AWARENESS AND UTILISATION OF ANTENATAL CARE SERVICES AND DELIVERY SERVICES IN A RURAL COMMUNITY, NORTHWESTERN NIGERIA

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ABSTRACT

Background: The fifth Millennium Development Goal seeks to improve maternal health. One of its targets is to reduce the maternal mortality ratio by three quarters between 1990 and 2015. The maternal mortality rate in Nigeria is amongst the highest in the world estimated at 704 per 100 000 live births. Antenatal care presents an opportunity for recognition and appropriate intervention for some of causes of maternal mortality in developing countries especially in rural areas.

Method: The study was a cross sectional descriptive study. A structured interviewer administered questionnaire was used to collect information on awareness and utilization of antenatal care services amongst women in the reproductive age group including attendant at last delivery in Bomo village, North Western Nigeria.

Results: Two hundred and sixty women in the reproductive age group participated in the study. More than half of the respondents (58%) were 29years and below. All the women were aware about ANC services while 83% had used the ANC services during their previous pregnancy. However only 8% of the women were attended to by a skilled attendant at last delivery. More than half (58%) of the women delivered at home unattended to by anyone.

Conclusion: There is a high level of awareness of antenatal care but a lesser utilization compared to knowledge and very low skilled attendance at delivery.

Keywords: Antenatal care; awareness; utilization; skilled attendant at delivery

INTRODUCTION

The fifth MDG seeks to improve maternal health. One of its targets is to reduce the maternal mortality ratio by three-quarters between 1990 and 2015.[1] The maternal mortality rate in Nigeria is amongst the highest in the world ranked 10th out of 183 countries.[2] The 1999 Multiple Indicator Cluster Survey reported a maternal mortality rate (MMR) of 704 per 100 000 live births. There are glaring differences in maternal mortality rates in urban areas (351 per 100 000 live births) compared to the rural areas (828 per 100 000 live births).[1] There are also wide regional variations with the North East zone having the highest MMR with 1549 per 100 000 live births followed by the North West with 1025 per 100 000 live births, while the South West and the South East have MMR of 165 and 286 per 100 000 live births respectively.[1,3] The main causes of maternal mortality in Nigeria are haemorrhage(23%), sepsis(17%), malaria(11%), anaemia(11%), abortion(11%), toxaemia/eclampsia(11%) and obstructed labour(11%).[4]

One of the key parts of maternal health services is antenatal care. It gives providers an opportunity to detect, treat and/or prevent potentially dangerous complications.[7] Utilization of antenatal care services can lead to

recognition and appropriate intervention for some of the direct causes of maternal mortality like hypertensive diseases of pregnancy and the indirect causes like anaemia in pregnancy. For instance, studies have shown compliance with antenatal iron and folate supplements reduce the incidence of anaemia before parturition in pregnant women attending ANC.[5,6] Globally, national policies concerning antenatal care vary. However, the World Health Organization (WHO) now recommends four antenatal care visits with a trained doctor, nurse or midwife during normal pregnancy. Antenatal care from a trained provider is important in monitoring pregnancy and helping to reduce the risk for the mother and child during this period.[3] Several studies have shown that there are differences in utilization of antenatal care services within countries especially between rural and urban areas[1,3,9,10,11] some of the reasons given for this include lack of awareness about ANC services, cost of services, lack of husband's/partners consent and long distance to the health facility.[1,3,9,10,11]

Awareness and utilization of antenatal care services amongst women of reproductive age in the rural areas are important because they form a substantial number and their perceptions of antenatal care determine their use of antenatal services. Utilization of ANC services has been shown to improve not only maternal outcomes but fetal outcomes as well.[12, 13] The study was carried out to assess the awareness and utilization of Antenatal care services amongst women in the reproductive age group in Bomo village, a rural community in Northwestern Nigeria.

MATERIALS AND METHOD

This cross-sectional study was carried out in Bomo village in Sabon Gari Local government area of Kaduna State, Northwestern Nigeria. It has an estimated population of 2000. Bomo village is a rural settlement located near the Ahmadu Bello University Zaria. The village is divided into nine settlements namely Bomo is a Gari, Unguwan Gabas, Unguwan Liman, Unguwan Tudun Wada, Unguwan Tsauni, Unguwan Nassarawa, Unguwan Sabon Birni, Unguwan Galadimawa and Unguwan area BZ. The inhabitants are predominantly Hausa-Fulanis. The major occupation is farming. There is a Health Clinic run by the Sabon Gari LGA located in the village. The clinic provides Antenatal care services once a week. Delivery services are also available. The village is within 3km to other health facilities that offer antenatal care services the University Health Service located in the main campus of the Ahmadu Bello University Zaria and private clinics which include Savannah Polyclinic and Jama'a clinic located in Samaru. The Ahmadu Bello University Teaching Hospital is located about 2km away. Using a prevalence of 26% of women utilizing ANC services in rural Zaria, [9] cluster sampling technique was used to select two hundred and sixty women in the reproductive age group. Each settlement was considered a cluster and 14 households were selected from each cluster by simple random sampling, 2 eligible women were selected from each household by simple random sampling. Permission to conduct the study was obtained from the Primary Health Care department of Sabon Gari LGA as well as the village head of Bomo and informed consent was obtained from the women who participated in the study. A structured interviewer administered questionnaire was administered to all eligible women by trained interviewers that were conversant in the local language, Hausa. The questionnaires sought information on socio-demographic profile, reproductive history and place of delivery, awareness and knowledge about antenatal care services (monitoring of weight, height, blood pressure monitoring, folic acid supplementation to prevent anaemia and screening for disease) and use of antenatal care services. Data was analyzed using SPSS version 15.0 International Business Machines Corporation (IBM), New York, USA. Data was presented in tables and proportions were calculated and compared to other studies.

RESULTS

Two hundred and sixty women in the reproductive age group in Bomo village participated in the study. Table 1 shows the socio-demographic profile of the respondents. The mean age of the respondents was 28.8years±3.31. There were more women in the age group 20-24 years (28.84%) followed by 15-19 (15.76%) and 25-29 (15.0%). Majority of the women (95.35%) were Hausas and all were Muslims. The predominant occupation among the women was petty trading 60%, while 23% of the women were housewives. One hundred and twenty-three women (39.6%) had no formal education while those with primary, secondary and tertiary education accounted for 25.8%, 7.3% and 5.0% respectively.

Table 1: **Socio-demographic Profile of Respondents**

Variables	Frequency	Percentage
Age (years)		
15-19	41	15.8
20-24	75	28.8
25-29	39	15.0
30-34	35	13.5
35-39	21	8.1
40-44	21	8.1
45-49	28	10.8
Total	**260**	**100**
Ethnic group		
Hausa	248	95.4
Ibo	1	0.4
Fulani	11	4.2
Total	**260**	**100**
Occupation		
Petty trading	156	60
Housewife	60	23.1
Tailor	25	9.6
Teacher	9	3.5
Student	2	0.8
Others	8	3.1
Total	**260**	**100**
Educational status		
None	58	22.3
Quranic education	123	39.6
Primary	67	25.8
Secondary	19	7.3
Tertiary	13	5.0
Total	**260**	**100**

More than half (57.7%) of the women had two to five children, 22.7% had more than five children. More than half of the women (53.5%) delivered at home unattended to by anyone during the last childbirth, 38.1% were attended to by a traditional birth attendant while only 8% were attended to by a midwife or doctor.

Table 2: **Reproductive history of respondents**

Variable	Frequency	Percentage
Parity		
1	51	19.6
2-5	150	57.7
>5	59	22.7
Total	**260**	**100**
Attendant at last childbirth		
No one	139	53.5
Traditional Birth Attendant	99	38.1
Midwife/Doctor	22	8.5
Total	**260**	**100**

All the women were aware of antenatal care. Majority, 259 (99%) said they were aware of the benefits of antenatal care services. The benefits of antenatal care services mentioned include monitoring pregnancy 155 (60%), provision of haematinics 116 (44%), monitoring blood pressure 95 (36%) and screening for disease 100 (38%). The main source of knowledge about antenatal care were relatives 117 (45%), radio constituted 67 (25%) while only 74 (28%) said health workers were their sources of information about antenatal care.

Majority of the women 217 (83%) reported they had used antenatal care services during the last childbirth. Of the 43 women who had not used the services, about a third (34%) said their husband's objection was the reason for non-use of antenatal care services. Other reasons for non-use of antenatal care services include a preference for the services of the Traditional Birth Attendant 12 (28%), could not afford the services 9 (21%) and long distance away from the centre where antenatal care services can be obtained 7 (16%). see table 3

Table 3: **Knowledge of Antenatal Care**

Variables	Frequency	Percentage
Awareness of antenatal care	260	100
Awareness of benefits		
Yes	259	99.6
No	1	0.4
	260	**100**
Benefits of antenatal care services (n=259)		
Monitoring pregnancy	155	60.0
Provision of haematinics	116	44.7
Monitoring blood pressure	95	36.7
Screening for disease	100	38.6
Source of knowledge about antenatal care (n=260)		
Friends	59	22.7
Relatives	117	45.0
Neighbors	34	13.1
Radio	67	25.8
Health personnel	74	28.5

Table 4: **Utilization of antenatal care services**

Variables	Frequency	Percentage
Attendance of ANC at last delivery		
Yes	217	83.5
No	43	16.5
	260	100
Reasons for non-attendance of antenatal care services		
Long distance	7	16.3
Husband objected	15	34.9
Could not afford services	9	20.9
Preference for TBA	12	27.9
	43	100

More than half of the women 141 (65%) who had attended antenatal clinic were booked in the second trimester, about a third of the women, 69 (32%) booked in the 1st trimester while 7 (3%) booked in the 3rd trimester.

Table 5: **Gestational age at 1st attendance at antenatal (n=217).**

Variables	Frequency	Percentage
Gestational age		
1st trimester	69	31.8
2nd trimester	141	64.9
3rd trimester	7	3.2
	217	100

More than two thirds (77%) of the respondents attended Antenatal care services at least four times during the previous pregnancy.

Table 6: **Number of times attended ANC**

Number of times attended ANC	Frequency	Percentage
<4	50	23.0
≥4	167	77.0
Total	**217**	**100**

DISCUSSION

All the women were aware of antenatal care services (100%). This was higher than the 90% reported by Onajole et al[15] in Abeokuta South in 2005. The main source of knowledge about antenatal care was from relatives (45%) while health workers constituted only 28%. This has implications showing the need for health workers to use any opportunity women visit health facilities to include information on the importance of antenatal care. Most women (83%) had used antenatal care services in the study this was high compared to the 25.9% reported by Ejembi et al[9] in rural Zaria and 32% in rural Kenya reported by Brown et al.[16] However, the percentage of women that had used antenatal care services was lower than the 99.8% reported in rural Tanzania by Mpembeni et al[17] and the 92.5% antenatal attendance reported by Jimoh in Equatorial Guinea.[18] Two thirds (77%) of the women had four or more visits this was much higher than the 34.4% reported by the NDHS 2008 in rural areas, [19] this is comparable to frequency of visits reported in some urban areas.[3, 20] The findings were similar to the findings of Peltzer[21] in an Ile Ife where 76% of women made at least 4 Antenatal care visits. However, the findings were much higher than the 49% that made at least 4 visits in a rural area in Tanzania.[17] This may be due to the relatively close proximity of the village to many health facilities.

However, despite 83 % of women having

attended antenatal care greater than half of the women (53%) delivered at home unattended to by anyone. This is similar to the findings in other studies in rural areas where a greater percentage of women attended antenatal care and yet delivered at home unattended to by a skilled attendant.[9, 17,20] This has implications in that the attendant risks in unsupervised delivery contribute to high maternal mortality. The main reason for non-utilization of antenatal care services given by a third of the women (34%) was husband's objection. This was similar to findings by Ejembi et al [9] where 36% of respondents cited husband's refusal to give consent as the reason for not using the antenatal care services. Other studies have shown that apart from husband's/partners refusal other factors like long distance from the health centers also led to non-utilization of antenatal care services [3,10,21] Although there is a Health Clinic in Bomo village that offers antenatal care services the 16% who complained of the long distance may prefer to use other health facilities outside the village. About a third (32%) of the women booked in the 1st trimester higher than the findings of Kambarami et al[23] in rural Zimbabwe where 21.6% booked in the 1st trimester. The limitation of the study was that there was no facility based record review of Antenatal care attendance.

CONCLUSION

This study shows there is a high level of awareness of antenatal care but a lesser utilization compared to knowledge and low skilled attendance at delivery. There should be involvement of husband's/partners to appreciate the importance of antenatal care so that the women can attend antenatal services since some of the rural communities are patriarchal communities. We recommend studies to be carried out on the factors responsible for these gaps with a view to improving antenatal care services utilization and skilled attendance at delivery to achieve the MDG 5 which seeks to improve maternal health.

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