house numbering' exercise due to constraints of funding; this might have affected the randomization process. However, these shortcomings might not have had any serious adverse effect on the result of the study. This study reveals that provision of health facilities in the rural areas without complementary medical staff and supplies does not equate to health service delivery in a population. Policy makers must address this. Staff attitude determines to a large extent the patronization of health facilities by the populace. Many studies have implicated the negative attitude of staff in the poor utilization of orthodox health care facilities. It is imperative for research therefore for research to examine the determinants of staff attitude towards patients' care in orthodox medical facilities.

Conclusion

Improving access to quality prenatal and maternal services at all level of health care system remains paramount to the effort of improving maternal health. This study has revealed the poor utilization of services at the secondary health care level consequent upon inadequate staffing and capacity at that level for prompt basic and essential obstetric care. The secondary level of care should form an important link between the primary and tertiary levels of care. The referral system and feedback mechanism must be strengthened.

Enlightenment program on the importance of antenatal care and hospital delivery should be stepped up. Education of the girl child should receive the attention it deserves for female empowerment- a necessary ingredient for sustained reduction in maternal morbidity and mortality. Most importantly the health facilities should be made user-friendlier. Improvement in the staffing, equipment and drug supplies will enhance health care delivery.

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