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Short Report

IMPLEMENTING THE NEW WHO ANTENATAL CARE MODEL: VOICES FROM END USERS IN A RURAL NIGERIAN COMMUNITY.

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ABSTRACT

Context: The recommended WHO antenatal focused visits with reduced number of visits and tests is yet to be implemented in many communities in rural Nigeria.

Aim: This paper evaluated the attitude of antenatal clients in a rural mission hospital to the new antenatal model.

Study Design: Focus group discussions were carried out bi-weekly for 12weeeks with consenting booked antenatal clients. The topic guide was developed following interactions with prenatal clients at a referral tertiary center.

Results: One hundred and forty-four clients were interviewed. Prior to discussion, none had heard of the new antenatal care model. More than half of them will prefer the traditional policy with multiple visits to the new model. The traditional visit was said to be more reassuring and provides the clients time away from their routine chores/occupations and afford them the opportunity to interact with other expectant mothers and get acquainted with the health care providers.

Conclusion: To realize the goals of the new WHO recommended antenatal model in rural Nigeria, mass enlightenment and education must precede its gradual and cautious introduction.

Key Words: antenatal care, clients, rural, WHO. *(Accepted 13 July 2007)*

INTRODUCTION

Developing countries especially in sub-Saharan Africa bear the greatest burden of maternal mortality globally[1] with Nigeria contributing disproportionately high figures[2]. Almost two decades after the Nairobi Safe Motherhood Initiative (SMI) conference in 1987, higher figures are returned from the rural areas of the country[3]. Realizing the millennium development goal (MDG) of reducing maternal mortality by 75% by 2015 must adopt approaches that embrace all segments of the society, rural and urban alike.

The African traditional society places invaluable premium on offspring. Childbirth in not only greeted with resounding joy in the family and community but it also serve to elevate the social standing of families. Nigerian women receive pregnancy with joy and realize the need for medical care to ensure safe delivery of a healthy infant. They therefore in most cases seek prenatal care from the orthodox care centers, the traditional birth attendants, spiritualists, charlatans and herbal practitioners. Antenatal care has been shown to reduce maternal and perinatal morbidity and mortality[4,5]. About 64% of the Nigerian pregnant population would visit modern health facilities at least once before delivery for prenatal care[6]. The Nigerian rural communities are at the disadvantaged end of the skewed distribution of modern health facilities and personnel, traditional birth attendants (TBAs), therefore play crucial roles here in both prenatal and maternity care[7].

Pregnant women in rural area have adduced many reasons to explain the less than optimal uptake of orthodox medical services. These include cost, poor accessibility of facilities, negative staff attitude, lack of medications and medical supplies and poor organization of services[8]. The antenatal care programme in Africa is patterned after the western policy that involves multiple visit and investigations.[9]. This places enormous workload on the health care provider with resultant poor organization, content and service delivery. The WHO has enunciated a newer focused antenatal care policy for clients classified as low risk.[5].This involve reduced number of visits (four visits) and investigations[10]. Tested over 18 months in 53 clinics and compared with outcomes in 26 other clinics that offer the standard care policy, this new model was found not to be associated with any

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Increased risk for both mother and infants. In addition, it reduced the time and resources required for antenatal care, limiting the frequency of visits, clinical procedures and follow up actions to those proven to be effective in promoting positive maternal and neonatal outcomes[5].

Most centers in Nigeria are yet to implement this new model of prenatal care. Ndubia Igbeagu is a rural agrarian community in Izzi Local government Area (LGA) of Ebonyi State. It has been home to a mission hospital since the 1960s. The orthodox and traditional modes are the predominant health care systems accessed by the population. The TBAs, and herbal practitioners provide the traditional care. The TBAs enjoy a pride of place here with teeming clientele of expectant mothers. Illiteracy and poverty are prevalent in the society. Farming is their major occupation with women involved in manual occupations regarded widely as masculine in the other part of southeast Nigeria. They are mainly Christian and animists. The males have over bearing influence in reproductive health decision-making.

The mission hospital is staffed with a Consultant Obstetrician and Gynaecologist as well as medical officers, midwives and nurses. It operates the traditional antenatal clinic routine on Tuesday and Fridays when the consultant is on seat. A typical antenatal care begins with prayers, then health talks laced with advertisement for medical supplies. Songs, choruses and dances thereafter follow. Subsequently the clients queue for blood pressure measurement with urinalysis before consultation and palpations by the nurses. Clients with complaints, risk factors or medical disorders are referred to the specialist Obstetrician/Gynaecologist for further assessment. An average of sixty-four expectant women attend the antenatal clinic weekly, while the annual delivery average is 1,080.

This study aims to assess the desirability of the WHO recommended antenatal care regimen among antenatal care attendees in a rural Nigerian community.

MATERIALS AND METHODS

Study Design

This was a qualitative survey that employed multiple sessions of focus group discussions with randomly selected antenatal clinic attendees at the St. Vincent's hospital, Ndubia. It lasted 11 weeks (January 10th to March 28th 2006). In each of the clinic days, after the prayer and dancing session when the clinic is adjudged 'full', primiparous and multiparous expectant mothers who accessed prenatal care in their previous pregnancy(ies) at the index facility or any other orthodox referral center (The Teaching Hospital, The Federal Medical Centre or The Mile 4 Mission Hospital- all located in the capital town of Abakaliki, about 40km away) were grouped together and numbered. The nurse in charge of the antenatal clinic informed the women that some of them to be selected would hold discussions with the specialist Obstetrician & Gynaecologist and were given the chance to opt out of the group. She subsequently wrote down each number consecutively on a piece of paper to correspond to the number remaining in the group. These pieces of paper were folded and dropped in a basket. Then the women drew from the baskets. Those who drew the numbers 1 to 6 were recruited for the discussion. The discussion took place in a relaxed and cordial environment in the Consultant's clinic that was spacious to comfortably sit all discussants. The details of the study were explained to the discussants who gave verbal consent. The Medical officer acted as the secretary and jotted down all discussions and views of all participants. These were developed after each session. The principal investigator who is also the consultant Obstetrician/Gynaecologist had structured a topic guide following in depth interviews with ten prenatal clients at the Ebonyi State University Teaching Hospital Abakaliki the major referral center.

The investigator introduced the topic and explained extensively the recommended antenatal model, comparing it with the standard setting and x-raying the benefit derivable from the new policy. The participant duly understood the new antenatal model. At the end of the session they were directly asked to state their preferred mode of antenatal care. Each session lasted between 40 and 55 minutes. No discussant attended more than a session. Excluded from the study were primigravidae and other expectant women who have not accessed the orthodox antenatal care from modern health facilities and would therefore not be able to make comparisons with the new WHO model. Others excluded were clients with medical disorders or any complications since the new model is intended for low risk cases. The antenatal records of the subjects were examined for their socio-biological data. Their social class was derivable from the interactions of the woman's educational status and her spouse's earning a formula found useful for the African setting[11]

RESULTS

One hundred and forty-four women were interviewed in 24 sessions during the period. The subjects ranged in age from 17years to 40 years with a mean of 25.3 years. Teenagers constituted 13.9% but the majority 40.3% were within the 25 to 29 years age bracket (table1).

Nulliparas were not included in the study. Thirty-seven (25.7%) of the subjects have had two deliveries.

Primiparas and grandmultiparas constituted 14.6% and 13.2% respectively. The average parity was 3. A bulk of the respondents either had no formal education at all or had just had some form of primary education 47.2% and 42.4% respectively. None attained post secondary education. They were mainly engaged in subsistence farming 47.9% while 7.6% of them were casual labourers who undertook jobs in quarries or construction sites for daily wages. They were predominantly Christians 70.1% (table 1).

Forty-four of the subjects or 30.6% preferred the new antenatal care model, eighty-three or 57.6% would rather stick to the standard care, while seventeen (11.8%) were undecided. Table 2 shows the distribution of the subjects according to their preferences with regards to their social classes and presence or absence of a previous obstetric/perinatal complication. There were no clients who belong to the upper classes 1 and 11. Majority (59.1%) of those who would rather continue with the standard model of care belong to social class V; 40.9% were in classes 111 or IV. This was in contradistinction of the 61.4% of those in classes 111 and IV who prefer the newer model. Only 38.6% of those in this newer group belong to class V.

Fifteen (65.2%) of the 23 mothers with previous obstetric or perinatal complications preferred the standard schedule of multiple visits, three wanted the new approached adopted while one was undecided.

For those who would want the new model with fewer visits, the limitations of hospital visit would create more time for other economic ventures:

'when we come for hospital check up less frequently, we will have more time to go to our farms or even go to the markets and sell our goods, that will be very good for us and our families.'

For others it saves time and cost:

'if we take to this your new system, it means we are going to come to the hospital only four times and we will pay hospital fees only four times, that will save our money and even time'.

An important but worrisome fact emerged from some of the respondents:

'Coming less frequently to the hospital for 'oyibo' medicine, will give us more time to spend with our local midwives (TBAs) and they will have enough time to make our pregnancies normal and babies lie well.'

For the majority who would want to continue with the traditional regime, many reasons were advanced to defend their preference. Many believed that multiple visits not only qualify them to consult with the medical doctor but also enable practitioners detect their problems and reassure them of the viability of the pregnancies.

When you come many 'many' times, the nurse can now allow you to see the doctor and that is good for the baby'.

'You see, it is difficult to notice all the problems at once, it is only when you come repeatedly that they (care providers) can detect your problem and treat you well 'well' (adequately)'.

'We need to come every time and let the nurse tell you that your baby is fine, that makes us happy any time we come'.

Prenatal visit afford some women time to be away from their routine engagement, get to the hospital interact with fellow expectant mothers, dance and loosen up.

'Doctor, you know that we engage in 'hard' work everyday, it is only when we come here or visit the local midwives (TBAs) that we have time to relax and enjoy, even you meet other pregnant women like you and talk about many things that will help you and the baby'.

'Don't you know we enjoy this dance each time we come here, in fact I look forward to it. If you ask me to come only four time that means I will come only four times. No! I enjoy dancing and other women will agree with me. It helps us relax and make the baby in your 'stomach' (uterus) active and healthy.

Furthermore, coming to the hospital entails economic commitment in terms of hospital services and supply charges. Perinatal visits afford the women opportunity to reap some financial benefits from their husband.

'Let me tell you, things are very hard now, my husband does not have money and even when he has, he pretends he does not and will hardly give you anything. It is only when I am going to the hospital that he gives me money and often times I will tell him an amount more than I will pay in the hospital and use the rest in for other things. I want to continue coming to the hospital every time so that I will be collecting more money from him.'

Some respondents reasoned thus:

'The hospital is not where you go always, so you have to keep going to know the place very well and even get to know the nurses very well. You know nurses are very wicked, you doctors are better and very caring but when you know the nurses and she has seen you many times, she will not be wicked to you when you come to deliver (in labour).'

'For me, the most important thing is the talk (health talk) they give us any time you come. They are very important and you need to hear them many times and they will help you'.

Table 1: **Age and Parity Distribution of Subjects.**

	Number	%
Age (years)		
15 –19	20	13.9
20 –24	41	28.5
25 –29	28	40.3
30 –34	18	12.5
35 –40	7	5.9
Parity		
1	21	14.6
2	37	25.7
3	34	23.6
4	33	22.9
>-5	19	13.2

Table 2: **Educational Status, Occupation and Religious Affinity of the Subject**

	Number	%
Educational status		
No formal	68	47.2
Primary	61	42.4
Secondary	15	10.4
Post secondary		-
-		
Occupation		
Farming	69	47.9
Seamstress	6	4.2
Teaching	7	4.9
Trading	31	21.5
Housewife	15	10.4
Casual labourers	11	7.6
Hair dressing	5	3.5
Religion		
Christianity	101	70.1
African Traditional Religion	43	29.9

Table 3: **Antenatal Care Preferences of Respondents and Social Class Distribution**

Parameter	Standard Model N=83(%)	New Model n=44(%)	Undecided n=(17%)
Social class			
1	-	-	-
11	-	-	-
111	6(7.2)	12(27.3)	8(47.1)
IV	28(33.7)	15(34.1)	3(17.6)
V	49(59.1)	17(38.6)	6(35.3)
Previous Obstetric/ perinatal complication			
Positive history	15(18.1)	6(13.6)	2(11.8)
Negative	68(81.9)	38(86.3)	15(88.2)

DISCUSSION

This study highlights the information and communication gaps existing between the urban and rural segments of the Nigerian society. Whereas the new WHO antenatal model has been subject of many conferences, workshops and seminars in the urban centers, the population in the hinterlands, home to majority of the citizens, was yet to hear anything of it. All the participants in the focus group discussions were ignorant of this modification. Already disadvantaged by the sparse modern healthcare institutions and care providers, there is greater need to reach out to the rural populace if the efforts to realize the MDGs are to be fruitful'

It was also evident that the rural women attach more importance to prenatal care obtainable from orthodox or traditional health care settings. They however accord preeminence to the traditional birth institutions. They repose implicit confidence on the untrained TBAs believing they are naturally endowed with capacities to 'keep or make' pregnancy normal and ensure correct fetal presentation and positioning. Imogie and co-workers[7] in Edo State had earlier elaborated on the place of TBAs in maternity care especially among the rural population. The TBAs live within the community, often with long history of family practice through generations. They are culturally integrated, providing easy accessible, affordable and culturally acceptable health care services[7,12]. Many expectant mothers access antenatal care in multiples facilities (traditional and modern)[13]. A slight inconsistency in orthodox care delivery may result in a major shift towards the TBAs.

Varied were the many attractions for orthodox antenatal care for these mothers but adequate understanding of the organization and content of prenatal services were lacking. Some women enjoyed the perceived freedom from routine chores and occupation, the social environment provided and relaxed atmosphere with dancing and songs. Little importance was accorded clinical assessment. The role of the medical doctor was not understood, as some mothers believed that repeated number of visits or favouritism rather than clinical condition or presence of risk factors qualify a client to consult with a doctor. That not withstanding, they savour the reassurances of personal and fetal health after each clinical evaluation.

The higher preference of the standard care with multiple visits to the new model with limited number of visits by the Nigerian rural community is instructive. The WHO trial was undertaken in clinics in South/Latin America, the Middle East and Far East but none in Africa. A similar project to limit antenatal visits and improve utilization in Harare. Zimbabwe also elicited no enthusiasm from the population[14]. Since the rural populations of sub Saharan Africa bear the greatest burden of maternal mortality, it might be worthwhile for such trials to be carried out in the region. However, it was noted that though not

significant, majority of those who would prefer the new model were higher in social strata than those who will not. This might be due to differences in their educational background, with the more educated ones being more amenable to understanding the need for changes to enhance service delivery and client satisfaction without compromising maternal or fetal outcome. The majority of those yet undecided were also in the higher class. They may need more time to process the information. It can therefore be inferred that with further background education, the new model may become more acceptable to a greater majority. The need for the girl-child education and women empowerment as foundations for the attainment of the MDGs cannot be over emphasized.

CONCLUSION

Women in the rural Ebonyi State know the importance of prenatal care and they hold on to the routines of care that have survived through time. The new antenatal care model interpreted within their cultural and traditional context might derail an already established pattern of orthodox care and may encourage further patronage of the TBAs. Poor female education and lack of women empowerment are background factors in the poor desirability for change in the antenatal clinic schedule. Attempt therefore to implement this recommended model in the rural areas must be preceded by mass campaigns, education and community mobilization. There may also be need for modification in the model to make it more adaptable to the needs of the rural community, thereby ensuring acceptability and increase intake of orthodox prenatal care services.

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