

## **Factors influencing utilization of antenatal care services among pregnant women in Ife Central Lga, Osun State Nigeria**

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### **ABSTRACT**

*Antenatal care is a key strategy for reducing maternal and neonatal morbidity and mortality rate because adequate utilization of antenatal health care services is associated with improved maternal and neonatal health outcomes. This study aimed at determining the factors influencing the utilization of antenatal clinic among pregnant women in Ife Central Local Government Area, Osun State, Nigeria. Stratified sampling technique was used to select 102 pregnant women from Ife Central Local Government Area of Osun State, Nigeria. Data were collected using a questionnaire. Both descriptive and inferential statistics were used to analyze the data generated and level of significance was set at 5% (0.05). The findings revealed that majority of the respondents 48 (47.1%) first heard of ANC in the hospital. Most of the respondents 85(83.3%) knew the services rendered at antenatal clinic and had adequate knowledge of the importance of antenatal care. The findings also revealed that majority of the respondents 58 (56.9 %) attend ANC regularly; 56(57.1%) booked for antenatal care in the first trimester; and attend on appointment days after booking. The study also showed that majority of the respondents opined that affordability of antenatal services, schedule of ANC, lack of knowledge about the existing services in ANC and Husband's acceptance of the services rendered as the major factors influencing its utilization. The findings also revealed that there was significant association between knowledge, distance, marital status, religion and level of education of respondents under study and their utilization of ANC services with  $p < 0.05$ . On the other hand no significant association was found between parity and occupation of respondents under study and their utilization of ANC services with  $P > 0.05$ .*

**Key Words:** Factors, Utilization, Antenatal Care, Pregnant Women.

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### **INTRODUCTION**

The United Nations estimates that 529 000 women die each year from complications during pregnancy and childbirth [AbouZahr & Wardlaw, 2004]. In Nigeria, it is estimated that approximately 59,000 of maternal deaths take place annually as a result of pregnancy, delivery and post delivery complications [WHO, UNICEF, UNFPA, 2007] despite the available antenatal health care services. A Nigerian woman is 500 times more likely to die in childbirth than her European counterpart. Mortality ratio is about 800- 1,500/100,000 live births with marked variation between geo-political zones- 165 in south west compared with 1,549 in the North- east and between urban and rural areas [NDHS, 2003; NPC, 2008].

Each year, about 6 million women become pregnant; 5 million of these pregnancies result in child birth [WHO, UNICEF, UNFPA, 2007]. Antenatal care refers to the care that is given to an expectant mother from the time that

conception is confirmed until the beginning of labor [Viccars, 2003]. Adequate utilization of antenatal health care services is associated with improved maternal and neonatal health outcomes. Antenatal care is expected to have impact on the development of the fetus and the infant as well as mother and this can only be achieved through early booking and regular attendance of antenatal clinic.

The trend of maternal mortality in developing countries has been increasing and various international organizations have reported that an important factor related to maternal and infant mortality has been linked to lack of antenatal care [Villar, et al. 2001]. According to Federal Ministry of Health [2005], some of the dangers of pregnancy and childbirth can be avoided if the pregnant woman attends antenatal regularly. In order to decrease these mortality rates, regular antenatal care has to be instituted or reinforced which can only be achieved through identifying factors causing poor utilization of antenatal care services.

According to WHO [2001] only 60% of women receive antenatal care in Nigeria, and not all of them attend the antenatal clinic regularly [Villar et al., 2001]. A study reported that with maternal risk held constant, low birth weight, and infant mortality were 1.5-5 times higher with late and less frequent antenatal care than with early and frequent care [Quick, Greenwick & Reghman, 1991]. A study carried out on reproductive health issues showed that in 69% of the recorded births, the mothers made 4 or more antenatal visits, while 20% made fewer than 4 visits and 6.3% did not attend at all which is contrary to WHO recommendation of 12 visits [Villar et al., 2001]. This shows that there are marked differential in the use of antenatal and same as been observed in Ife Central Local Government Area of Osun State Nigeria. Thus giving rise to the need to identify the factors influencing the utilization of antenatal clinic among pregnant women in Ife Central LGA, Osun State Nigeria

#### **Specific Objective**

- To understand the trend of utilization of antenatal care services by pregnant women in Ife Central local government area, Osun State.
- To assess the level of knowledge of pregnant women about antenatal care services in Ife Central local government area.
- To determine the factors influencing the utilization of antenatal care services among pregnant women in Ife Central local government area.

#### **Null Hypothesis**

- There is no significant difference between distance/proximity of ANC clinic to residence of pregnant women under study and the utilization of ANC services.
- There is no statistically significant association between socio-demographic characteristics of pregnant women and their utilization of ANC services.
- There is no significant difference between the knowledge of pregnant women under study and their utilization of ANC services.

#### **Significant of Study**

This study will enable the health care professional to determine the factors causing poor or irregular utilization of antenatal care services and how to eradicate it. It will also help the government to develop and implement new policies towards encouraging proper utilization of antenatal care services, which will help to reduce maternal and neonatal morbidity and mortality rates,

#### **Research Methodology**

A descriptive research design was used and the study setting was Ife Central Local Government Area in Osun State, Nigeria. It is an urban area with many ancient infrastructure and various cadres of people reside in Ife Central Local Government Area with different religion, cultural background, level of education and ethnicity. The target population were all pregnant women in Ife Central Local Government Area of Osun State, Nigeria. Stratified sampling technique was used to select 102 pregnant women in Ife Central Local Government Area of Osun State, Nigeria. The instrument for data collection was self developed questionnaire which was divided into sections relevant to the objectives of the study. Informed consent of the respondents was sought and the purpose of the study was explained to the respondents. Information provided by the respondents was treated confidentially and respondents' anonymity was maintained. The necessary translation of the contents of the questionnaire was given to the women for proper understanding. The data obtained was analyzed using statistical package for social sciences

(SPSS) for windows 11.0. Both descriptive and inferential statistics were used to analyze the data collected and level of significance was set at 5% (0.05) such that significant associations were established when  $p < 0.05$ .

## RESULTS

**Table 1 Frequency Distribution of Demographic Data of Respondents (n=102)**

DEMOGRAPHIC VARIABLES	FREQUENCY(N)	PERCENTAGE (%)
AGE(Years)		
15-24	31	30.4
25-34	38	37.3
35-44	33	32.4
OCCUPATION		
Civil servant	48	47.1
Personal business	34	33.3
Housewife	20	19.6
RELIGION		
Christianity	55	53.9
Islam	41	40.2
Traditional	6	5.9
MARITAL STATUS		
Married	69	67.6
Single	21	20.6
Divorced	12	11.8
EDUCATIONAL QUALIFICATION		
No formal education	20	19.6
Primary school or below	33	32.4
Secondary school	27	26.4
Tertiary institution	22	21.6
AVERAGE INCOME PER MONTH(Naira)		
10,000 and below	32	31.4
10,000-50,000	47	46.1
50,000-above	23	22.5
Parity (Children)		
Below 3	74	72.5
4	18	17.7
5 and above	10	9.8

Table 1 shows that majority of the respondents 38 (37.4%) were between 25-34 years, while 33 respondents (32.4%) were between 35-44 years and 31 respondents (30.4%) were between 15-24 years. 55 (53.9%) were Christian, 41 (40.2%) were Islam and the remaining 6 (5.9%) were traditionalist. Most of the respondents 48 (47.1%) were civil servant, while 34 (33.3%) have personal business and the remaining 20 (19.9%) were full housewives. 69 (67.6%) of the respondents were married, 21 (20.6%) single while 12 (11.8%) were divorced. Majority of the respondents 33 (32.4%) had primary school education, while 27 (26.5%) had secondary school and 22 (21.5%) had tertiary institution. 20 (19.6%) had no formal education. Majority of the respondents 74 (72.5%) had below 3 children, 18 (17.7%) had 4 children and 10 (9.8%) had 5 children and above

**Table 2 Frequency Distribution of Respondents on Knowledge of Antenatal Care (n=102)**

Knowledge variable	Frequency (n)	Percentage (%)
You First Heard of ANC Through		
Friends	15	14.7
School	21	20.6
Hospital	48	47.1
Others	18	17.6
Do you know the services rendered at antenatal clinic		
Yes	85	83.3
No	17	16.7
Antenatal care helps detect complications during pregnancy		
Yes	84	82.4
No	18	17.6
Antenatal care helps to reduce maternal and neonatal morbidity and mortality		
Yes	81	79.4
No	21	20.6

Table 2 shows that majority of the respondents 48 (47.1%) first heard of ANC in the hospital, 21(20.6%) in school, 15 (14.7%) through friends while 18 (17.65) heard of it through other means. 85(83.3%) of the respondents knew the services rendered at antenatal clinic, while 17 (16.7%) does not. Majority of the respondents 12:84(82.4%) agreed that attendance of ANC helps detect possible complications during pregnancy while 18 (17.6%) answered no to this question. 81(79.4%) said that antenatal care helps to reduce maternal and neonatal morbidity and mortality while 21(20.6%) said otherwise.

**Table 3 Frequency Distribution of Respondents Showing Utilization of ANC (n=102)**

variables	Response	Frequency	Percentage
Do you attend ANC regularly	Yes	58	56.9
	Sometimes	40	39.2
	Never attended	4	3.9
*Proximity of ANC	Walking distance	30	30.6
	One bus	52	53.1
	Two or more buses	16	16.3
*Booking	1-3 months(first trimester)	56	57.1
	4-6months(second trimester)	25	25.5
	7-9 months(third trimester)	17	17.4
Pattern of attendance of ANC after booking	Appointment days	65	63.7
	When I have complaints	33	32.4
	I do not go at all	4	3.9
Working days/days of the week	Throughout the week	35	34.3
	Only week days	37	36.3
	Do not go to work at all any time	20	19.6
		10	9.8
Working time (time of the day)	In the morning	31	30.4
	Throughout the day	20	19.6
	Any time I like	31	30.4
	Do not work	20	19.6
Attendance Time of antenatal clinic	In the morning	85	83.3
	Anytime I want	13	12.8
	Not at all	4	3.9

\*98 respondents were used since 4 respondents did not attend antenatal clinic at all

**Table 4: Factors Influencing the Utilization of ANC (n=102)**

Variables		Frequency	Percent
Attitude of the health care provider	yes	85	83.3
	no	17	16.7
Availability of facilities/equipment	yes	98	96.1
	no	4	3.9
Lack of knowledge about the existing services in ANC	yes	92	90.2
	no	10	9.8
Language barrier	yes	72	70.6
	no	30	29.4
Schedule of ANC	yes	94	92.2
	no	8	7.8
Accessibility to antenatal services	yes	82	80.4
	no	20	19.6
Affordability of antenatal services	yes	96	94.1
	no	6	5.9
Cultural acceptance	yes	72	70.6
	no	30	29.4
Religious acceptance of the services rendered	yes	85	83.3
	no	17	16.7
Husband's acceptance of the services rendered	yes	90	88.2
	no	12	11.8

Table 3 shows that majority of the respondents 58 (56.9 %) attend ANC regularly while 40 (39.2%) occasionally, only 4 (3.9 %) never attended. Majority of the respondents 56(57.1%) booked for antenatal care in the first trimester, 25(25.5%) in the second trimester and 17 (17.4%) register in the third trimester. Only 65 (63.7%) attend on appointment days after booking, 33 (32.4%) attend only when they have complaints and only 4(3.9%) do not go at all. Most of the respondents 52 (53.1%) took One bus before getting to the antenatal clinic, while 30 (30.6%) stay

within walking distance to the clinic and the remaining respondents 16(16.3%) took Two or more buses to the clinic. Majority of the respondents 37(36.3%) go to work only on week days (Monday- Friday), while 35(34.3%) go to work throughout the week (Monday – Sunday) and 10 (9.8%) anytime they like, only 20 (19.6%) do not go to work at all. 31 (30.4%) each go to work only in the morning and any time they like, while 20 (19.6%) go to work throughout the day. Most of the respondents 85 (83.3%) attend ANC in the morning, while 13(12.8%) anytime and 4(3.9%) do not go to at all.

Table 4 shows that majority 96(94.1%) of the respondents identified Affordability of antenatal services, 94(92.2%) Schedule of ANC, 92(90.2%) Lack of knowledge about the existing services in ANC and 90(88.2%) Husband's acceptance of the services rendered as the major factors influencing the utilization of maternal health care services while 72(70.6%) cultural acceptance and 82(80.4) accessibility to antenatal services were identified as the least factors influencing the utilization of ANC services respectively.

**Table 5 shows associations between selected variables and attendance/utilization of ANC**

Variables	Attendance and utilization of respondents n=102			Remarks
	Person's Chi square, X <sup>2</sup>	df	p-value (p<0.05)	
Parity	0.191	2	0.055	No significant association
Distance/proximity to ANC	0.622	2	0.000	Significant association
Knowledge about ANC Services	0.377	3	0.000	Significant association
Marital status	0.536	2	0.000	Significant association
Religion	0.207	2	0.037	Significant association
Education	0.530	3	0.000	Significant association
occupation	0.057	2	0.572	No significant association

Table 5 shows that there is significant association between knowledge, distance, marital status, religion and level of education of respondents under study and their attendance/utilization of ANC services with  $p < 0.05$  thus the null hypothesis stated is rejected and the alternate is accepted. On the other hand there is no significant association between parity, occupation of respondents under study and their attendance/utilization of ANC services with  $P > 0.05$ .

## DISCUSSION

The socio-demographic data shows that majority of the respondents were between 25-34 years and were Christian. Most of the respondents were married and were civil servants. Majority of the respondents had at least primary school education. Majority of the respondents had below 3 children.

The findings revealed majority of the respondents 48 (47.1%) first heard of ANC in the hospital and most of the respondents 85(83.3%) knew the services rendered at antenatal clinic. Majority of the respondents agreed that attendance of ANC helps detect possible complications during pregnancy as well as, helps to reduce maternal and neonatal morbidity and mortality. This showed that majority of the study population had adequate knowledge of the importance antenatal care and the services rendered in antenatal clinic.

The findings revealed that majority of the respondents 58 (56.9 %) attend ANC regularly while 40 (39.2%) occasionally. This corroborates with the statement of WHO (2001), that 60% of women receive antenatal care in Nigeria, and not all of them attend the antenatal clinic regularly. Majority of the respondents booked for antenatal care in the first trimester and attend on appointment days after booking and according to the WHO recommendation, every pregnant woman should receive at least four ANC visits during pregnancy

Most of the respondents 52 (53.1%) took at least One bus before getting to the antenatal clinic. Most of the respondents attend ANC in the morning; this may be due to the fact that most antenatal clinics in Nigeria operate in the morning. However, most of respondents who could not attend ANC at one time or the other, said that it was due to attending work in the morning. It is therefore recommended that some ANC classes should also be fixed in the evening.

The study also showed that majority of the respondents identified Affordability of antenatal services, Schedule of ANC, Lack of knowledge about the existing services in ANC and Husband's acceptance of the services rendered as the major factors influencing its utilization.

The findings also revealed that there is no significant association between parity and occupation of respondents under study and their attendance/utilization of ANC services with  $P > 0.05$ . This means that parity is not a determining factor in the utilization of ANC services which is in contrast with the findings of Simkhada, Teijlingen, Porter, and Simkhada, (2008) that Parity had a statistically significant negative effect on adequate attendance. Whilst women of higher parity tend to use antenatal care less, there is interaction with women's age and religion.

Significant association was found between level of education of respondents under study and their attendance/utilization with  $p < 0.05$ . This shows that mother's education has a positive impact on utilization of ANC. According to Becker et al. (2003) mother's education was the most consistent and important determinant of the use of child and maternal health services. Several other studies also found a strong positive impact of mother's education on the utilization of health care services (Fosu, 1994; Costello et al., 1996). It is argued that educated women are more aware of health problems, know more about the availability of health care services, and utilize the information more effectively than non educated women. Bergsjö (1997) also affirms strongly that educated women are more likely to report four, or more visits to ANC. There was also significant association between knowledge of respondents under study and their attendance/utilization with  $p < 0.05$ . This is not surprising since knowledge is synonymous to education.

The finding also revealed a very strong association between distance and attendance of ANC. This could be due to the fact that many pregnant women find it distressing to walk long distances or take 2 or more buses in an effort to get ANC on appointment days. Hence there is need for better- equipped ANC centers to be located within trek able distance in community to ensure better utilization. There was also significant association between marital status of respondents under study and their attendance/utilization. There was significant association between religion and their attendance/utilization of ANC services with  $p < 0.05$  This may be associated to the fact that procedures practiced in some antenatal clinics such as exposing body parts or attended to by a male health care professional contradict their religious values

### CONCLUSION

Noting the importance of antenatal care and its attendance, this study was carried out to determined factors influencing the utilization of antenatal care among pregnant women in Ife Central LGA, Osun State Nigeria.

The findings revealed that majority of the respondents 48 (47.1%) first heard of ANC in the hospital. Most of the respondents 85(83.3%) knew the services rendered at antenatal clinic and had adequate knowledge of the importance of antenatal care. The findings also revealed that majority of the respondents 58 (56.9 %) attend ANC regularly; 56(57.1%) booked for antenatal care in the first trimester; and attend on appointment days after booking. The study also showed that majority of the respondents opined that affordability of antenatal services, schedule of ANC, lack of knowledge about the existing services in ANC and Husband's acceptance of the services rendered as the major factors influencing its utilization.

The findings also revealed that there was significant association between knowledge, distance, marital status, religion and level of education of respondents under study and their utilization of ANC services with  $p < 0.05$ . On the other hand no significant association was found between parity and occupation of respondents under study and their utilization of ANC services with  $P > 0.05$ .

Among safe motherhood advocates, antenatal care has been downplayed in recent years as an intervention for reducing maternal mortality. This has arisen in large part as a result of improved understanding of the casual pathways that lead to maternal deaths, notably absence of effective management for obstetric complications. There is ample evidence that cares during the antenatal period represents an opportunity to deliver interventions that will improve maternal health, prenatal health and more than likely perinatal survival.

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