



Knowledge and Utilization of Antenatal Care Services by Women of Child Bearing Age in Ilorin-East Local Government Area, North Central Nigeria.

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ABSTRACT

Background: Antenatal care is an important determinant of maternal mortality rate of which live of the mothers and babies depend. The study examine the knowledge and utilization of antenatal care among the women of reproductive age group in Ilorin East Local Government, Kwara State, North Central Nigeria.

Methodology: The study was carried out among women of reproductive age group (15-49) years in Ilorin East Local Area, using a descriptive cross-sectional study design. Data was collected using pretested, Interviewer administered, semi-structured questionnaire. A total of 405 respondents were selected using multistage sampling technique. Most recent pregnancy was used as reference to obtain all the necessary information. Data was analyzed using epi-info soft ware package and findings presented with appropriate tables.

Results:The result shows 355 (87.7%) of the respondents were aware of antenatal care. Among the 355 respondents that were aware of antenatal care, 248 (69.9%) had good knowledge on the activities carried out in the provision of antenatal care services. There was high antenatal care attendance, 311 (76.8%) of the respondents attended antenatal care with high patronage of government health facilities by over three quarter (86.5%) of the respondents that attended antenatal.

Conclusion: There was a high level of awareness and attendance of antenatal care with high patronage of government health facilities. More than two third of the respondents that were aware of antenatal care had good knowledge on the activities carried out in the provision of antenatal care. Education should be made free for all girls up to secondary school level. Antenatal services should be made free for all pregnant women.

Keywords: Knowledge, utilization, antenatal-care, Ilorin-East

I. INTRODUCTION

The health related millennium development goal 5 is to improve maternal health. Acheiving this goal in Nigeria is difficult as the country loses 145 women of child bearing age daily.^[1] This makes the country the second largest contributor maternal mortality rate in the world. Among all the regions of the world, Africa has the highest maternal mortality rate and the lowest child health status.^[2] In year 2000, W.H.O estimated maternal mortality ratio of 920/100,000 live births for sub-saharan Africa with a life time risk of maternal death of 1 in 16. This rate is very high when compared to the developed countries' life time risk of 1 in 2800, estimated during the same time period. Nigeria has approximately two per cent of the world population and contributes almost 10% of the world maternal death.^[3] Also, maternal mortality ratio in Nigeria is 1,100 per 100,000 live births and this is higher than the western regional average.^[4]

Antenatal care is an important determinant of maternal mortality rate and one of the basic components of maternal care, on which the lives of mothers and babies depend. The World Health Organization (W.H.O) defines antenatal care as a dichotomous

variable with a pregnant woman having one or more visit to a trained person during the pregnancy.^[5] The minimum number of antenatal care visits during pregnancy recommended by world health organization and united nation children fund is four. The components of antenatal care include: health promotion which involve advising pregnant women on nutrition and health care as well as counselling to alert women on signs of danger and give them a health plan for the birth, assessment, history taking, physical examination, screening test for Human Immunodeficiency Virus Infection and some other sexually transmitted diseases, chronic and hereditary diseases, early detection and management of complications where needed, prevention of malaria, hookworm, tetanus, Management of sexually transmitted diseases, anaemia and other conditions. Antenatal care represents a significant opportunity to reach a large no of pregnant women.^[6] In Sub-Saharan Africa, 72% of pregnant women received antenatal care visit one or more times and 68% in South East Asia. Less than one third of pregnant women received antenatal care in Pakistan.^[7] Only 64% of pregnant women in Nigeria received antenatal care from a qualified health care provider while 37% of the deliveries take place in health institutions and 57% of deliveries take place at



home.^[8] A regional disparity also exist as 28% of women in the Northwest zone and 54% in the Northeast zone of Nigeria received antenatal care from trained health professionals.^[9]

Health knowledge is considered to be one of the key factors that enable women to be aware of their right and health status in order to seek appropriate health services.^[10] A study that was conducted in Tunisia to investigate mothers' knowledge about preventive care indicated that 95% of women knew the importance of antenatal examination, but this study did not report the extent of availability and utilization of antenatal services.^[6] Another study by Collinson and Cowley indicated that client knowledge was related to utilization of health services. In a study conducted in Pakistan to assess the delivery pattern of maternal and child health services, it was reported that all the beneficiaries who knew about the health services used them.

The level of knowledge of women of child bearing age about antenatal care will help draw attention to the areas where health workers should focus on while educating women about maternal health. Also, utilization of antenatal care services is associated with improved maternal and neonatal health outcomes. This survey will help to provide data for implementation of intervention programmes to improve maternal health in the local government area of study. The survey will also help to provide information that the policy makers can use for planning. The reportedly high maternal mortality rate in Nigeria with antenatal care utilization being an important determinant of maternal mortality rate is a justification for carrying out this study.^[11] This aims of the study is to determine the knowledge and utilization of antenatal care services by women of child bearing age in Ilorin East Local Government Area in North Central Nigeria.

II. METHODOLOGY

This descriptive cross sectional study was carried out in the month of february 2012 in Ilorin East Local Government Area with the headquarter at Oke-oyi. The Local Government Area has a total population of 290,259. It consists of twelve wards and each of the wards is made up of settlements. There were 19 private and 24 public health facilities in the Local Government Area and all of them offer antenatal care services with well trained medical staff. There are also traditional birth attendants that provide alternative source of antenatal care service delivery in the Local Government Area. The major occupation of the women living in the Local Government Area was weaving. The predominant religions are Islam and Christianity.

The study population were all women within the reproductive age group 15-49years in Ilorin East Local Government Area. Only women with children less than five years old were included in the study. Data was generated from the respondents through the administration of semi-structured interviewer-administered questionnaire. The Fischers formula $n = \frac{Z^2pq}{d^2}$ for sample size determination was used to calculate the sample size which was found to be= 368 where: P=Prevalence of the problem (prevalence of antenatal care attendance from a previous study

in Nigeria was put at 60.3%^[12]). Sample size was rounded up to 405 to cater for 10% attrition or non response.

A multistage sampling technique was used to select the respondents in the study. In stage 1, four wards were selected by simple random sampling technique by balloting out of the twelve wards in Ilorin East Local Government Area. In stage 2, one settlement was chosen in each of the selected wards by simple random sampling using all the settlements in each of the selected wards as sampling frame. Stage 3 involved selecting a street in each of the selected settlements by simple random sampling using all the streets in each of the settlements as sampling frame while in stage 4, in selecting the houses to be sampled in each of the settlements, the grid method was used to determine the first house thereafter every third houses were selected. All the women that satisfied the eligibility criteria in each of the houses entered were interviewed until the required sample size was obtained. Equal numbers of respondents were randomly picked from each of the streets selected for the study. All women within the reproductive age group 15-49 years who gave birth within five years preceding the study and agreed to participate and were physically found at home on the day of the study were included in the study. Women outside the reproductive age group of 15-49 years were excluded from the study.

The questionnaire was pretested in Offa, Kwara state which is located 45 kilometres from Ilorin. The questionnaires were sorted and coded. All completed ones were checked for errors and completeness. Properly completed questionnaires were analyzed using EPI INFO version 3.51 software package. Statistical analysis included frequency distribution tables. A scoring system was used for assessing the knowledge of the respondents by awarding marks based on their responses to some questions of the questionnaire. Grading of scores was done based on the total scores obtained from the marks awarded to the questions in relation to the total obtainable scores and this was graded into three levels namely: Poor, fair and good knowledge of women of reproductive age group.

Ethical approval was obtained from the Department of Epidemiology and Community Health, University of Ilorin Teaching Hospital and informed consent was obtained from the respondents after explaining the purpose and benefit of the research to them. Questions on antenatal care utilization was only limited to the most recent pregnancy in order to minimize recall bias. There were some instances in which the length of time between the most recent birth and interview was long and such respondents might be subjected to recall bias.

III. RESULTS

Four hundred and five questionnaires that were properly filled were retrieved and analysed. The mean age of the respondents was 31.8 ± 7.6 years. More than half of the respondents (65.2%) were between the ages 25-39 years old and majority of the respondents (90.9%) were married. Most of the respondents were of Yoruba ethnic group 360 (88.9%) and 353 (87.2%) were



moslems. More than one third of the respondents 168 (41.5%) had primary education while 18 (4.4%) had tertiary education.

Table 1. Sociodemographic Data

Characteristics	Frequency (n=405)	Percentage (%)
Age group (years)		
15-19	30	7.4
20-24	47	11.6
25-29	81	20.0
30-34	70	17.3
35-39	113	27.9
40-44	55	13.6
45-49	9	2.2
Marital Status		
Married	368	90.9
Single	28	6.9
Separated	6	1.5
Widowed	3	0.7
Ethnic Group		
Yoruba	360	88.9
Hausa	12	3.0
Igbo	7	1.7
Others	26	6.4
Religion		
Islam	353	87.2
Christianity	52	12.8
Level of Education		
None	34	8.4
Primary	168	41.5
Secondary	171	42.2
Tertiary	18	4.4
Others	14	3.5
Employment		
Employed	308	76.0
Unemployed	97	24.0
Total	405	100.0

Three hundred and fifty five respondents (87.7%) were aware of antenatal care out of which 92 (25.9%) had fair knowledge about the activities carried out during the antenatal care services, 248 (69.9%) had good knowledge while 15 (4.2%) had poor knowledge.

Yes	355	87.7
No	50	12.3
Total	405	100.0

Table 2: Awareness of antenatal care services among the respondents

Awareness of antenatal care services.	Frequency	Percent (%)

Table 3: Distribution of the respondents knowledge and response on the activities carried out during antenatal care.



Activities carried out during antenatal care	Frequency		Total (%)
	Yes (%)	No (%)	
Weight and Height measurement	260 73.2	95 26.8	355 100.0
Blood pressure monitoring	329 92.7	26 7.3	355 100.0
Blood test	310 87.3	45 12.7	355 100.0
Urine test	317 89.3	38 10.7	355 100.0
Abdominal examination	325 91.5	30 10.7	355 100.0
Administration of tetanus injection	312 87.9	43 8.5	355 100.0
Use of Iron/folic acid tablets	334 94.1	21 12.1	355 100.0
Use of anti malaria prophylaxis	282 79.4	73 5.9	355 100.0
Counselling on HIV test	269 75.8	86 24.2	355 100.0
Education on signs of pregnancy complication	248 69.9	107 30.1	355 100.0

Many of the respondents 311 (76.8%) attended antenatal care during the last pregnancy while 94 (23.2%) did not. Most of the respondents that attended care 269 (86.5%) did so at a public health facility, 27 (8.7%) attended antenatal care at the private health facility, 10 (3.2%) at traditional home while 5 (1.6%) at the church.

Table 4: Knowledge scoring of the activities carried out during antenatal care.

Activities carried out	Frequency	Percent (%)
0-4 Poor knowledge	15	4.2
5-7 Fair Knowledge	92	25.9
8-10 Good knowledge	248	69.9
Total	355	100.0

Table 5: Attendance of antenatal care by the respondents when they had their last pregnancy.

Attendance of antenatal care	Frequency	Percent (%)
Yes	311	76.8
No	94	23.2
Total	405	100

Table 6: Distribution of the respondents based on place of antenatal care attendance

Place of attendance	Frequency	Percent
Public health facility	269	86.5
private health facility	27	8.7
traditional home	10	3.2
Church	5	1.6
Total	311	100

Among the respondents that attended antenatal care during the last pregnancy 83 (26.7%) were advised by their mother, 74 (23.8%) were advised by their husband while 47 (15.1%) were advised by friends.

Table 7: Distribution of the respondents' base on who advised them to attend antenatal care services.

Adviser	Frequency	Percent
Friend	47	15.1
Husband	74	23.8
Mother	83	26.7
Relatives	38	12.2
Self	69	22.2
Total	311	100

IV. DISCUSSION

More than two thirds of the respondents(87.7%) were aware of antenatal care services. This finding is slightly different to what was obtained in another study done in Uganda in 2004 in which 70% were aware.^[6] The high literacy status of the respondents might be responsible for high level of awareness about antenatal care services among the respondents. Among the respondents that were aware of antenatal care services, over two thirds had good knowledge on the activities carried out in the provision of



antenatal care, this may be attributed to high literacy status of the respondents.

There was a high antenatal care attendance among the respondents (76.8%) when they had their last pregnancy. This also might be as a result of the following reasons; high literacy rate of the respondents, high level of awareness of antenatal care among the respondents and more than two third of the respondents had good knowledge on the activities carried out in the provision of antenatal care. This is different to the findings of Fatusi and Babalola in Ile-ife, Nigeria where a lesser proportion (60.3%) of the respondents attended antenatal care^[12] and shows that client Knowledge is related to the utilization of health services. This is also supported by a study carried out by Nigussie et al^[13] in which maternal education was a strong predictor of preference for a place of delivery and mothers whose educational status was secondary high school and above were about 11 times more likely to give birth at health institutions than women with other levels of education.

Majority (76.8%) of the respondents that attended antenatal care when they had their last pregnancy did so in a public health facility. Reason for this finding is not far fetched as antenatal care services are offered at a subsidized rate in public health facilities. This finding is slightly similar to related finding obtained in a related study carried out in Ilesha Nigeria where more than half of the respondents (58.2%) delivered their babies at government hospital while 37.8% delivered in the church.^[14] It is probable that the pregnant women that accessed antenatal care where the services are free or subsidized are more likely to deliver their babies in the same place.

V. CONCLUSION & RECOMMENDATIONS

There was high level of awareness of antenatal care services. Majority of the respondents had fair/good knowledge on the activities carried out during antenatal care and there was a high level of antenatal care attendance which took place mostly at the public health facilities. Antenatal services should be made free for all pregnant women in order to improve utilization. Government should make provision for a special package or incentive for all pregnant women that come for antenatal at government hospitals as this will serve as motivation for the pregnant women to patronize government hospital. Education should be made free for women up to at least secondary school level as this will go a long way in improving utilization of antenatal services.

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