

Choice of place of antenatal care among women of reproductive age in a semiurban population in northcentral Nigeria

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ABSTRACT

Background: Antenatal care has an important role in identifying high-risk pregnancies and improving the chances of safe motherhood particularly in developing countries where obstetric indicators are still poor. The objective of this study was to determine the choices women of reproductive age in Vom, a semirural town at the outskirts of Jos the capital of Plateau State Nigeria made to have antenatal care.

Materials and Methods: This was a cross-sectional study carried out between January and March 2015 in Vom, a semirural area about 30 km from Jos the capital of Plateau State among 2,641 (Two thousand six hundred and forty one) women of reproductive age.

Results: Fifty-eight percent of the respondents opted for antenatal care in government-owned hospitals while 29% chose faith-based institution which was in their vicinity, 11% favored private hospitals for antenatal care, while 1% chose traditional birth attendants (TBAs) and prayer houses to receive antenatal care. The majority of the respondents (32%) were females between the ages of 40 and 44 years while 22% were aged between 25 and 29 years of age. They were predominantly farmers of the Berom ethnic group and 47% of them had completed primary level of education.

Conclusion: Females in the reproductive age in this rural setting in northcentral Nigeria favored government-owned hospitals as places to receive antenatal care. Their choices were not affected by their educational status varied according to the age ranges of the respondents.

Key words: Antenatal care; reproductive age women; semiurban population.

Introduction

Estimates are that the overall antenatal care (ANC) coverage in Nigeria is 61% and represents only a marginal increase from its value of 58% a decade earlier. The maternal mortality rate in Nigeria is 560/100000.^[1] This is also far short of the 90% coverage the World Health Organization (WHO) recommends to reduce maternal and perinatal mortality.^[2] Ghana has an ANC coverage of 96% and a maternal mortality rate of 380/100000 while the ANC coverage in Chad is 43% and the MMR is 380/100000.^[3] This suggests that poor

maternal outcomes may be linked to inadequate antenatal care coverage.


There are also differentials between the antenatal coverage in rural and urban areas and between the geopolitical zones in Nigeria. The national demographic health survey compared

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percentages of individuals attending at least one antenatal care visit from a skilled provider in 2008 and 2013 in the geographical zones and showed that at the National level, there was an overall increase in antenatal coverage of 60% but the increase in the urban areas was 86% while in the rural areas it was 46.5%.^[1]

The Southwest and Southeast zones had the highest antenatal coverage while the North West had the lowest antenatal coverage. The areas with the lower ANC coverage rates in Nigeria are also those with differentially higher MMR when compared with geopolitical zones that had higher ANC coverage.^[1] The Northcentral zone where this study was done had an antenatal coverage of 67% which represents only a 2% increase from the same parameter surveyed in 2008.^[1]

The percentage of live births in the Northcentral region was 45.7% in 2013 during the survey representing an increase of 4% from 2008. These figures indicate that antenatal coverage is still below the recommended WHO figure of 90% despite its widespread acceptability as a standard care for pregnant women.^[2] ANC serves as an important entry point for maternal care and detects high-risk pregnancies such as those complicated by medical and obstetric complications and managing them. This greatly improves maternal and fetal outcome in our environment that is still battling with the very high maternal and perinatal mortality rates.^[4,5] A clinical audit of ANC carried out in Nigeria showed better maternal outcomes in pregnant women that completed antenatal care even though the risk of maternal mortality was not reduced.^[6,7]

The opportunity to treat hypertensive disorders and detect maternal infections such the human immunodeficiency virus (HIV) and counsel pregnant women on their delivery choices can be potentially lifesaving for the pregnant mother and her unborn child.

The aim of this study is to assess the choices of place of antenatal care by women of reproductive age in a semiurban community in Vom North Central Nigeria.

Materials and Methods

This was a cross-sectional study carried out in Vom district of Plateau state, Nigeria, in an area predominantly populated by the Berom ethnic group. The Vom district comprises 4 wards namely Vwang, Chugwi, Turu A and Turu B wards and has a population of 121,284 according to the 2006 census. The district is about 30 km from Jos the capital of Plateau State and covers an area of 155 km. It is served by a secondary Health facility, the Vom Christian Hospital which is a faith-based

facility and a few private health care facilities. There are also two tertiary government-owned facilities, Plateau State Specialist Hospital, and Jos University Teaching Hospital which are about 40 km away from the area of the study.

Advocacy visits were paid to the district Head, and the 4 village heads who gave permission for the study to be carried out. A minimum sample size of 2000 was calculated and proportionally allocated to the 4 wards based on the number of their households already determined by the 2006 population census in Vom. The total number of households were divided by allotted sample sizes in each of the 4 wards in the community to get the sampling interval of 5.

A structured and pretested questionnaire was then administered to females aged between 15 and 49 years in the households.

There were 2641 questionnaires and analyzed using IBM SPSS version 22 was used for analysis and, Pearson Chi-square test at $P < 0.005$ for significance level.

Results

Fifty-eight percent of the respondents chose government facilities as their preferred places for antenatal care while 29% chose the Mission hospital (Vom Christian Hospital in the vicinity), 11% opted for private hospitals while 1% of the respondents chose prayer houses, and 1% also opted for ANC by TBA.

Table 1 shows the respondents preferred places of antenatal care by age range and Table 2 shows preferred places for ANC by educational status.

The Pearson's Chi-square test P value for the respondents' responses by age for the choice of place for antenatal care

Table 1: Relationship between age and preferred place to have antenatal care

Count	Which is your preferred place to receive antenatal care					Total
	Government hospital	Mission hospital	Private hospital	Prayer house	TBA	
Age						
15-19	18	7	2	0	0	27
20-24	141	58	43	3	3	248
25-29	343	170	58	3	7	581
30-34	285	140	53	2	3	483
35-39	297	117	40	2	5	461
40-44	456	279	87	9	10	841
Total	1540	771	283	19	28	2641

$\chi^2=33.761$; $df=20$; $P=0.028$

Table 2: Relationship between education which is your preferred place to have antenatal care

Count	Which is your preferred place to receive antenatal care					Total
	Government hospital	Mission hospital	Private hospital	Prayer house	TBA	
Education						
Primary	737	332	138	10	12	1229
Secondary	383	218	75	5	8	689
Tertiary	106	71	10	1	0	188
No formal education	314	150	60	3	8	535
Total	1540	771	283	19	28	2641

$\chi^2 = 19.059$; Df=12; $P=0.087$

was 0.028 which shows a significant relationship between the ages of the respondents and their choices of place of ANC. The P value for choices for place of antenatal care by educational status ($P = 0.87$) showed that there was no significant difference in the responses based on their educational attainment.

Discussion

The purpose of this study was to assess the choices of facilities that women in the reproductive age group (15–49) made to access antenatal care in a rural community in Vom northcentral Nigeria. The results from this study showed that 58% of the females preferred to access antenatal care from government facilities which incidentally were further from their vicinity than the Mission hospital that offered secondary care in their district. 29% of the respondents opted to access antenatal care in the Mission hospital (Vom Christian Hospital) while 11% opted for private hospitals and 1% each opted for antenatal care in Prayer houses and with Traditional Birth Attendants (TBAs). The Pearson's chi square test showed no significant differences in the responses based on educational attainment ($P = 0.87$) but there was no significant relationship between the ages of the respondents and their choices of places to access antenatal care.

There is no clear consensus on the influence that age has on the choice of place to access ANC. It appears this may be affected by several other factors we did not investigate in our study such as the outcome of previous or current pregnancies. Other researchers have found that in the age of group of 35 and above, the odds of ANC utilization increased by over 200%.^[8] Younger females may not know the advantages of having ANC and may therefore seek less care.^[9] The finding in our study that showed no significant relationship between educational attainment and the choices of facilities to access ANC contrasts with other studies that significant associations between less education and nonutilization of ANC.^[10]

In a study carried out by Envuladu in Jos North among pregnant women in an urban settlement, it was shown that even with antenatal clinic attendance, 40% of women still had home deliveries.^[11] The finding in that study related home delivery with lack of formal education. We were unable to show a similar association with choice of place for ANC and educational attainment in our study. The age group between 40 and 44 years in our study were more likely to choose ANC in a hospital compared to the other age groups (P value = 0.028) and they chose government hospitals which in that environment are further in distance than faith-based institutions in the district itself. This may not be unconnected with the fact that government hospitals are better equipped and staffed, but considering that these government institutions are over 40 km away from the district, it contradicts with the findings of a study in Ibadan that associated better patronage of antenatal services when facilities are less than 5 km and lesser patronage with facilities more than 10 km away.^[12] This may imply that women of childbearing age in this rural community are prepared to travel longer distances to access ANC if they perceive that they will be offered quality services at hospitals that are further away. Other dynamics such as finances and the husband's choice for the place of antenatal care may likely alter the stated intentions in this study during pregnancy. Studies in Uganda have shown that other factors such as the quality of services greatly affect the choice of place for antenatal care.^[13]

This study also showed no significant association with educational status and choice of place for antenatal care P value 0.087. This is unusual considering that higher educational attainment is normally associated with ANC seeking attendance.^[8-10]

Strengths and limitations

A strength of this study was the large sample size covering all four villages in a district. A limitation is that this sample may not be representative of all types of rural settings in the northcentral zone limiting the applicability of findings from this study.

The study is further limited by the fact that several other factors may influence the actual choice of places for ANC in women of childbearing age despite their stated choices in the study.

Conclusion

A majority of women of childbearing age in this rural setting will choose to access ANC in orthodox hospitals as opposed to unorthodox places such as TBA and prayer houses.

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Conflicts of interest

There are no conflicts of interest.

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