ANTENATAL CARE UTILISATION AND SERVICES RECEIVED BY PREGNANT WOMEN IN PANMADINA RURAL COMMUNITY IN NORTH-WESTERN NIGERIA

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ABSTRACT

Background: Antenatal care is one of the important keys in ensuring safe pregnancy and childbirth. The pattern of utilization of antenatal services however varies in different regions of the country as a result of certain factors such as socioeconomic and socio-cultural factors on the part of the consumers, and quality of service on the part of the providers.

Objectives: To determine the pattern of utilization of antenatal care services and the services received by women Panmadina rural community in north western Nigeria.

Method: A cross sectional study that employed systematic random sampling method to interview 280 women of reproductive age group using structured interviewer administered questionnaire. The data collected was cleaned and validated and analyzed using SPSS version 15.0.

Results: A total of 280 questionnaire out the 300 administered were completely returned give a response rate of 93.5 %. As shown in table 1 the mean age of the respondents was 26.8+8years. Almost all (98.6) were married; majority (83.2%) had only Qur'anic education. About one-quarter (26.1%) of the respondents were full time house wives. Almost two-third (61.8%) of the respondents married at the age of 10 to 14 and more than two-quarter (65.4%) of those that had been pregnant had their first pregnancies between the ages 15 to 19. With respect to parity level half (50.0%) had children between 1 and 4, more than a quarter (27.5%) had more than 8 children while less than a quarter (22.5%) had between 5 and 7 children. Less than two-third (59.3%) of the respondents attended ANC, of this figure more than four-fifth attended ANC in the primary health centre. Cultural factors accounted to almost half (45.5%) of why some do not attend ANC. The ANC services received revealed that more than 90% of the respondents received haematenics, weighing, blood pressure check and abdominal examinations, these are followed by Urine tests, tetanus Toxoid vaccination and blood tests the which accounted for more 80% each. Furthermore, more than, there-quarter (75.4%) had height measurement, while ITN provision and HIV screening accounted for the least services received accounting for 34.1% and 21.6% respectively.

Conclusion: The result of the study shows that the rate of utilization of ANC services in this community is still low. The low utilization rate was significantly contributed to the cultural factors among other things. As to the ANC services received wide gaps exist in the area of ITN distribution and HIV screening. There is therefore the need to intensify health awareness campaign on ANC utilization through effective information, education and communication strategy. Furthermore, there is the need for proper integration of Roll Back Malaria and Prevention of Maternal and Child Transmission of HIV infections services in the ANC services at primary care level.

KEYWORDS: *Antenatal care, Utilization, Rural community.*

INTRODUCTION

Pregnancy and childbirth are normal processes that cause physiological changes to the body. If these changes are closely managed, the end result of the pregnancy is immense joy and happiness to the family. Antenatal care is one way of ensuring a successful end result from a pregnancy. Numerous studies have shown that utilization of ANC services have positive effect on the outcome of pregnancies.[1-4]

The WHO has recommended that pregnant women in developing countries should book for ANC within the first 4 months of pregnancy, and a minimum of four visits are required before childbirth. [5] During each of these visits, there are standard procedures that are followed to ensure that the mother and growing fetus remain healthy, and adequate plans are made for a successful childbirth. Even though ANC utilization is seen as an important maternal health indicator, and plays a role in improving maternal health, there are factors that affect access to it. Studies have shown that these factors are sometimes related to socio economic and sociocultural factors, and quality of services provided at the facilities.[6,7,8] The quality of service provided has been shown to affect utilization of maternal health services either positively or negatively. Poor quality begets poor utilization of services.[8,9] The availability of the service within the community is also a very important factor that

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has been shown to affect utilization.[10] Poverty, level of education and other socio-cultural issues are barriers to access and utilization of maternal health services.[11]

These factors also play a role in determining the place of delivery and whether a woman will have access to skilled attendant at birth or not, which also happens to be a major determinant of the outcome of the pregnancy.[12-16]

The timing of booking for ANC, the number of visits and the preference for place of delivery are related to all the factors mentioned above. Studies have shown that in Nigeria, more than 50% of pregnant women book for ANC after 14 weeks to as late as 23 weeks of gestation and even amongst those that had ANC, most of them usually deliver at home.[17-21]

This study was conducted with a view to determining the rate of utilization of ANC services and the kind of services received by the women attending ANC care. The findings from the research would avail us with valid and reliable information of the spectrum of services received, whether the services are comprehensive enough to contribute to reduction of high maternal mortality ratio in Northern Nigeria. The finding would also be useful to policy makers and programme managers in designing and re-designing the ANC care service packages.

MATERIALS AND METHOD

The study was conducted in Panmadina village of Zaria LGA, Kaduna state, north western Nigeria. It has an estimated population of 1,819. There is no health facility in the community. The nearest health facility is kofan Gaya general hospital which is about 10km away. It is also located within 30 km away from Ahmadu Bello University Teaching Hospital. A cross sectional descriptive study was conducted among women of the reproductive age group. A total of 300 questionnaires were administered using systematic random sampling technique after the calculation of the sample size using the appropriate statistical formula with the P value obtained from previous study.[23] Out of this number 280 were completely returned give a response rate of 93.5%. A pre-tested structured interviewer administered questionnaire containing both close and open-ended questions was used. The questionnaire contained information on socio-demographic profile, detail information on ANC utilization including the barriers to attending ANC services. The last segment of the questionnaire sought information on the kind of services received during ANC visits. Prior to the administration of questionnaires informed consent was obtained from the village head as well as individual respondents. Questionnaires were coded and statistical analysis was done using Statistical Package for Social Sciences software programme (SPSS) Version 15.0

RESULTS

A total of 280 questionnaire out the 300 administered were completely returned give a response rate of 935. As shown in table 1 the mean age of the respondent was 26.8±8years. Almost all (98.6) were married, one-tenth (11.4%) had primary education and less than 2% had secondary education, more than four-fifth (83.2%) had only Qur'anic education. About one-quarter (26.1%) of the respondents were full time house wives, while more than two-third (65.4%) were petty traders. The results of marriage history revealed that almost two-third (61.8%) of the respondents married at the age of 10 to 14 and more than two-quarter (65.4%) of those that had been pregnant had their first pregnancies between the ages 15 to 19. With respect to parity level half (50.0%) had children between 1 and 4, more than a quarter (27.5%) had more than 8 children while

Table 1: Socio-demographic characteristics of the study population

Characteristics	Number	Percentage
Age Group (n=280)		
15- 19	56	20.0
20-24	6	24.3
25-29	47	16.8
30-34	44	15.7
35-39	26	9.3
40-44	25	8.9
>45	14	5.0
Marital status (n=280)		
Single	2	0.7
Married	276	98.6
Separated	2	0.7
Educational level (n=280)		
None	10	3.6
Qur'anic only	233	83.2
Primary	32	11.4
Secondary	5	1.8
Occupation (n=280)		
House wife	73	26.1
Trader	183	65.4
Civil servant	2	0.7
Farmer	1	0.4
Artisan	11	3.9
Others	10	3.6
Age at first marriage in years (n=280)		
<10	6	2.1
10-14	173	61.8
15-19	97	34.6
20-24	3	1.1
>24	1	0.4
Age at first pregnancy (n=280)		
10-14	38	13.6
15-19	183	65.4
20-24	41	14.6
>24	6	2.1
Parity (n=280)		
1-4	136	50.0
5- 7	59	22.5
>8	73	27.5

Table 2: Pattern of utilization of ANC Services among the study population in the Panmadina community

Characteristics	Number	Percentage
ANC Attendance (n=280)		
Yes	167	59.3
No	101	40.7
Place of attendance of ANC (n=167)		
Primary health		
Center	48	88.6
Private hospital	5	3.0
Secondary HC	7	4.2
Others	7	4.2
Age at booking during last ANC (n=167)		
<3 months	6	3.6
3-6 months	141	66.5
>6 months	20	31.1
Number of ANC visits (n=167)		
<1	4	2.4
2-4	111	66.5
>4	52	31.1
Reasons for non attendance of ANC (n=101)		
Lack of knowledge	28	27.7
Lack of funds	16	15.8
Spousal refusal	5	5.0
Distance	5	5.0
Attitude of health workers	1	1.0
Cultural factors	46	45.5

Table 3: ANC services received by the study population

Characteristics	Number	Percentage
ITN	75	34.1
Haematenics	162	97.0
Abdominal examination	151	92.0
HIV screening	36	21.6
Blood test	143	85.6
Urine test	149	87.4
Tetanus Toxoid	144	86.2
Blood pressure	155	93.9
Weight measured	158	94.6
Height measured	126	75.4

less than a quarter (22.5%) had between 5 and 7 children.

As shown in table 2 less than two-third (59.3%)of the respondents attend ANC, of this figure more than four-fifth attend ANC in the primary health centre, while secondary health facilities and private hospitals accounted for less than one-tenths each. With respect to the age at booking more than half (51.1%) booked at between 3 and 6 months and more than one-tenths (12.0%) booked at more than 6 months of pregnancy. As to the number of ANC visits only less than one-fifths (18.%) had up to four visits while more than two-third (66.5%) had between 2 to 4 visits. Factors responsible for non attendance of ANC include cultural factors which accounted to almost half (45.5%), lack knowledge more than one-quarter (27.7%) and lack of funds (15.8%)

Table 3 shows the various ANC services received, from the table more than 90% of the respondents received haematenics, weighing, blood pressure check and abdominal examinations, these are followed by Urine tests, tetanus Toxoid vaccination and blood tests the which accounted for more 80% each. Furthermore, more than, there-quarter (75.4%) had height measurement, while ITN provision and HIV screening accounted for the least services received with 34.1% and 21.6% respectively.

DISCUSSION

Antenatal care is one way of ensuring a successful end result from a pregnancy and also ensuring a safe puerperium, the coverage however is different in parts of the world. In Nigeria where the TFR is 5.7 and average age at 1st marriage is 15years, the ANC coverage is 53% and 41% in north-west and north-east respectively. [22] Our study found that 59% of women in Panmadina attended ANC during their last pregnancy. This is higher than the national average but is similar to findings of other reports from sub Saharan Africa. [17, 18] As to the first time of booking in pregnancy, the WHO recommends 12 weeks of gestation[5]. In our study, less than 10% of respondents booked within that period. However, majority of the clients booked between 13 and 24 weeks of gestation. This is similar to the findings of studies from northern Nigeria that reported average age at first booking of 23 or more weeks of gestation[1, 14].

Another factor associated with ANC is the number of ANC visits; the WHO recommends at least four visits during ANC. [5] In this study however, only 18% of respondents had four or more visits. This is lower than findings from other studies in Northern Nigeria [22]. This low level of ANC attendance may be attributed to some barriers to continuity of ANC service in the rural settings such as finance, distance among other things. As to the factors responsible for non utilization of ANC services some pregnant women in the community, our study revealed cultural factors, low level of ANC knowledge on ANC as well as financial reasons. With the declaration of free maternity care Kaduna state, which has been in operational since 2007, the assumption would have been that the issue of financial barrier would have been addressed.

Studies have shown that availability of quality services improves utilization of maternal health services, and that there is a positive correlation between level of income, level of education and utilization of maternal health services.[1, 6, 8, 15, 16] A cursory look at the ANC services received, there appreciable service provision in some are areas such provision of haematenics, weighing, blood pressure check and abdominal examinations, in that close 100% of the respondents were receiving. However, services like ITN

provision and HIV screening remain significantly low. These might be due to poor or slow implementation of Roll Back malaria and PMTCT services at primarily care level were majority of the respondent attend their ANC services.

CONCLUSION

The result of the study shows that the rate of utilization of ANC services in this community is still low. The low utilization rate was significantly contributed to the cultural factors among other things. As to the ANC services received wide gaps exist in the area of ITN distribution and HIV screening. There is therefore the need to intensify health awareness campaign on ANC utilization through effective information, education and communication strategy. Furthermore, there is the need for proper integration of Roll Back Malaria and Prevention of Maternal and Child Transmission of HIV infections services in the ANC services at primary care level.

REFERENCES

1. Adekanle DA, Isawumi AI. Late Antenatal Care Booking and Its Predictors among Pregnant Women in South Western Nigeria. Online J Health Allied Scie 2008; 7(1):4 accessed 21/ 02/ 2009.

2. Young A, Chard T. The effectiveness of current antenatal care. In: Studd J (ed). Progress in obstetrics and gynecology. Edinburgh: Churchill Livingstone 1996, Vol 12: 3 18.

3. Omigbodun AO. Preconception and antenatal care. In: Kwawukume EY, Emuveyan EE (Eds). Comprehensive obstetrics in the Tropics. Asante and Hittscher Accra 2002: 7 14.

4. Ekwempu CC. The influence of antenatal care on pregnancy outcome. Trop J Obstet Gynecol 1988; 1:6771.

5. World Health Organization. WHO antenatal care randomized trial: manual for the implementation of the new model. WHO Program me to map best reproductive health practices? Geneva. 2000.

6. Kabir M, Iliyasu Z, Abubakar IS, Asani A. Determinants of utilization of antenatal care services in Kumbotso Village, northern Nigeria. Trop Doc 2005; 35(2):110-111

7. Sule SS, Ijadunola KT, Onayade AA, Fatusi AO, Soetan RO, Connell FA. Utilization of primary health care facilities: lessons from a rural community in southwest Nigeria. Niger J Med 2008; 17(1): 98-106

8. Bloom S, Lippeveld T, Wypij D. Does ANC make a difference to safe delivery? J Health Policy and Planning 1999 ;14: 38-48

9. Liew T, Michael J D, Julie B. Determinants of ANC utilization in three rural areas of Vietnam. J Pub Health Nur 2007; 24(4): 300-310

10. Natalya B, Rachel H, Ilana B, utilization of ANC services by semi nomadic Bedouin Arab: Evaluation of the impact of the local MCH clinic. J Mat Child health 2007; 11:5:425-430

11. Katung PY .Socio-economic factors responsible for poor utilization of the primary health Care services in a rural community in Nigeria. Niger J Med 2001; 10(1):28-9.

12. Okunlola MA et al. Factors influencing gestational age at antenatal booking at the University College Hospital, Ibadan, Nigeria. J Obstet Gynecol 2006; 26(3):195197

13. Ekele BA, Tunau KA. Place of delivery among women who had antenatal care in a teaching hospital. Acta Obstet Gynecol Scand 2007; 86(5):627-30.

14. Ikeako LC, Onah HE, Iloabachie GC. Influence of formal maternal education on the use of maternity services in Enugu, Nigeria. J Obstet Gynaecol 2006; 26(1):30-4.

15. Fatmi Z, Avan BI. Demographic, socio-economic and environmental determinants of utilisation of antenatal care in a rural setting of Sindh, Pakistan. J Pak Med Assoc 2002; 52(4):138-42.

16. Adamu YM, Salihu HM. Barriers to the use of antenatal and obstetric care services in rural Kano, Nigeria. J Obstet Gynaecol 2002; 22(6):600-3.

17. Ekele BA, Audu LR. Gestation age at antenatal clinic booking in Sokoto, northern Nigeria. Afr J Med Sci 1998; 27(3-4):161-3.

18. Bawa SB, Umar US, Onadeko M. Utilization of obstetric care services in a rural community in southwestern Nigeria. Afr J Med Sci 2004; 33(3):239-44

19. Gharoro EP, Igbafe AA. Antenatal care: some characteristics of the booking visit in a major teaching hospital in the developing world. Medical Science Monitor 2000; 6:519522

20. Mwaniki PK, Kabiru EW, Mbugua GG. Utilisation of antenatal and maternity services by mothers seeking child welfare services in Mbeere District, Eastern Province, Kenya. East Afr Med J 2002; 79(4):184-7.

21. Nielsen BB, Liljestrand J, Thilsted SH, Joseph A, Hedegaard M. Characteristics of antenatal care attenders in a rural population in Tamil Nadu, South India: a community-based cross-sectional study. Health Soc Care Comm 2001; 9(6):327-33.

22. National Population Commission and ORC Macro Nigeria Demographic and Health Survey 2003.